# 50th Anniversary of AMIFAS

## The early years…

Hands-On
Cadaver Seminar
February 21-23 2024
Celebration, Florida

Lawrence J Kales, DPM

*Presented by*

# Lawrence J Kales, DPM

*Diplomate American Board of Ambulatory Foot Surgery (Section ABFAS)*
*Diplomate American Board of Medical Specialties in Podiatry Foot and Ankle Surgery*
*Diplomate American Board of Medical Specialties in Podiatry Minimally Invasive Foot and Ankle Surgery*
*Diplomate American Board of Lower Extremity Surgery*
*Fellow Academy of Ambulatory Foot and Ankle Surgery*

PASCO HERNANDO
FOOT & ANKLE

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# "Man On The Cover"

EDWIN PROBBER, D.P.M.

**Curriculum Vitae**

Degrees:
Pod'G First Institute of Podiatry (FIOP) 1941
Pod'D Long Island University (LIU) 1954
D.P.M. Pennsylvania College of Podiatric Medicine 1969
License #1318; Puerto Rican license #21

- Practicing podiatrist and APA member for more than 40 years.
- Teacher of percutaneous bone surgery through private instruction since 1957.
- More than 2500 podiatrists have been taught to date.
- The first person to perform bunion surgery through a puncture incision without sutures. The Symes operation performed in 1963 and the Wilson in 1971.
- An inventor of subsequent foot operations employing rotary surgical rasps. These include spurs and abnormal hypertrohic bone; also soft tissue procedures such as surgical dermabrasion of benign neoplasms and Phalangeal Set.
- Founder of the Academy of Ambulatory Foot Surgery in 1973.
- One of the only practicing podiatrists holding an honorary diplomate (D-ABAFS)
- Holder of the first ALLEN S. BREAKSTONE award in 1973.
- 1972 PODIATRIST OF THE YEAR.
- Guest lectured internationally.
- Organizer and director of "THE DOCTOR PROBBER CONCLAVE". This is an annual three or four day convention lecture program which keeps podiatrists up to date with the latest percutaneous techniques. These programs have been held nationally since 1966.

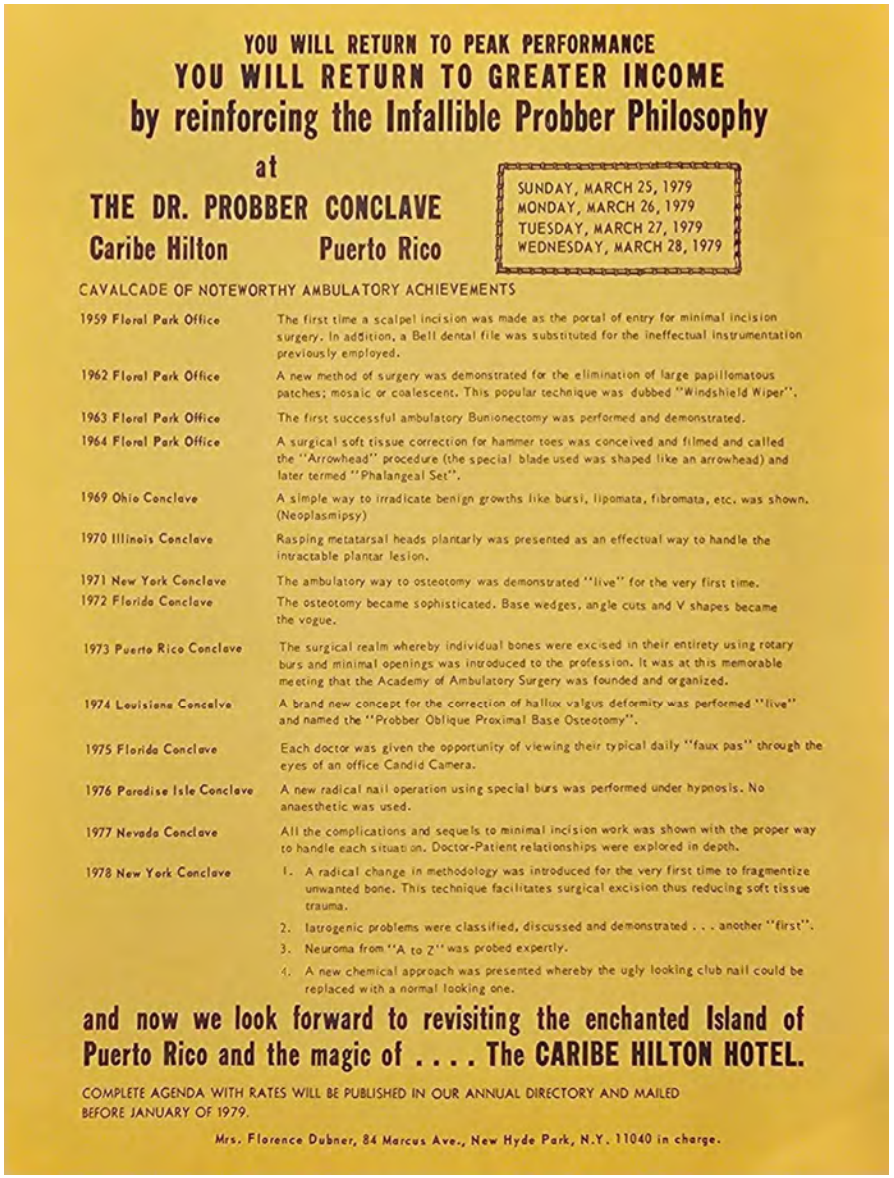
For the past 26 years Dr. Edwin Probber has been making a tremendous impact on the podiatry profession. There are many men, who today are considered to be amongst our foremost podiatric surgeons and would never have started on that road if it were not for their meetings with Dr. Probber. He instilled the courage, the knowledge and the ability to perform the best minimal incision surgery and on an ambulatory basis.

It is with a tremendous sense of gratitude, appreciation and respect that I ask the entire profession to join CURRENT PODIATRY in honoring Dr. Ed Probber as our Man on the Cover.

*IRWIN H. HANOVER, D.P.M.*
Editor/Emiritus



Lawrence J Kales, DPM



YOU WILL RETURN TO PEAK PERFORMANCE

YOU WILL RETURN TO GREATER INCOME

by reinforcing the Infallible Probber Philosophy

at

THE DR. PROBBER CONCLAVE

Caribe Hilton Puerto Rico

SUNDAY, MARCH 25, 1979
MONDAY, MARCH 26, 1979
TUESDAY, MARCH 27, 1979
WEDNESDAY, MARCH 28, 1979

CAVALCADE OF NOTEWORTHY AMBULATORY ACHIEVEMENTS

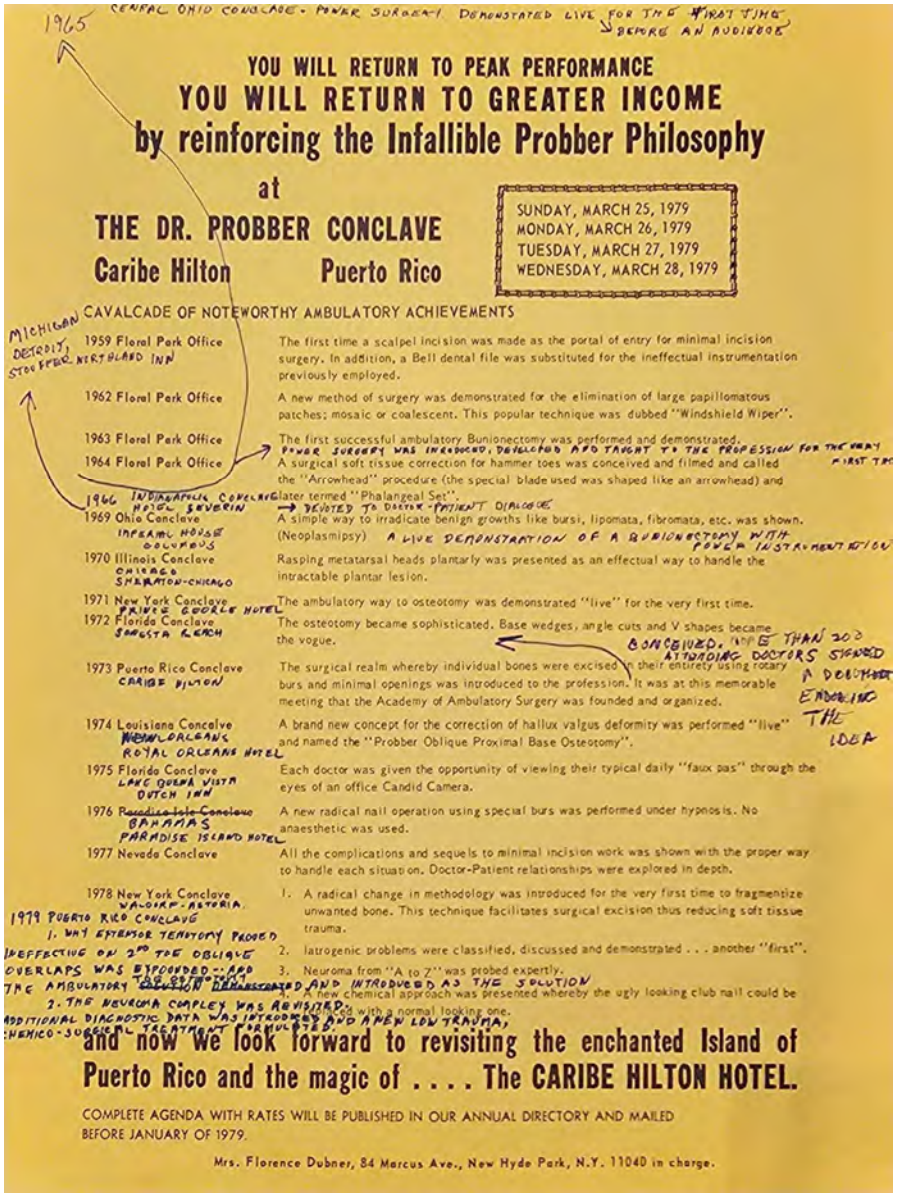
| | |
|---|---|
| 1959 Floral Park Office | The first time a scalpel incision was made as the portal of entry for minimal incision surgery. In addition, a Bell dental file was substituted for the ineffectual instrumentation previously employed. |
| 1962 Floral Park Office | A new method of surgery was demonstrated for the elimination of large papillomatous patches; mosaic or coalescent. This popular technique was dubbed "Windshield Wiper". |
| 1963 Floral Park Office | The first successful ambulatory Bunionectomy was performed and demonstrated. |
| 1964 Floral Park Office | A surgical soft tissue correction for hammer toes was conceived and filmed and called the "Arrowhead" procedure (the special blade used was shaped like an arrowhead) and later termed "Phalangeal Set". |
| 1969 Ohio Conclave | A simple way to irradicate benign growths like bursi, lipomata, fibromata, etc. was shown. (Neoplasmipsy) |
| 1970 Illinois Conclave | Rasping metatarsal heads plantarly was presented as an effectual way to handle the intractable plantar lesion. |
| 1971 New York Conclave | The ambulatory way to osteotomy was demonstrated "live" for the very first time. |
| 1972 Florida Conclave | The osteotomy became sophisticated. Base wedges, angle cuts and V shapes became the vogue. |
| 1973 Puerto Rico Conclave | The surgical realm whereby individual bones were excised in their entirety using rotary burs and minimal openings was introduced to the profession. It was at this memorable meeting that the Academy of Ambulatory Surgery was founded and organized. |
| 1974 Louisiana Concalve | A brand new concept for the correction of hallux valgus deformity was performed "live" and named the "Probber Oblique Proximal Base Osteotomy". |
| 1975 Florida Conclave | Each doctor was given the opportunity of viewing their typical daily "faux pas" through the eyes of an office Candid Camera. |
| 1976 Paradise Isle Conclave | A new radical nail operation using special burs was performed under hypnosis. No anaesthetic was used. |
| 1977 Nevada Conclave | All the complications and sequels to minimal incision work was shown with the proper way to handle each situation. Doctor-Patient relationships were explored in depth. |
| 1978 New York Conclave | 1. A radical change in methodology was introduced for the very first time to fragmentize unwanted bone. This technique facilitates surgical excision thus reducing soft tissue trauma.<br>2. Iatrogenic problems were classified, discussed and demonstrated . . . another "first".<br>3. Neuroma from "A to Z" was probed expertly.<br>4. A new chemical approach was presented whereby the ugly looking club nail could be replaced with a normal looking one. |

and now we look forward to revisiting the enchanted Island of Puerto Rico and the magic of . . . . The CARIBE HILTON HOTEL.

COMPLETE AGENDA WITH RATES WILL BE PUBLISHED IN OUR ANNUAL DIRECTORY AND MAILED BEFORE JANUARY OF 1979.

Mrs. Florence Dubner, 84 Marcus Ave., New Hyde Park, N.Y. 11040 in charge.

Lawrence J Kales, DPM



1965 CENTRAL OHIO CONCLAVE - POWER SURGERY DEMONSTRATED LIVE FOR THE FIRST TIME BEFORE AN AUDIENCE

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MICHIGAN DETROIT STOUFFER NORTHLAND INN

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1966 INDIANAPOLIS CONCLAVE HOTEL SEVERIN → DEVOTED TO DOCTOR-PATIENT DIALOGUE

1969 Ohio Conclave INFIRMARY HOUSE COLUMBUS — A simple way to irradicate benign growths like bursi, lipomata, fibromata, etc. was shown. (Neoplasmipsy) A LIVE DEMONSTRATION OF A BUNIONECTOMY WITH POWER INSTRUMENTATION

1970 Illinois Conclave CHICAGO SHERATON-CHICAGO — Rasping metatarsal heads plantarly was presented as an effectual way to handle the intractable plantar lesion.

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1979 PUERTO RICO CONCLAVE
1. WHY EXTENSOR TENOTOMY PROVED INEFFECTIVE ON 2ND TOE OBLIQUE OVERLAPS WAS EXPOUNDED -- AND THE AMBULATORY SOLUTION DEMONSTRATED AND INTRODUCED AS THE SOLUTION
2. THE NEUROMA COMPLEX WAS REVISITED. ADDITIONAL DIAGNOSTIC DATA WAS INTRODUCED AND A NEW LOW TRAUMA, CHEMICO-SURGICAL TREATMENT MANIPULATED.

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# AN AUTHENTIC HISTORY OF AMBULATORY FOOT SURGERY

*By Edwin Probber, DPM DABAFS*

As aspiring podiatrists attending Dr. M. J. Lewis' First Institue of Podiatry, we were shown how to relieve, albeit temporarily, pain and discomfort; how to use the prostheses and appliances of the "trade," and how to play the role of the understanding doctor–a passive role, but a respected and important one nonetheless.

After graduation, the reality of our palliative function, i.e., our inability to cure that ailing patient, taxed our abilities, tested our training, and vexed our temperaments. We cut, padded, massaged, ameliorated, and supported arches. We rarely cured the chronic neurofibrous growths (IPKs) that kept our patients returning month after month, year after year. We witnessed how foot pain and disfigurement affected their lives, dispositions, and general health.

Doubts haunted many of us in the 1950's: "Is my office doomed to be a revolving door for foot sore patients?" "Is there some undiscovered treatment to cure these chronic ailments?" What more could possibly be done?"

A few professionals, like Dr. Morton Polokoff, rose to the challenge. He recognized the need for curative treatment and sought answers to the aforementioned nagging concerns. In doing so, he was "sailing into uncharted waters" with the fear of upsetting an established, traditional pattern of practice.

Experimental, daring, innovative...these are words that come to mind to describe Dr. Polokoff's approach during the late 1950's. This Patterson, New Jersey doctor had written many enlightening articles on the subject of padding, and his expertise with patient orientation was highly regarded. At that time, he was conducting a ten-hour private course, and I was determined to enroll as soon as possible. Dr. Theodore Eden, a close friend, had previously titillated my interest by relating how Dr. Polokoff used "snap" tenotomies and sclerosing solutions to cure chronic neurofibrous lesions.

A podiatrist performing unorthodox surgery? Unheard of in those days! Foot surgery was always in the orthopods domain, a hospital procedure. At that time, New Jersey podiatry laws had strict provisions forbidding the use of a scalpel in incise human tissue. Dr. Polokoff circumvented this regulation in an attempt to cure the chronic corn by employing a spear-like instrument, resembling an ice pick, which he attached to a galvanic modality. This enabled him to incise the skin through tissue liquefaction.

First, he used the galvanic spear to make a channel to the bone, and then he inserted a minute "pinhead" rasp (the identical tool used by dentists) into the new pathway and assiduously filed away the anomalous bone. All accessible osseous fragments (by-products) were then flushed out of the wound with normal physiologic saline solution.

My eagerness to perform this new work overshadowed the many unforeseen problems that lay ahead. For example, one encountered much difficulty when trying to convince patients to become participants in this new approach to chronic foot problems. The tendons that I had severed using 'snap tenotomy' grew back to their original anomalistic state. Puncture wounds created by the insertion of the galvanic spear developed into chronic sinuses that wept persistently and took months to heal. The sclerosing solutions that were injected (Sodium Sotrodecol) became ugly slow healing ulcers.

Convinced that Dr. Polokoff was on the right track, I proceeded to analyze all possible causes of failure.

Dr. Barry Drummer of Riverdale, New York, an enthusiastic percutaneous surgeon with whom I conferred with regularly, devised a series of simple blackboard diagrams to illustrate treatment of the more common foot deformities. As a result, patients were better able to understand the operation and became more receptive.

Dr. Larry Hilderbrand of Fort Meyers, Florida, noted that when the patient manipulated his toe into plantar flexion for about five minutes daily following temotomy, the severed tendon would heal in an elongated attitude. Subsequently the success rate of 'snap tenotomies,' increased dramatically.

In order to treat the chronic neurofibrous toe lesion, it became apparent that the galvanic spear had to be replaced by larger and more effective bone rasps.

Sclerosing solutions for treatment of the chronic metatarsal head IPK were abandoned because of previously stated problems.

Miss Elvira Mook was a patient of long standing who suffered incessantly from two bilateral chronic fifth toe lesions. Even through she was forewarned of the experimental nature of our procedure, she avidly consented to become the first pioneer.

A small incision was executed using an ordinary #15 scalpel blade and the skin separated from the underlying tissue using the scissors action of a Hartman Hemostat. A Bell dental file was then inserted into the opening and the offending bone planed down. Bleeding was minimal and no sutures were needed. A taut bandage was applied. Miss Mook was delighted; she was cured of a condition that had plagued her for years.

This revolutionary work was known by many cognomens. The most preferred are: Percutaneoud Podiatry, Percutaneous Surgery, Minimal Traumatic Surgery, Minimal Incision Surgery and Subdermal Planing. Although a number of new applications and innovations were introduced during the sixties, it wasn't until the seventies that percutaneous podiatry received the respect and attention it deserved. The period between 1958 and 1970 saw the emergence and development of "Dr. Probber Courses" and annual three-day seminars known as "Dr. Probber Conclaves." These courses and conclaves enjoyed wide popularity and many of the participants contributed to the movement by "brainstorming" and sharing their new learned expertise with others. The practical Sunday to Friday classes featured live office protocol and surgery while the non-political conclaves were festive and highly instructive.

Dr. Larry Hilderbrand and Dr. Arthur J. Weiner were the first two important practitioners to take and publicize the Dr. Probber Course. Thanks to these intuitive doctors, almost every podiatrist in Ohio journeyed to Floral Park to learn.

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Dr. Jerome Greif transcribed his thoughts and experience with minimal traumatic surgery in an article published by Current Podiatry. Coining the term "osteotripsy" he stirred up a furor with his choice of terminology. He erroneously chose a single word to describe a number of different operations that varied in complexity. His manuscript generated much attention and controversy; however, it did popularize the percutaneous revolution and 'stoke the embers' of a lethargic profession.

PERSUASIVE TUTOR AND ADROIT SURGEON NAMED Dr. Al Brown, then of Detroit, Michigan, and now in Margate, Florida, documented his office surgery with hundreds of informative slides. He migrated from one podiatry group to another projecting his distinctive collection. His inimitable "down to earth" style helped "win over" many of the more obstinate podiatrists.

During this decade of enlightenment, new operations were being developed in Floral Park for correcting hammertoes, bunions and benign neoplasms.

Many common hammertoes were ameliorated through an ingenious procedure, which I crudely dubbed "Arrowhead." A quarter inch incision was made over the afflicted joint and a triangular blade shaped like an Indian arrowhead was inserted into the maligned joint. All the encumbering tissues that held the toe in the deformed attitude were then incised and the afflicted joint was manipulated and positioned in a corrected posture. This unique operation was filmed by Milton D. Roven in Floral Park and proved to be the guiding inspiration for his text on non-disabling forefoot surgery. He later changed the name from "Arrowhead" to Phalangeal Set."The percultaneous approach to bunions proved to be one of the major milestones in our profession; heretofore, the typical bunion patient was

exposed to a series of lengthy, complicated surgeries that usually required casts, pins and extended hospitalization. These disfigurements can now be eliminated by modifying the identical bone fragmentation technique used on Miss Mook. The so-called Wilson and Akin operation for bunions were performed and shown during Dr. Probber courses in the early seventies.

Dr. Harry Platt played a key role in the development of another very unusual percutaneous surgical application. He became an experimental patient for a procedure, which I called "Neoplasmipsy." Because of his inherent dislike of hospitals, and his adventurous nature, he consented to allow Dr. Jules Rosen and me to operate on a painful fibroma located over his right shoulder. A 3/8-inch incision was executed alongside the tumor and the overlying dermis freed using the scissors action of a Hartman hemostat. We then proceeded to grasp and extricate all pathologic tissue through this tiny opening with the same hemostat, until the bulgy mass became avulsed and flattened. A taut compression dressing was then applied. Following this unforgettable incident, numerous benign growths such as lipomas, adventitious bursi, fibromata, ganglions, etc., have been eradicated using this method. Complications have been practically non-existent and the success rate overwhelmingly high.

Many traditional hospital-oriented podiatrists became alienated by the percutaneous movement.

Those professionals who spent many months of extensive internships to gain board certification and hospital acceptance became resentful of the practitioner who could produce equivalent results without undergoing the aforementioned arduous program. The disaccord created is still in the throes of controversy. Dr. Irwin Hanover, the courageous editor of Current Podiatry risked the disfavor of the traditional hospital surgeon when he featured numerous articles extolling percutaneous surgery.

Several podiatrists authored texts on percutaneous surgery. Dr. Michael Perrone was the first to publish in 1972. Podiatric Nail and Bone Surgery with Rotary Air Motor was a very informative primer on the subject. Dr. Milton Roven's text, "Non Disabling Surgical Rehabilitation of the Forefoot." was presented in 1976. It is a splendid tribute to 'non disabling' surgery and proves Dr. Roven to be a skilled author and diligent disciple. Forefoot Minimum Incision Surgery in Podiatric Medicine was written by Dr. Leonard Hymes in 1977. His book added to the breadth of knowledge previously available on the subject.

The fist five Dr. Probber Conclaves recounted a composite picture of all-previous improvements and innovations made in percultaneous work. They were basically 'one man shows' that were voluntarily organized by a group of highly dedicated doctors who had been exposed to the action, namely, Dr. Jerry Fisher, Ohio; Dr. Richard Lanham, Indiana; Dr. Sidney Z. Leib, Ohio; Dr. Abram Plan, Pennsylvania; and Dr. Richard C. Ellis, Ohio, respectively. These informative casual meetings spanned the years between 1965 and 1970 and it was not until after that date that individual practitioners participated or contributed any new ideas.

A percutaneous renaissance took place during the 1970 Chicago conclave, which was directed by Dr. Melvin Wenger. An astounded audience was introduced to metatarsal head rasping for the elimination of the elusive plantar I.P.K. Dr. Frank Toepp of Indiana showed vivid slides depicting this method for handling the devilish intractables that had plagued the profession for years and years; and all this through a 1/4 inch incision.

When the Conclave moved to New York in 1971, more than 300 participants were present. This important get-together was hosted by Dr. and Mrs. Benjamin Dubner, who incidentally ran most of the conclaves during that decade. Just imagine this huge assemblage of podiatrists seated in a crowded hotel ballroom, and in a very small corner was a completely equipped podiatry office

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donated by a wonderful man named Bernard Farbman. A beautiful young patient is seated on the treatment chair. She is surrounded by Dr. Samuel Resoff, Dr. Clyde Shreve, Dr. Leonard Britton, Dr. Jules Rosen and Dr. Steven Masters. Her foot has just been prepped and anesthetized and Dr. Larry Hilderbrand is summoned. He walks up to the afflicted foot, dons a pair of sterile gloves and adroitly executes a three inch dorsal incision over the second metatarsal bone, he than proceeds to perform a 'crush Osteotomy' using bone rongeurs. It proved to be a memorable moment as well as a perfect operation that took all of six minutes. The wound was closed forever with standard J. and J "butterfly strips." Scarring was imperceptible. The entire program was viewed on giant screen closed circuit television. This unforgettable prelude was followed by:

1. Nail matrixectomy performed with a newly designed bur
2. Bunionectomy performed percutaneously
3. Dr. Leonard Britton who introduced us to the ever popular "fail safe hole." Today, more than 15 years later, his surgical approach to bone proceeds most osteotomies. Dr. Britton related to his audience how he reopened a percutaneous bunion operation after a year of healing so that he could prove the atraumatic nature of our work. He was pleasantly surprised to find a newly regenerated capsule surrounding the 1st M.P. joint.
4. Dr. O. Theodore New related his original percutaneous technique for performing osteoclases on metatarsal bones. Using a procedure known as osteostixes, he would make a series of bone punctures at the neck of the metatarsal using a Shannon $44 bur. Each puncture was deepened until 3 or 4 complete tunnels traversed the neck. These multitunneled areas weakened the bone so that it could be easily fractured through manipulation. The doorway was now open for more elaborate metatarsal techniques where osteotomy was indicated. Purposeful fracturing of bone was demonstrated at future conclaves for shortening hammertoes, executing the Akin osteotomy and relieving pressure from painful neuroma and intermetarsal neuralgia. It was inevitable that an organization emerge that would germinate the seeds of percutaneous surgery and this became a reality during the Key Biscayne, Florida conclave, 1972. A document listing approximately two hundred disciples was signed by every practitioner in attendance. The Academy of Ambulatory Foot Surgery became a reality in Puerto Rico and the following year. Dr. Edward Martin was elected the first President of the Academy with Abram Plon serving as vice president. Dr. Plon followed Dr. Martin as president, serving for four years. Dr. Seymour Kessler followed Dr. Plon, Dr. Floyd Sears and Dr. Bob Fabricant were elected to two-year terms. Dr. Stanford Rosen is completing his second year as president.

Mardi Gras time in New Orleans during the year 1974 gave rise to a record crowd of zealous percutaneous addicts. It was a climactic time for minimal traumatic surgery and the outstanding conclave agenda centered around a unique bunion operation which was being introduced and performed for the very first time "live" on closed circuit television. This was to be followed by a percutaneous heel spur surgery. Amid all this enthusiastic exhilaration, one could sense the Academy's dominance in the future. Conclaves have still been presented annually since 1974 and try to dwell chiefly on personal professional attitudes and innovation; while the Academy endeavors to disseminate percutaneous information and assume a purposeful regulatory and political role.

## WHO ARE THE MINIMAL INCISION SURGEONS?

What is the Academy of Ambulatory Foot Surgery all about? Approximately 1000 podiatrists approached foot surgery with the concept that smaller incisions are better and have fewer side effects. Over the past twenty-five years, this concept has been nurtured, developed, researched, and has achieved very successful outcomes. The whole concept of minimal incision surgery is to get the same surgical end product, with less risk to the patient, and the economical benefits have been rewarding.

The Academy has concluded that office based surgery is less expensive, and minimal incision surgery is less debilitating. The pioneering efforts of the Academy have produced a whole new concept of critical medical thinking, as well as surgical thinking.

Minimal incision surgery has gone through growing pains, had its failures, and made its mistakes, but this happens as new beginnings are pioneered and developed. Our primary goal is to maintain the standards of care of podiatric medicine and have patient satisfaction. With the minimal incision approach to foot pathology, the patient now experiences shorter rehabilitation time, fewer hours away from work, and satisfactory end results.

Protocols are refined to evaluate pathological ground reactive forces with good mechanical thinking, along with anatomical evaluation to achieve good surgical outcome.

Minimal incision surgery maintains the standards of care. The Academy implements our credential mechanisms, and mandates its educational programs in a fashion to keep our minimal incision surgeons abreast of the times.

As part of our educational pursuits, we have developed one of the finest Cadaveric Surgical Training Programs with LSU Medical Center, (New Orleans, LA.), for podiatric surgery. We have had renowned speakers from many medical disciplines and all phases of podiatric medicine.

The podiatric physician practices so much medicine that is related to the foot that we have included an in-depth treatment protocol for diseases that cause tissue deficits in the foot.

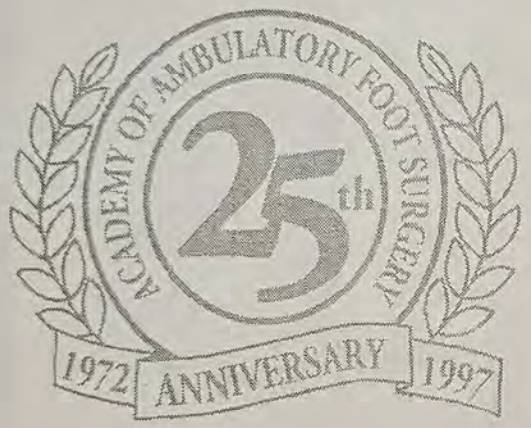
Presently, our teaching protocols are demanding that we be well grounded in A-O fixation. With this additional training and information, we are now doing minimal incision A-O fixation.

Some of our future projects are investigating the use of headless screws, along with absorbable materials, for implantation fixation. Our standard protocols for non-fixation will still be maintained, that we have successfully pursued over the last quarter century. We welcome you to join us, be a part of us, and move into the next millennium with us.

Leonard E. Britton, D.P.M.
Scientific Chairman, A.A.F.S.

Lawrence J Kales, DPM

25th annual conference




las vegas, nevada

september 1997

Thoughts you might consider in discussing MIS foot surgery and of course, ambulatory surgery, with your patient: The surgical technique that we use is based on scientific principles, but it is understood by all of the medical world that surgical technique is an art and how one arrives at the end result is not of prime importance. The important aspect is the result. The objective of ambulatory foot surgery is to aid the sufferer with a minimum of inconvenience, discomfort and expense. An ambulatory patient is a walk-in patient. The patient who can walk in to our office can walk out after surgery.

In a hospital setting, generally the incisions are much larger, which becomes a major factor in recovery time and discomfort. This is due to the amount of tissue that has been involved by the incision.

Ambulatory foot surgery carried out in our offices is done through a small incision, which is made in the patientís skin, and a specially designed instrument is inserted into this opening. The entire procedure is performed through this tiny opening. At the end of the surgery there may or may not be sutures applied. The area is bandaged and strapped in the proper order. The patient will leave the office walking. The condition has been corrected. The patient remains ambulatory and avoids discomfort and prolonged disability.

Today, ambulatory foot surgery is a developed art and technique. There are thousands of podiatric physicians and surgeries specializing in this technique. The members of the Academy of Ambulatory Foot Surgery increase each year. Our emblem encourages dedication to the following: Ambulation, Rehabilitation and Education and reminds us again that Ambulation is where the patient walks into the surgeonís office and walks out. Rehabilitation restores the patient to good foot health without loss of productivity at the lowest possible cost and of course, Education is the continuing research into techniques and instrumentation form of minimal incision surgery.

Over three decades have passed since the original podiatrists developed this art. They still have the means of ending discomfort and suffering for a wider cross section of the population. They felt that hospitalization could be eliminated and in most cases not necessary. As time moved forward it became evident that it was really unnecessary to incapacitate their patients. Spurs, bunions, corns, contracted hammertoes are all being corrected by this technique. We all must remind ourselves that this is a wonderful aspect of our profession and should certainly be in our armamenterium and practice by the podiatrist.

I am sure all of us reading this know what it is all about. However sometimes we need a little nudge to really bring us again back to the fore. We must keep it on our minds so that we can offer this art to the public.

Dr. Edward N. Szerlip
President
Academy of Ambulatory Foot Surgery

Lawrence J Kales, DPM

LAWRENCE J KALES, DPM

## Edwin Probber

Chief complaint
Concierge practice
Core principals
Quadraplane that was eventually adopted by Dr Roven
First private MIS course

## REMODELING BUNIONS THROUGH A PUNCTURE INCISION

AN AMENDED UP TO DATE VERSION OF "REMODELING BUNIONS BY OSTEOTRIPSIC PROCEDURE". This should be used in the book with a few simple new diagrams.

A bunion has been defined in many ways by numerous authors and dictionaries. Literature has shown up for centuries; the word itself has appeared in ancient times and is thought to be derived from the Latin term for onion. Many authors associate the condition with hallux valgus; yet in contemporary podiatry we talk of the bunion even when there is no deviate first toe. Stedman's dictionary defines bunion as an "inflammatory swelling of the bursa over the metatarsal-phalangeal joint of the great toe, usually associated with hallux valgus." The American Medical Association"s Fourth Edition of Current Medical Information and Terminology describes hallux valgus including bunion, as a varus angulation of the first metatarsal, metatarsus latus, with the great toe pointing forward the other toes.

The condition actually comprises an enlargement at the first metatarsal-phalangeal area, accompanied by bony changes near or at the articular site of the first metatarsal heads tibial aspect. This is also the most common location for irritation with subsequent adventitious bursitis. Since bunions can and do exist without assuming a valgus posture, they are often innocuous and seldom cause molestation. However, when pain does become apparent, steps should be taken to reduce or eliminate the prominent pathology. Bunions may be exacerbated by trauma, systemic disease (gout, arthritis etc.) or senility. Sophisticated foot gear, such as high heeled dress shoes are instrumental factors with bunion development. In primitive societies, bunions are uncommon except in occasional isolated instances where there is direct injury or disease to the area. Most every podiatrist blames weight bearing alterations (biomechanics) for bunions. To me, this kind of thinking represents theoretic rationalization without any controlled experimentation.

The author employs three simple categories for classifying bunions; Mild, Advanced and Severe; basing evaluation on (1) Degree of pain, (2) Amount of restricted motion, (3) Degree of metatarsal-phalangeal angulation, (4) Extent of bursal involvement, (5) Sesamoid deviation, (6) Degree of metatarsal head hyperostosis, (7) Presence of osteophyes.

Literature on bunion correction describes a number of diversified radical operations with questionable reports concerning effectiveness. Only the complicated Keller and Mayo procedure have wide documentation. These, and scores of other procedures involve tendon cutting,muscle transplantation, sesamoid excision, capsule suturing and many complex surgical features that burden an obviously

Lawrence J Kales, DPM

## Quadraplaning Techniques

Stephen I. Fox, D.P.M.*

Proper technique to be applied to all foot surgery where Quadraplaning is employed in order to avoid damaging structures such as blood vessels and nerves with a side-cutting burr. It should be noted that the side-cutting burr does occasionally catch one of these structures as any experienced minimal incision surgeon will tell you. If you follow the below described technique this undesireable complication will be permanently avoided. All operative reports should reflect that this technique was used.

Step 1 : Skin incision is longitudinal and just proximal to the exostosis just through the skin with a Mini-Beaver 67 blade.

Step 2 : The incision is deepened through subcutaneous tissue to the bone at the base of the exostosis using blunt dissection with a hemostat (or other probe).

Step 3 : A round tip-cutting burr such as an Alport 2.5mm burr (UAM Order #900-609-55N) is inserted against the bone and periostium is abraded.

Step 4 : The cortical incision in the bone is now made through the periosteal tear with the Alport burr and a fail-safe hole is made.

Step 5 : The Shannon 44 side-cutting burr is inserted into the fail-safe hole and is turned on only when the entire length of the cutting edge is burried underneath the cortex.

Step 6 : Intra-Osseous decancellation of bone is accomplished by carefully monitoring the progress with the Xi-Scan or other imaging device.

Step 7 : Any and all adhesions between cortex and capsule must be visualized and removed with A #12 Bell Rasp and closure takes place in the usual manner.

Osteotomies are accomplished in exactly the same fashion. All bone incisions are accomplished with a tip-cutting burr and the Shannon 44 is then inserted into the fail-safe hole.

Aiken Osteotomies are done with a Christmas Tree burr following the bone incision, otherwise the procedure is identical to the described above.

The accompanying photographs numbered and captioned describe the Partial Ostectomy and Aikens Osteotomy for the bunionectomy taken with the hard copy generator from the Xi-Scan intra-operatively.

Stephen I. Fox, D.P.M.
Paramus, New Jersey

### Silver/Aiken - Bunionectomy Assisted by Xi-Scan

*1. Fail-safe hole - Proximal margin of dorso - medial exostosis. First metatarsal using Alport burr.*

*2. First sweep using Shannon 44 - Showing angle of entry through fail-safe hole and start of Quadraplaning Technique.*

*3. Quadraplaning continues - Proximal one-half of exostosis now gone.*

*4. Entire exostosis removed - Shows a remaining adherent cortical fragment -Stuck fast to capsule.*

*5. Removing capsular adherent fragment - Using #12 Bell Rasp-Teeth facing capsule from underneath.*

*6. Leaves straight, smooth surface when complete.*



Lawrence J Kales, DPM

# The Dr. Probber Upclimb Head Osteotomy For 1st Or 5th Metatarsal Heads

EDWIN PROBBER, D.P.M.

Confucius said that one picture means more than a thousand words. I agree with this ingenius philosopher and teacher. Subsequently, I am hereby submitting an 8000 word treatise on correction of metatarsal declination while simultaneously maintaining its original length or slightly increasing it through manual manipulation. Of course, this alteration should virtually correct the

**MANUSCRIPTS WANTED**
**500 to 1500 WORDS**

Tibial view of the first metatarsal bone illustrating the Wilson Osteotomy cut.

# 1

Dorsal aspect of the first metatarsal bone following the Wilson Osteotomy.

# 2

Tibial view after sliding the metatarsal head downward and laterally (Wilson)

# 3



Lawrence J Kales, DPM

Dorsal view showing the purposeful displacement accompanied by marked shortening of the first metatarsal

#4

Tibial view of the first metatarsal bone showing the Probber Cut.

# 5

Dorsal view of the first metatarsal bone depicting the Probber approach.

#6

Tibial view after sliding the osteotomized metatarsal head upward and laterally.

# 7

(Continued Next Page).

Lawrence J Kales, DPM

## Selected Reprints

# Raspostectomy

### Reduction of Exostoses and Hypertrophied Condyles with Files and Rasps

Morton Plolkoff, D.S.C.
Paterson, N.J.

Whenever the prognosis of a heloma dura, heloma molle, distal heloma or subungual exostosis indicated prolonged chronicity surgical intervention must be given first consideration. The podiatrist must advise patient that these conditions can be eliminated with minor surgery.

This paper describes a surgical procedure for the elimination of these digital excrescences by the introduction of narrow surgical instruments through a small skin opening.

A large number of podiatrists have been taught this procedure by individual instruction or at postgraduate courses by this writer since 1950. The technique requires mechanical and tactile sense in guiding small chisels, files, and rasps which are introduced under the skin through a small opening. Most practitioners are quick to master this surgical procedure.

Reviewing the medical literature we find several popular surgical techniques in every-day use where tactile sense, without visual exposure of the operative field, is used. In rhinoplasty[1,2,3,4] the surgeon is guided by mechanical and tactile sense.

"In peridontal surgery the curet is delicately worked over root surfaces searching for calculus. When calculus is detected the grasp is tightened and it is curetted off."[5]

"It is in subgingival scaling that both the exploratory and power stroke of the instrument comes into fullest play. In this technique the instrument becomes the eyes and ears of the operator since all sensations are tactile. It is through the instrument that all snesation of roughness and smoothness are realized, since the operative field is hidden to the operator."[6]

Fractures of facial bones or bones in other parts of the body are positioned through tactile sense in conjunction with the radiograph or fluoroscope.

**Examination:**

A routine examination to ascertain whether any metabolic, circulatory, or other diseases that would contra-indicate minor surgery is made.

Two lateral views of the excresence are radiographed applying a small lead disc over the nucleus held by tape to show the relation of the underlying osseous prominence to the excrescence.

The affected bony prominence may also be located by palpation or squeezing the joint between two fingers. Palpation before, during, and after the procedure can be a valuable guide.

**Materials and Instruments:**

1 cc tuberculin syringe
1 inch 26 guage needle
2% Xylocaine®[1] with epinephrine
Negative galvanic unit*
Birtcher electrosurgical handpiece*
Birtcher electrode "spear" #795*
Chisel #10 Tarno 86†
File ATM 32 Fine†
File WED 6 Medium†
File BFL 5 Medium Coarse†
Bone rasp double ended straight cut #5‡
Bone rasp double ended straight cut #4‡
Bone rasp double ended cross cut #5 narrow‡
Bone rasp double ended cross cut #5 wide‡
Alveolectomey file #5#
#330 Elastoplast®[2] sterile dressings

**Operative Procedure:**

**Skin Preparation:** My usual procedure is to cleanse the skin with adhesive solvent followed by a thorough scrubbing of the complete foot with pHiso-Hex®[3] using a gauze pad instead of a brush, which is too harsh on the skin. I then paint the complete area with Betadine®[4] solution and repeat twice.

**Anesthesia:** using a 1 cc tuberculin syringe with a 1-inch 26-guage needle I infiltrate 2 cc of two percent Xylocain 1/1000,000 epinephrine at the base of the toe angling the needle toward and under the lesion (Fig. 1).

Negative Galvanic Phase (optional): Fasten the positive pole electrode (3 x 5 inches) to the plantar surface of either foot by binding it securely with an elastic bandage (Fig. 2).

The "spear" (C 95) negative pole electrode, held securely with the Birtcher hand piece, is inserted ½ inch either distal or proximal to the exostosis and directed toward the bursa. Advance current to three milliamperes and press the side of the needle against the base of skin lesion, the bursa, and through the capsule to the osseous prominence. It takes about two minutes time for the softening of these tissues. The current is turned back to zero and the needle is withdrawn (Fig. 3).

This negative galvanic phase is optional, in doing this "raspostectomy." The original clinical trials included this phase in order to destroy the highly stimulated basal cells of the heloma, the bursa, and to create a channel through which the chisel and files could be directed.

The "channel" can be produced with an appropriate cutting blade.


**Figs. 1-7. Illustrate stages of the technique.**

®[1] Astra Pharmaceutical Products, Worcester, Mass.
* Birtcher Corporation
† S.S. White Dental Manufacturing Co.
‡ Julius Nager Instruments, New York City, N.Y.
# Cleveland Dental Supply Corporation
®[2] Duke Laboratories
®[3] pHisoHex, Winthrop-Stearns Inc., New York 18, N.Y.
®[4] Betadine, Tilby-Nason Co., Inc., Dover, Delaware



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Figs. 1-7. Illustrate stages of the technique.

**Chisel, files and rasp phase:** Direct the narrow chisel through the skin opening. The site is selected with two purposes in mind (Fig. 4). First it is placed in a position where the operator finds it easiest to work with the instruments, secondly the site should not be over a bony prominence or directly over a tendon. Guide the chisel from either side of and then under the tendon to the osseous prominence and scale or shave off small chips. Palpation with finger over a guaze pad orients the operator as to location of the instrument and its action (Fig. 5). Position of the chisel blade is controlled by the writing on octagon handle.

The size of the osseous prominence to be reduced governs the grit or coarseness of the files and rasp. It is easier to follow the chisel with a coarse rasp, applying force and pressure when the cutting angle blades are engaging and cutting into bone (Fig. 6).

When tactile sense through the instrument and by palpation over the area conveys to the operator that adequate reduction of the prominence has been accomplished the finer grit files are used to smooth the roughened surfaces. Round off the condyle to obtain the natural curve by guiding the files in a circular motion. Be thorough in smoothing the area with the fine grit file.

**Dressing:** A postoperative X-ray is advisable before applying the dressing to see if the disired reduction of the exostosis has been obtained.

Encourage bleeding, by squeezing, to force out some of the bone chips. It is unnecessary to remove all of the chips; they are not considered foreign bodies. Sponge area dry and apply a sterile adhesive strip directly over the skin opening to seal off and restrict drainage. Cover this dressing with 1" tubular toe dressing. Where hemorrhaging persists applya swab saturated in Negatan.®[5] Pull applicator away and leave the saturated swab on the wound then cover with adhesive. The sterile elastic adhesive is obtained by cutting it from the side of a sterile #330 Elastoplast dressing.

**Postoperative care and instruction to patient:** Patient advised to keep ice compress over and around toe until pain ceases.

Two "A.P.C." tablets for pain (repeated every 2 hours if necessary) are prescribed.

Patient should wear a cut-out shoe if not able to wear a regular shoe.

Patient is instructed to soak the forefoot, starting the third day, in a solution of epsom salts (1 tablespoon to 1 quart of warm water) 3 times daily. This accelerates absorption of the wound's exudate.

Change dressing every 3 to 4 days. Replace sterile elastic adhesive to seal the wound until an eschar forms. After the eschar forms no dressing is necessary.

**Comments:**

The results obtained by this writer in approximately 600 raspostectomies of lesser toes and 20 of subungual exostosis have been very gratifying. Fig. 8 illustrates typical results. The top row are preoperative X-rays, with the matching postoperative X-ray directly below. The initial cases performed in 1948 to 1952 had a higher percentage of recurrences. This was attributed to under treatment. Today the percentage of failures runs less than five percent. The operation and postoperative discomfort is minimal that the patients are very amendable if the procedure is to be repeated a second time. This technique is especially effective on the arthritic spurs commonly found under digital excrescences. We expect to find more recurrences in these arthritic cases, but are happy to report this has not been the case.

The raspostectomy for the surgical reduction of exostosis and enlarged condyles give the podiatrist a simplified office procedure that will enable him to manage those cases where surgery is indicated. The writer will be glad to answer any questions that pertain to this technique.

*152 Market Street*

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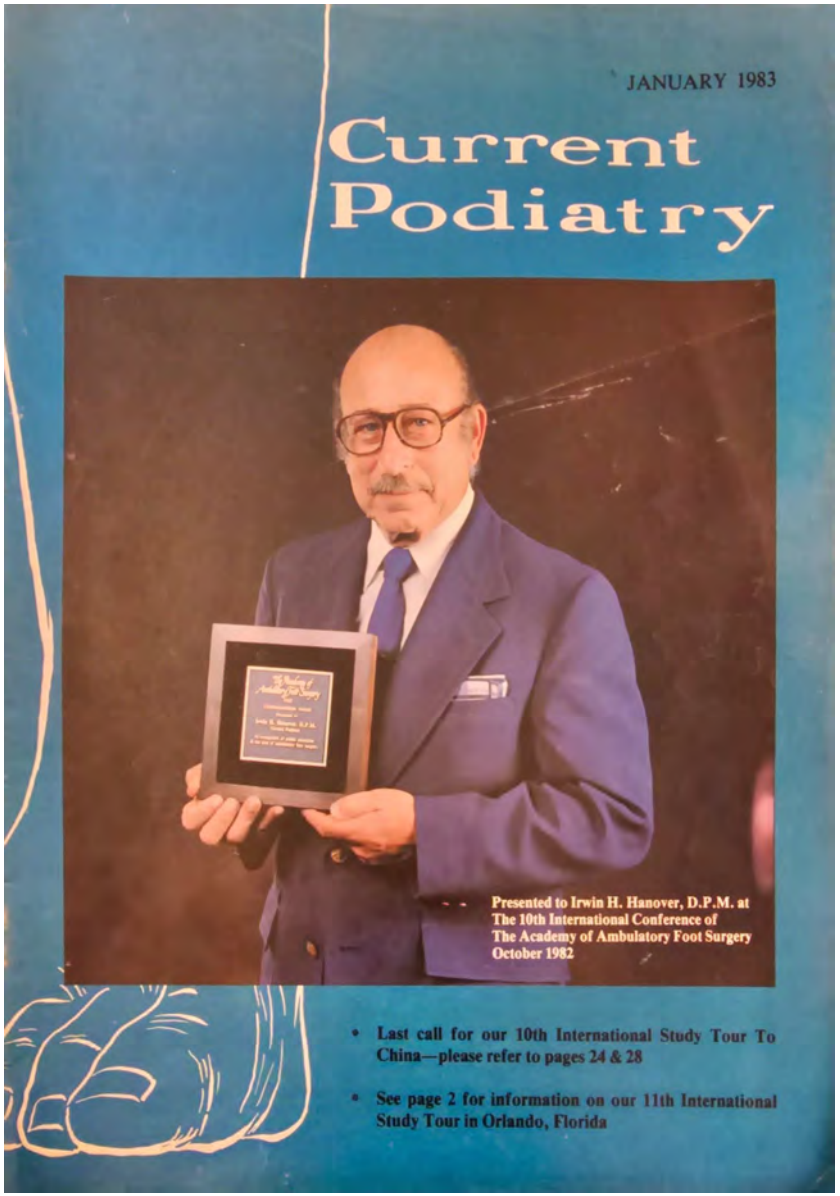
"I shall try to correct errors when shown to be errors and I shall adopt new views so fast as they shall appear to be new views."
—*Abraham Lincoln*

Vol. 52, No. 8, Journal of the American.

®[5] Eli Lilly



Lawrence J Kales, DPM




Lawrence J Kales, DPM


It is with a great deal of pride and just a little bit of modesty, that I wish to publicly thank the Academy of Ambulatory Foot Surgery for this most beautiful award.

I would like to bring you back to the night of October 30th when Dr. Jerome F. Jacobs, as toastmaster introduced me from the audience with these words. "Our next award is a yearly award. It is an award which we give each year to somebody* in the communications field. From the time I was a student, this man has been a legend to me. As students, his publication was sent to us free of charge. He's been around for a while and a constant contributor to our beautiful profession of podiatry. I would like you to join with me in thanking IRWIN HANOVER and CURRENT PODIATRY."

With the thunderous applause ringing in my ears all I could think of was "What do I say." Although I had been seated at a table near the podium it felt that I was walking a thousand miles. Finally, I reached the podium and as Dr. Jacobs handed me this wonderful plaque, I was now truly shaken with emotion and grattitude. Never in all my years of public speaking and as a toastmaster did I feel such an emotion. Our colleagues were most gracious in remaining quiet so as to permit me to regain my composure.

As my clouded brain cleared up, I was brought back ten years ago and said, "Tonight, I am in the best company of podiatry. Celebrating the tenth anniversary of the Academy brings me back, Abe, to you Joe Vizer and a few other people like Sam Granoff, Sol Barish when they just got started with the Academy with an excellent idea. But the idea was to get the entire country involved behind this whole program and that is when I felt that CURRENT PODIATRY could be the launching pad to get this on the road; because the profession deserves this organization and this organization deserves the profession. I wish to thank you all and the Board and the Officers of the Academy for taking the trouble to think that I have contributed to your growth and for this award and plaque. Thank you very, very much."

And so it is a tremendous feeling to be able to partially withdraw, at the crest of the wave, from the hectic race of the last thirty-three years of publishing CURRENT PODIATRY; first with my wonderful associate, the late Dr. Maxwell N. Cupshan; and then on a solo basis for the past fifteen years.

But really it is to all of you, my colleagues, who have supported CURRENT PODIATRY all these years that I am so greatly indebted.

Now, with the advent of our new format and size, under the guiding hands of my son DOUGLAS S. HANOVER, J. D. as Director of advertising and overall management along with my very good friend and colleague, CHARLES P. CANGIALOSI D. P. M. as Editor at Large, CURRENT PODIATRY will reach even greater heights and especially with your support. I shall still be here as Editor Emeritus handling manuscripts and advertising wherever and whenever necessary.

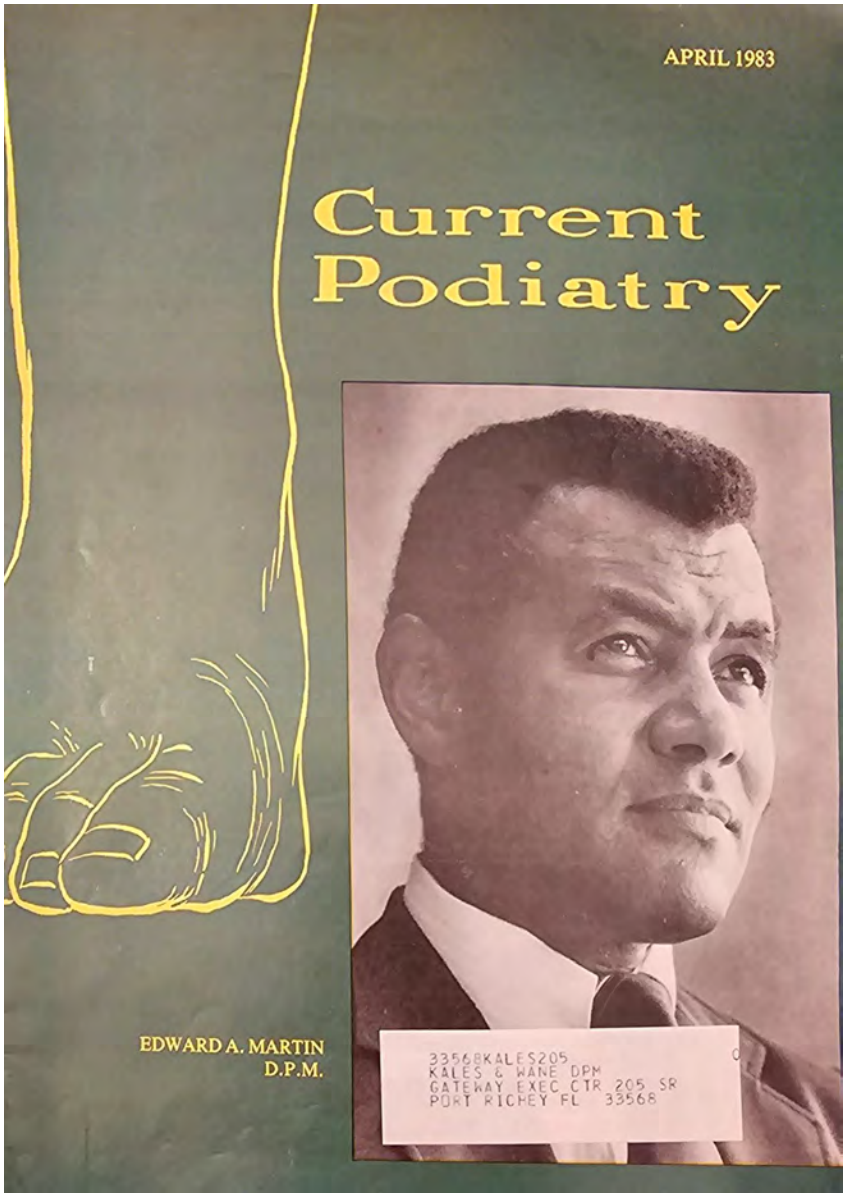
Dear friends it has been wonderful all the way and especially to be able to smell the Roses is a greater blessing.

*IRWIN H. HANOVER, D.P.M.*
*Editor Emeritus*

*A previous recipient was Dr. Frank Field, the well known NBC host of many medical programs and of course as dean of NBC weathermen.



Lawrence J Kales, DPM




Lawrence J Kales, DPM

# "Man On The Cover"

EDWARD A. MARTIN, D.P.M.

Though the podiatric profession is not uncommon to the Martin family, Dr. Edward A. Martin has never been a common podiatrist. He has achieved many "firsts" in his field and with a humane and energetic attitude as his foundation. He has been known to his peers as an outstanding instructor, researcher, and innovator. Dr. Martin is a native of Mason City, Iowa where his father first introduced him to a podiatric office along with his grandfather, two aunts and two uncles. Assisting with his first foot surgery at the age of 18, Edward pursued his education at the Illinois College of Podiatric Medicine and graduated Cum Laude. He was presented with the Henry L. Duvries Clinical Surgery Award for his surgical proficiency, and was noted to have been the first black recipient in the history of the college. During the next 22 years he practiced solo on the northside of Chicago in a storefront office.

Dr. Martin will always be respected for his role as one of the founding fathers of the Academy of Amubulatory Foot Surgery. He reflected the trust that his colleagues had in him by serving as the first national president of the organization in 1972. The constitution set forth at that time now supports more than 2,000 ambulatory foot surgeons amongst its ranks throughout the country. For his many contributions to the profession, in particular, the Academy in its infancy, he has received the Academy of Ambulatory Foot Surgery Distinguished Service Award for three consecutive years. As a current director on the American Board of Ambulatory Foot Surgery, he now supersedes his many years as "professor" to be an examiner of surgeons before receiving their "Diplomate" degree of Board Certification. Many of the cases presented to him for evaluation by Academy members include the very procedure that Dr. Martin developed for the correction of painful bunion deformities. The procedure involved two ¼" incisions, 15 minutes of surgical time in the office, and in most cases complete ambulation during the recuperative period. He has been invited to participate in a medical exchange in Russia and China during the latter part of 1983 with his colleagues of the Academy to discuss procedures such as the Martin-Wilson Bunionectomy.

As a founder, past president and Board member of the National Podiatry Association, Dr. Martin's goal was to increase minority visibility and enrollment numbers in the six colleges today and in the future. He sets a perfect example with numerous acknowledgements of accomplishment. Amongst these was his profile in EBONY MAGAZINE in 1978; he was recently been contracted for a sequel on outstanding black physicians in their field in 1983. In 1980 he was listed in WHO'S WHO IN BLACK AMERICA? In 1982, he was the guest speaker on TV's Black Renaissance.

In an attempt to further disseminate information on the technique of Minimal Incision Ambulatory Foot Surgery, Dr. Martin has co-produced and directed the first half-hour television documentary on his patients in San Jose before, during and after minimal incision procedures were performed on their feet. It has now been aired twice in the Bay Area, his present home, with tremendous appeal.

As a salute to his numerous appearances on talk shows, radio broadcasts, and lecture tours to various community and professional organizations throughout California, Dr. Martin has twice been commendated by the Mayor of San Jose, Janet Gray Hayes. He continues to be a noted speaker at seminars throughout the country, yet still concentrates on the podiatrists of tomorrow at the six colleges of podiatric medicine.

Dr. Martin is a member in good standing and active participant in American Podiatry Association, National Podiatry Association, Academy of Ambulatory Foot Surgery, Illinois Podiatry Society, American Association of Hospital Podiatrists, Alumni Association of the Illinois College of Podiatric Medicine, Central Coast Podiatry Society and California Podiatry Association. He also has attained his board certification and title of Diplomate from the American Board of Ambulatory Foot Surgery. He holds staff privileges with Valley West General Hospital of Los Gatos, CA.

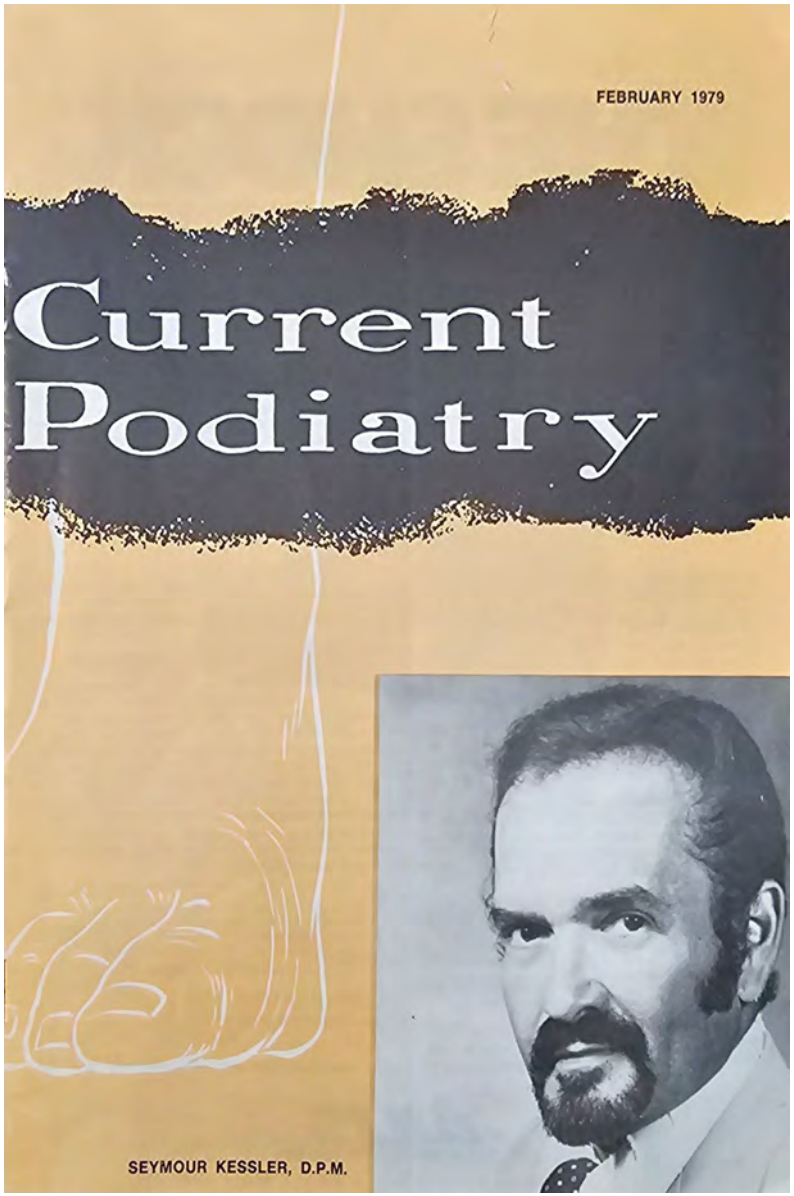
Dr. Martin's son, Edward Brian will soon be carrying on the family tradition as a fourth generation podiatrist, and Steven Vincent will pursue a career in electrical engineering. His only daughter, Gail, follows in her father's footsteps as an innovator in her field. She will be studying international law in Illinois and has just returned from a year of education in Paris, France.

It is with great admiration and pride that CURRENT PODIATRY is honoring one of the forefathers of ambulatory foot surgery for his dedication to a profession he feels is a way of life, to podiatrists who strive for a more modern method of performing foot surgery, and to his fellow man.

*IRWIN H. HANOVER, D.P.M.*
*Editor Emeritus*



Lawrence J Kales, DPM




Lawrence J Kales, DPM

## "MAN ON THE COVER"

# SEYMOUR KESSLER, D.PM.

Dr. Seymour Kessler is a native of Chicago, Illinois and ever since his graduation from the Illinois College of Podiatric Medicine in 1954 and his embarking on a brilliant podiatric career, he has been deeply involved in the progressive and dynamic forward march of his chosen profession.

It is during his term as President of the Academy of Ambulatory Foot Surgery that the Academy, after several years of negotiation finally was accepted as an affiliate of the American Podiatry Association. Although this activity was primarily created and labored upon by the immediate proceding administrations, it was Dr. Kessler's executive ability that brought it to fruition.

When Seymour Kessler received his diploma after 4 years of podiatry college, his professional training did not cease at that point. He attended one year Northeast Community Hospital; Annual Surgical Conclave Harrisburg, Pa.; Annual Hopedale Medical Complex at Hopedale, Illinois; Annual Seminars of the Academy of Ambulatory Foot Surgery; Annual Surgical Seminars conducted by Dr. Edwin Probber; Dental Society of New York Seminar for use of Nitrous Oxide - 1972; Dynamogenic orthopedics - 1972; Pulmonary Resuscitation Chicago Heart Association - 1976; Minimum 150 hours of Continuing Education Seminars held throughout the country.

Dr. Kessler is a staff member of Northlake Hospital, Northlake, Illinois; American Association of Hospital Podiatrists; Charter member the American Association of Trauma Specialists; Charter member the Academy of Ambulatory Foot Surgery; member of the Illinois Podiatry Association and the American Podiatry Association; National Association of Hospital Podiatrists; American Public Health Association; American Analgesia Society; Israel Physicians Association; Royal Society of Health; Puerto Rico Podiatry Society and the Federation of State Board Examiners.

He has lectured extensively to very many of these organizations. Dr. Kessler possesses a very keen investigative mind having present research on "Liquid Crystal Thermograph for blood flow lower extremities" and "Glutahyde Skin Graft on complete Nail resection" with Dr. I. Schecter of The Weitzman Institute in Israel. As one of the pioneers of modery Ambulatory Office Foot Surgery, he has invented and designed the Kessler Podiatry Rasp. Instrumentation and tray set-up for Kessler Bunion Proceedure is in the library of PCPM. All of this work and experience has always been gladly shared with his colleagues.

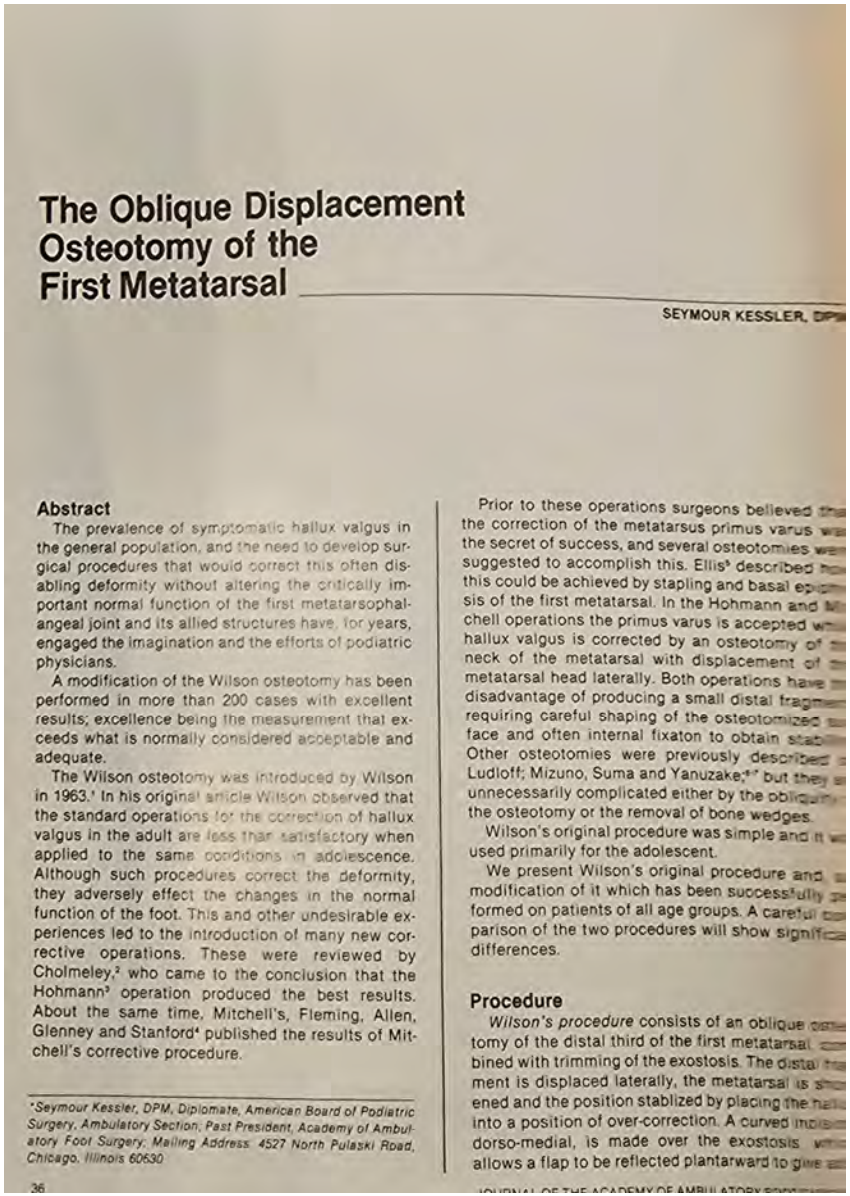
In addition to all of his activities on behalf of the podiatry profession, he is still able to divide himself and give time to many civic and philanthropic causes. He has been chairman of the United Jewish Fund, Podiatry Division from 1974 to the present; recipient of the Golden Key Award 1975 and Man of the Year Award, Children's Leukemia Chapter of the City of Hope; chairman of the Podiatry division for fund raising for Weitzman Institute, Israel.

Dr. Kessler is at present Secretary of the Illinois State Board of Podiatry Examiners. From 1975 to the present he has been participating in the Residency Rotation Program of Northlake Hospital.

Seymour has a most understanding wife, June, who has been his marriage partner since 1954 when he graduated from podiatry college. With their three children, Ron, Marty and Jori this is a family that enjoys life's truly great blessings and I extend my sincerest wishes for a long and continued successful professional and family fulfillment.

Irwin H. Hanover, D.P.M.
Publisher/Editor

Lawrence J Kales, DPM



# The Oblique Displacement Osteotomy of the First Metatarsal

SEYMOUR KESSLER, DP

**Abstract**

The prevalence of symptomatic hallux valgus in the general population, and the need to develop surgical procedures that would correct this often disabling deformity without altering the critically important normal function of the first metatarsophalangeal joint and its allied structures have, for years, engaged the imagination and the efforts of podiatric physicians.

A modification of the Wilson osteotomy has been performed in more than 200 cases with excellent results; excellence being the measurement that exceeds what is normally considered acceptable and adequate.

The Wilson osteotomy was introduced by Wilson in 1963.[1] In his original article Wilson observed that the standard operations for the correction of hallux valgus in the adult are less than satisfactory when applied to the same conditions in adolescence. Although such procedures correct the deformity, they adversely effect the changes in the normal function of the foot. This and other undesirable experiences led to the introduction of many new corrective operations. These were reviewed by Cholmeley,[2] who came to the conclusion that the Hohmann[3] operation produced the best results. About the same time, Mitchell's, Fleming, Allen, Glenney and Stanford[4] published the results of Mitchell's corrective procedure.

*Seymour Kessler, DPM, Diplomate, American Board of Podiatric Surgery, Ambulatory Section; Past President, Academy of Ambulatory Foot Surgery; Mailing Address: 4527 North Pulaski Road, Chicago, Illinois 60630

Prior to these operations surgeons believed th
the correction of the metatarsus primus varus wa
the secret of success, and several osteotomies we
suggested to accomplish this. Ellis[5] described ho
this could be achieved by stapling and basal epi
sis of the first metatarsal. In the Hohmann and M
chell operations the primus varus is accepted wh
hallux valgus is corrected by an osteotomy of th
neck of the metatarsal with displacement of th
metatarsal head laterally. Both operations have th
disadvantage of producing a small distal fragme
requiring careful shaping of the osteotomized su
face and often internal fixaton to obtain stabi
Other osteotomies were previously described
Ludloff; Mizuno, Suma and Yanuzake;[6,7] but they
unnecessarily complicated either by the obliquity
the osteotomy or the removal of bone wedges.

Wilson's original procedure was simple and it w
used primarily for the adolescent.

We present Wilson's original procedure and
modification of it which has been successfully p
formed on patients of all age groups. A careful co
parison of the two procedures will show significa
differences.

## Procedure

*Wilson's procedure* consists of an oblique osteo
tomy of the distal third of the first metatarsal
bined with trimming of the exostosis. The distal fra
ment is displaced laterally, the metatarsal is sho
ened and the position stablized by placing the hal
into a position of over-correction. A curved incisio
dorso-medial, is made over the exostosis wh
allows a flap to be reflected plantarward to give





Lawrence J Kales, DPM

quate access to both the osteotomy site and the exostosis. The bursa over the exostosis is reflected as a flap based distally. The metatarsophalangeal joint is opened only enough to give room for the removal of the exostosis, which is removed in line with the shaft. The line of the osteotomy is marked with an osteotome on the dorsum of the metatarsal neck. It begins on the medial side at the proximal end of the exostosis, extending laterally at an angle of 45 degrees. This is the best angle; a more transverse osteotomy leads to instability, while a more oblique one makes displacement difficult.

The neck of the metatarsal should be exposed subperiosteally with minimum soft tissue dissection. It is however, essential to see the inner end of the osteotomy site. This is greatly facilitated by using the curved end of a dissector as a bone lever. A thin-bladed osteotome, three-eights of an inch wide, is used for making the osteotomy, the dorsal cut being made first. Care must be taken to avoid splintering of the bone. The head of the metatarsal is now displaced laterally by using an osteotome to break the lateral cortex and to displace the fragment while the hallux is held in the over-corrected position. With the toe kept in the over-correced position, the distal fragment will remain stable. This position is held by an assistant while the bursal flap is sutured tightly down to the soft tissues on the shaft of the metatarsal. The over-correction is maintained while plastering, by inserting a suitable packing into the first web space. A below-the-knee plaster cast in the over-corrected position is maintained for two weeks. The toe is then brought into the neutral position with an anesthetic, and a walking plaster case is applied for a further period of six weeks.

In the *Kessler Procedure* a doro-medial linear incision approximately 3 cm. in length is made at the distal third of the first metatarsal (figure 1). The incision is deepened to the bone carefully so as not to injure the tendon of the extensor hallucis longus. Using a power drill and a #44 burr, a double osteotomy is performed; thus preventing the dorsal tilting of the distal fragment, and allowing the area of contact between the two cut edges to heal.

The double oblique osteotomy is accomplished as follows. The surgical rotating osteotome (Shannon #44) is introduced at a 45 degree angle into the midshaft of the first metatarsal at the distal third of its dorsal surface. A pilot hole is made at an angle of 45 degrees, from dorsal to plantar (figure 2). Holding the surgical burr at a 45 degree angle to the longitudinal axis of the first metatarsal, the top half of the first metatarsal is cut dorsally. A second cut is made at a 90 degree angle to the first cut within the same track. The second oblique osteotomy is performed to prevent dorsal displacement of the metatarsal head which could occur with subsequent stress on the lateral metatarsals (figure 3).

The distal fragment is displaced laterally, and the position of the toe is stabilized by placing it in over-correction (figure 4). The wound is closed using single interrupted nylon sutures, and the toe is taped and splinted in the corrected position (figure 5).

Upon application of a moderately secure compression bandage, the patient it placed in a surgical shoe. The patient returns to the office the next day. The compression dressing is removed and the bone repositioned by pushing the distal segment into the interspace. A new compression dressing is applied. The post-operative care in continued for three weeks. At this time the patient is taped with Dermicel®[2] tape to hold the surgical site in a corrected position. A 1/4 inch rubber wedge is inserted between the first and second digit, so that the digit is stabilized in the corrected position (figure 6). The patient is instructed to soak his foot in a solution of one cup of vinegar to one quart of warm water twice daily and retape foot as in Figure 7. This is repeated until the osseous tissue demonstrates union.

Soft tissue dissection is minimal. The complex and easily traumatized first metatarsophalangeal joint is left intact. Swelling and post-operative pain in usually negligible. No analgesic stronger than Darvocet®[1] is prescribed.

Some complications are associated with above procedure. Due to the shortening of the first metatarsal a transfer lesion can occur under the second metatarsal head in approximately 15% of the surgeries described. An osteotomy of the second metatarsal is then performed on order to alleviate the biomechanical fault. Orthotic devices are often used as an adjunct in following the osteotomy of the second metatarsal bone.

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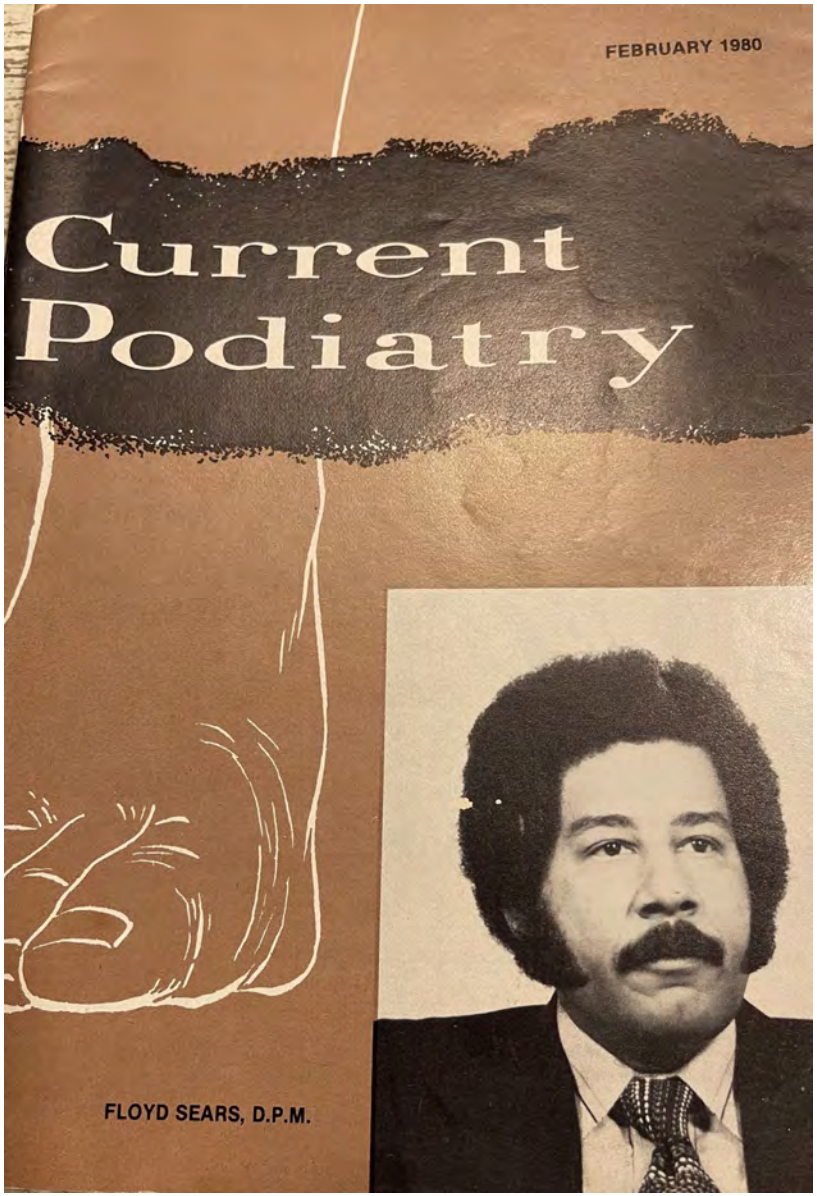
1. Eli Lilly, Indianapolis, Indiana.
2. Johnson and Johnson, New Brunswick, New Jersey.



Lawrence J Kales, DPM

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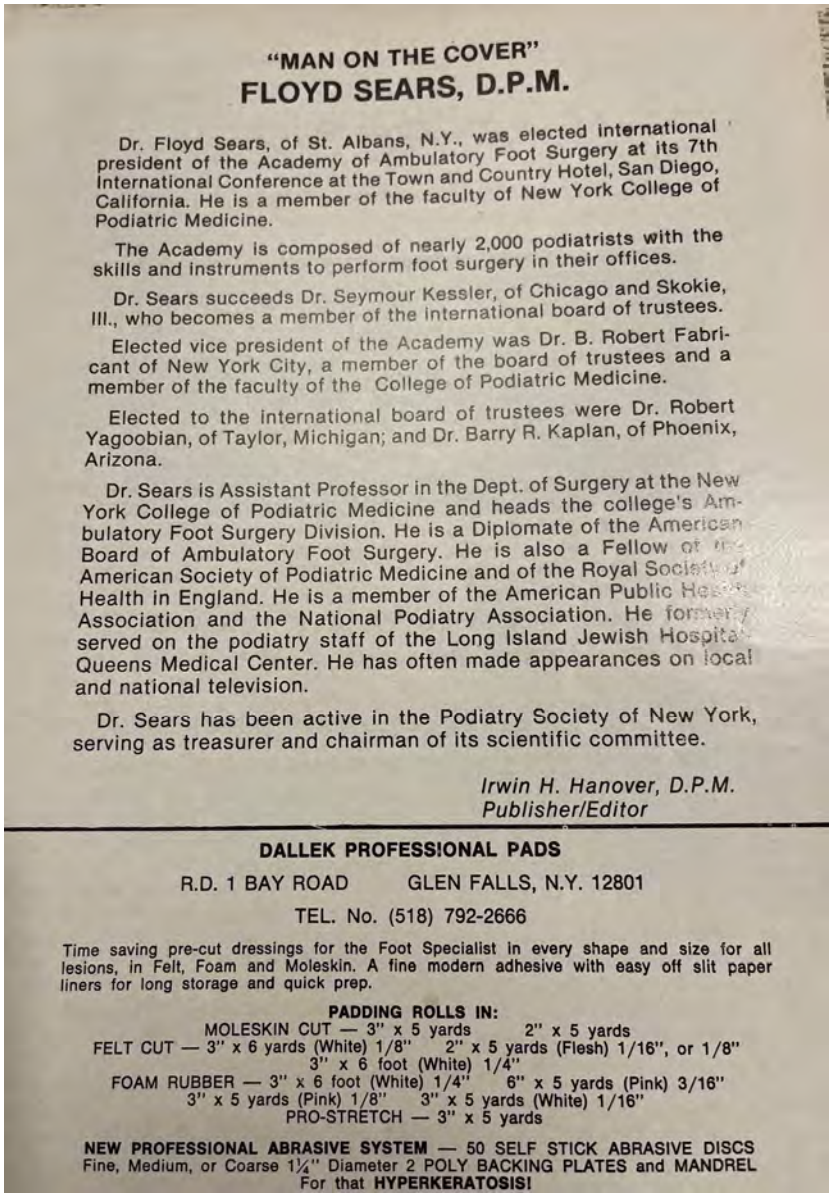


"MAN ON THE COVER"

## FLOYD SEARS, D.P.M.

Dr. Floyd Sears, of St. Albans, N.Y., was elected international president of the Academy of Ambulatory Foot Surgery at its 7th International Conference at the Town and Country Hotel, San Diego, California. He is a member of the faculty of New York College of Podiatric Medicine.

The Academy is composed of nearly 2,000 podiatrists with the skills and instruments to perform foot surgery in their offices.

Dr. Sears succeeds Dr. Seymour Kessler, of Chicago and Skokie, Ill., who becomes a member of the international board of trustees.

Elected vice president of the Academy was Dr. B. Robert Fabricant of New York City, a member of the board of trustees and a member of the faculty of the College of Podiatric Medicine.

Elected to the international board of trustees were Dr. Robert Yagoobian, of Taylor, Michigan; and Dr. Barry R. Kaplan, of Phoenix, Arizona.

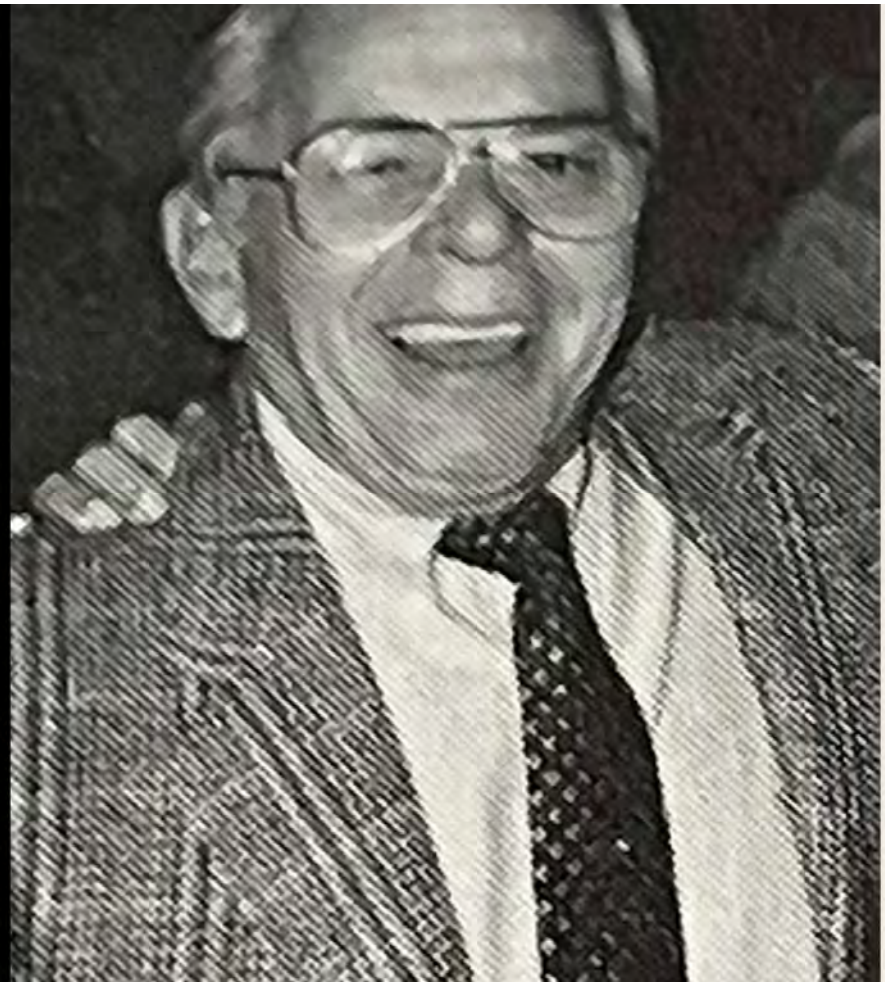
Dr. Sears is Assistant Professor in the Dept. of Surgery at the New York College of Podiatric Medicine and heads the college's Ambulatory Foot Surgery Division. He is a Diplomate of the American Board of Ambulatory Foot Surgery. He is also a Fellow of the American Society of Podiatric Medicine and of the Royal Society of Health in England. He is a member of the American Public Health Association and the National Podiatry Association. He formerly served on the podiatry staff of the Long Island Jewish Hospital-Queens Medical Center. He has often made appearances on local and national television.

Dr. Sears has been active in the Podiatry Society of New York, serving as treasurer and chairman of its scientific committee.

*Irwin H. Hanover, D.P.M.*
*Publisher/Editor*



Lawrence J Kales, DPM



LAWRENCE J KALES, DPM

**Abe Plon, DPM**

Mr Wilson as per Dr Sheldon Nadal

# News Flash From The Academy of Ambulatory Foot Surgery

Dear Colleagues: May 6, 1982
Subject:
PEACE SETTLEMENT SABOTAGED

It is with a heavy heart that I regret to inform you that a handful of American Board of Podiatric Surgery (ABPS) diplomates have destroyed the settlement agreement we worked so long and hard to bring about for our profession.

As I reported to you in our last Newsletter, negotiators for the Academy and the Ambulatory Board, the American Podiatry Association (APA) and ABPS, hammered out a settlement ending the long dispute that threatened to tear apart our profession.

Representatives of the parties were prepared early this year to dismiss the pending anti-trust litigation. The ABPS Board of Trustees, after unanimously ratifying the agreement, asked for time to conduct a series of informational meetings before submitting the terms of the settlement to their diplomates for final ratification. Your Academy and the Ambulatory Board consented to this request, and so informed the federal judge in Washington, D.C., who ordered all proceedings held up until this summer to allow the ABPS the time they requested.

On April 19th, we were informed by ABPS that their diplomates will *not* ratify the agreement, and for all intent and purposes, the settlement fairly negotiated by all parties is now dead! In short, instead of undertaking the efforts over the spring and summer months to gain ratification of the agreements and end the strife in our profession, ABPS arbitrarily acted rapidly to kill any equitable settlement.

In our last Newsletter I urged all podiatrists, regardless of special interests, to reflect upon the great advancement the settlement marked for the growth of the profession. I urged every podiatrist to give their full support to the agreements. "Let us," I urged, "unite as one, for only in unity can podiatry hope to achieve real strength."

APA President Herbert Rothfeld joined me in this plea. In the March issue of the APA REPORT, Dr. Rothfeld was quoted:

. . . the issues were complex, but that there was a 'fair and equitable' agreement drawn for all parties. 'Not everyone will be satisfied with every point of the agreement,' he continued, 'but we must take an overview of what is best for the profession as a whole.'

He stressed that those who vocally oppose the agreements may feel that a given issue is preeminent, but the major concern should be healing the split and moving forward.

'I realize that there may be some in opposition to the terms of the memoranda,' he said, 'but my travels have shown me that the general membership wants this breach healed. When this agreement is totally implemented, the profession can go forward to achieve all the goals we all desire.'

Our pleas for unity have fallen on deaf ears. We have tried to save the profession, but a small minority, a handful of about 700 ABPS diplomates, determined to prevent any podiatrist from performing surgery unless they belong to their elitist club, continues to dictate to all 8,000 members of the profession. Apparently, the leadership of the APA, and the Board of Trustees of both the APA and ABPS (both of whom supported these agreements), are powerless to save the profession from a resumption of what some view as a suicidal court fight.

Some of those who have been working to undermine and destroy unity in our profession may feel they can win on the mandatory state-national dues tie-in part of our lawsuit. They may point to a recent decision of the federal appeals court in San Francisco on Boddicker vs. Arizona State Dental Association. However, our attorneys have told us that this decision actually strengthens our case, as the federal court squarely decided that triple damages under the anti-trust laws can be recovered for these kinds of violations if the proper evidence is presented. The attorneys who represent your Academy feel that we have this proof, and can win on this issue based on this precedent setting case.

The minority who oppose allowing podiatric surgery open to all qualified podiatrists



Lawrence J Kales, DPM

are mistaken in their belief that our resolve, and our treasury, may not be up to resuming the struggle now that they have undermined and destroyed unity in our profession. Make no mistake about it, we stand firm in our resolve to carry on this fight for fair and equitable treatment for all podiatrists realize that they cannot continue to suppress competition in surgery and stop the progress of our profession. If we roll over now, they will strengthen their efforts of discrimination against the majority of podiatrists.

If we are going to be lied to, and discriminated against; if we are going to be relegated to "second class status" within the profession, we have no alternative. We must immediately resume action and fight to end this anti-trust conspiracy.

It is also essential, if we wish to remain a part of APA, that the APA leadership realize that by aiding and abetting this minority, they are not acting in the best interests of our profession. This minority has stolen the voice of the majority of podiatrists, backed down the APA Board of Trustees, and even threatened to impeach APA President Robert Guidice last year for trying to heal the split in the profession. It is important that a national organization speak for *all* podiatrists, not merely a self-serving minority seeking to dominate thousands of other practitioners.

Now is the time for you to express your views, and make your statements to guide us for the future. In your Academy, the majority speaks, and not merely listens to the dictates of a self-serving minority.

A card will give you the opportunity to answer several important questions to guide our future:

1. Do you support the Agreements reached with the American Podiatry Association/American Board of Podiatric Surgery as a fair and equitable approach to resolving issues?
2. Now that the ABPS diplomates have undermined the search for an equitable agreement, and the APA is powerless to settle these issues, is there any future for your Academy to remain affiliated with the American Podiatry Association?
3. With the killing of the settlement by the ABPS diplomates, do you feel we should continue with our efforts to allow every podiatrist to demonstrate competency and perform outpatient podiatric surgery?

In our efforts to seek equality for all podiatrists as "first class citizens" in our profession, we ask your support. Unlike the APA/ABPS, we do not seek to arbitrarily have a minority force a mandatory assessment on the majority. Your Academy does not believe that such action has a place in an organization of practicing colleagues of equal status.

We are asking you to pledge to support our efforts to gain equality for all podiatrists. We are *not* asking you to immediately contribute, but to support our efforts over the next year. There is still a faint chance that our efforts to achieve unity amongst all segments of the profession will succeed without the return to costly litigation. If this should occur, your pledge cards will be returned to you.

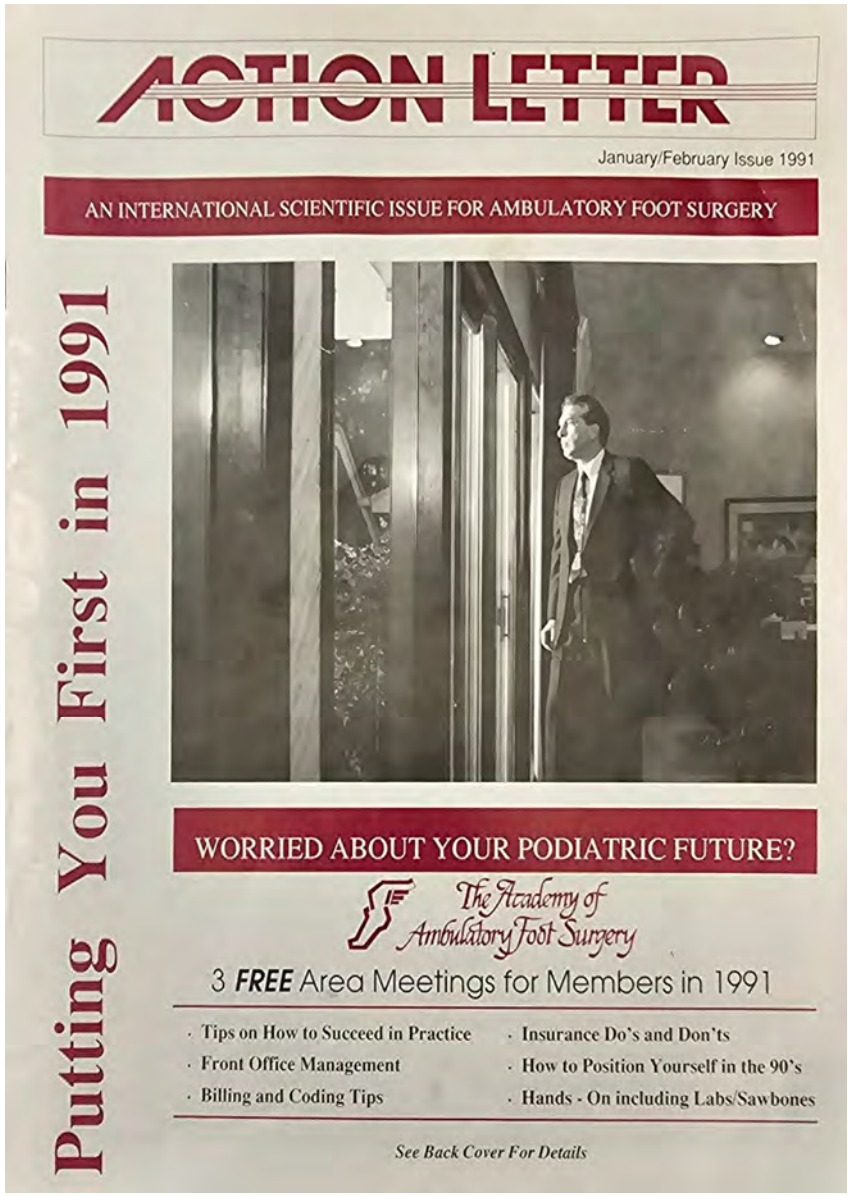
Colleagues, I ask you to stand behind the democratic ideals of this Academy, and mail your cards today. I also ask you to reflect upon what a limitation of your surgical scope could mean to your practice, and act accordingly in sending me a pledge card to sustain our efforts on your behalf.

Fraternally,
B. Robert Fabricant, D.P.M.
President





Lawrence J Kales, DPM

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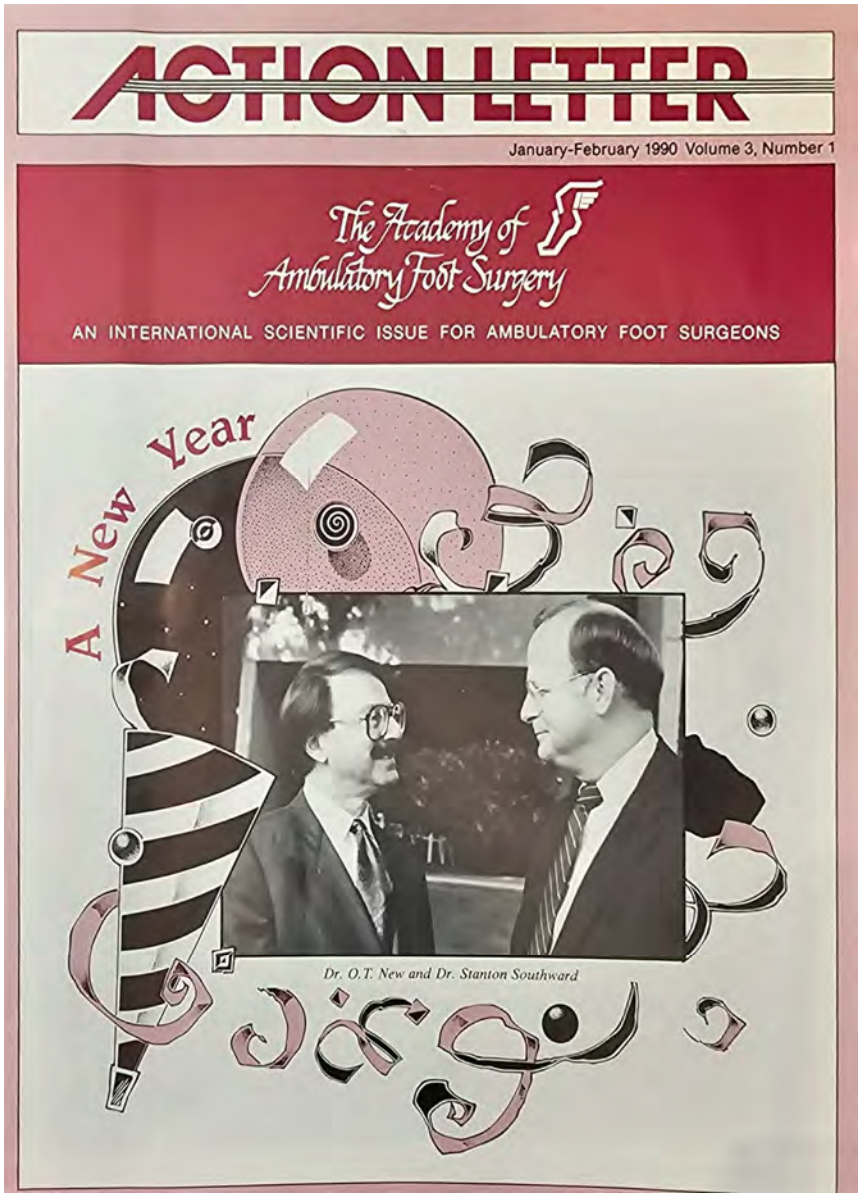


Lawrence J Kales, DPM

# 50 Years In Podiatric Medicine For Dr. M. D. Roven

## Charter Member of Academy of Ambulatory Foot Surgery

Dr. Milton D. Roven graduated in 1938 from what is now the New York College of Podiatric Medicine after attending Brooklyn College. In World War II, he was called to duty and served as Senior Grade Lieutenant Podiatrist Specialist U.S. Navy, officer in charge of foot clinics, Fleet Marine Force, Camp Elliot in San Diego, California. In 1946, he returned to private practice combined with teaching podiatry on a graduate and postgraduate level and extensive podiatric scientific writing, which to date have earned him 20 awards including 7 gold medal first prizes for the *Journal of American Podiatry Association, Current Podiatry Journal, Academy of Podiatric Medicine* and *International Academy of Ambulatory Foot Surgery.*

Based on these award papers, "phalangeal set," a term originated by Dr. Roven appears in Dorland's Medical Dictionary (25th edition); "Intramedullary Metatarsal Decompression with Condylectomy" appears in Taber's Medical Dictionary (14th edition) under ROVEN'S IMDC, and "Angulational, Transpositional, Derotation and Hallux Set (ATDH)" is being considered for the next edition of Stedman's Medical Dictionary and Dorland's Medical Dictionary (27th edition).

In 1976, Dr. Roven's textbook, entitled *Non-Disabling Surgical Rehabilitation of the Forefoot*, published by Warren H. Green Inc. of St. Louis, became available and was heralded as a standard in minimal incision surgery.

Said Vincent W. Giudice, M.D., Director of Orthopedic Surgery of Valley Hospital in Ridgewood, N.J. in a letter to Dr. Roven:

> "A great deal of my work is in foot surgery. I believe I have every book on this subject published in the past forty years.
>
> "Your book is so far superior to any of the others in practical everyday work that I had to write to you expressing my appreciation."

This book appears in many medical libraries including the Library of Congress in Washington, D.C. In addition to this text, he has written another book, entitled *Questions & Answers on Foot Care.*

His other contributions to the literature appeared when he was co-author to the textbook *Modern Foot Therapy* and Contributing Editor to the *Journal of Podiatric Medicine.* Currently, he is Associate Editor of the *Journal of the American Association of Hospital Podiatrists,* Editorial Consultant Podiatric Surgery, *Current Podiatry,* and book review editor for *The Ambulatory Foot Surgery.* Dr. Roven is credited with over 125 published book reviews that have appeared in podiatry journals.

Dr. Roven is a charter member of the Academy of Ambulatory Foot Surgery and has been a fellow since its inception. He is also a Diplmate of the American Board of Ambulatory Foot Surgery, a Section of the American Board of Podiatric Surgery and served as Regional Director of the Academy. He also served as President for 3 terms for the Academy of Podiatric Medicine and as President of the American Podiatry Council.

In 1976, Dr. Roven's picture appeared on the cover of *Current Podiatry,* and in 1985 he was Man On The Cover for the *Journal of Current Podiatric Medicine.*

In 1976 he was asked to appear on Dr. Frank Field's Health Field television show for the National Broadcasting Company in which all facets of ambulatory foot surgery were discussed on two programs. Subsequently, radio shows and magazine articles in which Dr. Roven and his innovations have appeared include *Ladies Home Journal, Family Circle, Woman's Day, Popular Science Magazine, Health Care News, Midnight Globe, New York* and *Glamour Magazines* and publications in England and Australia.

Dr. Roven was selected for inclusion in Who's Who and the 1984/85 edition of *The Directory of Distinguished Americans* for his outstanding achievements in the field of podiatry. The directory is designed to acquaint Americans with the leaders in the pure and social sciences, and other fields of endeavor.

Dr. Roven is married to Ruth and has two children: Glen, who is a well-known musical director and composer on Broadway and television, and Janice, an attorney currently specializing in medical malpractice for the defendants.





Lawrence J Kales, DPM

*The Silver Award*

**The Fourteenth Annual Dr. Maxwell N. Cupshan Memorial Awards**

# Part I
# Correction Of Rigid Toe Deformities. New Concepts For Correction of Hammertoes, Angulational Curvatures and Other Deviations Of The Lesser Toes

MILTON D. ROVEN, D.P.M., Dip. A.B.A.F.S.

It has been stated that when there are a multiplicity of surgical procedures for a particular deformity, no single procedure has been entirely satisfactory without shortcomings, or objectionable complications.

This is particularly true for the rigid hammertoe deformity. In this deformity, the proximal interphalangeal joint is extremely dorsiflexed in a fixed position, together with the distal interphalangeal joint which may either be flexed or extended. In addition, the head of the proximal phalanx is hypertrophied, roughened, usually irregularly shaped and may present a calcified bursa subjacent to the heloma durum.

My criteria as to diagnosis and rationale of treatment has been determined by a dorsal finger pressure (dorsiflexion) test on the inferior aspect of the corresponding metatarsal head, first with the foot in neutral subtalar joint position and dorsiflexed to a right angle and again with the foot in extreme plantar flexion. The knee is extended in both tests. Complete reduction of the proximal phalanx down to the level of the metatarsal head indicates a flexible deformity and no fixed contracture or bony obstruction may exist. This can then be treated by soft tissue procedures. Partial or minimum reduction in these tests indicates a more rigid deformity and is best treated by osseous procedures as will be described.

Treatment for the rigid hammertoe dates as far as 1882 when excision of the distal extremity of the proximal phalanges was performed[1]. Other surgeons performed decapitation of the proximal phalanx, excision of the base of the middle phalanx; remodeling of the resected ends of bones and interposition of fatty or fibrous tissue; transcervical osteotomy of the first phalanx, straightening of the toe with invagination of the spiked end of the proximal fragment into a hole on the dorsum of the capital piece; shortening of the first phalanx by resecting a section from the midshaft, and arthroplasties of the central three toes.

Intentional arthrodesis was advocated with many modifications which included denuding articular ends of bones and dovetailing them by a spike and hole method; converting the head of the proximal phalanx into a truncated cone and locking into an excavated base of the middle phalanx, and the use of the Kirschner wire for intramedullary fixation.

Resection of the proximal portion of the first phalanx, and of the proximal half of the basal phalanges of the central toes through a transverse plantar incision, as well as combined bone resection and surgical syndactylia of the toes all had their advocates.

More recently, I showed that most of these procedures sometimes created a useless shortened toe and in the second toe particularly, often



Lawrence J Kales, DPM

*The Silver Award*

**The Fourteenth Annual Dr. Maxwell N. Cupshan Memorial Awards**

# Part II
# Correction Of Flexible Toe Deformities. Results In A Fifteen Year Study And Further Applications

MILTON D. ROVEN, D.P.M., Dip. A.B.A.F.S.

In 1968 my paper entitled "Phalangeal set—a semi-closed reduction of malaligned digits" was presented before the 56th meeting of the American Podiatry Association.[1] This paper received a first prize gold medal award, a summary of which appeared subsequently in the Journal of the American Podiatry Association.[2]

Since then it has been accepted in podiatric and orthopedic circles. My textbook[3] devoted an entire chapter entitled, "Malalignment of Lesser Toes" and a section on phalangeal set under "Methods of Treatment." This text credited the preliminary work through a stab incision as performed by E. Probber, H. H. Greenberg, S. Frank, B. Weinstock, and O.T. New. I was able to refine these techniques to its present state.

Further acceptance of this technique was indicated by its inclusion in Dorland's Medical Dictionary,[4] 25th edition which defined phalangeal set as the "surgical procedure for correction of deformities of the lesser toes involving incision to reach the bony joint and manipulation for proper positioning."

As regards its use in orthopedic circles, there is no mention of plantar tenotomies for hammertoes in the original Giannestras text (1967,[5] but in the current 1973 text,[6] he quotes Morley of Melbourne in 1970 who records 200 cases at the Royal Childrens Hospital of "open" plantar tenotomies in which a longitudinal incision is made on the plantar surface. The tendon sheaths are opened and with a small blunt hook, the flexor tendons are pulled out through the incision and tenotomized. This was originally the Price procedure recorded in 1955. Giannestras states that he had similar satisfactory results with this procedure.

The textbook entitled *Outpatient Surgery* by George H. Hill, M.D.[7] reprints the entire chapter on Phalangeal Set from my textbook *Non-Disabling Surgical Rehabilitation of the Forefoot.*[3]

In the Transactions of the Eleventh Annual Meeting of the American Orthopedic Foot Society Inc., as reported in the March 1981 Vol. 1/Number 5 issue of Foot and Ankle which is the official journal of the American Orthopedic Society, two physicians, Dr. William H. Browning and Dr. Bert McKinnon summarize that:

"Eight patients with camptodactyly (16 feet, 40 toes) were treated by a simple tenotomy of the long flexor tendon of each involved toe. Good results were obtained in all cases and parental satisfaction was high. Minimum follow-up was two years. The procedure offers the advantage of being simpler and safer than other procedures, and is therefore recommended in children over the age of two years with significant camptodactyly deformity.

The unique anatomy of the Flexor Digitorum Longus tendon provides a theoretical basis for the cause and treatment of this disorder. The similarity of this deformity to the normal appearance of the toes of the Great



Lawrence J Kales, DPM

# Is Head Resection For Hammertoe Really Necessary? A Critique of the Traditional Procedures and an Alternative Method

**BRONZE AWARD**


## by Milton D. Roven D.P.M., DIP. ABAFS

National Lecturer & Author of Textbook: *Non-Disabling Surgical Rehabilitation of the Forefoot* published by Warren Green Inc., St. Louis.
Recipient of 16 awards on foot care research including 4 gold medal first prize awards for the *Journal of American Podiatry Association, Current Podiatry Journal, Academy of Podiatric Medicine* and *International Academy of Ambulatory Foot Surgery.*
Board Certified. Diplomate American Board of Ambulatory Foot Surgery.
Past President of and Fellow of Academy of Podiatric Medicine. Past President of American Podiatry Council.
Fellow and past Regional Director Academy of Ambulatory Foot Surgery.
Contributing author to textbook *Modern Foot Therapy*, Associate Editor of *Journal of American Association of Hospital Podiatrists* and Contributing Editor to the *Journal of Podiatric Medicine.*



*Reprinted from Current Podiatry, Vol. 29, No. 6, June 1980*


Lawrence J Kales, DPM

# Is Head Resection for Hammertoe Really Necessary? A Critique of the Traditional Procedures and an Alternative Method

MILTON D. ROVEN, D.P.M., DIP. ABAFS*

**BRONZE AWARD**

## Introduction

Until recently, metatarsal head resection was used routinely for the intractable plantar lesion. However, it was found that as a result, new forefoot problems that developed were as disabling as, or more disabling than the original mechanical problem. These included metatarsophalangeal joint contraction; metatarsophalangeal joint subluxation; arthrodesis; pseudoarthrosis and transfer lesions (plantar keratosis beneath adjacent metatarsal heads.)[1] At the present time previous techniques of metatarsal head resection and plantar condylectomy with or without subcapital excision of the articular head are no longer the procedures of choice.[2]

Resection of the metatarsal head has been replaced almost entirely by metatarsal osteotomy[3] and intramedullary metatarsal decompression with condylectomy.[4]

However, the questionable result of head resection in a hammertoe with the frequency of the postoperative sequelae of a shortened, flail, deformed or sometimes dislocated toe which often creates other toe deformities, still appears to be the method of choice. As for back as 1882, Post[5] utilized a technique which is not unlike that commonly used by podiatric and orthopedic surgeons today. This procedure consisted of a head resection of the proximal phalanx. As recently as 1978, a current textbook[6] recommends head resection for hammertoes.

This paper will show the shortcomings of head resection in toes by the postoperative studies both by podiatric and orthopedic surgeons. Another method that appears to be more physiologically correct is offered. This is not as destructive and does not have the morbidity or sequelae.

## Preservation of Articulating Cartilage and Subchondral Bone

In laboratory studies[7,8] it has been shown that even though joints in the foot function under considerable stress and are remarkably wear resistant, the cartilage is very susceptible to repetitive longitudinal loading. Subchondral bone (the bone immediatley beneath the articulating cartilage) in contrast has been shown to function effectively as a shock absorber[9,10]. This acts to protect its overlying cartilage from longitudinal impact loads and acts like a cushion. Should it fail, articular degeneration would follow[11]. So that when the articular cartilage or either some or all of the subchondral bone is excised, *as occurs when resecting a portion or all of a head of a bone*, there is subsequent absorption of the remaining portion of the head or shaft which collapses somewhat and flattens. This flattening then proliferates in a sideways direction so that the joint function is impaired and there is a *greater* amount of shortening of that given structure than initially anticipated or desired[12]. This shortening may be progressive over a period of time and cannot be controlled, (Figs. 2, 3, 4 and 5).

Another complication is an excessive proliferation of bone on the periphery of the cut edges due to periosteal disturbance, or from uneveness of the bone, or both. This results

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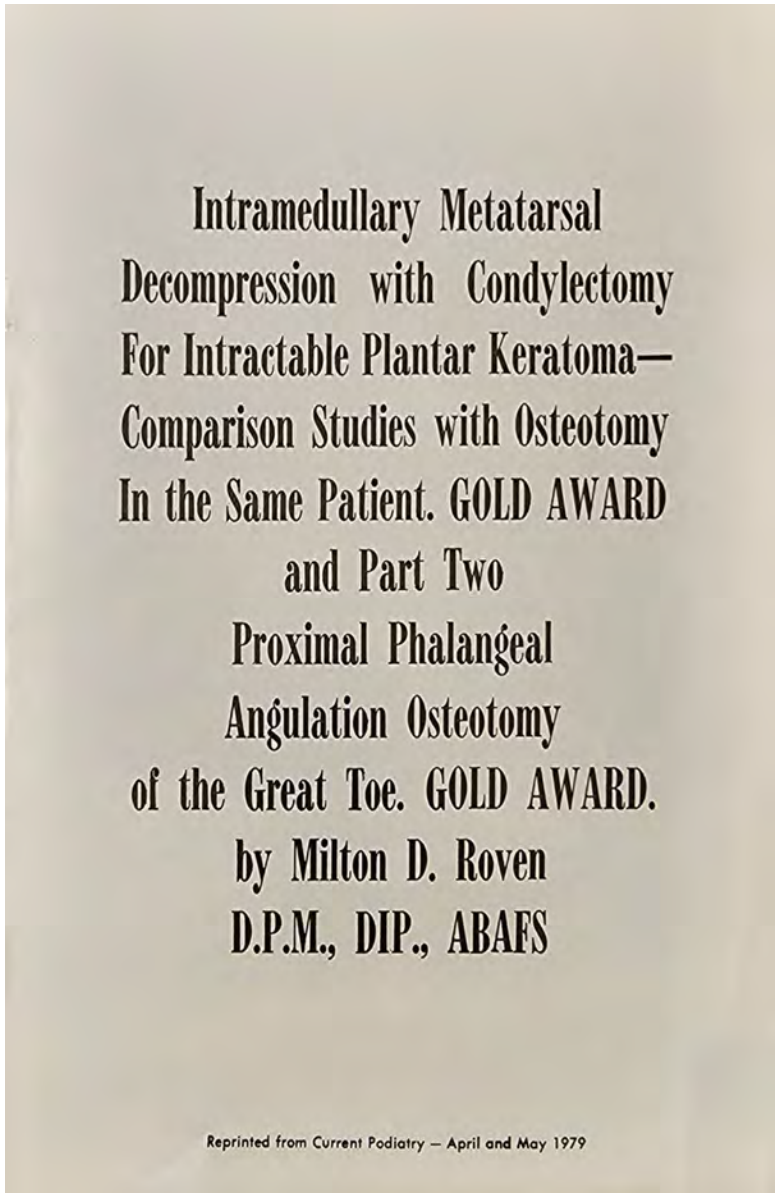

# Intramedullary Metatarsal Decompression with Condylectomy For Intractable Plantar Keratoma— Comparison Studies with Osteotomy In the Same Patient. GOLD AWARD and Part Two Proximal Phalangeal Angulation Osteotomy of the Great Toe. GOLD AWARD.

by Milton D. Roven
D.P.M., DIP., ABAFS

Reprinted from Current Podiatry — April and May 1979

Lawrence J Kales, DPM

# Intramedullary Metatarsal Decompression With Condylectomy For Intractable Plantar Keratoma - Comparison Studies With Osteotomy In The Same Patient. GOLD AWARD

**GOLD AWARD**
**DR. MAXWELL N. CUPSHAN**
**MEMORIAL AWARDS**

MILTON D. ROVEN, D.P.M., DIP., ABAFS

As far back as 1916, Meisenbach[1] performed simple osteotomy to restore the anterior metatarsal arch (in the rigid foot) by "raising the metatarsal head to a higher place." At the present time, osteotomy of the metatarsal either at the distal or proximal aspect for vertical reangulation for correction of intractable plantar keratoma is still in favor. Previous techniques of metatarsal head resection and plantar condylectomy with or without subcapital excision of the articular head are no longer the procedures of choice.[2] New forefoot problems which developed were as disabling as or more disabling than the original mechanical problem. These included metatarsophalangeal joint contraction; metatarsophalangeal joint subluxation; arthrodesis; pseudoarthrosis and transfer lesions (plantar keratosis beneath adjacent metatarsal heads.)[3]

The success of the metatarsal osteotomy was reported in a 10-year study[4] involving the results of 1000 documented cases in which the success rate of this procedure has been consistently 85%. This has been supported by a study involving 8500 cases (Lowe) in different parts of the country. Disadvantages reported were a 15% occurrence of transfer lesions, possibility of a painful dorsal mass, and delayed healing of the bone segments (8 months in one case). Complications were segments of bone become laterally displaced without contact and had to be wired for security, and the possibility of synostosis when two adjacent bones were osteotomized.

Weinstock[3] observed that post surgical problems currently performed involving osteotomies of the metatarsal base, shaft or neck were (1) pseudo-arthrosis (base) (2) rotation of metatarsal head (shaft) (3) nonunion of osteotomy site (4) transfer lesions (adjacent metatarsal plantar keratosis) (5) exuberant bone callus (shaft).

To eliminate these and other postsurgical problems, a multitude of modifications have been documented.[5] Several of these include dorsal metatarsal osteotomy, step down or shortening osteotomy, extension osteoarthrotomy (E.O.A.), crescentic osteotomy, V-osteotomy at the neck of the metatarsal, and open metaphyseal osteotomy. New[6] first described osteoclasis through a 1/8" incision. A surgical bur created a series of channels, weakening the bone so that the bone was fractured manually.

Roven[7] documented consistent results utilizing minimal incision ambulatory surgery by means of a surgical bur driven by power equipment in which the cut of the bone came from the dorsal distal to the plantar proximal at approximately a 25° angle.

In many cases it was my observation that even though the osteotomy was not complete either from a dorsoplantar plane (frontal) and/or on a transverse plane, (sagittal) so as to create a greenstick type of fracture, there was still remission of the lesion as well as the elimination of pain. In addition, I noted there was rarely any lateral displacement and a consistent minimum amount of postoperative discomfort even on immediate weightbearing postoperatively.

This raised doubts in my mind as to the theoretic concept that it was necessary to allow the metatarsal head to "float" dorsally to a level equal to its adjacent members, thereby relieving excessive plantar-grade pressure and shearing force. Radiograph axial view with a positioning device and a marker under the involved head often revealed less plantarflexion of this head. This has been explained[5] theoretically by the fact that since the first and fifth meta-

Lawrence J Kales, DPM

# Double "U" Diaphysectomy And Plastic Bone Surgery For Abnormal Curvature Deviation of Distorted And Dislocated Lesser Toes SILVER AWARD

MILTON D. ROVEN, D.P.M., F.A.P.M.

SILVER AWARD
DR. MAXWELL N. CUPSHAN
MEMORIAL AWARDS

Abnormal curvature deviation, distorted and dislocated lesser toes present a problem for correction. Yet, even though the literature is replete with surgery for hammer toe in a dorsoplantar plane, what has been neglected entirely is surgery for the toe that curves on itself in a medial and/or lateral direction on a transverse plane; or the toe(s) assume the position of the abducted hallux.

This paper will present a method used successfully in a series of cases in which these deviations have been realigned by a double "U" diaphysectomy. Where this is not adequate, plastic bone surgery procedures for distortions and dislocations of the phalanges, due most frequently to chronic neglected fractures or dislocations, will be described, often avoiding partial amputation.

The etiology of the abnormally curvature deviation in a transverse plane may be congenital, traumatic, previous hammer toe surgery, anatomic, positional or as a result of biomechanical factors as in hallux abducto valgus.

Correction by conventional hammer toe surgery as the excision of the proximal phalanx may lead to shortening of the toes which can compound the problem especially in the second toe, as the hallux abducto valgus which is usually coexistant will abduct to a greater angle. Excision of the entire phalanx may lead to a functionless floppy toe.

Jahss[1] has used diaphysectomy in which a section of bone has been excised from the proximal phalanx, as well as flexor and extensor tenotomies plus plantar skin plication for advanced hammering of the small toes where the hammering was associated with rigid contractures of both the metatarsophalangeal and proximal interphalangeal joints of up to 90 degrees. However, this does not correct the abnormal curvature deviation in a medial or lateral direction on a transverse plane.

My method of treatment has been a double "U" diaphysectomy, as for example, the 2nd toe in which a "U" shaped section of bone is cut on the tibial side of both the proximal and medial phalanx, just proximal to the interphalangeal articulations and a greenstick fracture is performed to correct the abnormal curvature (Figs. 1A,B,C,D,E,-F,G and H).

If the proximal interphalangeal articulation has been ankylosed as in previous hammer toe surgery, a wedge can be formed at the articulations (Figs. 2A,B,C and D).

Figure 1A
Abnormal curvature of second toe.

Figure 1B
Two months postoperative correction, 2nd toe. In addition to the double "U" diaphysectomy, a modified Akin has been performed.

Figure 1C
Failsafe hole proximal to the distal interphalangeal articulation.

Figure 1D
Failsafe hole proximal to proximal interphalangeal articulation.

**Reprinted from Current Podiatry, July 1978 Issue.**

Lawrence J Kales, DPM

# Part I
# Angulational, Transpositional, Derotation and Hallux Set (ATDH) Gold Award
# and Part II
# Osteophyte Associated with Dorsal Bunion and Hallux Limitus (Rigidus) Gold Award

**by Milton D. Roven**
**D.P.M., DIP. ABAFS**

National Lecturer & Author of Textbook: *Non-Disabling Surgical Rehabilitation of the Forefoot* published by Warren Green Inc., St. Louis.
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*Reprinted from Current Podiatry, Vol. 32, No. 6, June 1983.*

Lawrence J Kales, DPM

GOLD MEDAL AWARD
13th Annual Dr. Maxwell N. Cupshan
Memorial Awards

# Part I
# Angulational, Transpositional, Derotation and Hallux Set (ATDH) Procedure for Ambulatory Hallux Abducto Valgus Correction

by MILTON D. ROVEN, D.P.M.*

Through the years, the first ray has been resected, wedged, osteotomized, rasped, pinned, wired and implanted more than any other joint in the human body. (In one of my previous papers, I summarized the uncertainty of results in over one hundred different operations and modifications described for bunion surgery.) This multiplicity of procedures suggests that no single method has been entirely satisfactory or without some objectionable feature—hence the need for modification or innovation.(1) One of the reasons for this is that many considered hallux valgus a simple deviation of the great toe on the first metatarsal without an effort to evaluate the pathomechanics of the etiology which is basically a pronatory abnormality producing hypermobility of the first ray resulting in first metatarsophalangeal joint instability and subluxation.(2)

"The degree of hallux abducto valgus and associated deformities is influenced by the severity of abnormal pronatory forces. The following positional and structural biomechanical abnormalities influence moderate-to-severe pronatory forces on the subtalar and midtarsal joints. These include gastrocnemius equinus, gastrocnemius-soleus equinus, forefoot varus and metatarsus adductus. With the exception of metatarsus adductus, these entities produce subtalar joint pronation past the vertical and into a valgus position. The midtarsal joint becomes unstable, which produces end range pronation with normal resupination absent. This is followed by first ray hypermobility and first metatarsophalangeal joint instability with resultant positional deformities. When gastrocnemius equinus and forefoot varus are severe, most attempts at functional neutral control will fail. This is because the individual is not able to tolerate the orthosis and will pronate off of it. In the presence of uncontrollable pronatory forces, surgical intervention must

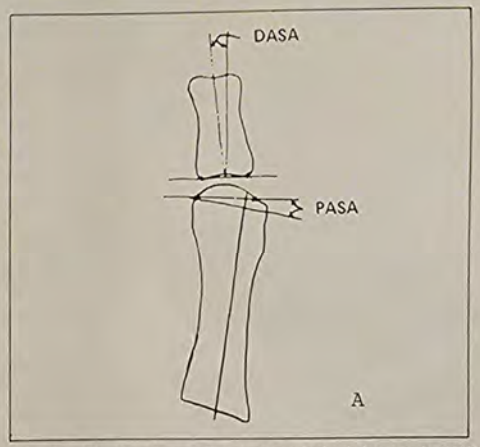


Figure 1A—Shows lines drawn to illustrate the proximal articular set angle (PASA) and the distal articular set angle (DASA).

*Diplomate American Board of Ambulatory Foot Surgery



Lawrence J Kales, DPM

# Part II
# Osteophyte Associated with Dorsal Bunion and Hallux Limitus (Rigidus)

MILTON D. ROVEN, D.P.M.*

In Part I of this paper I outlined the importance of examination and the procedures necessary to correct hallux abducto valgus. It was shown that in most instances reduction of the medial prominence of the first metatarsal head was inadequate and I presented further ambulatory surgical techniques to accomplish an ANGULATION osteotomy for correction of an abnormal proximal articular set angle, TRANSPOSITIONAL, wherein the head was positioned laterally, DEROTATIONAL for correction of valgus of the first metatarsal and HALLUX SET in which the extensor hallucis longus tendon was elongated and a capsulotomy and severing of the conjoined tendon of the adductor hallucis was performed.

It occurred to me that I was so engrossed with the medial prominence and valgus deflection, the dorsal osteophyte was often overlooked. This in some cases continued to create a shoe pressure problem and contributed to limited motion. Figures 1A, B. C and D. It was after I took presurgical lateral radiographs of the first ray in addition to dorso-plantar (anteroposterior), medial oblique and axial views that I was able to visualize the extent of this condition.(1)

By definition,(2) an osteophyte is described as a bony excrescence or outgrowth usually branched in shape. It occurs frequently as a result of an injury as a fall or in stubbing or kicking the toe against a hard surface. A low-cut, tight, short, or pointed shoe producing impingement, intermittent trauma and limitation of function can create this affliction. It appears primarily in hallux rigidus or hallux limitus. There is pain on motion, particularly on tiptoeing with limitation of extension.

Figure 1A.—Lateral preoperative radiograph shows osteophyte and joint mouse.

Early changes in hallux limitus are periarthritis with some restriction of joint motion. The next stage shows degeneration of cartilage with flattening of the metatarsal head and eburnation with osteophyte ridges traversing the head of the bone and extending dorsally. In the severe stage, the joint space is practically obliterated due to the jamming of the base of the phalanx against the degenerated metatarsal head because the normal cartilaginous elements have disappeared.

It should be noted that osteo- and rheumatoid arthritis, infection, acute gout, loose bodies, chondromatosis, giant cell tumors, osteochondromas and osteochondritis may cause limitation of motion in this area. An active tuberculosis of the joint may cause stiffness from spasms and contractures in the surrounding soft tissues. Acute flareup of monoarticular pain may also be due to pseudo-gout such as hyperuricemia caused by thiazide diuretics.(3)

After ruling out any medical complications, reduction of the osteophyte appeared all that was necessary. This is in accordance with Kelikian(4) who states:

> "When a patient complains of pain only upon wearing a shoe because of the pressure of the box of the shoe upon the dorsal osteophyte and superimposed bursa, all that is necessary is to efface the so-called dorsal bunion. Cuneiform osteotomy either of the head of the first metatarsal or of the base of the proximal phalanx, with the base of the resected wedge of bone lying dorsally has been proposed, but these methods must be relegated to the category of meddlesome surgery. Arthrodesis of the first metatarsophalangeal joint is only occasionally indicated. . . ."

*Diplomate American Board Ambulatory Foot surgery.



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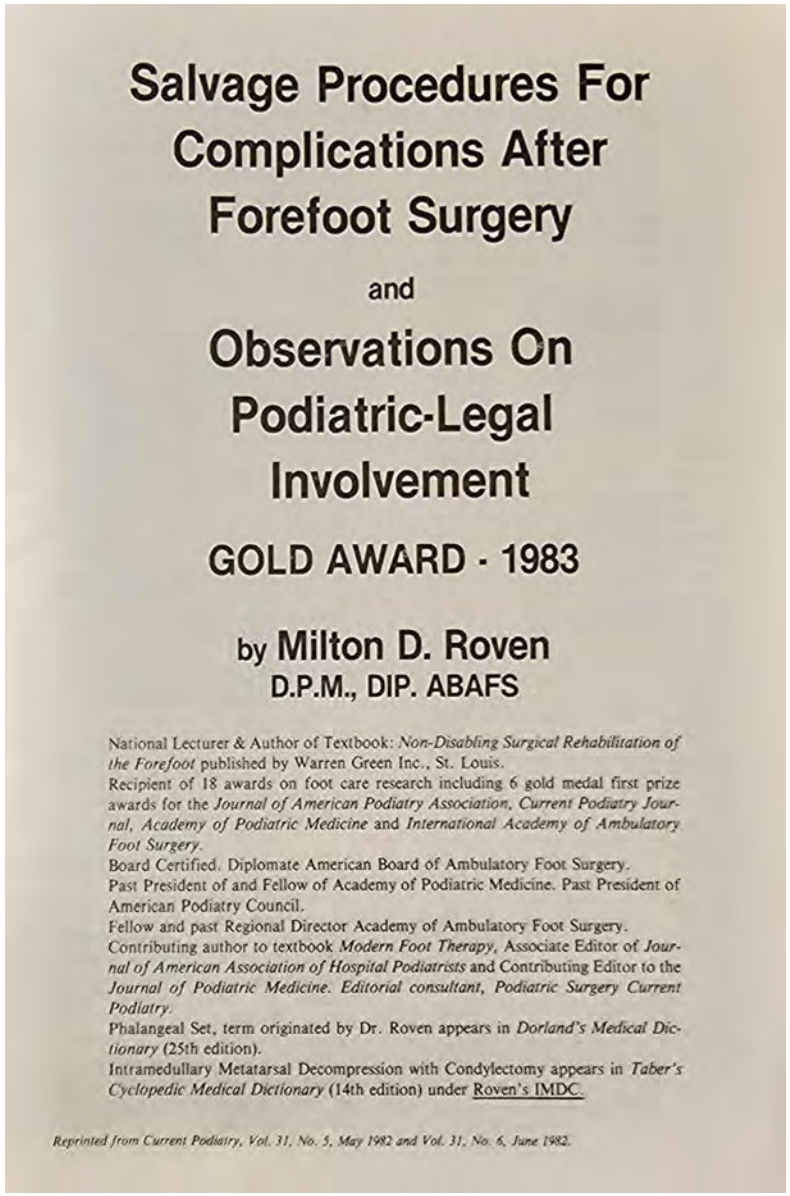

# Salvage Procedures For Complications After Forefoot Surgery

and

# Observations On Podiatric-Legal Involvement

## GOLD AWARD - 1983


by **Milton D. Roven**
**D.P.M., DIP. ABAFS**


National Lecturer & Author of Textbook: *Non-Disabling Surgical Rehabilitation of the Forefoot* published by Warren Green Inc., St. Louis.
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*Reprinted from Current Podiatry, Vol. 31, No. 5, May 1982 and Vol. 31, No. 6, June 1982.*


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# Part I — Salvage Procedures For Complications After Forefoot Surgery

MILTON D. ROVEN, D.P.M., D.ABAFS

**GOLD AWARD 1982**

It has been stated in an orthopedic textbook that "There is no question that even under the most carefully planned and executed conditions, complications and failures will occur. The only orthopedist who has no complications is the one who chooses to ignore them or the one who doesn't perform any surgery."[1]

Similarly, a podiatrist in another textbook has stated, ". . . as with any type of surgery, complications following surgical treatment of digital deformities will occur. When such an unfortunate situation presents itself, it by no means should be considered of minor significance. A great deal of disability and discomfort can develop and while usually not life endangering, a post-operative complication can turn a simple toe surgery into a most unpleasant episode for both the patient and doctor."[2]

With the frequency of foot surgery performed today, more complications will arise from both the "open" type of surgery as well as the minimum incision surgery. As to what method creates more problems another author summarizes, "When criticism is in order, the minimum incision surgeons are always seeing and correcting the apparent worst of the general surgeon's work and the general surgeon is seeing and correcting the apparent worst of the minimum incision surgeon's work. Don't they ever see the vast body of good work they are each doing?"[3]

From the practical standpoint, the most unhappy patient is the one who does not have a satisfactory result after a surgical stay at a hospital. This patient is ceratinly reluctant to go into the hospital again, and if an office procedure, usually of the minimum incision type is presented, he or she is more amenable to further care. This may avoid a medico-legal dispute which is discussed in Part II of this paper.

Presented below are frequent complications encountered and the salvage procedures indicated.

**HALLUX VALGUS**

Many authors of authoritative textbooks have shown the uncertainty of results in hallux valgus surgery. Kelikian states that in no endeavor to solve a surgical problem has human ingenuity devised so many diversified methods as for the surgical treatment of hallux valgus and related forefoot deformities. He further states that there are over a hundred operations on record for the correction of hallux valgus alone. This multiplicity of methods suggests that no single procedure has been entirely satisfactory or without some objectionable feature — hence the need for modification or innovation.[4]

Giannestras states that there are 80 different procedures for the correction of hallux valgus, and not all surgical results end satisfactorily. A poll of the various contributors to his book was caried out and the general concensus was that no one specific procedure is a cure-all for all patients who present themselves with a symptomatic hallux valgus. In addition, no matter which procedure the surgeon may perform, the results will be good-to-excellent in only 85 per cent.[5]

As recent as 1980, the editor of a new journal has stated:

> "In many areas, the literature on the foot is obsolete, misinformative, confusing and often contradictory. As an example, there are over one hundred operations described for bunion surgery. Yet most texts fail to point out those operations which are outmoded and the problems, complications, and long-term results associated with each procedure, as well as the clear-cut indications and contraindications for the more commonly accepted bunion operations."[6]

In my opinion, the important reasons for hallux valgus failure are the poor choice of procedure and/or the lack of understanding on the part of patient as to the possible complications. For example, reduction of the medial prominence alone will not be entirely effective in a metatarsus primus varus foot. However, with any of the osteotomy procedures the surgeon must explain to the patient that shortening of the first metatarsal will occur and biomechanical control or osteotomies of the lesser metatarsals might be necessary to make the parabola more acceptable. This shortening can be minimized by a 90° cut through the neck of the first metatarsal

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# Part II — Observations On Podiatric-Legal Involvement

MILTON D. ROVEN, D.P.M., D.ABAFS

**GOLD AWARD**
**1982**

First and foremost, the reason that so many malpractice suits are presently commenced is unquestionably the doctor's "loose talk." A doctor speaking at a seminar of the American Association of Medical Clinics said, "Careless statements by physicians about their colleagues and their professional skill has been the cause of between 25 percent and 30 percent of malpractice actions."[1]

In a report in the Journal of the American Medical Association, another percentile, 14 percent of the cases reported resulted from criticism by other doctors.[2]

The precipitating cause of a majority of all malpractice actions is found in the unwise comments or criticism of physicians with regard to treatment given to patients by other physicians. Commonly it is criticism by a succeeding physician of the work of his predecessor on the case. Various authorities have estimated that 50 to 80 percent of all the suits for malpractice would be eliminated if such destructive criticism could be stopped.[3]

Dr. Miley B. Wesson has written, "My observation has been that every malpractice suit, without any exception, is instigated either directly or indirectly by a doctor."[4]

To start a malpractice action the attorney for the plaintiff must have a letter or statement from another podiatrist as to possible negligence. To obtain this, it is common practice today for an attorney to go through the yellow pages and ask if the podiatrist will be amenable to such a letter. I have been contacted on this basis several times and have flatly refused.

Unfortunately for a fee, some podiatrists as well as physicians will state what the attorney wants to hear rather than the true condition. These allegations may be stated in podiatric surgery. This writer has reviewed cases with depositions and has appeared as expert for many insurance carriers representing podiatrists.

Here are excerpts from podiatrists to attorneys that precipitated an action in a good number of cases:

(1) "The surgical procedure patient underwent is something new. It consisted of filing of bone with a drill." Ironically enough, by the time the trial came up, the podiatrist admitted he too was using a drill for filing bone - but its litigation had already started.
(2) In reviewing radiographs after bunion surgery, the podiatrist reports to attorney "excessive loss of bone."
(3) Podiatrist in letter to attorney states fusion of distal and middle phalanx as a result of unsuccessful 5th hammertoe surgery. My review of radiographs showed a normal symphalangia bilateral.
(4) Report on non-union of osteotomy site from a radiographic point of view without suggesting fibrous tissue union.
(5) "At the present time it appears that the patient does require corrective surgery to correct what was done originally." (by a fellow podiatrist)
(6) Questioning the integrity of the podiatrist, "There is a possibility of course, that these two tendons were never done in the original procedure even though Mrs. _____ does recall an incision being made in this area."

There have been many "anti-doctor" expressions on radio, television, mass media books and in articles in national lay magazines which have carried stories concerning malpractice articles lighting the fires of the suit minded public and increasing the current rise in malpractice suits.

As recent as December of 1981, a free lecture advertised by a podiatrist states:

FOOT SURGERY
"Surgery of the feet is currently in vogue - is it

Lawrence J Kales, DPM

*The Journal of Current Podiatric Medicine*
presents

# Onychomycosis:
## Observations with Systemic and Local Therapy and Differential Diagnosis

**Recipient (Winner) of the Fifteenth Annual Dr. Maxwell N. Cupshan Memorial Award for 1985**

by Milton D. Roven, D.P.M.
Diplomate, American Board of Ambulatory Foot Surgery,
a section of the American Board of Podiatric Surgery

National lecturer and author of the textbook *Non-Disabling Surgical Rehabilitation of the Forefoot* (Warren Green Inc., St. Louis, MO).

Recipient of twenty-one awards on foot-care research, including eight gold medal first-prize awards for *The Journal of American Podiatry Association, Current Podiatry, Academy of Podiatric Medicine*, and *International Academy of Ambulatory Foot Surgery*.

Past President and Fellow of the Academy of Podiatric Medicine; past President of the American Podiatry Council.

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Book review editor, *The Journal of Current Podiatric Medicine, Hospital Podiatrist*, and *The Journal of Ambulatory Foot Surgery*.

Author of four chapters in the textbook *Symposium on Minimal Incision Surgery* (W. B. Saunders Co., 1985).

Dr. Roven appears in the *Directory of Distinguished Americans, Who's Who in the East*, and *In America* (1984-85).

Lieutenant Podiatrist Specialist, Officer in charge of Foot Clinics, Fleet Marine Force, United States Naval Training and Distribution Center, California, 1942-6.

"Phalangeal Set," a term originated by Dr. Roven, appears in *Dorland's Medical Dictionary* (25th edition).

Intramedullary Metatarsal Decompression with Condylectomy appears in *Taber's Cyclopedic Medical Dictionary* (14th edition) under "Roven's IMDC."

*Outpatient Surgery*, by George J. Hill, II, M.D. (W. B. Saunders Co., 1980), carries a résumé of Dr. Roven's Gold Medal paper entitled "Phalangeal Set — Semi-Closed Reduction of Malaligned Digits" (*The Journal of American Podiatric Medical Association*).

This article has been reprinted from *The Journal of Current Podiatric Medicine*, Vol. 35, No. 5, May 1986.

Lawrence J Kales, DPM

mycosis and psoriasis of the nail, and onychia due to dermatophytes or monilia and yeasts are given. It has been stressed that the value of topical agents is dependent upon the proper identity of the organism involved.

I have discussed the broad-spectrum, topical, antifungal, and antibacterial agent Synergine, which is applied through drill holes in the nail plate or directly over the nail bed after nail avulsion, surgically or after application of urea ointment. Photographs revealing the interval of care for different toes (from three weeks to three and one-half years) show results ranging from that of an almost normal nail (in selected cases) to those with an obvious clinical improvement.

*Fig. 4a. Power equipment utilizing surgical bur to create drill holes.*

*Fig. 4b. Drill holes in nail plate to allow penetration of antifungal agent to nail bed.*

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## Manufacturer's Index

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Lawrence J Kales, DPM

## Standards of Care

**Terminology:** Ambulatory Podiatric Surgery includes Minimal Incision Surgery, Percutaneous Surgery, and other Podiatric Surgical Techniques.

**Preoperative Care**

1 Locale — Predominately practitioner's office and outpatient.
2 Laboratory Tests — Based on the patient's medical history and the doctor's clinical judgement. X-rays are recommended for bone surgery.
3 Scheduling — Surgery can be performed at any time and location on which the doctor and patient mutually agree.
4 Sterile Preparation — Surgical scrub and draping of the surgical field is mandatory.
5 Sedation — Optional, depending upon type of procedure and patient's desires.
6 Anesthesia — Local and other forms of anesthesia may be administered by appropriate personnel.
7 Serial surgery — The staging of medical and/or surgical procedures, commonly referred to as serial surgery, may be indicated in certain conditions. The Academy of Ambulatory Foot Surgery recognizes this as a mode of treatment, when the doctor and patient are in agreement.
8 Multiple surgery — The performance of multiple medical and/or surgical procedures during any single treatment session is deemed by The Academy of Ambulatory Foot Surgery as being proper and justifiable when the patient has multiple complaints. Patient history and examination, coupled with sound clinical judgement, should augment this decision. Of course, both patient and doctor must mutually agree.

**Intraoperative Care**

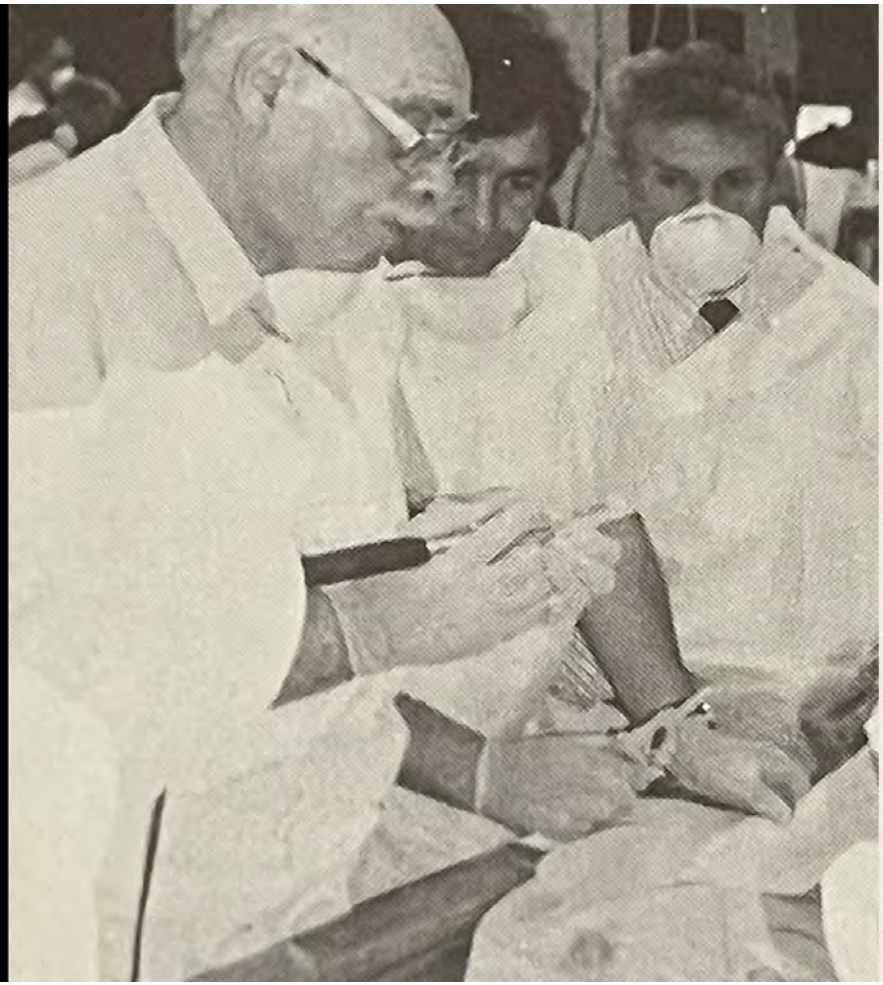
9 Instrumentation — Specialized podiatric surgical instruments, including side cutting bone scalpels (surgical burs) may be utilized.
10 Incision Size — Incision may vary from a puncture to a linear incision.
11 Sutures — Sutures or other specialized skin closures are at the discretion of the surgeon.
12 External Fixation — Bandage, Unna boot, splints, postoperative shoe, or cast may be employed. Internal fixation is not necessarily required.

**Postoperative Care**

13 Oral analgesics are often sufficient. Wet dressings may be utilized at the discretion of the surgeon, depending upon the nature of the procedure.
14 In the presence of a purulent or suspicious exudate, culture and sensitivity testing is indicated. Appropriate antibiotics should be utilized in the treatment of infections. Prophylactic antibiotics may be used at the discretion of the surgeon. Remedial Podiatric surgery may be performed on an ambulatory basis.
15 Medical Records — Entries on patient records may be handwritten or typed and abbreviated depending on the office policy of the podiatrist who creates and utilizes the records. Reports regarding routine surgical procedures are sufficient if the type of procedure is identified and any significant differences are included.

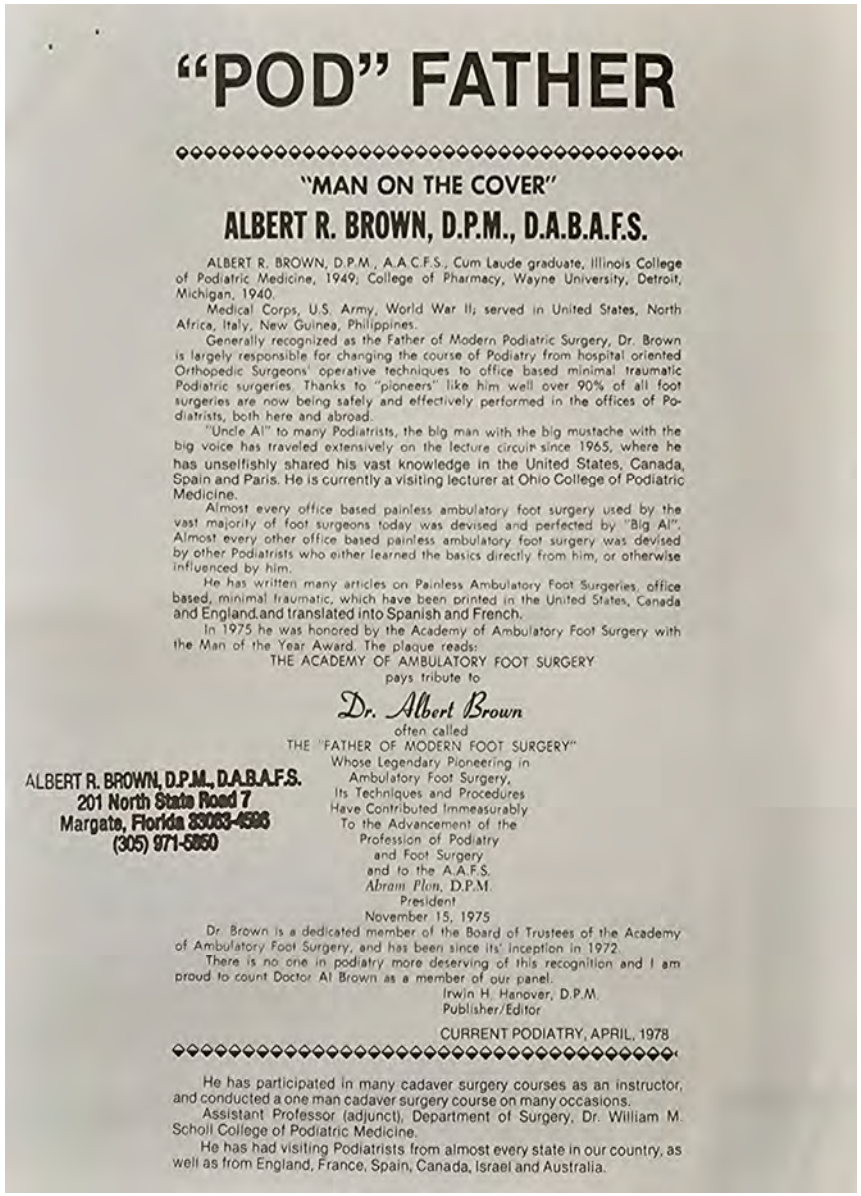
The Academy of Ambulatory Foot Surgery
Suite 263 • P.O. Box 2730
Tuscaloosa, AL 35403

Lawrence J Kales, DPM



LAWRENCE J KALES, DPM

# Al Brown, DPM
## Hands of steel



# "POD" FATHER

## "MAN ON THE COVER"

## ALBERT R. BROWN, D.P.M., D.A.B.A.F.S.

ALBERT R. BROWN, D.P.M., A.A.C.F.S., Cum Laude graduate, Illinois College of Podiatric Medicine, 1949; College of Pharmacy, Wayne University, Detroit, Michigan, 1940.

Medical Corps, U.S. Army, World War II; served in United States, North Africa, Italy, New Guinea, Philippines.

Generally recognized as the Father of Modern Podiatric Surgery, Dr. Brown is largely responsible for changing the course of Podiatry from hospital oriented Orthopedic Surgeons' operative techniques to office based minimal traumatic Podiatric surgeries. Thanks to "pioneers" like him well over 90% of all foot surgeries are now being safely and effectively performed in the offices of Podiatrists, both here and abroad.

"Uncle Al" to many Podiatrists, the big man with the big mustache with the big voice has traveled extensively on the lecture circuit since 1965, where he has unselfishly shared his vast knowledge in the United States, Canada, Spain and Paris. He is currently a visiting lecturer at Ohio College of Podiatric Medicine.

Almost every office based painless ambulatory foot surgery used by the vast majority of foot surgeons today was devised and perfected by "Big Al". Almost every other office based painless ambulatory foot surgery was devised by other Podiatrists who either learned the basics directly from him, or otherwise influenced by him.

He has written many articles on Painless Ambulatory Foot Surgeries, office based, minimal traumatic, which have been printed in the United States, Canada and England and translated into Spanish and French.

In 1975 he was honored by the Academy of Ambulatory Foot Surgery with the Man of the Year Award. The plaque reads:

THE ACADEMY OF AMBULATORY FOOT SURGERY
pays tribute to

*Dr. Albert Brown*

often called
THE "FATHER OF MODERN FOOT SURGERY"
Whose Legendary Pioneering in
Ambulatory Foot Surgery,
Its Techniques and Procedures
Have Contributed Immeasurably
To the Advancement of the
Profession of Podiatry
and Foot Surgery
and to the A.A.F.S.
*Abram Plon*, D.P.M.
President
November 15, 1975

ALBERT R. BROWN, D.P.M., D.A.B.A.F.S.
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(305) 971-5850

Dr. Brown is a dedicated member of the Board of Trustees of the Academy of Ambulatory Foot Surgery, and has been since its' inception in 1972.

There is no one in podiatry more deserving of this recognition and I am proud to count Doctor Al Brown as a member of our panel.

Irwin H. Hanover, D.P.M.
Publisher/Editor

CURRENT PODIATRY, APRIL, 1978

He has participated in many cadaver surgery courses as an instructor, and conducted a one man cadaver surgery course on many occasions.

Assistant Professor (adjunct), Department of Surgery, Dr. William M. Scholl College of Podiatric Medicine.

He has had visiting Podiatrists from almost every state in our country, as well as from England, France, Spain, Canada, Israel and Australia.

Lawrence J Kales, DPM

HELOMA DURUM, 5TH TOE

# REDUCTION of Osteophytic Hypertrophy of the Fifth Phalanges

By A. R. Brown

The following is a simplified procedure of treatment of one of the most prevalent podiatric conditions, the heloma durum, of the fifth digit. It is a modification of the original work of Morton Polokoff, D.S.C., and a simplification of the method described by Henri DuVries, M.D., D.S.C. Our personal experience consists of well over 10,000 of these surgeries.

This method of treatment is based on the obvious fact that the heloma durum is caused by the boney prominence immediately under the excrescence; therefore, in our experience, elimination of only that small portion of bone is necessary. This procedure is performed with a #67 BeaverMini Blade and a sharp Bell rasp, #12.

Preoperative 12/7/65

The anesthetic of choice is 1% plain xylocaine [2] premixed with decadron[3] or hexadrol[4]. We inject 5.0 cc. of the steroid into 50.0 cc. of xylocaine. This combination of xylocaine and steroid eliminates practically all postoperative pain.

**Procedure:**

Approximately 0.5 cc. of anesthesia is infiltrated under and beyond the periphery of the heloma durum. It is not necessary to "ring" the base of the toe.

A 1/8th" longitudinal incision is made with the chisel approximately 3/4" distal to the lesion on the dorso medial aspect of the digit. The cutaneous incision is deepened by forcing the chisel under the extensor tendon and going directly down to the bone. The instrument is then pushed along the surface of the bone slightly beyond the periphery of the cutaneous lesion, so as to detach all the soft tissue from the bone surface. This facilitates the use of the Bell rasp on the boney prominence of the head of the phalanx and the tearing of the tendon and collateral ligaments.

The osseous prominence is quickly and easily reduced with the rasp. Care should be exercised so that no rough edges are left. The "bone dust" is squeezed out through the

☆ ELIMINATES DEFINITIVELY

Postoperative 12/24/65

cutaneous opening along with the blood. The rasp is then reversed, and the undersurface of the skin is also lightly rasped. The opening is then flushed with the remainder of the anesthetic of the 2.0 cc. syringe. Suturing is optional; but if desired, one interrupted skin suture will close this 1/8th" incision. 3M Surgical Strips can also be used; we rarely find it necessary to suture.

A sterile 2 x 2 gauze dressing is applied, and the digit is wrapped firmly with 1½" Fabcos. The patient is cautioned that there will be some postoperative bleeding through the bandage. This is desirable as it reduces

1
2. Product of Astra Pharmaceutical Company.
3. Product of Merck, Sharpe and Dohme.
4. Product of Organon, Inc.
5. Fabco Self Adherent Bandage (First Aid Bandage Co.)



Lawrence J Kales, DPM

the possibility of postoperative infection. The patient can put on his shoe and return immediately to normal activities because the postoperative discomfort is minimal.

Immediate postoperative x-rays, while the digit is still anesthetised, are advisable to make certain that sufficient osseous tissue has been removed. However, with a little experience one learns to "feel" the elimination of the excess bone.

This digit is redressed in 4 days. Several redressings are sometimes necessary, and some patients also require occasional first aid reduction of the heloma durum for a short period of time before it disappears.

**Conclusion:**

The advantages of this procedure to the patient are as follows: there is minimal postoperative discomfort: rarely is it necessary to use any analgesics: the patient is immedaitely ambulatory and can return to work the same day: no hospitalization is required, and the healing time is very short.

With this technique great surgical experience is not necessary. A measure of skill is still required because we are working "blind." The postoperative problems are usually minimal. In our experience very few cases have to be redone to produce a resolution of the cutaneous lesion. However, this technique does have limitations. Its simplicity does not preclude the necessity of accepted surgical precautions. The usual preoperative surgical requirements, such as x-ray studies, blood workup, temperature, blood pressure, arterial circulation, surgical skin preparation, and sterile attire and instruments, should be adherred to. It is not necessary to correct the flexion-contraction of the toe.

Postoperative 12/24/65

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Diplomate, American Board of Ambulatory Foot Surgery
Associate, American College of Foot Surgeons



Lawrence J Kales, DPM

## Painless Ambulatory Foot Surgery — Calcified Digital Bursa

ALBERT R. BROWN, D.P.M.
S. I. FAERBER, D.P.M.

This case history demonstrates that a calcified digital bursa may be removed with minimal trauma. It also demonstrates the absolute need for careful x-ray studies and proper pre-op blood work.

Mrs. DiF., age 64, referred to us by her family physician with an exquisitely painful, edematous and erythematous 5th toe, left foot, duration of 24 hours and resembling a text book case of gout. No history of trauma.

Our routine pre-op bloodwork for osseous surgery showed everything within normal limits (Glucose, CBC, RA, Uric Acid, PTT, Urinalysis, Sed Rate VDRL, BUN). X-rays revealed a well developed circumscribed calcified bursa, 0.5 X 0.3 cm, at the lateral aspect, 5th toe, left foot, medial phalanx; a hyperostosis was also present on the lateral aspect of the head of the proximal phalanx (Fig. 1).

Under proper surgical antisepsis (or aspesis if you prefer) we used local infiltration of 0.5 ml of lidocaine, 1% plain (premixed with steroid). An incision was made with a Beaver No. 67 miniblade at the dorsomedial surface of the distal phalanx. After careful underscoring with the same blade the calcified bursa and the hyperostosis were eliminated using the small end of a sharp No. 12 Bell rasp. By reversing the rasp the



undersurface of the soft tissue was gently scraped to assure that no calcified tissue remained; this also facilitated removal of the bone paste. No sutures were required. A simple dressing of one sterile 2 x 2 gauze pad and Fabco. No post-op analgesics or narcotics were necessary. Ambulation was immediate and the patient walked out of our office in her regular shoe.

Post-op x-ray (Fig. 2) revealed complete absence of the calcified bursa and the hyperostosis.

In three days the incision was closed and all erythema, edema and pain gone.

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CURRENT PODIATRY, March, 1978

Lawrence J Kales, DPM

## Painless Ambulatory Foot Surgery
## Tailor Bunionectomy

A. R. Brown, D.P.M. AACFS
D.A.B.A.F.S.

A HIGHLY effective method for the reduction of a Tailor Bunion (enlargement on the fibular aspect of the fifth metatarsal head) can be performed with 2 instruments; a Miltex #67 spade 1 pattern curved edge chisel and any rasp of your choice; I prefer the small end of a #12 Bell rasp. It is important to use a sharp instrument. The rasp must have deep coarse grooves to work efficiently. This basic procedure is based on the original work of Morton Polokoff, D.P.M., over 30 years ago.

After the skin has been surgically prepared and draped in the usual manner the surgery area is infiltrated with 3-4cc of premixed Xylocaine 1% *without epinephrine* and Hexedrol (1 part steroid to 10 parts of Xylocaine). This steroid eliminates almost all postoperative pain.

A ¼ inch stab incision is made distal to the 5th MP joint, on the lateral side of the foot. Using the Miltex #67 spade the instrument is inserted through the capsule and "slid" around between the boney prominences and capsule to loosen the capsule. The chisel is replaced with the rasp and the boney enlargement is easily reduced by a "filing" away the prominence. Palpation through the skin can easily determine if

the area was reduced sufficiently. All "bone paste" is squeezed out and the area flushed with the Xylocaine-steroid combination.

Suturing is not necessary; several sterile 2x2 gauze square pads and bandages is all that is required. The patient is immediately ambulatory and can return to work the same day, in their regular shoe.

1. Any Podiatry Supply House
2. Astra Pharmaceutical Co.
3. Organon Co.

ALBERT R. BROWN, D.P.M., D.A.B.A.F.S.
201 N. State Road Seven
Margate, Florida 33063



Lawrence J Kales, DPM

# BUNIONECTOMY

## "PAINLESS AMBULATORY FOOT SURGERY"

ALBERT R. BROWN, D.P.M., A.A.C.F.S., D.A.B.A.F.C.

A highly effective method of reducing a simple bunion can be done with 2 instruments, a spade pattern soft corn chisels* and a Miltex #21-338 Cottle. This technique is based on the proven works of Morton Polokoff, D.P.M. who first described bone rasping to eliminate heloma dura. After the skin has been surgically prepared and draped the bunion area is infiltrated with 3-4 cc of premixed 1% Xylocaine (without epinephrine) and Hexadrol (1 part of steroid to 10 parts of Xylocaine); the addition of the steroid eliminates virtually all of the post operative pain.

OR MAYO BLOCK

A ¼" stab incision is made with the soft corn chisel just distal to the first MP joint, on the medial side of the foot. The instrument is forced through the capsule and "slid" around under the capsule to loosen it from the bunion. The chisel is replaced with the rasp and the bunion easily and quickly reduced by "filing" the bony prominence. The extent of reduction can be easily ascertained by palpation through the skin; the rasp is occasionally removed and the "bone dust" squeezed out through the incision. The area is flushed with more of the Xylocaine-Hexadrol solution.

Suturing is not necessary; a simple bandage of several 2 x 2 gauze squars and gauze bandage is all that is required. The patient is immediately ambulatory and can return to work the same day, in their usual shoe.

The only disadvantage is working "blind", but with a little experience this can easily be overcom

*Podiatry Supply Houses. Photo #1
1. Product of Astra Pharmaceutical Co.
2. Product of Organon Co.


ALBERT R. BROWN, DPM, DABAFC
201 N. State Road Seven
Margate, Florida 33063

Lawrence J Kales, DPM

# Painless Ambulatory Foof Surgery — Plantar Metatarsal Head Reduction

ALBERT R. BROWN, DPM, AACFS P.A.

Reduction ot the sharp osseous plantar metatarsal head projection is a highly effective surgical approach for the elimination of nucleated tyloma. While the metatarsal neck osteotomy (osteoclasis) has proven itself as procedure for elimination of the lesion, this otherwise fine surgery has healing time of about 6 weeks plus a 20% failure rate. The surgery of my choice, described below, is far less traumatic, heals in about one week and has a higher incidence of success.

After the area has been prepared with proper surgical antisepsis (or asepsis if you prefer) the involved metatarsal head is anesthetised with a Mayo block technique using 1% lidocaine (plain) premixed with steroid of your choice; I prefer Hydrocortisone Acetate, 250 mg. injected into 50 cc vial of lidocaine, 1% plain.

A longitudinal plantar incision, approximately 1/8th inch long and distal to the involved metatarsal head, is made through the skin with a Beaver #67 miniblade; the incision is medial or lateral for the convenience of the surgeon (Fig. 1). With the blade inside the foot a sweeping motion is used to detach the plantar of the meta head capsule from the skin below it. The side of the capsule is incised longitudinally about 1/3rd up from the plantar tip (Fig. 2). The miniblade is replaced with the small end of a sharp #12 Bell rasp (Figs. 3 & 4). Once the rasp is properly placed inside the capsule

Fig. 1

Fig. 4

the plantar aspect of the meta head is easily reduced until the undersurface is flat and smooth. The surgerised area is flushed with the same suspension used to anesthetise the bone. A single interrupted suture is recom-

REPRINTED FROM CURRENT PODIATRY OCT. 1977

Lawrence J Kales, DPM

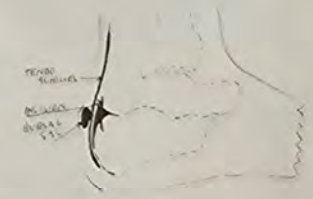
# Painless Ambulatory Foot Surgery — Haglund's Disease

ALBERT R. BROWN, D.P.M., AACFS
D.A.B.A.F.S.

## HAGLUND'S DISEASE
### Dorso Posterior Calcaneal Hypertrophy

HAGLUND'S DISEASE is usually found on the lateral aspect of the calcaneus, therefore the incision is made on the lateral border of the insertion of the Tendo Achilles.

The patient is placed on the operating table face down. The area is surgically prepared and draped in the usual manner and anesthetized by local infiltration using about 5 cc. of the combined Lidocaine steroid combination (50 cc Lidocaine 1% plain, mixed with 250 mg of Hydrocortisone Acetate) with a 25x1½" needle. A longitudinal incision, about 1 cm long is made through the skin; ⅛ of the incision is above the hyperostosis and the other half is made below this boney overgrowth. The incision is underscored to facilitate puckering of the skin edges when suturing. A curved hemostat is inserted through the incision and forced into the soft tissue; when the jaws of the instrument are opened the soft tissue is spread apart. This is repeated several times to expose the hyperostosis. The Al Brown modified Cottle rasp (Miltex #21-338 with 1/3rd of the Proximal teeth ground off) is inserted and placed on the dorso posterior aspect of the calcaneus at



about a 45 degree angle (figure 1). The boney enlargement is easily reduced. It is not necessary to remove much of the bone since only the sharp corner is the offending portion. If the enlargement is also on the tibial aspect of the dorso-posterior of the calcaneous, it can also be reduced thru the original incision.

If there is also a bursal sac (between the Tendo Achilles and the skin) separate the skin from the bursal sac with the back of the Bard Parker handle using blunt dissection; the Al Brown modified cottle rasp is inserted and the bursal sac destroyed using a rasping motion.

All surgerized areas are flushed with the Xylocaine-steroid combination; this eliminates the usual post op pain. The skin is closed with I interrupted horizontal mattress 000 silk. The incision is covered with several sterile 2 x 2's and 3" Fabco. The patient is immediately ambulatory and can return to his usual activities.

ALBERT R. BROWN, DPM, DABAFS
201 N. State Road Seven
Margate, Florida 33063

OVER

*January, 1975* CURRENT PODIATRY

Lawrence J Kales, DPM

# A SIMPLIFIED APPROACH TO THE REDUCTION OF THE CALCANEAL SPUR

**Albert R. Brown**

The following is a description of a simplified method of removing plantar calcaneal spurs. I have used it successfully on over 600 separate cases. It is almost completely painless, and patients may ambulate the same day. I have not found it necessary to use wooden shoes, plaster casts, or any foot appliances postoperatively.

### Anesthesia

The area of the spur is infiltrated with approximately 5.0 ml. of 2% plain Xylocaine. Prior to the administration of the anesthetic, the Xylocaine is mixed with Decadron so that a 10% concentration of Decadron is created. In my experience the addition of Decadron to the local anesthetic has almost entirely eliminated postoperative pain.

### Technique

An incision approximately ½ inch in length is made on the medial side of the calcaneous at the level of the bony prominence, and is then underscored. The scapel handle is then reversed and by blunt dissection is pushed directly to the calcaneous. A narrow periosteal elevator is then used to free the plantar fascia from its attachment to the spur.

A #6 Buck bone curette is then hooked over the end of the spur and, by a series of short scooping movements, the spur is reduced. The skin edges are usually closed with two interrupted 000 silk mattress sutures. The incision is then dressed with Adaptic or Telfa, 4- x 4- gauze squares and roller bandage. Sutures are removed in 10 to 14 days.

### Summary

The only disadvantage with this procedure is that the actual work is performed by the sensation of touch only. However, developing the ability to do the procedures well is easily acquired with a small amount of practice. It is of special interest that the postoperative x-rays of some of my original attempts at this procedure show little or no change in the osseous contour, yet the patients are still painfree as long as 3½ years later. This leads me to believe that it is not really always necessary to completely excise these spurs. It would appear that severing the attachment of the plantar fascia to the spur often may be adequate.

Figure 1

Figure 2

ORIGINALLY PRINTED IN THE MICHIGAN PODIDTRIST,August,1965
REPRINTED, THE JOURNAL OF FOOT SURGERY ( A.C.F.S. )
VOL 7 NUMBER 2 SPRING ISSUE 1968

ALBERT R. BROWN,D.P.M.,D.A.B.A.F.S.
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201 N. STATE ROAD SEVEN
MARGATE,FLORIDA 33063



OVER

Lawrence J Kales, DPM

OCT. 2, 1977

# THE HEEL

Albert R. Brown, D.P.M., D.A.B.A.F.S.

It is assumed that an appropriate history has been taken, including x-ray studies and blood work up; special emphasis should be placed on the Uric Acid Test. If the results show an elevated or EVEN a high normal, then medical management must be undertaken to reduce the Uric Acid prior to heel surgery. Failure to do so can result in an acute gout flair up. NOTE: Frequently, the medical care will eliminate the pain and surgery will not be necessary.

If surgery is indicated with the presence of a heel spur (anteroplantar hyperostosis) then, employ the following:

1. Al Brown Test #2 (as described below).
2. Neuroma Test (for sub calcaneal neuroma). - Murray Davidson, D.P.M., Phoenix, Arizona, as first described at national meeting, Academy of Ambulatory Foot Surgery, about 1973, (as described below).
3. Excision of Heel Spur (as described in attached article).
4. Calcaneal Decompression (Lowell Weil, D.P.M., Des Plains, Ill., who introduced this to our profession at a national meeting, Academy of Ambulatory Foot Surgery, about 1973 or 1974). Described below.

Al Brown Test #2

This is a test for tension of the plantar fascia at it's attachment to the calcaneous. The leg is held in a straight line and the foot and toes forcefully dorsiflexed. The plantar of the calcaneous is palpated and the most painfull spot marked on the skin with a ball point pen. The leg is relaxed, the foot plantar flexed and the toes forcefully plantar flexed for about 90 seconds. The previously marked area is again palpated. If the pain is absent or markedly reduced, then I perform Extensor Tenotomies on the lessor tendons and a lengthening of the Extensor Hallucis Longus. This has proven about 80% effective in relieving heel pain. This has even eliminated pain in the medial and lateral aspects of the calcaneous.

These tendon surgeries can be accompanied with a plantar fasciotomy, with the incision on the tibial side of the foot. A scissors is recommended, scalpels can be broken off in the foot. NOTE: The tenotomies have even eliminated severe pain in the ankle area.

Neuroma: (Subcalcaneal)

A neuroma is diagnosed by palpation and pinching, and easily excised. Tibial incision recommended. A.P.A. Journal, August, 1977, Vol. 67, Number 8, page 589.

(OVER)

Lawrence J Kales, DPM

Excision of Heel Spur:

See attached article.

Calcaneal Decompression:

A series of 7 holes are drilled through wall of the calcaneous, starting about the width of the thumb below the malleolus, vertical, and in a zig-zag manner. Useful in intractable heel pain without a heel spur. The holes can be drilled on the medial or lateral side. However, if a heel spur is present then the tibial side is recommended.

Haglund's Deformity:

See attached article.

Calcaneal Spur, Posterior (at site of attachment of Tendo Achilles to Posterior o Calcaneous):

Essentiall the same as correction of Haglund's Deformity, but lower.

Al Brown Test #3

SCIATIC PAIN; inject 3 cc of " caine " ( Marcaine,Lidocaine,Carbocaine,etc.). between the 3rd and 4th metatarsal shafts,using a needle 1½" long, so the " caine " is infiltrated from dorsum to plantar. In about 10 minutes sciatic pain ( and frequently low back pain ) is relieved or eliminated. I repeat this in one week; once it is established that the sciatic and/or low back pain is diminished, then I recommend a surgery for NEUROMA in that area.

Al Brown Test #4

HEEL PAIN; a similar injection but this time between the 4th and 5th metatarsal shafts, followed by NEUROMA surgery in that area.

Al Brown Test # 1

The purpose of this test is to see how the digits will line up after extensor tenotomies &/or MP joint capsulotomies.
Direct thumb pressure just proximal to the metaheads; this will force the toes plantarly, and help prejudge the position of the toes post soft tissue surgery.

Lawrence J Kales, DPM

# K.I.S.S. Keep it Simple, Stupid

*Albert R. Brown, D.P.M., D.A.B.A.F.S., A.A.C.F.S.

I.K., Female Patient, 65 years old, first came to office on June 7, 1982 with complaint of "Callouses".

*HISTORY:* Foot Surgery, April, 1968, Deaconess Hospital, Milwaukee, Wisconsin.

*PATIENT STATES DIAGNOSIS OF:* Bunions and Several Hammer Toes

The photos and post-op x-rays speak for themselves.

To the surgeon (non Podiatrist) who performed the surgery: *WOULD YOU REALLY PERFORM THE SAME SURGERY IF THE PATIENT WAS YOUR WIFE, MOTHER OR DAUGHTER????????*

201 N. State Road Seven
Margate, FL 33063

*Assistant Professor, Surgery,
Dr. William C. Scholl College of Podiatric Medicine
Editorial Consultant, Current Podiatry



Lawrence J Kales, DPM

# Clinically Speaking . . . . Al Brown's Four Tests

ALBERT R. BROWN, D.P.M., P.A.

AL BROWN
**Test Number I**

The purpose of this test is to try to pre-determine the position of the digits after extensor tenotomies & metatarsal phalangeal joint capsulotomies.

The test consists of thumb pressure on the plantar of the foot, just proximal to the metatarsal heads, which will force the digits into plantar flexion (fig. 1) Because the second and fourth digits are already plantar flexed, surgery to these areas should be avoided, because tenotomies and capsulotomies would probably create new problems with these toes badly plantar flexed. Surgery at the other metatarsal phalangeal joints should bring these toes into proper alignment with the second and fourth digits.

Also, toes that are badly contracted will curl under after tenotomy and capsulotomy and create "walking on the toenails." Patients should be warned (and put in writing on authority to operate form) "that it may also be necessary to do digital surgery to straighten the toes."


Figure 1

AL BROWN
**Test Number II**

This is a test for tension of the plantar fascia at its attachment to the calcaneus. The leg is held in a straight line and the foot and toes forcefully dorsiflexed. The plantar of the calcaneus is palpated and the most painful spot marked on the skin with a skin marker. The leg is relaxed, the foot plantar flexed and the toes forcefully plantar flexed for about 20 seconds. The previously marked area is again palpated. If the pain is absent or markedly reduced, then I perform Extensor Tenotomies on the lessor tendons and a lengthening of the Extensor Hallucis Longus. This has proven about 80% effective in relieving heel pain. This has even eliminated pain in the medial and lateral aspects of the calcaneus. (see figs. 2a & 2b).


Figure 2A

AL BROWN
**Test Number III**

This is a test to see if pain in the lower back and/or sciatica can be relieved. Inject 3 cc of local anesthesia (Marcaine, Lidocaine, Carbocaine, etc.), between the 3rd and 4th metatarsal shafts, using a needle 1½" long, so the anesthetic is infiltrated from the dorsum to plantar. In about 10 minutes, the sciatic pain (and frequently low back pain) should be relieved or eliminated. I repeat this in one week; once it is established that the sciatic and/or low back pain is diminished, then I recommend a surgery for neuroma in the third interspace. (see fig. 3).


Figure 2B


Figure 3

June 1985
*Current Podiatric Medicine*



Lawrence J Kales, DPM

AL BROWN

**Test Number IV**

Heel Pain: a similar injection but this time between the 4th and 5th metatarsal shafts, followed by neuroma surgery in that area. Surgery in this area has eliminated some heel spur surgeries.


Figure 4

Diplomate American Board of Ambulatory Foot Surgeons, Associate American College of Foot Surgeons.

Mailing Address:
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Margate, Florida 33063



Lawrence J Kales, DPM

LAWRENCE J KALES, DPM

## Leonard Britton, DPM
Inventor of the Fail Safe Hole

# A NEW SIMPLE TECHNIQUE OF-EXTERNAL BONE COMPRESSION FIXATION
## "GALLUZZO PIN" (G-PIN)

DR. M.A. GALLUZZO, B.S., D.P.M.

The use of bone compression has long been advocated in the management of osteotomy procedures. Unfortunately, most have also been highly technical and somewhat traumatic as well.

The modern podiatrist h as at his access a wide variety of bone fixation devices: Kirshner Wires, Monofilament wire, Steiman pins, staples, AO compression plates, Churnley clamps, and Osteoclasps, etc.

Moderate amounts of bone compression promote osteogenesis, and may be likened to artificially produced stress passing through a fracture site.

I would like to briefly review some of the elements involved in osteodynamics. There are three related cell types: osteoblast, osteoclast, and osteocyte. These are structurally related for the preservation of osseous integrity. The osteoblast produces and deposits collagenous bone matrix and ground substance, similar to connective tissue fibroblasts. The osteoclast is responsible for osseous resorption. The resorption of matrix and calcium salts is the only mechanism whereby skeletal tissue may be deossified and decalcified.(6)

The osteocyte is capable of becoming an osteoblast or osteoclast depending on functional demand, and therefore, can become a bone producer or bone destroyer. We must keep in mind that bone is an extremely dynamic tissue in a continual state of flux. New bone is constantly being produced while old bone is being resorbed in healing.

**Bone healing may be divided into three phases:**

1. The Inflammatory Phase
The body lays down a "soft callus"- something harder than a blood clot.
2. The Repair Phase
With motion through the fractured bone ends, "bone callus" forms around the osteotomy site.
3. Osseous Remodelingbegins about six weeks on and lasts several months. The osteotomy continues to remodel and should end in complete healing. Motion in a foot may be allowed before the third phase.

If you compress a fracture perfectly, you will not have any callus formation, no absorption of bone and you will have healing without any of the visual radiographic signs. Compression without tension produces healing. (4)

The development of stable osteogenesis procedures were studied by several people. Lorenz Bohler observed that 140,000 bone fractures healing of bones is prevented if the bones have no contact. He saw the creation of compression in the region of the fracture.(1) Lambotte (1913), Davis (1949), Charnley (1952), Krompecker (1956) advocated "Pressure Osteosynthesis." Davis worked on internal fixation and compression to promote primary bone healing, which requires stable rigid fixation of the bone ends and an intact vascular supply. Davis was instrumental in the development of stable steel plates with a screw compression system. (2) With the efforts of the Schweizer Arbeitsgemeinschaft for Osteosynthesis" (Swiss study group for osteosynthesis). The methodology of the compression plate osteosynthesis system competes successfully with all other fixation systems.

The advantages of compression fixation lies in good fragment positioning, earlier mobilization and therefore, less atrophy of bones and muscles, and less joint contractures. By compression of the bone ends, a better mechanical stability can be achieved than by other means of bone fixation. Further improvements have come along with the use of self-compressing plates in which the compression of the bone end is being produced by the force of the screw into special tapered compression holes built into the plate.

It is well-known that the application of stress loading often produces a marked increase in the rate of healing. The use of screws, plates, and Kirshner Wires can have the opposite effect. These devices can maintain bone ends in very good approximation at the time of application, but subsequent resorption of bone and neurosis of cells at the interface may produce a gap that is rigidly maintained by the fixation device.(5)

With 100% rigid compression, osteosynthesis techniques such as in the AO system, there is no bone callus formed due to lack of movement of the bone ends which are recanalized by new haversian systems. The very nature of 100% rigid fixation deprives the bone of normal stresses and movement that form bone callus to maintain immobilization which can lead to some degree of bone atrophy.(3) There is also the possibility that a gap may be produced if the screws do not properly close. The osteotomy site or bone resorption may produce a gap. The screws may indeed be rigidly holding the osteotomy site open. This will result in neither bone callus or healing, and of course, could result in non-union because lack of motion will not produce any bone callus to bridge the gap.

In the last three years, we have studied approximately 50 patients using external compression fixation for osteotomies, especially in the Akin Bunionectomy procedure. The results have been excellent with one pin tract infection in the third week which presented no problem after removal of the pins and appropriate antibiotics. The greatest use of the external compression fixation system has been with the Akin Osteotomy. Although these pins are applicable in other bone fixation as well. Therefore, I would like to briefly review how to apply this fixation system in the Akin Osteotomy. Any instrument that can hold a surgical burr (diameter .0925") can be used to hold the pin for application into the bone.

Using sterile technique, after the appropriate osteotomy cut has been made on the medial aspect, the first pin is applied into the hallux midway between the osteotomy and the 1st metatarsal phalangeal joint parallel to the MPJ. The second pin is now applied between the osteotomy and the interphalangeal joint of the hallux at about a 30 degree angle with the first pin. The back of the pins are now cut at the last groove. The tie is now inserted into the grooves while the osteotomy site is held closed. The tie may now be tightened to achieve the desired compression. The incisions are then closed. This whole procedure in applying external compression

*(Continued on page 17)*



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*(Continued from page 16)*

fixation only takes a few minutes. No special instrumentation is necessary to insert the pins; a device that can be used to accommodate surgical burrs or bone saws can be used. The diameter of the pin is .0925 inches which is the same as the burrs or bone saws. We like to leave the fixation system in place from three to four weeks.

This fixation is not 100% rigid immobilization as the AO system. Therefore, with some slight movement of the bone ends (as in ambulation with surgical shoes). There is bone callus formation. Also, the osteotomy is not entirely healed when the pins are removed which also results in more desirable bone callus formation, due to some limited movement at the osteotomy site. At this point, bandaging for two to three weeks is usually sufficient to further immobilize the osteotomy site which will also provide the bone ends with a small amount of movement and consequent bone callus formation.

We have four cases where patients were apparently too active and the lateral hinge broke after the compression fixation was in place. All of these patients went on to heal satisfactorily with no problems.

In our method, the continual compression provided to the bone ends insures that there will not be any gap between the bone ends. Even if there is an excessive amount of resorption of bone, the compression of the bone ends insures that a gap which will result in non-union cannot occur at the osteotomy site. Other advantages are:

- No need for predrilling any holes in the bone
- Quick and simple application
- Less traumatic than other fixation methods
- No metal remains in the foot which can be the source of infection or other complications
- Simple removal
- Eliminates the risk of non-fixated osteotomies
- No special instruments necessary
- Can be used in either office-based or hospital surgical setting

The author's hope is that this new method of external bone compression fixation will be a welcome addition to our surgical armamentarium; and that it will stimulate further study with this new technique. We would be most appreciative of any further comments regarding this compression fixation system.

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## REUNION

FAPA Fraternal Corporation would like to announce the second annual reunion for retired podiatrists in Florida this winter.

If you are retired and are planning to attend this reunion, please contact one of the members of the committee as follows:

*Dr. Jules Shangold*
*FAPA Fraternal Corporation*
*192 Hillside Ave.*
*Williston Park, NY 11596*

*Jerry Miller*
*6461 NW 2nd Ave. #105*
*Boca Raton, FL 33487*

*Murray Edelstein*
*4398 Fountain Dr.*
*Lake Worth, FL 33467*

The reunion is open to all podiatrists, spouses and their guests.

- **Date: February 9, 1991**
- **Time: 12:00 Noon - Welcome**
  **1:00 PM - Luncheon**
- **Place: BocaTeeca Country Club Boca Raton, Florida**

***Cost: $30 per person***

# 2084 Insurance Companies, HMO's, PPO's, Contacted by AAFS

***The following is a sample of a Priority Letter sent to 2,084 Insurance Companies, HMO's, and PPO's on behalf of the Academy.***

Dear Medical Director:

Continuing pressure from employees to contain health care costs has caused all of us to renew our attention to elective surgery. Certainly no health care plan wishes to deny needed restorative care to patients., That is part of the reason people purchase health care insurance. However, there is little doubt among candid practitioners that there is often more than one way to treat a particular condition.

The Academy of Ambulatory Foot Surgery has been a leader in fashioning low cost, but safe and effective means for remedying foot problems. We have over 1200 practitioners nationwide who have truly been pioneers in foot surgery.

The Academy recognizes that it too must be sensitive to the new pressures on health care insurers. The Academy has long appreciated that many conditions can be treated on an outpatient basis as well as an inpatient basis. For that matter, many surgeries need not be performed in outpatient surgicenters, but can be done in the office. The Academy was committed to these more cost effective alternatives long before the podiatric establishment adopted them under coercion.

However, the Academy also recognizes that there are many discretionary decisions made by surgeons in deciding how many procedures need to be done to correct a particular problem. It also recognizes that nonsurgical alternatives may often preset sufficient promise to be tried first. Irrespective of what needs to be done, price is always relevant and critical.

The Academy has its own peer review program for reviewing the work of foot

***(Continued on page 11)***



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GALLUZZO FOOT CLINIC
3427 NORTH ROCKTON AVENUE
ROCKFORD, ILLINOIS 61103
815 / 633-3050

# GALLUZZO BONE FIXATION PIN

## DUAL USAGE:

1) EXTERNAL COMPRESSION SYSTEM

OR

2) SIMPLE BONE FIXATION

## ADVANTAGES:

1) USED FOR EXTERNAL FIXATION OR SIMPLE FIXATION

2) SIMPLE AND QUICK TO APPLY

3) NO NEED TO PRE-DRILL HOLES

4) REPLACES NEED FOR K-WIRE, SCREWS, OR OTHER INTERNAL FIXATION APPARATUS

5) NO FOREIGN OBJECTS REMAIN IN FOOT AFTER FIXATION

6) REDUCES RISK OF INFECTION

7) LEAST TRAUMATIC OF ALL FIXATION METHODS

8) SIMPLE AND EASY REMOVAL

9) EXCELLENT FOR OFFICE SURGERY

10) ELIMINATES RISK OF NON-FIXATED OSTEOTOMIES

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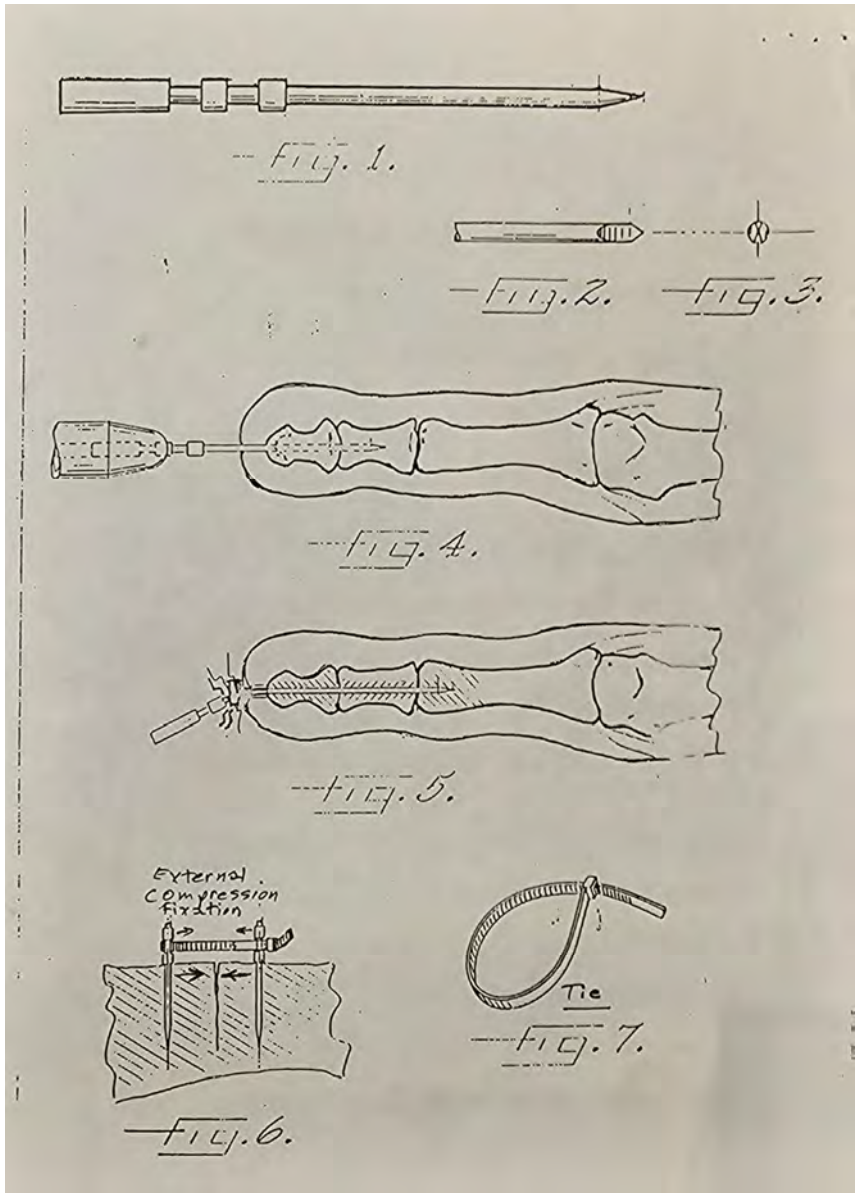


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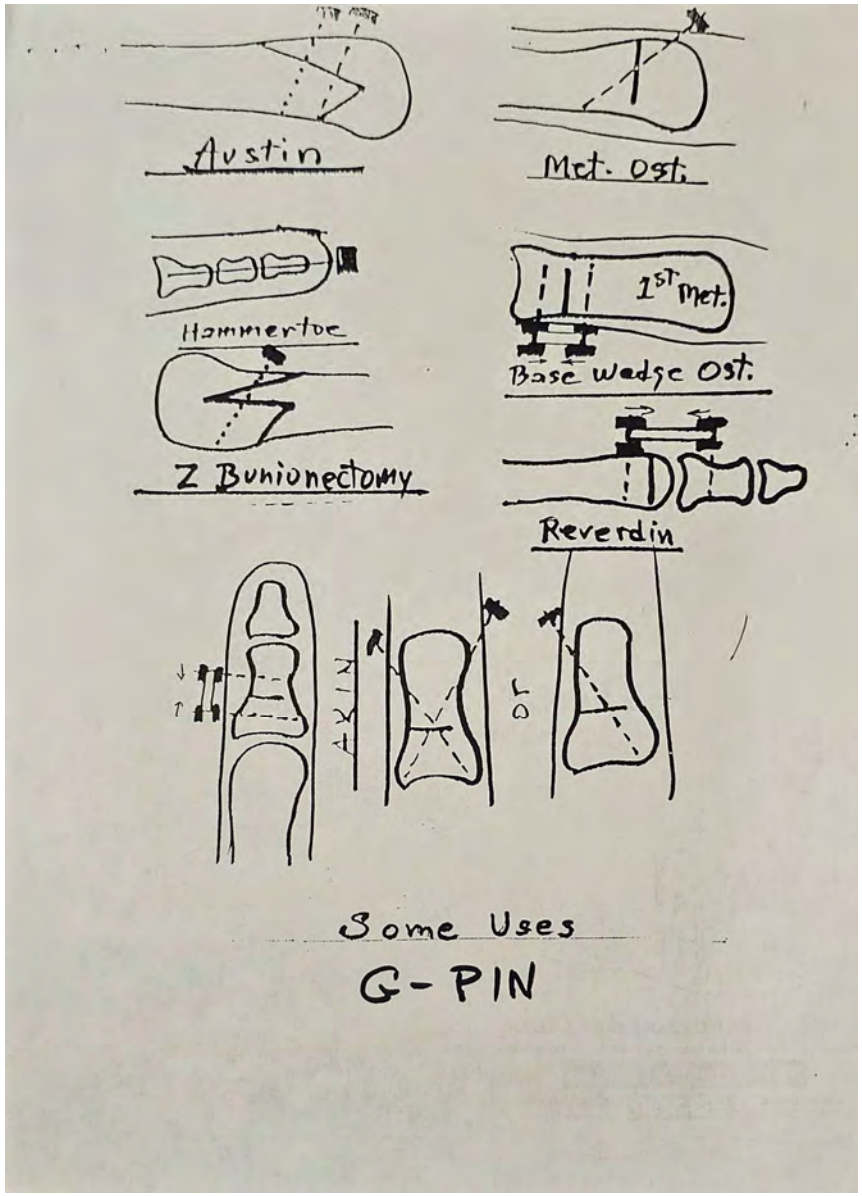


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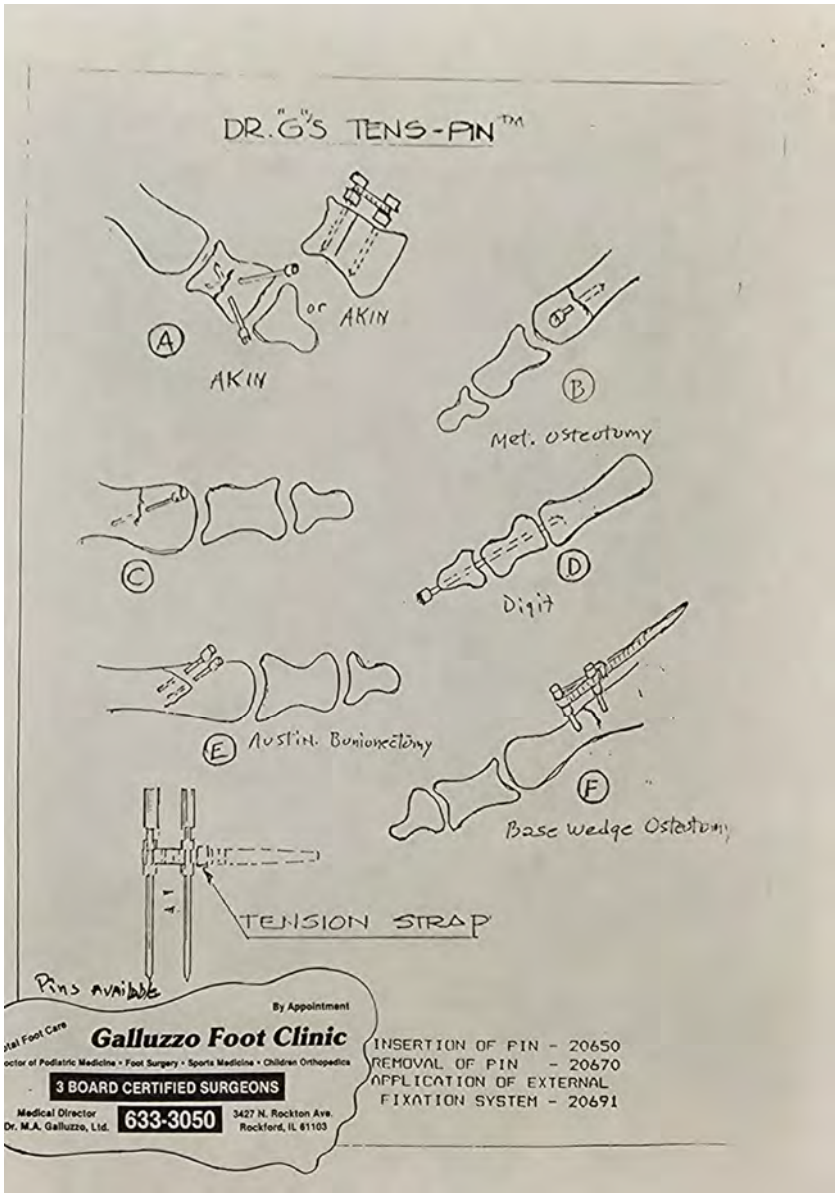


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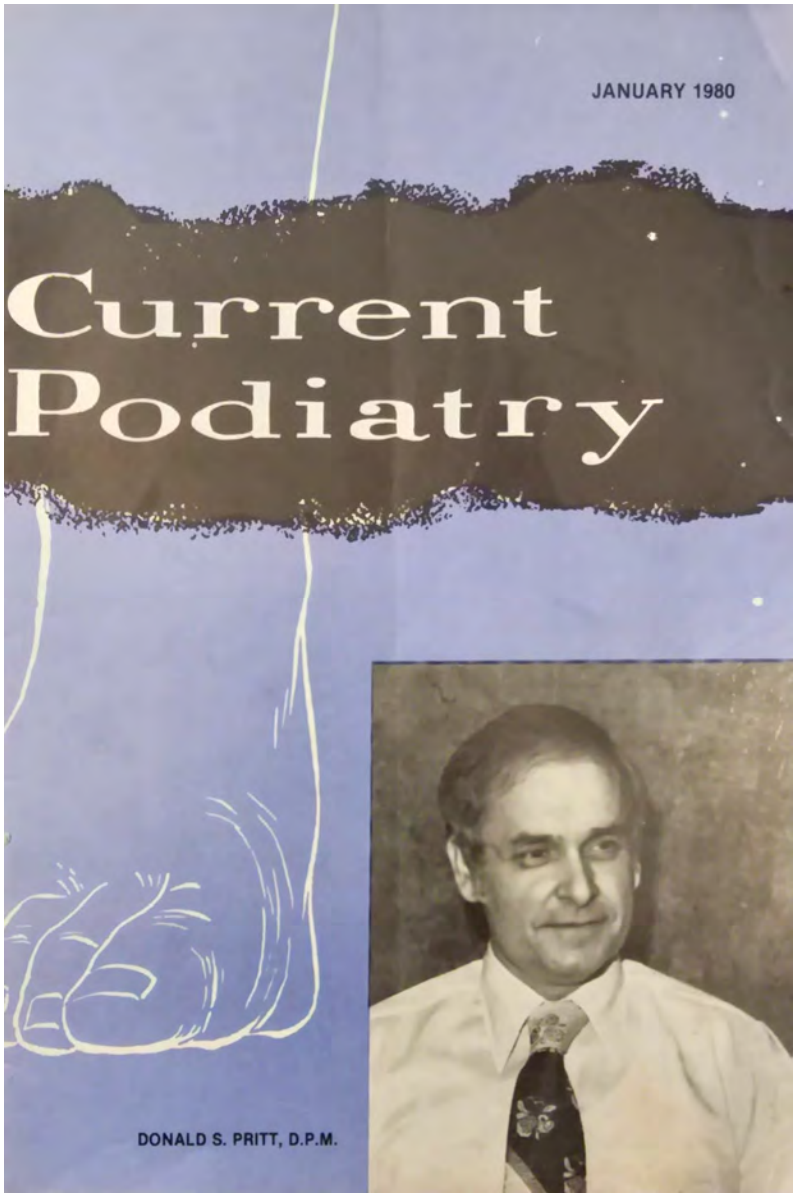


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## "MAN ON THE COVER"

# DONALD S. PRITT, D.P.M.

Dr. Pritt has practiced podiatric medicine and surgery in the States of West Virginia and Ohio for more than twenty years. He is active in the American Academy of Ambulatory Foot Surgery and is a graduate of the Illinois College of Podiatric Medicine.

He has written - and has had published in podiatric journals -nearly one hundred articles on various phases of foot treatment, diagnosis, testing procedures, patient relations, and professional relations. Additionally, Dr. Pritt has brought this information to the public in lectures, magazine articles, and in personal presentations to his patients.

For his efforts in scientific writing, Donald is the recipient of the annual Maxwell N. Cupshan Memorial Award for professional excellence, the Silver Award bestowed upon him in April 1975, the Bronze Award in April 1978, and an Honorable Mention Award in April 1979 by CURRENT PODIATRY.

Dr. Donald Pritt is one of us who has done, and is doing more than his share in improving podiatry and we are proud that he also serves as a member of our group of Contributing Editors. It is with deep appreciation that I present him to the profession to be admired and emulated.

*Irwin H. Hanover, D.P.M.*
*Publisher/Editor*





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# Ambulatory Or Hospitalization Foot Surgery? Rapport May Be The Answer

DONALD S. PRITT, D.P.M.

Most certainly the primary concern of physicians is the consideration of the best treatment for their patients. Regardless of what some critics—often not well informed of the facts—decry, it is frequently the inadvertent actions of the patients themselves and the lack of reasonable communication among the physicians that generate problems which cause patients to become dissatisfied with treatment procedures.

Podiatry, with its two basic approaches to surgery: ambulatory and hospitalization, is an example of a field of medicine in which conflicts can be settled, hopefully with perception and tact, through improved communication and the use of explanations and illustrations. Because podiatrists sometimes lack the professional courtesy to communicate with their colleagues, patients are subjected to needlessly repetitive treatment for the same pedic problems and become disgruntled. To many people ambulatory and hospitalization procedures appear to be at a variance with each other. However, when viewed in the proper perspective they can be seen as complementary, not conflicting, methods of treatment. Any sense of discontinuity is probably in the minds of those who do not realize that each method, when correctly prescribed and administered, serves different needs of patients.

Since the Russians awakened the world with the launching of Sputnik in 1957, rapid change has taken place not only in space science but also in medical science—and the changes and innovations regarding methods of treatment in podiatry have been nothing less than dramatic. Yet it is frequently difficult for the public to accept new ideas. Francis Bacon, who died in 1626 from pneumonia after experimenting in the snow with the putrefaction of human flesh, was credited with giving leading impetus for the development of the scientific spirit in the 17th century, and in his *Novum Organum* early identified the obstacles that lie in the path of new knowledge: confusion in the use of language and the public fear of new ideas. This truth remains with us in the 20th century. As rapid modifications take place, a greater need than ever exists for more explicit definitions and clear examples.

Thus, patients may ask the question, "Why ambulatory foot surgery?" The answer becomes obvious once treatment procedures are understood and comparisons can be made. The ambulatory techniques are not only effective and often painless, but quicker and less expensive. Doctors of Podiatry Medicine performing ambulatory surgery can cure or relieve almost any pedic ailment except where highly complicated procedures are called for, such as triple arthrodesis. The subcutaneous surgical procedures are performed through very small incisions and usually permit the patients immediate mobility after surgery. And these procedures have proved very successful. The Academy of Ambulatory Foot Surgeons, carefully researching thousands of cases where patients have been treated for a great variety of pedic problems (as hammer toes, contracted toes, osseous deformities of metatarsal heads, intractible plantar keratoma, hallux valgus, hallux abducto valgus, metatarsus primus varus, heel spurs, tailor's bunions, overlapping toes, underlapping toes, and many other kinds of foot deformities), reports that success has ranged as high as 91 to 92 percent.

The advantages to the patients involve an impressive list. Notable is that hospital expenses are eliminated (and these expenses are often overwhelming: averaging $200.00 or more per day); the patients do not have to pay for surgical rooms, anethesiologists, hospital rooms, nursing, etc. Further, patients are not subjected to the danger of infection by being in the vicinity of other patients—seldom does anyone get staphylococcus infection. And most patients are psychologically better off healing in the home



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# Bone Healing After Ambulatory Foot Surgery

Donald S. Pritt, D.P.M.

It has been my observation that the healing of bones following ambulatory foot surgery can take as long as two years to heal. During this healing period it appears that a non-union has taken place. Yet, these surgeries performed in the office and in outpatient practice require but little apparatus and but few assistants to insure good functional recovery. This is because there are particular "laws" of bone repair which invariably come into play. The recipients of ambulatory foot surgery are the benefactors of these bone healing laws.

First, bone surgeries inevitably heal, unless there is a mechanical bar to tissue growth.

Second, the healing is accomplished, as with wounds elsewhere, by the growth of granulation tissue.

Third, this granulation tissue is derived from the wounded soft parts of the bone – periosteum, endosteum and the areolar tissue about the vessels in the marrow cavity and elsewhere. If there is tearing of the periosteum it is derived from the soft parts about the bone as well, in proportion to the access allowed to the surgical site. Sometimes the major part of this granulation tissue comes from the soft parts about the bone.

Fourth, delayed union of the bone is a failure of the healing tissue to calcify at the average rate.

Fifth, nonunion is a failure of the healing tissue to calcify at all and the problem has to be looked for in the overall physical status of the patient. He has a possible deficiency in nutrition.

Sixth, the source of calcium for this calcification is dead, an autolyzed bone at the site of healing and not the blood stream.

Seventh, vascular changes probably induce local tissue pH changes which may strongly influence precipitation of calcium salts from solution or colloid combination or ferment activities on large radicles of organic calcium salts – such as hydroxyapatite or calcium hexose phosphate. Research in the nutritional journals will turn up other calcium derivatives.

Eighth, given tissue death, a local calcium source, a vascular status producing the proper pH and granulation tissue, bone will form without the presence of any bone cell.

Ninth, bone as a calcium source can be experimentally replaced by both inorganic and organic salts of calcium such as hexose phosphate. Either precipitation or ferment splitting activity may be responsible for the calcium deposition; the latter seems the more probable.

Tenth, bone and soft part circulation are of prime importance in the process of calcification of bone healing and should, therefore, be prime objects of attention early in the bone-healing process.

Eleven, the administration of calcium supplements may be effective if the patient's general calcium metabolism is abnormal. However, if his metabolism is normal, calcium must be supplied locally and not via the blood stream.[1]

**Slow Union and Nonunion Bone Surgery**

Still, in reference to the eleventh "law" of bone healing, Murray contends that "slow union and nonunion are not influenced by the age of the patient, by his general state of health, by the presence of chronic general disease such as syphilis or cardiovascular or renal disease, by general wasting due to other causes, by general metabolic disturbances affecting either general calcium and phosporus metabolism as in osteomalacia or other phases of metabolism as in diabetes or by acute infectious disease. Therapy designed to alter the patient's general metabolism, specifically to affect his general calcium or phosphorus metabolism or his general state of health, has no appreciable effect on the process of healing."[2]

I do not agree with Murray's statement. The patient is the sum of his whole body functioning, and he will heal better if he is free of obvious and subclinical manifestations of disease.



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Furthermore, Murray believes that "the four factors involved in the mechanism of the healing of bone and capable of being clinically influenced are: (1) the local pathology; (2) the growth of granulation tissue; (3) available local source of calcium for the ossification of the healing tissue, and (4) a proper biochemical status of the local tissue fluids throughout the healing process."

These are logical beliefs, and the fourth one tends to contradict Murray's prior statement which disregards the patients general state of health.

Bourne has shown the importance of an adequate intake of vitamin C for healing of bone.[3]

Illievitz tends to confirm the wisdom of ambulation after surgery of the feet. He stresses the fact that the "early repair of skeletal and soft tissue injuries depends on early partial use of the adjacent joints and the retention of the tone of the muscles during the period of healing, and that prolonged immobilization prolongs the period of temporary total disability and often leaves a permanent partial disability."[4]

Ferguson states that fewer complications develop in ambulatory patients than after the same operations performed on hospitalized patients.[5] In fact, the present atraumatic non-disabling, less painful ambulatory procedures utilizing smaller incisions have proven superior for full foot rehabilitation. The skill of the podiatric surgeon is steadily introducng new and more effective procedures.

Yet, slow union and nonunion bone surgery may occur. Why? Let us look at the way bone heals.

**The Repair of Bone Following Surgery**

Adult bone cells have lost the power of proliferation so that they play no part in the regeneration of bone. Repair is carried out entirely by the osteoblasts which line the deep layer of the periosteum, the endosteum, and the Haversian canals. The deep cellular layer of the periosteum is a striking structure which must be seen to be appreciated. It is much more abundant in young bone, and can be seen to react exuberantly after an injury such as surgery.

Osteoblasts are present both in the periosteum and the surface layer of bone, so that repair can occur either with or without the periosteum. The essential function of the periosteum is to supply the outer part of the bone with blood. Removal or separation of the periosteum is apt to be followed by death of this part of the bone resulting in nonunion or only partial union.

Healing of a bone wound takes place in three stages: (a) granulation tissue forms in the exudate between the broken ends of bone, (b) osteoid tissue is formed, and finally (c) calcium salts are deposited with the production of bone joining.

I will give a brief description of the above stages: (a) As a result of the surgical intervention, blood and a varying amount of exudate are poured out between and around the ends of bone. This is invaded by cells and new capillaries, and a kind of granulation tissue is produced. The proliferating cells are osteoblasts, which come for the most part from the deep layer of the periosteum. The proliferation of osteoblasts is of an extraordinarily rapid and massive character; indeed, there is no other non-malignant process which is quite comparable with it. (b) In the course of four or five days the osteoblasts form trabeculae around central spaces which become Haversian canals. This osteoid tissue — tissue resembling bone in its structural arrangement but with no calcium salts in its homogeneou matrix — is known as callus. It becomes increased in amount so as to act as a splint. Nonunion may occur because of the lack of callus formation from some physiological abnormality suffered by the patient.

In a normal patient, the osteoid tissue creates a remarkably abundant amount of callus by the end of the second week.

(c) Finally calcium is laid down, and the ends are knit together by rigid, fully formed bone. Low blood calcium produced by deficient diet may slow the rate of healing or lead to nonunion. In the immediate neighborhood of the bone wound the bone cells will have died. Near the ends of the surgical intervention the osteogenic cells proliferate in massive fashion, and may form cartilage instead of bone. Deficient calcium in the diet is consequently another reason for only partial union, slow union or nonunion.

Cartilage formation instead of bone formation is most marked when there is ex-

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cessive movement with wide separation of the bone ends. The "ambulation" in ambulatory foot surgery must be held within some restrictive limits. Running in a marathon or climbing mountains might be frowned upon. Eventually, however, as stated, even as long as two years, the new cartilage is invaded and replaced by bone. This is ossification in cartilage, as compared with the process just described which corresponds to ossification in membrane.

The new material formed at the site of the bone repair is known as **callus** on account of its hardness. In the later stages it may become calcified, but at first it is osteoid in character. Some of it is external, ensheathing the cut bone ends like solder. Some is intermediate, forming a direct union between the split surfaces. Some is internal, filling the marrow cavity. The internal and external callus is removed by osteoclasts, and the bone undergoes a process of molding which goes on for months, and results in a rearrangement of the lamellae to meet the new stresses. If the gap between the bone ends is not bridged by osteogenic cells in a certain time, fibroblasts will fill the gap with fibrous tissue. Its matrix has no special affinity for calcium salts and a nonunion or fibrous union takes place permanently.[6]

**A Summary of the Bone Healing Process**

Ambulatory foot surgery is actually reconstructive surgery, and one of its most important therapeutic adjuvants is the judicious use of physical therapy. Physical therapy was first employed during the first World War in the general hospitals and hospital centers of the Army of the United States in France. It was most effective in reducing the length of temporary disability and the amount of permanent disability. The value of physical therapy is so well established that every preparation for the care of wounded soldiers includes it in the general plan.[7]

Ambulation directly after foot surgery is the finest form of physical therapy. It promotes the four-stage progression of healing spoken of above. In summary, this is: (1) During the first week a blood clot forms around the ends of the surgerized bone and beneath the periosteum; the clot congeals into a gelatinous mass. (2) During the second week the fractured site becomes fixed in granulation tisue, which replaces the clot. Young bone cells begin to be laid down around the vessels; the medullary tissue is absorbed and replaced by callus. (3) During the third week the conversion of callus into bone begins to take place. The callus becomes denser through calcification, especially around its blood vessels; the original bone rarefies as its vessels become continuous with those of the callus. (4) In the final stage, which takes place in from four to eight weeks, the external and internal callus disappears and the intermediate callus condenses into hard bone. In adults, completion of the healing process may take as long as two years.

The objectives of repair of any bone operation are:

– to secure union of the bony fragments;
– to obtain normal function of the area;
– to obtain ideal results at the earliest possible time.

All techniques of treatment must be weighed against the foregoing considerations, as well as in terms of the welfare of the patient and respect for tissues. As in all surgical problems, the foot surgeon must never forget that all manipulative and operative procedures injure tissue; the ideal operation traumatises as little as possible while attempting to eradicate existing biomechanical faults or disease.

Ambulatory surgery performed through minimum incisions creates the least possible surgical trauma to the surrounding tissues. It allows for immediate ambulation. And even if bone union does not take place as quickly as anticipated, the slow union or partial union or even a nonunion does not cause pain or malfunction. The nonunion, in fact, is frequently a better functional result for the operated foot than the original difficulty that brought the patient to the doctor.

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# Healing Of So-Called "Non-Union" Osteotomy

DONALD S. PRITT, D.P.M.

Suppose you administer four cubic centimeters (cc) of a local anesthetic in a toe block to straighten a hallux that is in a valgus position. Then you make the appropriate incisions for performing an Akin procedure including the three-millimeter (mm) longitudinal incision just distal to the base of the proximal phalanx on the fibular side. You drill the now standard "Fail-Safe" hole at this site with a Shannon #44 bur near but not through the fibular cortex. You then proceed to penetrate to the opposite side with the bur and grind a wedge from the tibial side of the bone. You purposely fracture the bone by gentle firm adduction and then hold it in corrected alignment with an elastic compression bandage.

Your technique is flawless. You are quite satisfied with the operation and anticipate a non-eventful healing with excellent functional and cosmetic results. But problems begin to arise a month later.

The Akin procedure described was actually but one of six osteotomies the patient underwent. Five of them were healing well. A sixth one was producing little or no pain for the patient, but it seemed not to join in a bone union as neatly as the others. Perhaps there was grating of bone ends, which was the source of delayed healing.

At any rate, you did all the correct actions for treating possible postoperative complications relating to painful metatarsals after osteotomies: you applied a firm bandage from toe to rear foot with a layer of Kling® and an joverlaying of Coban® . Another time you wrapped with Elastoplast. You had the patient wear a wooden sole surgical shoe. You padded with a regular palliative toe dressing extending down the foot. Postoperative X-ray films showed a fine surgical result, good molding and sculpturing, and no sizable bone chips at the wound site. You would be willing to open the incision to go in with a sterile file and sweep the area with a rasp side, but nothing shows up to sweep out of the wound.

Two months go by and the patient still seems to have a non-union of the bone. She begins to complain somewhat of mild discomfort. You come to believe that a possible complication is traumatic arthritis and periostitis. Or, maybe she has tenosynovitis or capsulits. You consult with your colleagues who regularly perform ambulatory foot surgery through minimal incisions. One suggests prescribing Prednisone 2-½ mg. four times a day (QID) to reduce any possible inflammation. The patient goes on this for five days and feels good relief. A few weeks later, the patient complains again about discomfort. Prednisone helps this next time, too. Then, the next, but the dosage must be increased. Later, the drug must be taken for a much longer time frame. Aware that your patient could sustain side effects from steroid use such as elevation of the blood pressure or water retention, you take her off Prednisone altogether. Any side effects are avoided, but the site of the osteotomy remains in a state of delayed union.

The patient could grow discouraged and rather impatient with the extra office visits necessary for you to check on her healing. Losing credibility in her eyes is a real danger, and you go on to explain the procedure all over again advising that sometimes healing is delayed for no apparent reason. Her other operative sites are completely back to normal. But she appears to remain dubious. The slight discomfort has her edgy, and in the patient's mind you are the sole source of her problem, even if the trouble actually lies with her own ability to heal effectively.

It's at this point, five months postoperative, you learn the woman has visted another podiatrist across the city. He doesn't do ambulatory foot surgery and, in fact, is known to be an enemy of this therapeutic approach. His reaction is to crank up a malpractice case against you — not by performing services for the patient but by speaking in alarming tones and sending her for emergency attention from an orthopedic surgeon. On this non-fixated osteotomy, the orthopedist performs a sliding graft on the bone, which the M.D. justified by stating that the bone had not totally healed.



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My experience has been that non-fixated osteotomies may take as long as three years to heal completely. This is the case of one of my patients with whom I have been in continuous communication. My periodic examination of her operative site over the past three and a half years indicates that healing took a full thirty-six months to accomplish. She had no pain during any of this time. Others in the profession performing routine non-disabling ambulatory surgery tell me that two years of healing is an occurrence among approximately 3 percent of the patient population having base wedge osteotomy for metatarsus primus varus, osteotomy of the second, third and fourth toes, osteoplasty for the first and fifth metatarsals, wedge osteotomy for hallux flexus, "V" wedge osteotomy, dorsiflexion osteotomy of the first ray, and the Akin procedure on a hallux, especially when the Akin is accompanied by a base wedge osteotomy.

This small percentage of osteotomies that don't heal in the normal period of time comprise two categories: (1) the patient who develops a pseudo-arthrosis and (2) the patient experiencing delayed healing or "non-union". The pseudo-arthrosis is a falsely appearing trophic degenerative affection of the involved joint which may be characterized by pain, cracking sounds (crepitus) and limited motion. It is noninfectious.

Of thirty operated patients among 1,000 undergoing various forms of osteotomy, delayed healing or "non-union" was encountered. There was almost no discomfort for them. They were able to carry on their daily activities during the healing period of nearly two years with very little pain. Even with a two-year interval of healing, these rare cases finally achieved a fine bone union. The entire group of cases is part of my patient files, and I have been following them closely.

Bone healing is continuing in these "non-unions". Bone is a living tissue made up of bone cells contained within a meshwork of fibrous tissue made hard and strong by the biological deposition of calcium salts.



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Repair first takes place through the formation of fibrous connective tissue to fill the defect and then the deposition of calcium in the form of callus. The callus is absorbed and redeposited by the large osteoblast cells, which biologically resecrete this calcium, after it has been chemically affected by their cellular juices. The healing process is a reverse procedure to that for the deposition of bone. In this resorption, fibrous tissue in direct contact with bone trabeculae causes softening or liquefaction of the bone. With arthrosis, bone destruction occurs through osteoclasis in which large bone cells, similar morphologically to the bone-forming osteoblasts, eat away the bone, creating small indentations or lacunae. Arthrosis does not take place following osteotomy. And a surgeon — orthopedist or podiatrist — performing a sliding bone graft for correction of such a pseudo-arthrosis condition, is doing an injustice to the patient.

One of our patients visited a practitioner and had a sliding bone graft on her fifth metatarsal after recuperating from an osteotomy for that bone. Such a case should have been allowed to heal for a minimum of two years before further surgery is contemplated for correction of any defect connected with non-fixated osteotomy. Indeed, the fifth metatarsal is the slowest of all the foot bones to heal.

Better treatment may have been the application of a celastic cast. Mix several layers of light weight celastic with acetone for softening. Such impregnation permits shaping and cast formation for resting the operated part. The bone may then heal faster.

Some of the reasons delayed healing or "non-union" comes upon a patient involve overweight of the individual, too much activity on the operated area, excessive standing in one place as in waiting on customers behind a counter, ambulating on high heeled dress shoes too early after the operation, and misfitting footgear. Also, there are possible metabolic problems which require description here. Inasmuch as the delayed union is a failure of the healing tissue to calcify at the average rate, the source of calcium for this calcification may be dead and autolyzed bone is present at the site of surgery and not in the blood stream. Vascular changes may bring on local tissue pH changes to influence a precipitation of calcium salts. The slow union or "non-union" may be influenced by the age (per se) of the patient, by his general state of ill health, by the presence of chronic general disease such as cardiovascular or renal disorders, or disruption in phosphorus metabolism.

One of our thirty patients experiencing delayed healing who had undergone a wedge osteotomy on the great toe had declared herself to be seventy-five years old. During a post-operative visit, this woman's daughter who accompanied her to the office revealed that the daughter was actrally seventy-five years old and that her mother, our patient, was in reality ninety-five years old. This Akin procedure healed in the woman in near-normal time despite her advanced age.

All the cases don't heal the same. Many operative sites which have been watched by serial radiographs show no activity. They will lay for a period of time as if nothing is happening with the healing process. They look practically the same as when they were first operated. Then, suddenly new bone begins to be laid down. It's amazing to see the new bone appearance suddenly from one week to the next.

Some of the problem with healing or the appearance of healing may lie with the angulation change of the head of the first metatarsal with its shaft. Yet, realignment does take place spontaneously as a result of the callus resorption and natural reconstruction. This can take years to happen.

The three percent or less of osteotomy procedures that can go over two years in their healing process — thirty patients in my practice — experience hardly any pain during this entire delayed union period. In the case of fifth metatarsal osteotomy that went for a sliding bone graft from my office, the patient complained of no pain. She was ready to return to work but was advised that the bone had not totally healed. This was true, but the practitioner was absolutely unacquainted with the incidence of delayed healing or even the techniques of ambulatory foot surgery. His ignorance became unfortunate for everyone involved.

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# Documentation of Successful Non-Fixation Of Osteotomies In 700 Cases

DONALD S. PRITT, D.P.M.

The fixation of bony component parts by internal metallic implants have been considered among the triumphs of orthopedic surgery. The concept of stiffening joints originated with Albert in 1878. The indications were to correct deformity and provide stability.

In the performance of ambulatory foot surgery as used by podiatric surgeons, all this is changed. Wedge osteotomies at the neck of the metatarsal utilizing power equipment and surgical burs to create wedges and optimum toe position require no internal fixation. There has been a revolution in podiatric surgery, and those employing this non-disabling foot surgery of a minimal traumatic nature for the forefoot have brought it about.

For 700 cases of wedge or V-osteotomy in ambulatory foot surgery, documentation of before and after results were accomplished by sending the patients for radiological examination at a number of hospitals in the area of my office location. The post-operative xray films of these patients serve as verification that correction occurred. The films provided a neutral observation source at the time of surgery, and they remain as an unbiased confirmation that osteotomy is an exceedingly satisfactory procedure when carried out by minimum traumatic techniques.

The radiographs were taken for purposes of documentation from the time of surgery and monthly thereafter until progressive bone callus had formed and the bones healed. Only accredited hospitals were referred to for taking these follow-up xrays. Among them were the Camden Clark Memorial Hospital, Parkersburg, West Virginia; St. Joseph's Hospital, Parkersburg, West Virginia; Marietta Memorial Hospital, Marietta, Ohio; Jackson General Hospital, Ripley, West Virginia; Charleston Area Medical Center, Charleston, West Virginia; St. Francis Hospital, Charleston, West Virginia. These post-operative films established that the 700 patients undergoing non-fixated osteotomy performed in the podiatric office were well healed and cared for.

The osteotomies consisted of the first, second, third, fourth, and fifth metatarsals. Some angulated Wilson osteotomies for the first metatarsal were included along with those of the fifth. Beyond a shadow of a doubt, these procedures healed well. For the entire 700 cases, carried out over a two-year period, absolutely no cases of osteomyelitis occurred. In two cases, misinterpretation by the radiologist indicated that bone infection had taken place, but when these two patients were sent for radiological examination to other hospitals, the misinterpretation became apparent. Error of interpretation by an outside authority could cause havoc in the patient/doctor relationship, but the addition of clinical examination to the reading of xray film can make things right.

Boney union is the source of healing in 97 percent of osteotomy procedures. The other percentage of cases heal by fibrous union. Isolated individual cases numbering no more than fifteen did not follow up with their full complement of xrays. They either moved out of the area, went to other practitioners,or just ignored their process of healing after the operation.

All of these cases which have been read and with written interpretations by certified radiologists, are on file in my offices. They are available along with my expert testimony for use by any ambulatory foot surgeon who needs this material. Encountering difficulties with the medical, podiatric, or health insurance community in your region need no longer be a source of anxiety. Lack of knowledge or training by outside authoritative interests will produce problems for us for the last time. We have the means now to justify our procedures.

The proof of the benefits of non-fixation of osteotomies is at hand. There is less surgical trauma using a bur driven by power equipment. It is an ambulatory surgical office procedure, most frequently for lesions under the lesser metatarsals but also in-



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first metatarsal. There are less than five percent of transfer lesions to the adjacent metatarsals.[3] Furthermore, no internal metallic fixation or any other artificial fixation is necessary due to the small incision and the minimal traumatic tissue damage which allows the tissue surrounding the bone fracture to assist in splinting the osteotomy site. Reduction of healing time results. Thus, the contraction of the tissues hold the wound together naturally.[4]

Concurrently, non-fixation of osteotomies require no casting, no hospitalization, and no foreign body implanted. One of the greatest risks of internal fixation is infection.[5] If we weigh the difference between non-fixation and mechanical fixation, there will be a lot more bone callus laid down with non-fixation. Then, over a few months the callus fades from the operated site and the bone takes on a more normal appearance. The newly remodeled site is left much stronger than before, except for a miniscule number of cases where there might be some residual osteoporosis. In my study, there were just 5 cases out of 700.

Post-operative pain was present in just 21 people in this study. Deviation of the metatarsal bone took place in 6 patients, but in follow up observations I saw that nature restored the bone to normal alignment within six months or less. For one woman the wound opened because she had kicked her foot into the church pew and sent the metatarsal head into a deviated position. It showed, upon clinical examination and open exposure, that enough fibrosis had taken place. The bone was secure and healing. The structures were realigned and had to be fixed by an internal implant to make sure they didn't move again. The case healed uneventfully after that, but my personal impression is that the bone would have healed without boney fixation by metallic implantation if left alone.

The fifth metatarsal probably takes the longest time to heal of the five metatarsals undergoing osteotomy procedures. This is likely because there is no outside metatarsal to act as a splint following the surgery. The only form of stabliity ever required for this or any other osteotomied metatarsal was the wooden surgical shoe. Celastic added to the foot for support could be advantageous. Celastic might produce more effective healing by allowing the bone callus to appear sooner than usual. Three patients did employ crutches along with the surgical shoe for a week to ten days, but this was out of their own desire to do so and not because crutches were necessary.

Sometimes, for the Modified Wilson procedures, tape acted effectively along with Stein's sponge separators for the toes. They gave support and may have been attached to the foot for eight weeks. Their application is optional.

As with previously reported osteotomies, the site of operation was determined by the deformity and by roentgenograms.[6,7,8] The same general principles of preoperative care were applied to every one of the 700 cases. A full history of the patient's medical background was recorded in writing; the majority of patients were healthy and good surgical risks. My physical examination included an evaluation of the peripheral pulses and a complete blood count and routine urinalysis.[9] A preoperative dosage of barbiturates has been found unnecessary. The "caine" drugs were usually sufficient unless the patient suffered from an extreme nervousness.

The preoperative scrub sometimes varied with the choice of surgical soap but often was Betadine® which was applied after the skin area was shaved to remove any hair present. The operators hands and forearms were scrubbed with the same solution for about five minutes.

Local ansethesia was accomplished by infiltration with 2% Xylocaine.® In a cardiac or older patient, Carbocaine® without epinephrine was used. No tourniquet is ever applied.

Preoperative patient consent is obtained and has been reported on in previous publications.[10]

All of this information is open and capable of being employed with advantage by any podiatric surgeon needing proof of efficacy of osteotomy healing by non-fixation procedures. It lends itself to legal testimony; the author offers himself, as well, when an expert witness is needed.

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# Developing Treatment To Save A Bundle — And Health Too

DONALD S. PRITT, D.P.M.

We are living in a complex, technological age in which the world body of knowledge is doubling every six to seven years. In our progressive society, ninety percent of all inventions have occurred during the past two decades. In medical science, the production of drugs like penicillin, insulin, and sulpha has prolonged lives by many years, while new treatment techniques and surgical procedures have not only contributed to better health, but also stimulated additional studies which have led to further improvements. Today's technologists are actively engaged in assessing ways in which the practical application of new information can be made. Efficiency has become a key concern. HEW is conducting a productivity study which it hopes "will provide some clues on how effective today's clinical procedures and technology are, and on how to best use manpower."[1]

Yet shadowing this avalanche of evident progressive activity is the fact that the majority of the world's people live and die without even rudimentary medical care — according to the World Health Organization which has defined "good health" as full physical, psychological, and social well-being. Thus, the objectives doctors desire for their patients aren't always obtainable, although great progression has taken place.

During the last twenty-five years, the advances in podiatry medicine have been so remarkable that it has become incumbent upon practitioners to examine their philosophies of treatment in order to justify their methodologies in light of new developments. Rapid change has made it increasingly important for podiatrists to keep abreast of recent achievements in their field, to be flexible in their thinking and capable of growth as improved techniques and procedures are implemented. For professional and social responsibility mandate that practitioners work as colleagues, not opponents, concentrating on ways to more effectively treat patients and assist in safeguarding their health.

Answers to questions regarding philosophies of treatment and professional judgment are not easy ones nor are there ready-made solutions to the issue of what treatment procedure should be used to obtain the best results. Answers suggested by history frequently raise further questions. Needed, in view of this somewhat constraining variable, is a reasonable tolerance among those in the health professions for sensible differences. For doctors who cannot view this issue from more than one position become static, inflexible to progressive change, and disappointed to discover their stance is not absolutely correct nor based upon what may be considered ultimate knowledge.

In administering treatment, podiatrists have historically followed two basic approaches: (1) conservative, which is essentially alleviating the symptoms of foot pathology; and (2) rehabilitation, which is correcting the internal pathology by eliminating the cause and entails surgery. The former approach involves far less controversy than the latter, for when a professional decision is made that surgery is desirable to correct foot pathology, two diverging methods are usually followed by those practicing podiatry medicine in the late 20th century. One is "Hospitalization," and the other is "ambulatory." Hospitalization is the more traditional approach, but one which has become increasingly expensive for both patients and third-party insurers. A recent article in *Parade* under the heading, "Cutting Hospital Costs," sheds considerable light on this issue:

> Hospitalization cost in this country have skyrocketed so alarmingly — in some cases to a $1000 a day — that foreign tourists are warned beforehand to take out medical insurance to cover possible illness during their stay.
>
> In an effort to reduce in-hospital costs and patient charges here — for Americans and visitors alike — several surgeons who formerly performed minor surgery in hospitals are now doing it on an out-patient basis. Some hospitals have established ambulatory surgery centers.



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In a recent edition of the Journal of the American Medical Association, Dr. Herbert Natof reported on 13,433 patients who underwent surgery at Northwest Surgicare, Ltd. in Arlington Heights, Ill. Northwest Surgicare is a free-standing ambulatory surgical center, physically and organizationally separate from a hospital.

Dr. Natof explained that complications at Northwest Surgicare have been no more than those that could be expected from similar surgeries performed in a hospital.

*Parade* observantly concluded, "Next time you need surgery, ask your doctor if it can be performed on an out-patient basis. It will save you a bundle."[2]

As a podiatrist who has been practicing for more than twenty years, I have concluded that ambulatory techniques can be applied to successfully treat most foot ailments except where highly complicated procedures are called for, such as triple arthrodesis. They are not only less expensive and quicker, but safe and often painless. Seldom does a patient get an infection (they are not in danger of infection by being in the vicinity of other patients), and most people are psychologically better off convalescing in the home atmosphere. Only slight postoperative discomfort is experienced because of the minute incisions made, and a further salient advantage is the patients are usually able to walk after the operation and even return to work. However, patients are not the only benefactors; insurance companies have conserved millions of dollars because ambulatory surgical procedures have been applied. America has grown from a population of lightly insured to a population of heavily insured — especially regarding health benefits. It is, therefore, important for podiatrists to dutifully keep in perspective that surgical procedures should be used in ways which best contributes to patients' health, and through methods which most economically utilize insurance benefits.

Since advanced treatment procedures have been developed through orderly medical research by those who have embraced new methods and improved upon them, it is logical that further progress may be so attained. Those of us in the healing professions not only need to be capable of reflecting advanced change, but our objectives should relate to the acquisition and development of better techniques and skills which will more expeditiously contribute to people's health. Medical science has evolved so brilliantly in the latter part of the 20th century that it makes one wonder what marvels the future may hold. Not even Aristotle with all his learning could have foreseen the achievements of our age, nor is modern man likely to envision what magnificent accomplishments may yet be attached.

From the dawn of civilization, humans have been awed by the future. "The ancient Greeks consulted oracles, soothsayers, fortune tellers, and even the stars." But methods have changed. "Technology has replaced tea leaves; computers have replaced crystal balls. Prophecy has given way to probability," and now we are looking to the "future with an eye to creating it." For there will be tremendous opportunities for future innovations in health care. The progressive choices we make today, and the skills we attain as podiatrists, "individually and collectively, will provide the answers to our destiny."[3]

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Lawrence J Kales, DPM

# Practice Forensic Podiatry

Donald S. Pritt, D.P.M.

**BRONZE AWARD**
**DR. MAXWELL N. CUPSHAN**
**MEMORIAL AWARDS**

**Don't Throw Up Your Hands in Frustration**

The most surprising and disturbing aspect of the current malpractice crisis in podiatric medicine is the alarming number of podiatrists who have simply thrown up their hands in frustration at the situation. They seem to have settled back to wait for a solution from our organized podiatry association or from individual state legislatures or from the Federal government — or from *anybody*.

No doubt a solution will be developed someday, but it may come too late for these frustrated souls. Meanwhile, there is plenty you and I can and should be doing to shore up our malpractice defenses. In this article, the first of a few, I am going to share with you some alternate strategies I have hit upon to counter the professional liability menace in my own office.

I practice forensic podiatry i.e., I perform in my office in accordance with what I recognize is appropriate for review in the courts of justice or in public debate. A while back I stopped taking chances. Within the confines of my office walls I have formed my own little *Forensic Podiatry Society*, something that has been needed in our profession for a long time. Perhaps it's time now to expand society membership from just my assistants and me to include you.

Among the main rules in my society is one that says: *Don't depend on the profession, the state, the country, or even fellow practitioners to assist in legal matters.* I recognize, sad though it is, that podiatrists have been led like turkeys to the slaughter by carriers who have taken our premium money for malpractice liability insurance and have offered little or no instruction or advice in return. Consequently, I have added to the above rule: *Don't expect the malpractice insurance carrier or broker to lend any assistance either.*

We should have had experts aid with information. We need to know what drugs, for instance, a pregnant person may or may not receive. We are not obstetricians and not attorneys. Wouldn't it be wonderful, for example, to have available a certain group like the *Forensic Podiatry Society*? Any podiatrist could belong as a member, and to it he might apply for help in the case of a malpractice claim. Fellow members might be available to participate in legal assistance and be on tap to testify.

**How I Obtain Informed Patient Consent**

But enough of what "might" be! Let me return to the confines of my office and the personal forensic procedures I engage in.

Another one of the main rules in my own forensic podiatry society is to practice the primary defensive strategy: *Always obtain informed patient consent no matter what I do!*

If you are hit with a malpractice action this year, chances are almost 50-50 it won't be triggered by anything you did during the operation but by what you didn't tell the patient before the procedure.

If you are forced to pay out on a malpractice action, chances are almost 70-30 the judge and/or jury wasn't impressed by your records that the patient really understood all the implications of what you were offering to do. The patient possibly didn't comprehend complications, risks, amount of pain, need for medication, loss of work time and wages, the need for redressing appointments, alternative treatment, the ability to receive other professional opinions, or to have the work done at intervals rather than all at once.

Informed consent is my first-line malpractice defense. It had been difficult to know how best to inform a patient and then prove that my patient understood all the matters I had explained. I solved the problem and I'm going to tell you how.

Typically, the courts are strong on generalities but weak on practical advice. So, with the help of some of the best professional liability experts around, I've put together some patient information forms that cannot be contested in or our of court. Here is how I make use of the forms and obtain my patient's informed consent:



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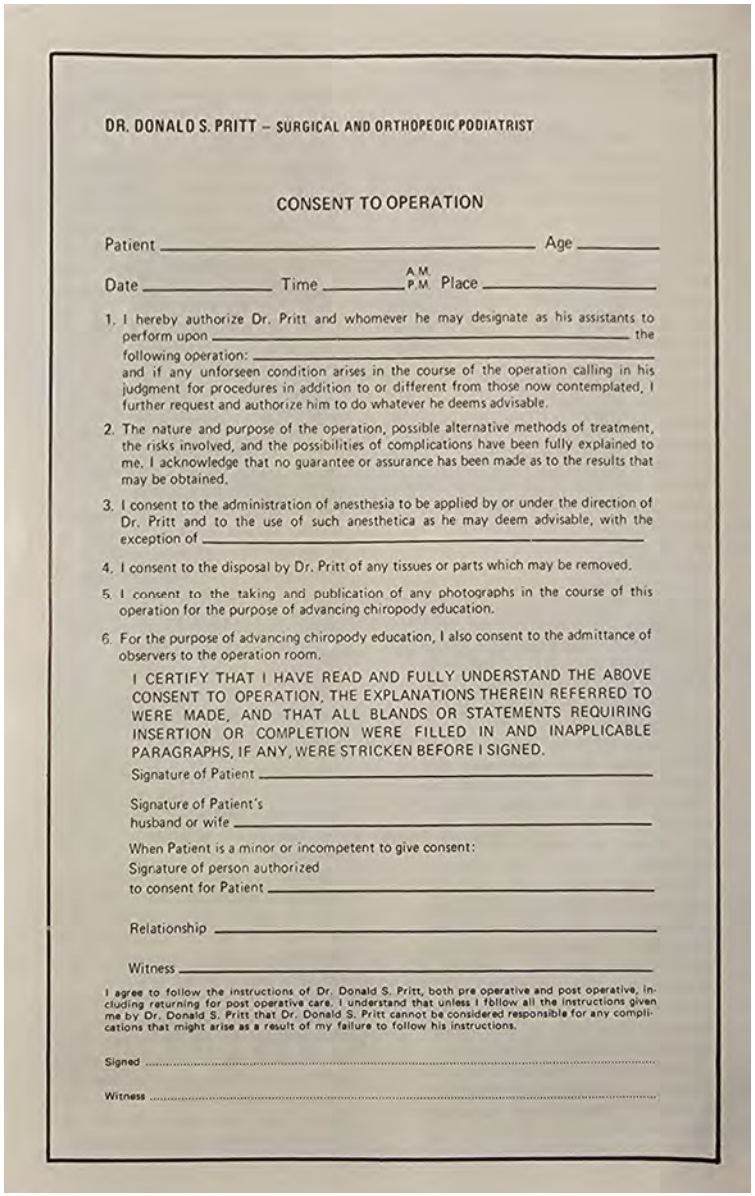


DR. DONALD S. PRITT – SURGICAL AND ORTHOPEDIC PODIATRIST

## CONSENT TO OPERATION

Patient _____ Age _____

Date _____ Time _____ A.M. / P.M. Place _____

1. I hereby authorize Dr. Pritt and whomever he may designate as his assistants to perform upon _____ the following operation: _____ and if any unforseen condition arises in the course of the operation calling in his judgment for procedures in addition to or different from those now contemplated, I further request and authorize him to do whatever he deems advisable.
2. The nature and purpose of the operation, possible alternative methods of treatment, the risks involved, and the possibilities of complications have been fully explained to me. I acknowledge that no guarantee or assurance has been made as to the results that may be obtained.
3. I consent to the administration of anesthesia to be applied by or under the direction of Dr. Pritt and to the use of such anesthetica as he may deem advisable, with the exception of _____
4. I consent to the disposal by Dr. Pritt of any tissues or parts which may be removed.
5. I consent to the taking and publication of any photographs in the course of this operation for the purpose of advancing chiropody education.
6. For the purpose of advancing chiropody education, I also consent to the admittance of observers to the operation room.

I CERTIFY THAT I HAVE READ AND FULLY UNDERSTAND THE ABOVE CONSENT TO OPERATION, THE EXPLANATIONS THEREIN REFERRED TO WERE MADE, AND THAT ALL BLANDS OR STATEMENTS REQUIRING INSERTION OR COMPLETION WERE FILLED IN AND INAPPLICABLE PARAGRAPHS, IF ANY, WERE STRICKEN BEFORE I SIGNED.

Signature of Patient _____

Signature of Patient's husband or wife _____

When Patient is a minor or incompetent to give consent:

Signature of person authorized to consent for Patient _____

Relationship _____

Witness _____

I agree to follow the instructions of Dr. Donald S. Pritt, both pre operative and post operative, including returning for post operative care. I understand that unless I follow all the instructions given me by Dr. Donald S. Pritt that Dr. Donald S. Pritt cannot be considered responsible for any complications that might arise as a result of my failure to follow his instructions.

Signed .....

Witness .....

Lawrence J Kales, DPM

– As the doctor responsible for administering treatment, I make it a rule to *personally* discuss this treatment with the involved patient, or his guardian.

I clearly explain the nature of the planned procedure *and* my reasons for deciding on this particular treatment.

– In addition to detailing the inherent risks, I explain the probable consequences if the procedure is *not* performed.

– If there is an *alternative* – though less desirable – procedure available, I fully advise my patient of this possibility.

– Even before my personal discussion, I *do* ask my patient to read a detailed but understandable explanation of the procedure.

– My talk with the patient includes a frank *discussion* of all aspects that might materially change his decision to undergo treatment.

– I specifically advise the patient if my recommended treatment course is experimental, untested, or *unorthodox* in any way.

– I go into great detail regarding possible *side effects* and complications when the procedure is elective. And most procedures are elective in my office.

– I *record* my disclosures in a number of ways. I record them on tape. I have a witness present during my discussions. I ask the patient to sign an easy-to-understand form acknowledging my discussion and consenting to the procedure. I go even further and have the patient *write out* a full statement over the entire picture that I have drawn of his feet.

Taking these precautions, the legal experts assure me that my patient is far less likely to sue in the first place. If he does anyway, there is no doubt that he has given his informed consent to the procedure.

### Various Consent Forms with Full Information

Every patient of mine receives a thorough foot examination accompanied by the taking of a full case history and pedic radiographs. After my diagnosis has been arrived at and I've decided on the patient's course of treatment, I go into a detailed and clear explanation of what is wrong, why it likely occurred, the possible prognosis, and how it might be treated to assure correction or relief. My presentation is replete with discussions about risks, side effects, complications, alternatives, and anything else that requires full disclosure. My eye always sees ahead to how this may appear on a witness stand. I make sure the patient is fully informed.

During this entire doctor to patient confrontation – as we look eyeball to eyeball – I am tape recording the proceedings. It is done with the knowledge and consent of the patient. I tape record the whole thing: history, examination, presentation, risks, complications, etc. I index these patient tapes and keep them as a permanent part of his record. Each tape is numbered. Each tape number is made a part of the patient record. Every grunt and groan is sound recorded. The patient is asked intermittently if he knows that I am recording him and does he give consent. He says, "Yes!"

Additionally, I use various consent forms with full information printed on them. The patient receives a copy and I receive a copy for my patient's record folder. The patient signs my copy to signify that he has read and retained a copy of the same form which I file away in his folder.

Anything the patient signs for my records is witnessed by one of my assistants. Every patient receives a prescription for pain, and I have that prescription in duplicate signed by the patient accompanied by his writing "for pain" on my copy. Every patient receives a prescription for infection, and the duplicate for my file is signed and written on "for infection" or "antibiotic" by the patient. Each item is witnessed by someone else in the room. Of course, the pain and infection prescriptions are made use of when surgery is the required treatment.

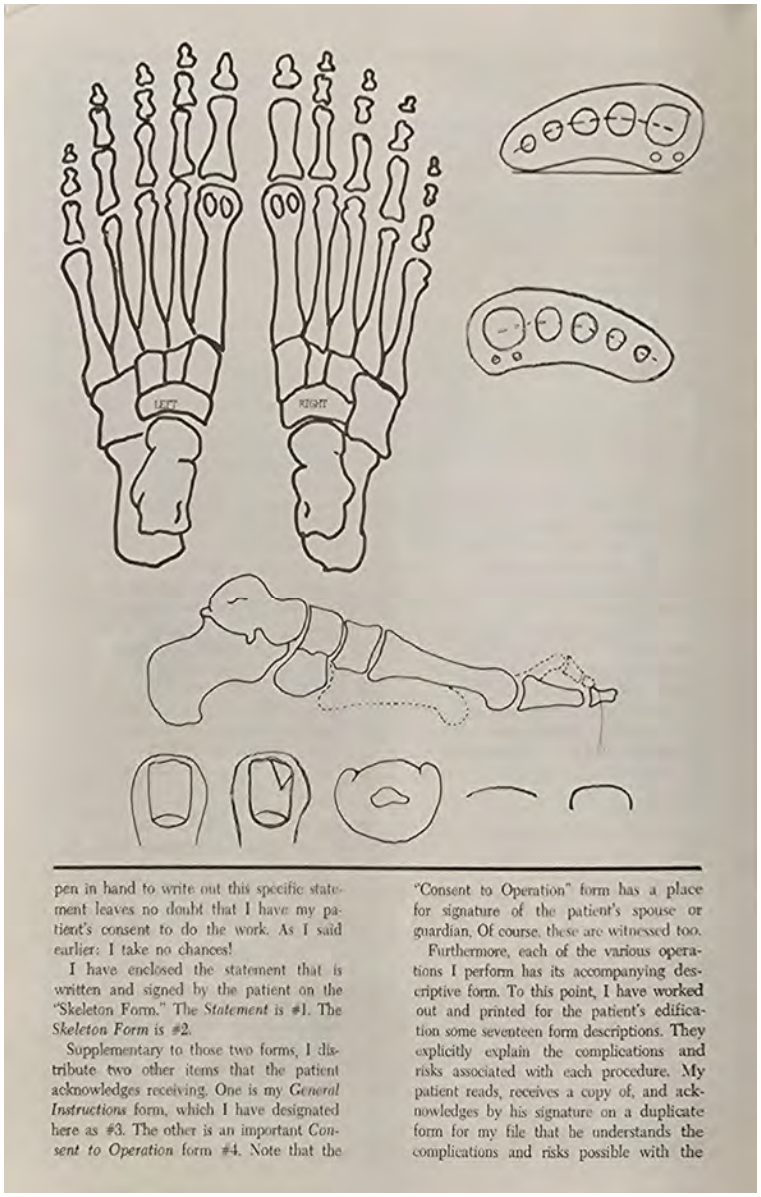
### Pictures Drawn, The Patient Writes On

Besides writing on various "pain", "antibiotic", and descriptions of procedure forms, my patient also writes across pictures that I draw showing his feet. Marking in blue, I draw sketches on a pre-printed skeleton drawing of the feet. There I mark my findings, the conditions, and the way the problem may be solved surgically. It is a graphic diagram of the feet and the work to be carried out.

Across this diagram I have the patient write out a relatively long statement. It is clear. There are no mistakes about whether or not my patient is informed. And taking



Lawrence J Kales, DPM



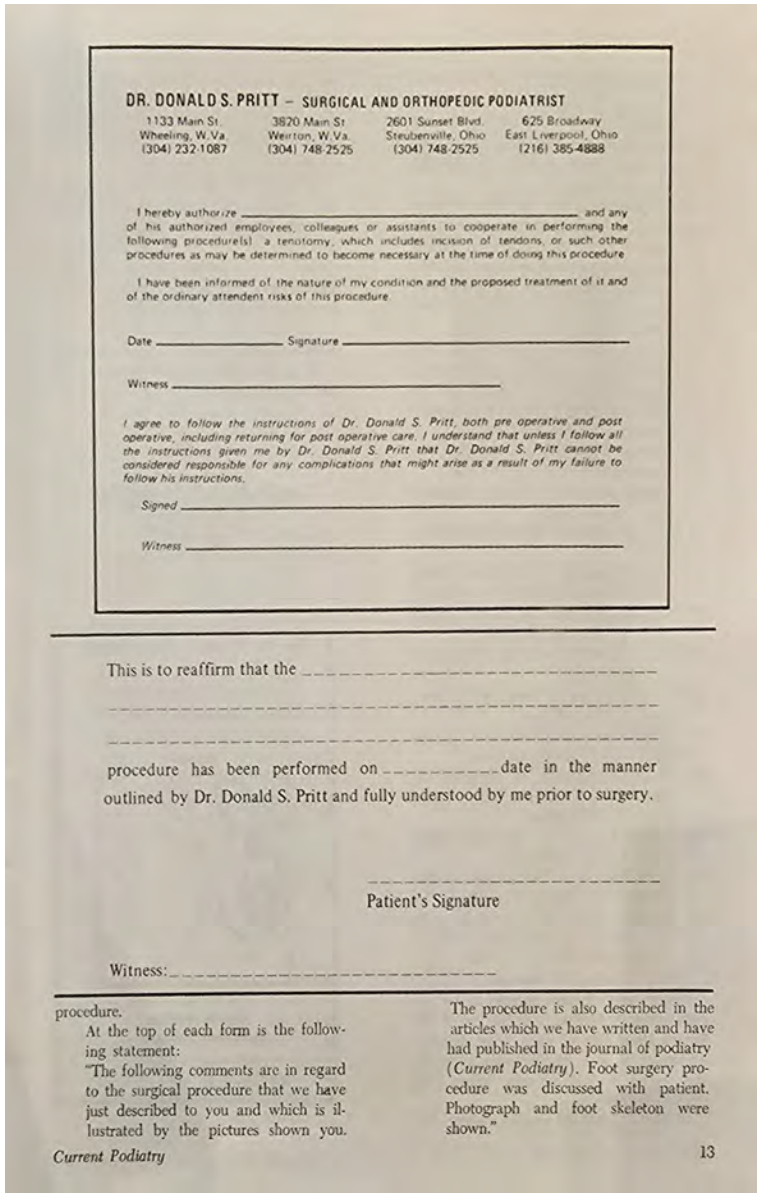

pen in hand to write out this specific statement leaves no doubt that I have my patient's consent to do the work. As I said earlier: I take no chances!

I have enclosed the statement that is written and signed by the patient on the "Skeleton Form." The *Statement* is #1. The *Skeleton Form* is #2.

Supplementary to those two forms, I distribute two other items that the patient acknowledges receiving. One is my *General Instructions* form, which I have designated here as #3. The other is an important *Consent to Operation* form #4. Note that the "Consent to Operation" form has a place for signature of the patient's spouse or guardian. Of course, these are witnessed too.

Furthermore, each of the various operations I perform has its accompanying descriptive form. To this point, I have worked out and printed for the patient's edification some seventeen form descriptions. They explicitly explain the complications and risks associated with each procedure. My patient reads, receives a copy of, and acknowledges by his signature on a duplicate form for my file that he understands the complications and risks possible with the

Lawrence J Kales, DPM



**DR. DONALD S. PRITT – SURGICAL AND ORTHOPEDIC PODIATRIST**

| 1133 Main St. | 3820 Main St. | 2601 Sunset Blvd. | 625 Broadway |
|---|---|---|---|
| Wheeling, W.Va. | Weirton, W.Va. | Steubenville, Ohio | East Liverpool, Ohio |
| (304) 232-1087 | (304) 748-2525 | (304) 748-2525 | (216) 385-4888 |

I hereby authorize _____ and any of his authorized employees, colleagues or assistants to cooperate in performing the following procedure(s): a tenotomy, which includes incision of tendons, or such other procedures as may be determined to become necessary at the time of doing this procedure.

I have been informed of the nature of my condition and the proposed treatment of it and of the ordinary attendent risks of this procedure.

Date _____ Signature _____

Witness _____

*I agree to follow the instructions of Dr. Donald S. Pritt, both pre operative and post operative, including returning for post operative care. I understand that unless I follow all the instructions given me by Dr. Donald S. Pritt that Dr. Donald S. Pritt cannot be considered responsible for any complications that might arise as a result of my failure to follow his instructions.*

*Signed* _____

*Witness* _____

This is to reaffirm that the _____

_____

_____

procedure has been performed on _____ date in the manner outlined by Dr. Donald S. Pritt and fully understood by me prior to surgery.

_____

Patient's Signature

Witness: _____

procedure.

At the top of each form is the following statement:

"The following comments are in regard to the surgical procedure that we have just described to you and which is illustrated by the pictures shown you. The procedure is also described in the articles which we have written and have had published in the journal of podiatry (*Current Podiatry*). Foot surgery procedure was discussed with patient. Photograph and foot skeleton were shown."



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"The following are some of the complications and risks we feel we should inform you of in doing this procedure. Although we find that these risks are relatively small, there are certain risks that could occur and so we must inform you of same."

The seventeen forms list the complications and risks for the following procedures:

1) Surgical correction of ingrown toenail.
2) Surgical correction of deformed toe with an ingrown toenail and exostosis (bone)
3) Surgical correction of contracted toes (Tenotomy) (cutting of tendon).
4) Surgical correction of contracted toes (Capsulotomy) (cutting of capsule).
5) Surgical correction of contracted toes (both Tenotomy and Capsulotomy) (cutting of tendon and capsule).
6) Surgical correction of deformed toe (Arthroplasty) (cutting of bone).
7) Surgical removal of Neuroma (pinched nerve between toes).
8) Surgical removal of Plantar Warts from foot.
9) Surgical removal of Exostosis (overgrowth of bone) (cutting of bone).
10) Surgical correction of Hallux Valgus (Bunion) (cutting of bone).
11) Surgical correction of Wedge Osteotomy (cutting of bone).
12) Surgical cutting of metatarsal (Osteotomy) (cutting of bone).
13) Surgical removal of Heel Spur (boney prominence) (cutting of bone).
14) Surgical correction of Hammer toe (Tenotomy and Capsulotomy) (cutting of tendon and capsule).
15) —Heel Fasciotomy - Cutting of fascia to the —heel (Bursitis).
16) Contracted great toe of the —foot (Tenotomy) (cutting of tendon).
17) Severely contracted — and — toes with downward displacement of the — metatarsal of the — foot (Ligatomy) (cutting of ligaments).

Finally, my informed consent of the patient comes to fruition with the last of the several forms that he signs, dates, and has witnessed. It is a *Reaffirmation* form #5 that repeats all that has gone before. It is reproduced here.

In effect, I have the surgical patient confirm in writing what I am going to do to and for him, he has me do it, and then he tells me in a reaffirmation that I did it and he knew it. I have thus made the patient a member of my own little forensic podiatry society.

It may be advantageous for all of us to join together in a professional *Podiatry Forensic Society*. Do you think so?

4542 Emerson Ave.
Parkersburg, W. Va. 26101

*This General Instruction sheet was designed by Samuel Z. Loren and Dr. Bruce S. Gilbert of 246 East 20th Street, New York, N. Y. 10003 and 554 Larkfield Rd., E. Northport, N. Y. 11731. Their permission was given for use for publication.*





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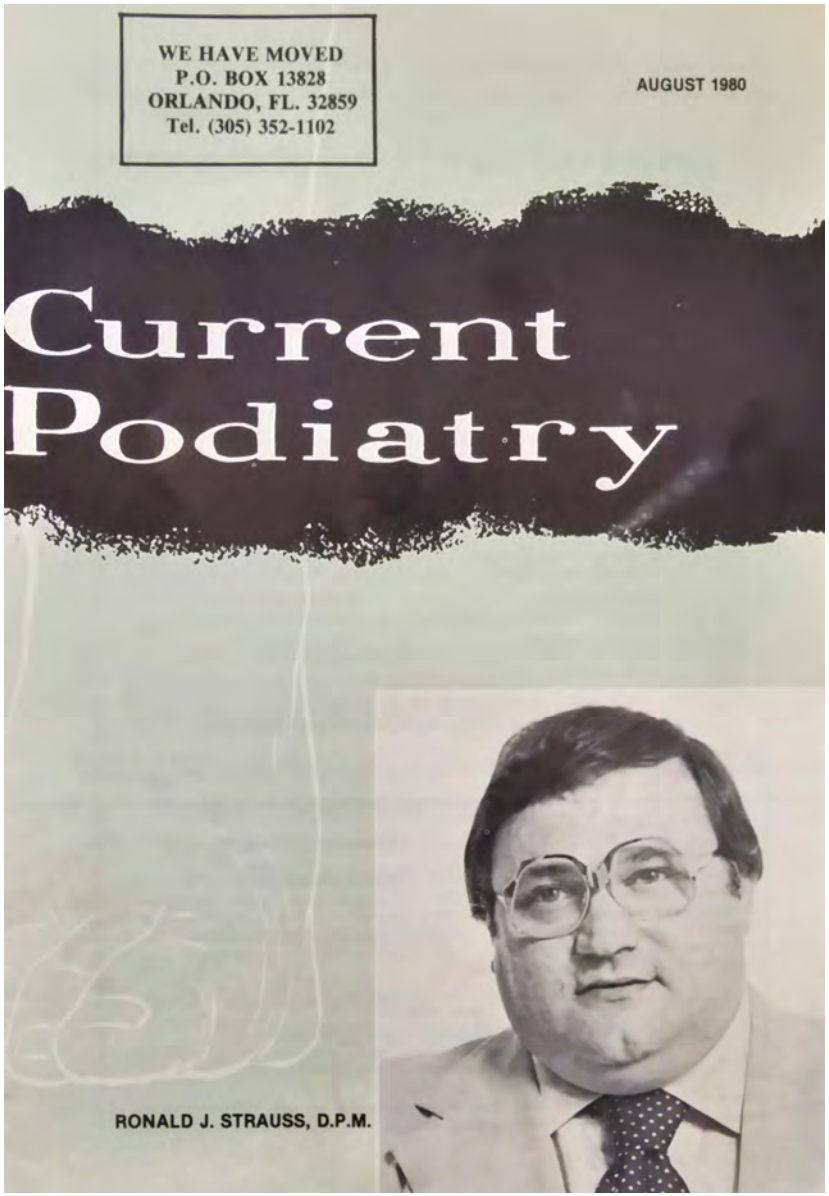


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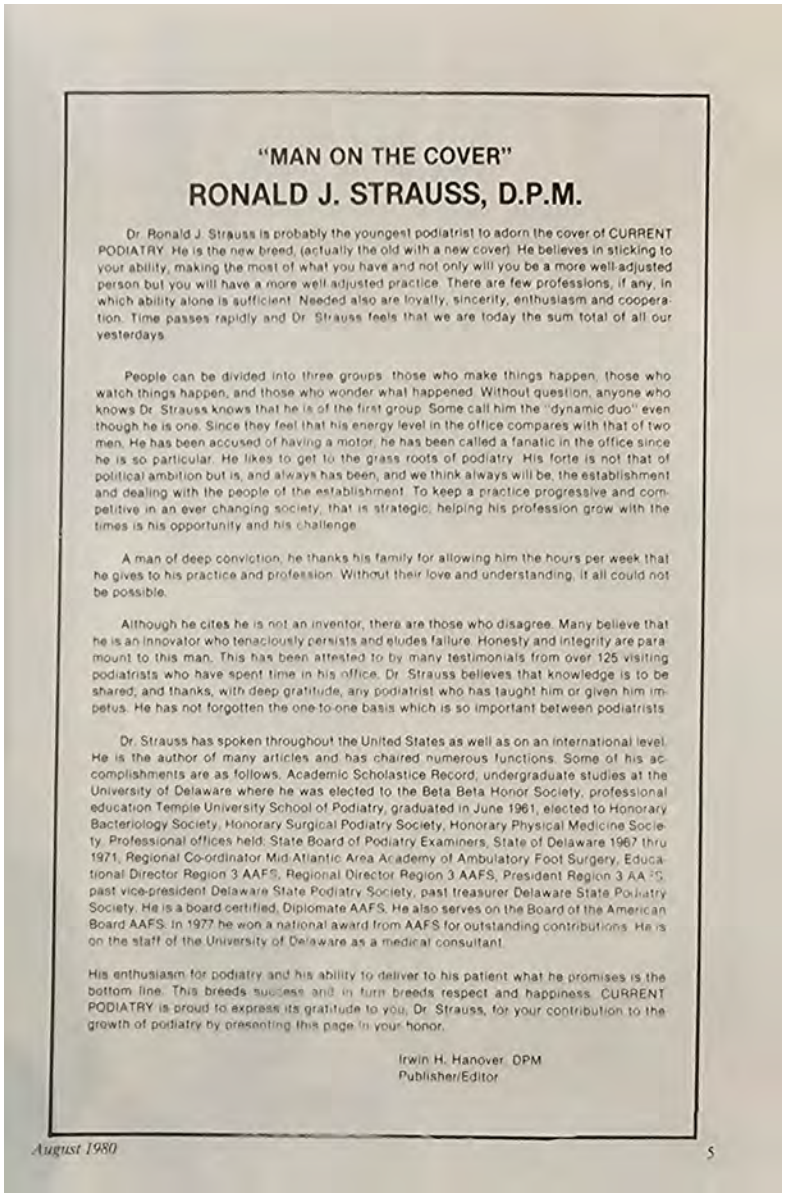

"MAN ON THE COVER"

## RONALD J. STRAUSS, D.P.M.

Dr. Ronald J. Strauss is probably the youngest podiatrist to adorn the cover of CURRENT PODIATRY. He is the new breed, (actually the old with a new cover). He believes in sticking to your ability, making the most of what you have and not only will you be a more well-adjusted person but you will have a more well-adjusted practice. There are few professions, if any, in which ability alone is sufficient. Needed also are loyalty, sincerity, enthusiasm and cooperation. Time passes rapidly and Dr. Strauss feels that we are today the sum total of all our yesterdays.

People can be divided into three groups: those who make things happen, those who watch things happen, and those who wonder what happened. Without question, anyone who knows Dr. Strauss knows that he is of the first group. Some call him the "dynamic duo" even though he is one. Since they feel that his energy level in the office compares with that of two men. He has been accused of having a motor; he has been called a fanatic in the office since he is so particular. He likes to get to the grass roots of podiatry. His forte is not that of political ambition but is, and always has been, and we think always will be, the establishment and dealing with the people of the establishment. To keep a practice progressive and competitive in an ever changing society, that is strategic; helping his profession grow with the times is his opportunity and his challenge.

A man of deep conviction; he thanks his family for allowing him the hours per week that he gives to his practice and profession. Without their love and understanding, it all could not be possible.

Although he cites he is not an inventor, there are those who disagree. Many believe that he is an innovator who tenaciously persists and eludes failure. Honesty and integrity are paramount to this man. This has been attested to by many testimonials from over 125 visiting podiatrists who have spent time in his office. Dr. Strauss believes that knowledge is to be shared; and thanks, with deep gratitude, any podiatrist who has taught him or given him impetus. He has not forgotten the one-to-one basis which is so important between podiatrists.

Dr. Strauss has spoken throughout the United States as well as on an international level. He is the author of many articles and has chaired numerous functions. Some of his accomplishments are as follows. Academic Scholastice Record, undergraduate studies at the University of Delaware where he was elected to the Beta Beta Honor Society, professional education Temple University School of Podiatry, graduated in June 1961, elected to Honorary Bacteriology Society, Honorary Surgical Podiatry Society, Honorary Physical Medicine Society. Professional offices held: State Board of Podiatry Examiners, State of Delaware 1967 thru 1971, Regional Co-ordinator Mid-Atlantic Area Academy of Ambulatory Foot Surgery, Educational Director Region 3 AAFS, Regional Director Region 3 AAFS, President Region 3 AAFS, past vice-president Delaware State Podiatry Society, past treasurer Delaware State Podiatry Society. He is a board certified, Diplomate AAFS. He also serves on the Board of the American Board AAFS. In 1977 he won a national award from AAFS for outstanding contributions. He is on the staff of the University of Delaware as a medical consultant.

His enthusiasm for podiatry and his ability to deliver to his patient what he promises is the bottom line. This breeds success and, in turn breeds respect and happiness. CURRENT PODIATRY is proud to express its gratitude to you, Dr. Strauss, for your contribution to the growth of podiatry by presenting this page in your honor.

Irwin H. Hanover, DPM
Publisher/Editor



Lawrence J Kales, DPM

# Minimal Incision Closing Base Wedges Transpositional Axis Rotation Deformity Correction

Ronald J. Strauss, D.P.M.*

A phenomenon termed Wolff's law stated, "Bones in their external contour in internal architecture conform to the intensity and direction of the stresses to which they are habitually subjected."[1] Although I am not interested in evolutionary changes, analysis will show that mechanical stress, as expressed in Wolff's law, consistently will cause the foot to continue to change structurally over a period to time.

Orthodox methods of determining the degree of varus of the first metatarsal cannot be considered valid in cases in which the second metatarsal is also inclined medially. This occurs most often in tarsus adductus.

Podiatric minimal incision surgery (MIS) is unique in that the patient is immediately able to ambulate after the operation. The progression of recovery is monitored by the patient's tolerance to pain as he places his full body weight upon the surgical site. No casts are used, but the patient must wear a hard-soled shoe anytime he is on his feet. This usually is required until the primary callus is formed at the osteotomy site. What other doctor would allow his patient to put stress upon an area weakened by surgery? Until the development of this type of surgery, very few doctors would allow it. The whole scope of MIS embellishes the fact that the patient stresses the operative site in order to have the bone find its own level of correction or pressure to keep swelling at a minimum. This dynamic healing is personalized in each and every patient with the aid and assistance of flexible casting material (tape). In my opinion, the entire theory of podiatry is one of pressure and counterpressure in bone symptomatology. Pressure is exuded upon a bone and the body reacts to protect that bone by external callus formation. This callus builds up to a point where it becomes painful. It is usually what brings a patient to the podiatrist's office. The only way to permanently relieve this pressure is to create a release of the external force. In most instances, this is in the form of an osteotomy to relieve the stresses placed upon the bone. Once the surgery is complete, there are many ways to hold the corrected position. Currently in vogue are pins, staples, screws, and casts. The only problem with these methods is that the patient is debilitated by not being able to bear weight on the limb in a normal manner. This incapacitates the patient. Many times physical therapy to rehabilitate the joints that have been held motionless is needed to regain full range of motion. Is there an alternative to this disability?

Sometimes immobilization is necessary; however, many patients may benefit from early ambulation. Dynamic healing following MIS does not restrict the patient's ambulation by immobilization. The patient is up and walking immediately, using the stress of the body weight and shoe to move and hold the operative site in a corrected position. These stresses act as a cast on the previous pressure site with only the aid of a tape-type restriction. Pain medication should be minimal since the patient does not experience pain that they do in many other cases. In this case, as a matter of fact, pain is somewhat beneficial to the patient because it warns him to slow down before he injures himself.

What are some of the reasons for a metatarsal primus varus deformity?

- Oblique setting of the cuneometatarsal joint
- Curved configuration of the cuneometatarsal joint.
- Lateral sesamoid wedged between the first and second metatarsal head.
- Thrust by the base of the elevated proximal phalanx.

At the medial cuneometatarsal joint, the articular facets are reciprocally convex and concave, and the plane of articulation slants at an oblique angle medially. The oblique setting of the joint has had its share of emphasis as the determining factor in causing metatarsal primus varus. It seems that not enough is said about the greater convexity of the distal articular facet of the medial cuneiform or the concavity of the corresponding surface of the first metatarsal. A greater curve at this joint denotes greater mobility. A hypermobile first metatarsal may cause it to tilt up, dorsally throwing the heads of the lateral bones into relative plantar prominence. A hypermobile first metatarsal is more likely to incline inward and cause widening of the space between it and the second metataral. As the varus flexion of the first metatarsal increases, the valgus of the great toe become aggravated. The concept of metatarsus primus varus has stimulated considerable interest for years and has fostered a number of surgical procedures. My approach is that of a minimal incision surgical procedure. It is an approach that I consider to be the future answer.

## Closing Base Wedge Osteotomy

The preoperative work-up examination for MIS includes a history of the patient, with the chief complaint being used to rule out differential diagnosis. A list of sumptoms and a visual examination are also important. I explain to all patients that the control of postsurgical pain by ambulation causes a new vascular supply to develop.

The preoperative criteria are angle, depression, and motion of the foot. Contraindications include (1) local or systemic infection or debility, (2) significant joint stiffness—hallux limitus or rigidus, (3) poor patient health status, and (4) osteoporosis.

As with any procedure, complications may occur. In MIS, the potential complications are (1) poor quality of results, (2) osteoporosis, (3) traumatic arthritis, and (4) damage to tissue, nerves, and vessels.

Closing base osteotomy of the first ray has been performed by a number of methods.

- Resection of a wedge of bone with its apex at the medial corical border.
- Insertion of a wedge of bone into the medial aspect of the metatarsal bone.
- Peg-in-hole correction at the metatarsal base.
- Dorsoplantar V osteotomy at the base.
- A crescentic osteotomy at the base.

The minimal incision surgical approach which I use most closely resembles the first described by Loison[2] and performed for the first time by Balasceu in 1903.

## Preoperative Preparation

Preoperative symptoms that may indicate a closing osteotomy of the first ray are pain secondary to pressure about the bunion area; pain present with motion at



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the metatarsophalangeal joint; pain secondary to shoe gear; digital complications secondary to the lateral drift of the hallux; sesamoiditis; and plantar keratosis.

Hallux abducto varus or hallux abductus deformity is one preoperative sign in this procedure. Other signs include and enlarged midal eminence, diffuse plantar keratosis below the first metatarsal head with or without the bursal sac, and a hypermobile splayfoot with dorsal rubbing.

Upon preoperative plain radiographs, several deformities may be noted. Some deformities may require a second procedure for correction.

- Normal proximal and distal aticular set angles, high intermetarsal angle unless corrected by an additional procedure.
- Normal or positive metatarsal protrusion.
- Large hallux abductus.
- Increased first metatarsal declination angle if a triplane correction is to be performed.
- Joint disease does not preclude the procedure if within reasonable limits.
- Closure of the epiphysis is desired.

## Operative Technique

Rigid sterile techique is used at all times. Evaluate the operative foot clinically to determine the location of the metatarsocuneiform joint. Place a finder needle at the point you believe to be 1 cm. distal to the first metatarsocuneiform joint. A preoperative dorsoplantar Polaroid radiograph perpendicular to the transverse plane of the foot is necessary. If a Lixiscope is available, it may be used in the same manner. A linear incision is made medially along the longitudinal axis of the first metatarsal bone approximately 1 cm. distal to the first metatarsocuneiform joint. This has been marked by the finder needle. If need be, a few millimeters of correction is made prior to incision. The opening is made lateral to the medial cotex and medial to the extensor hallucis longus tendon. Once again, the finder needle provides a reference point. The skin incision is made large enough to accommodate the Shannon bur and its associated motion. Incisions must always be of a size so that consequential skin burning will not occur. When the incision is made into the soft tissue, it is carried directly down to the cortex of the bone dorsum of the first metatarsal. It is wise to score the bone two to four times so that a reference point for the Shannon bur is present. Insert the Shannon No. 44 bur from dorsal to plantar and from proximal to distal. At an angle of approximately 120° on the long axis of the first metatarsal, a fail-safe hole should be made. The fail-safe hole goes completely through the dorsal and plantar cortex. However, it is essential to leave sufficient cortex intact medially to allow for the folding of the metatarsal bone in lateral direction. The base is sculpted from a medial to lateral direction going somewhat distally. You should feel the bur go through the lateral cortex. Stop when this occurs. It is important to clean the bur or change it frequently to avoid burning the bone. Remember to use many insertions of the bur with a cutting motion. The cutting surface of the bur will not come in contact with the soft tissue structures, such as the extensor hallucis longus. The cutting surface should be in the bone. The smooth area of the surgical bur could possibly push the soft tissue laterally as you continue with the bone sculpture procedure. The procedure will allow the bone to fold, thereby closing the base area in the transverse, sagittal, and frontal planes. Before the sculpture cut is completed and following the completion, the position of the first ray is evaluated by intraoperatove radiographs. in some cases, the first ray may be held in the appropriate position with Kling and dorsolateral pressure applied by the bandage. The bone may show closure. It is rare that complete closure is shown, even with a casting-type bandage such as Elastropolast. This occurs because the cut is less even than it would be with a reciprocating saw procedure. Topographic understanding and avoidance of the perforating artery are mandatory in the performance of this surgery. However, the perforating artery is approximately 0.75 to 1 cm. proximal to the surgical incision.

## Postoperative Management

The forefoot is wrapped securely to maintain the structural correction of the metatarsal. Retention straps should be used around the hallux to help position the dorsoplantar level of the metatarsal. Two-inch Elastoplast is used to retain the corrected position around the longitudinal arch area extending from the metatarsal head proximally to the base of the metatarsal. One-inch Elastoplast retainers are then used around the metatarsal head and the great toe to help displace the shaft in the lateral and dorsolateral plane necessary to hold the correction. The patient uses a surgical shoe for six weeks postoperatively. Although the patient is encouraged to ambulate immediately, it should be emphasized that the shoe must be worn at all times. The bandage is changed at 3, 7, 10, 14, and 21 days. It is then changed once a week for six weeks. Variances may occur to some degree.

## Discussion and Conclusion

The whole concept of minimal incision surgery in podiatry is to change the angle of pressure and counterpressure. Typically, a greenstick fracture was used previously because its inherent stablility led to improved bone healing. While studying a radiograph, a new concept came to mind, "Why not perform an incomplete greenstick fracture, a foldover procedure?" This would naturally lead to greater stability, finer correction, and better bone healing.

It is common to perform the base procedure in combination with a resection of the medial eminence, an Akin osteotomy, and an extensor hallucis longus lengthening. In a study of 100 patients who had MIS base transpositional wedges performed in our offices, the average patient was managed with 100 mg. of Darvocet N. The number of Darvocet tablets taken postsurgically was approximately 4 to 5. The average postsurgical reduction was large, when necessary.

Postsurgical complications may include metatarsus primus elevatus, delayed or nonunion, and other metatarsal symptomaology. In our study of 100 cases, not one metatarsus primus elevatus has occurred nor, until this date, can we elicit any symptomatology that might be construed as such. Nonunions and delayed healings are also not found in these 100 cases. Transfer lesions are rather rare since many times the second metatarsal, which could be pathologic in length or depression, might show symptomatology and may have been performed along with the first ray correc-



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tion. We have found that very little shortening of the first ray occurs following the transpositional axis rotation.

Other points to keep in mind are that the ideal speed of the power equipment and surgical bur is 8000 to 11,000 R.P.M. This minimizes the chance of burning bone and causing a necrosis. In performing minimal incision surgery, the practitioner must use his senses to the fullest. Close your eyes and visualize the surface of the bone that you are surgically approaching. The bur must be an extension of your mind and hand. Tactile and auditory sensation are of the utmost significance and importance while performing this type of surgery.

The closing base wedge osteotomy will consistently yield excellent prognostic results when performed as described. The technique should be used when an angular change at the first metatarsal base is needed in any direction.

## Conclusion

The closing base wedge technique or transpositional axis rotation, minimal incision type, when performed as described, will yield consistently excellent results. The importance of the hinge, however, cannot be overemphasized. This is a techique to be used when an angular change and possible elevation of the first metatarsal ray is needed. It is controlled by constantly changing the bandage and "recasting" the surgical area. In all cases that we have performed to date, there has not been any incidence of malunion of bone. Healing has been uneventful and the results have been routinely excellent.

However, as with any procedure, it is imperative that the procedure can be used for the proper reason—angular correction or raising of the first metatarsal bone. Table 1 lists a number of forefoot surgical procedures for the first metatarsal.

**Table 1 Osteotomies of First Metatarsal**

Osteotomies At The Head

Correct proximal articular set angle (Reverdin [Green, Laird, Todd modifications[Peabody, biocorrectional Austin)

Correct high intermetatarsal angle (Uni-correctional Austin, Mitchell, Wilson)

Arthritic metatarsal phalangeal joint (Mayo, Stone, Hueter)

Correct hallux limitus and rigidus (Waterman, cheilectomy)

Osteotomies At The Base

Correct high intermetatarsal angle (closing base wedge [Loison-Balasceu], opening base wedge[Trethowan, Stamm], Lapidus [first metatarsocuneiform arthrodesis])

Correct plantarflexed metatarsal (dorsiflectory wedge osteotomy, McElevenney and Caldwell [first metatarsocuneiform arthrodesis])

Combined Osteotomies At The Head And Base

Correct proimal articular set angle and high intermetatarsal angle (Logroscino)

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## MISSING Wrong Addresses


We need an updated address for the following: (If you can help, please notify the Academy.)

- **Dr. Thomas D. Stelnicki** Port Richey, FL
- **Dr. Bruce J. Bronstein** Buffalo, NY
- **Dr. Harry Allen Gordon** Ft. Lauderdale, FL
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- **Dr. Robert Ardell** Elk Grove, IL
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- **Dr. Joseph R. Gassler** Glendale, NY



Lawrence J Kales, DPM

# Correction of the Pasa and Dasa Angles Via Foldover Osseous Procedures

RONALD J. STRAUSS, D.P.M.

Correction of the angle of the great toe has been performed in a minimal traumatic method via the so-called "Akin" procedure. It is truly not only the change of angle of the proximal phalanx but the removal of the bunion or hyperostosis on the first metatarsal head. However, for the purpose of this paper, we will discuss the Akin procedure relative to the change of proximal phalangeal angle.

Over a period of many years, the osteotomy procedure has been performed in many sagittal planes and in many different angular configurations. The whole concept of minimal traumatic surgery in podiatry in conjunction with osteotomy procedures is to change the angle of pressure counterpressure points, along with trying to correct the pathological deviation. It is my contention that a greenstick fracture in all instances that I am able to recollect was the procedure of choice; the reason being that a greenstick fracture being "unsmooth" was able to knit and heal with osteoblastic activity without subluxation or dislocation of the osseous bodies involved. However, a period of time ago while studying a roentgenological view of a foot that included not only a bunion and deviation of the first digital area towards the lateral aspect, but also showed blatant metatarsus primus varus, an ingenious idea evolved. Why not perform foldover procedures or closing wedge osteotomies without a complete greenstick fracture. Hence the closing base wedge procedure which I had performed, and the Akin procedure which I had performed via greenstick type surgomechanics were to be changed from this day hence. The procedures were to be performed with closing wedges. However, they were to be performed without greenstick fractures. After all, isn't one of the most important elements of surgical correction the type of bandaging that is used. When either a closing base wedge or an akin procedure is performed, rather than actually inducing a surgical fracture we have found that a foldover of the bone to close the wedge is much more conducive to proper healing, less pain, and finer correction. In order to perform the procedure properly the apex of the wedge of bone removed must not reach the cortex of the opposite periosteal area. The fold is performed with manual pressure, dexterity, and bandaging. We have found that six weeks immobilization with flexible casting is a necessary entity along with a post surgical type of shoe. The patient may ambulate immediately and pain is held with minimal drugs such as Darvocet N 100 mg. We have found that excellent patients take from 0-3 tablets, average patients from 3-10.

The surgery that we have just described without going into specific details is performed with a one suture incision on the dorsum of the great toe and a one suture incision at the base approximately 1 cm. distal to the articulation with the cuneiform of the first metatarsal. Therefore, we are stating that two sutures are used for this surgery. Of course when the bunion is also removed, an additional suture is necessary.

IS THERE NO END TO WHAT MINIMAL TRAUMATIC SURGERY MAY ACCOMPLISH!

1805 Foulk Road
Foulk Rd. Med. Ctr.
Wilmington, Del. 19810-3797





Lawrence J Kales, DPM

# The Effectiveness Of Metatarsal Osteotomies And Correction of Failures

RONALD J. STRAUSS, D.P.M.

A great multitude of articles have been written on metatarsal osteotomies with every conceivable declination of the surgical fracture angle, etc. The reason for the number of articles and the exuberant number of metatarsal osteotomy procedures being performed is of course relative to the end result of the procedure. In my opinion, of all podiatric procedures the metatarsal osteotomy is by far the most successful entity barring none. However, this does not mean that it is a panacea. There are many factors that must be taken into account. A GOOD podiatric surgeon is succesful with most of his surgical procedures. A BETTER podiatric surgeon is one who *knows when* the procedure is of no relative value. Value is in direct proportion to pain and suffering. A lot of discussion has been held on transfer lesions. I wholeheartedly feel that we can be soothsayers most of the time concerning transfer lesions. It is not hard to be able to warn a patient to expect other metatarsal pathology. Far be it from a good practitioner to not completely inform a patient to possibly expect other painful areas due to the labyrinth of the metatarsal arch. How despondent a patient may become when a metatarsal osteotomy is performed and yet others are causing problems. Yet this is no contraindication to the osteotomy procedure with which we are all so deeply and gratuitously involved. An excellent presentation is explaining to a patient that if one tooth is fixed, rehabilitated, cured, or corrected this does not correct the next tooth if any type of deviation or pathology exists or is potentially existant. In essence, let your conscience be your guide. I am not going to endeavor in this paper to deliver any type of dissertation on variable types of osteotomies. My intent is that of explaining a method to correct failure of the osteotomy to eradicate an intractable lesion plantar to a metatarsal head inclusive of one through and five. When examining the area preoperatively, one should note whether there is a neurofibrotic type of lesion which is quite painful, tender and responds to touch and gait with a great deal more pain than a more normal and frequent type of growth such as tyloma or a nucleated tylomatous mass such as a keratotic plug. If one feels that the growth is such and in their realm of experience they feel that the lesion should be excised also, the procedure should be performed at the same time that the osteotomy surgery is performed. However, a word of caution—this is very rarely necessary. In excising the mass also there is a great deal more trauma delved out to the patient and that is mitigated to the presurgical anesthesia, surgery, and post surgical healing. All surgical approaches should be made with the least possible trauma to the recipient. The patient will thank you a thousand times over. Let's assume that an osteotomy was performed alone. It is most proper not to debride the tylomatous growth and/or to enucleate the lesion. If the area is trimmed and it is flush with the surface of the shoe, one will find that the chance of success has lessened. The additional callosity being present will actually help to force the metatarsal section which is now somewhat free in an upward position. Therefore, once healing takes place there is less counterpressure and the





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callosity and possible lesion will loosen to such an extent that they either fall off of their own accord or a very slight debridement in a period of about 6-12 weeks will eradicate them. In addition, post surgically the patient should not walk barefoot. One will find that this not only causes more pain but traumatizes the surgical area. Sneakers or moccasins are other no-no's. The patient should wear a solid shoe with leather on the bottom so that the metatarsal is in its normal housing and is "pushed" upwards and to a slight degree in another plane also therefore alleviating the intensity of the original pressure point. We do not allow the patient to walk barefoot for six weeks.

I would like at this point to return to the original premise of the surgery being performed, the patient responding nicely, and the surgical site healing uneventfully. however, alas, the painful lesion is still present and the patient looks you in the eye and says, Doctor, it still hurts. Well, even though we did not promise the patient that this would be successful, even though the patient knows that this is an attempt gives us greater incentive to try to help that patient. The procedure of choice in my opinion and the procedure that will work in my experience is as follows:

Approximately 3-4 cc's Xylocaine with epinephrine 1:100,000 is instilled V-type behind the lesion and off to the side. This injection, of course, on the plantar surface of the foot is somewht uncomfortable for the patient and they should be so advised. Following your preparation, the approach should be with the use of a #11 blade. The area is debrided until the circumscribed growth can be seen without question. At this point, total dissection of the growth should be performed. A hemostat should be employed as dissection is taking place to hold the mass at any site. Be certain not to excise a great deal of tissue since we do not want any cicatrical formation in this area. The tissue should be sent for biopsy for confirmation. "This is only a section of the cure". The next, and just as important a section, is performing an ADHESIOTOMY. With a fresh #11 blade an incision is made between the metatarsal bone just to the side and behind the metatarsal head. The reason for that site of incision is that it is not a pressure point and one can be certain that there will be no potentially latent scar formation present. The #11 blade is then turned horizontally after having been entered in a vertical position and the plantar aspect of the metatarsal bone is felt. At this point a sweeping motion is performed so that all adhesions between capsular tissue of the metatarsal phalangeal joint and the lesion that was existant previously have been disected. However, this dissection is only the thickness of the #11 blade. You will find that there is not a great deal of bleeding nor is there a great deal of tissue damage, therefore, tissue necrosis is nil. One must control the time, the depth, and the forcible adhesiotomy manipulation that they use to be minimally traumatic. Following this feeling of freedom in the operative site, the #11 blade is extracted. Biozyme is placed in the cavity of the excision. The linear split incision alongside the metatarsal is not closed with suture since the use of suture even if it is 0000 nylon for example or 00000 nylon may cause small seed warts to form. The bandage should be redressed in a matter of days. Again, a matter of days after that. The incision site will heal in approximately one week to ten days. The excision site will heal in approximately two weeks. The patient should be instructed to stay away from water completely. In our offices we do not believe in allowing the patient to bathe with the foot elevated or with the foot wrapped. Complete control and sterility is only kept by the doctor in charge. It is rare that we allow a patient to rebandage a wound.

So now, the patient who was unhappy should turn out to be a happy patient. The success ratio of this procedure is excellent. In trying to document and keep numbers on this particular procedure, it would be appreciated if anyone having experience with this approach from this time forward would kindly submit their results to—Ronald J. Strauss, D.P.M., 2608 Baynard Boulevard, Wilmington, Delaware 19802.

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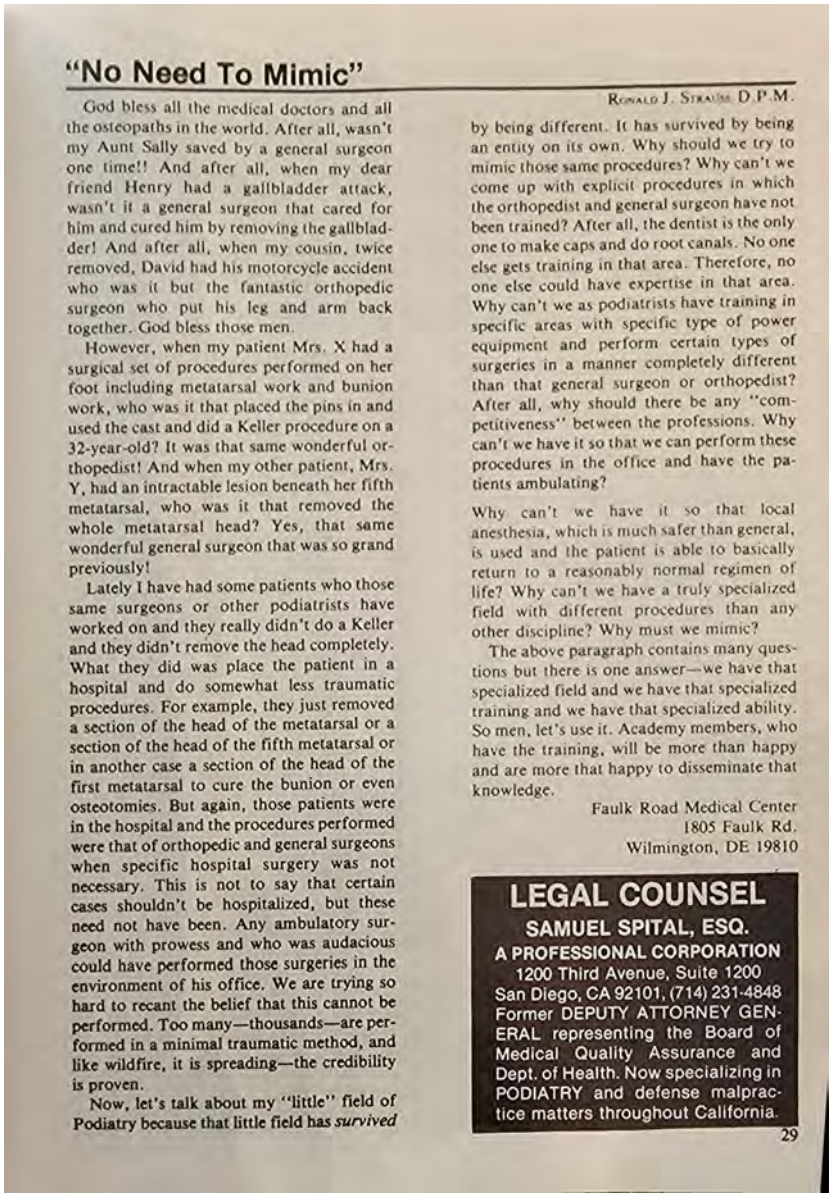

## "No Need To Mimic"

RONALD J. STRAUSS D.P.M.

God bless all the medical doctors and all the osteopaths in the world. After all, wasn't my Aunt Sally saved by a general surgeon one time!! And after all, when my dear friend Henry had a gallbladder attack, wasn't it a general surgeon that cared for him and cured him by removing the gallbladder! And after all, when my cousin, twice removed, David had his motorcycle accident who was it but the fantastic orthopedic surgeon who put his leg and arm back together. God bless those men.

However, when my patient Mrs. X had a surgical set of procedures performed on her foot including metatarsal work and bunion work, who was it that placed the pins in and used the cast and did a Keller procedure on a 32-year-old? It was that same wonderful orthopedist! And when my other patient, Mrs. Y, had an intractable lesion beneath her fifth metatarsal, who was it that removed the whole metatarsal head? Yes, that same wonderful general surgeon that was so grand previously!

Lately I have had some patients who those same surgeons or other podiatrists have worked on and they really didn't do a Keller and they didn't remove the head completely. What they did was place the patient in a hospital and do somewhat less traumatic procedures. For example, they just removed a section of the head of the metatarsal or a section of the head of the fifth metatarsal or in another case a section of the head of the first metatarsal to cure the bunion or even osteotomies. But again, those patients were in the hospital and the procedures performed were that of orthopedic and general surgeons when specific hospital surgery was not necessary. This is not to say that certain cases shouldn't be hospitalized, but these need not have been. Any ambulatory surgeon with prowess and who was audacious could have performed those surgeries in the environment of his office. We are trying so hard to recant the belief that this cannot be performed. Too many—thousands—are performed in a minimal traumatic method, and like wildfire, it is spreading—the credibility is proven.

Now, let's talk about my "little" field of Podiatry because that little field has *survived* by being different. It has survived by being an entity on its own. Why should we try to mimic those same procedures? Why can't we come up with explicit procedures in which the orthopedist and general surgeon have not been trained? After all, the dentist is the only one to make caps and do root canals. No one else gets training in that area. Therefore, no one else could have expertise in that area. Why can't we as podiatrists have training in specific areas with specific type of power equipment and perform certain types of surgeries in a manner completely different than that general surgeon or orthopedist? After all, why should there be any "competitiveness" between the professions. Why can't we have it so that we can perform these procedures in the office and have the patients ambulating?

Why can't we have it so that local anesthesia, which is much safer than general, is used and the patient is able to basically return to a reasonably normal regimen of life? Why can't we have a truly specialized field with different procedures than any other discipline? Why must we mimic?

The above paragraph contains many questions but there is one answer—we have that specialized field and we have that specialized training and we have that specialized ability. So men, let's use it. Academy members, who have the training, will be more than happy and are more that happy to disseminate that knowledge.

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Lawrence J Kales, DPM

# Why Minimal Incision Surgery?

RONALD J. STRAUSS, D.P.M.

In no way would I every want to deny a person the right to be a traditional surgeon, anymore than I would want to deny him the right to be a minimal incision surgeon. I find it, however, wrong to embrace the philosophies of a traditional surgeon *alone* for the following reasons:

1. The evidence is overwhelmingly in favor of minimal traumatic and minimal incision-type surgery. In many instances, it has produced much in the way of patient knowledge and inquisitiveness and has caused them to seek this type of surgical approach.
2. Without the aid of intelligent force or public relations that minimal incision surgeons have used, how could the public aspire to such a great degree to request this type of correction.
3. Our type of surgery was produced by podiatrists with an awesome ability to reason and to plan. sometimes I think MIS is beyond our ability to perceive!! True, we cannot produce any one man, but we can produce many who extol in their virtues of minimal incision surgery. The ramifications of its existence is everywhere in this country and on display via the public in every street. Behind every book there is an author . . . behind every painting there is an artist . . . and, behind every creation as beautiful and complex as minimal incision surgery is one of us . . . a doctor of podiatric medicine. It is scientifically impossible to have an effect without a cause. How could we have a creation without a need? Shame and humiliation follow and bring down the pride of those MIS surgeons who are proud of their accomplishments when equitable men try to take advantage. Labor, sweat, and struggle from a myriad of men caused our success. We have squabbled, fought and scrambled for every advantage. We feel that we have made it. So let's show pride in our work and do only the best.

As always, I cite that this is not a dissertation against traditional surgery. Traditional surgery is a necessary entity. But, more importantly, our *specialty* . . . minimal incision ambulatory surgery is ours. It is podiatry. It is our uniqueness. We must never see ambition go dead. The burden of our pain and misery grows heavier year by year. However, we must keep achieving. If there was a mistake, we must correct it; if there was a failure, we must circumvent it. Some thought that our ideas were foolishness; we must convince them that they certainly were not. We must not become melancholy. We sprang from nothing but we shall return "to nothing". We have a cause that is large. Purpose—for the being of podiatry, is that we are a particular specialty . . . that is truly our motive. I don't want to cast any aspersions upon anyone. I am convinced, however, that there are many individuals who do not truly realize that a specialty in order to survive must be specialized.

It is plausible that one might say that any surgeon can copy the surgery of another, therefore, ours must be better and different. It is virtually impossible for a general surgeon or an orthopedic surgeon, in any numbers, to specialize in power equipment as we do, particularly in a minimal incision-type manner. They do not have the numbers to teach them nor anyone to prod them on.

My concept of our surgery is not a dream or a figment of my imagination. It is not only in my subconscience but in my conscience being also. Therefore, I can dream on and propagate my beloved procedures even moreso. I don't want it to be hypocrisy for podiatrists to live together pretending love when there really is none. I think that there should be. We must all come closer down the middle line. All this, of course, has a logical ring. How do you know when you are at the middle line. It is an easy answer . . . *you feel it.* We must get rid of the "me" syndrome that is eating away at the vitals of our profession. We need the "us" syndrome. That is a commitment that we should work for and ascribe to. We have weathered the storm. We not must weather a Federal storm. Medicine is being cut back upon by the Federal Government and third party. Podiatry being on the low-end of the totem pole, will be the first to bear the burden. After all, we do not save lives; we are elective. Let us stay strong and united. Let us stand erect and display our strength. We cannot slump. This is a deliberate choice for us so that we may survive the severest test. We must protect tenaciously our profession of podiatry. Not only for the public but perhaps for our children.

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# Minimal Incision Surgery
# It's Mystery—It's Magic

RONALD J. STRAUSS, D.P.M., DIP. A.B.A.F.S.

Do you like being the life of the party knowing something that everyone else doesn't know? Then the magic of minimal incision surgery is for you. Using no special allusions or no particularly special apparatus, you can enter the mysterious land of incision precision surgery. Soon you'll realize the amazing feats that you can perform. You will discover the secrets of defying the general beliefs of medicine and of creating your own world of fantasy right in your own backyard. When you become a professional's professional, you will be awed with respect; however, you must put all theories to practice in order to become that professional. You will find that many novices attempt to imitate the instructor with varying degrees of success. Some of your students will be a little wary at first; then they will realize that their nervousness was unnecessary. After becoming more adept at their new endeavor, they will recite incantations just as you have; and then they will have students. They will put more and more emphasis on "our" specialty. They will intercept other podiatrists and start changing their concepts. Not that we desire two forces to collide in midair—only that we expect all to realize the mystery of magical minimal incision surgery when performed properly. It is all a matter of disciplining yourself to a daily schedule of practice until gradually you manage an occasional success. Finally comes the day when very few mistakes are made, and you are the professional that you attempted to become and are absolutely confident and serene. You will then not be an "apprentice". You must, of course, suffer some of the consequences but after awhile, drawing on your skill born of long difficult labors, you will realize that changing shapes of bones can cause a pressure/counter-pressure change that can make a painful entity disappear.

Minimal incision surgery is a challenge. I can promise you that it may leave you physically drained at times, but if you work very hard your foes will become pacified when they see the result that can be accomplished with a revolutionary podiatric surgical approach. Again this does not mean that we cannot founder, but everyone founders as long as we are human. It is important to be staunch enough and "knowledgeable" enough to correct any maladies that you may have inflicted. Remember success may be elusive but each of us has a reason for being in life. We minimal incision surgeons are on a new frontier where we hover on the cusp between liberation and anxiety. The vast constituency of us, however, have passed the hovering point to a great degree. Our pronouncement is, "Look what we can do". It is fascinating, and even though it is unbelievable, we have leaped across the ravine beyond receiving unanimous tolerance. We are now receiving opportunists of fascination. We are being joined. However, I believe we have only touched the tip of the iceberg. Benefactors are now coming out of the closets and are being more affectionate and more verbal.

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Lawrence J Kales, DPM

# Lesser Metatarsals and Hammer Toes

R. J. Strauss, D.P.M.*

The topic of "Lesser Metatarsals and Hammer Toes" in my opinion is the greatest part of a podiatric practice. After all, other than ingrowing nails, what is more frequent? Since the advent, refinement, purification and development of all of our different metatarsal osteotomy procedures and hammer toe procedures, we have been able to keep patients working, walking, and quite content. How many people have suffered for years with intractable plantar keratoses and bursitic conditions on the plantar aspects of the feet missing valuable work time and being recipients of sufferage. How a multitude of people wear molded shoes and arch supports and metatarsal pads to try and alleviate some of these pressures on the bottom of the feet and toes. Let's not forget the tailor's bunion, which today is performed so readily with an angulated osteotomy on the fifth metatarsal rather than surgically removing the hyperostosis on the lateral aspect of the head and possibly causing joint arthrodesis or joint pathology at a later date.

There are, of course, a multitude of approaches for lesser metatarsal osteotomy procedures. We as podiatrists should be lauded. We have asserted ourselves, we have competent people, and we have passed the experimental mechanism stage. There is no more foster care given by us but true radical revision so that there is a post genetic correction. A summarization of the facts is that I believe, *in most instances,* trimming lesions is almost a total disregard for the health and welfare of our patients. I believe that a compulsive attitude to correct pathological conditions and to negate the pain which is present is what our profession stands for. My belief is well-founded. My allegation is that this will make us a stronger and more viable profession. And remember, we must stand together and not be divided. In order to make our procedures unquestionable there are two important fundamentals . . . are they safe? . . . do they work? I know for a fact that both of these things have been proven. At this point our methods are not controversial . . . they are not questionable . . . they are not poorly conceived but they are medically sound. We must not pollute our minds with the theories of a few. We must understand why the massive increase in the number of these procedures that are being performed everyday by the multitude of podiatric specialists, men who yesterday questioned these type of procedures. There must be a sincere relationship between ambulatory surgeons and traditional surgeons. There is a place for each. There is a combination that can be used. This is the proper method. I think also that it is wrong to lump categorically two separate types of programs. They should be married to each other overwhelmingly. The correction of intractable keratosis via osteotomy procedures are increasing. The complexities of traumatizing tissue to a greater degree are disappearing. Yes, it is intricate to work through a minimal incision, but the final figures and success rate show that a significantly high percentage of patients return for additional corrective procedured as well as sending their friends and relatives for correction. Do not dilute the diligence of these procedures but enhance their effectiveness. The results are undeniable.

Appropriateness of first metatarsal osteotomy procedures is so easy to ascertain. There are many different angles that can be used, the most popular of which at this time, is the so-called modified Wilson type procedure made so famous throughout this country by the past president of the Academy of the Ambulatory Foot Surgery, Dr. Seymour Kessler. More to the point, is that the sensitive population of this country, by the droves, request this type of surgical correction rather than hospital oriented procedures to correct a bunion or depressed first metatarsal ray or combination. The objective of course of the modified Wilson type procedure is to correct the metatarsus primus varus formation and depression that occurs on the first rays so often. Of course, there are times that this procedure cannot be used. Uncategorically there are many angles on this procedure alone that may be em-

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ployed, any of which may result in a compensatory response necessitated by the improper pressure/counterpressure fault of the first metatarsal ray. The change of angle is sufficiently persuasive in that the procedure is effective. Like any other procedure, it is not a panacea but it can definitely be construed to mean that this procedure is effective most of the time. It can only be chastised by aggregates of failures when it is performed either improperly or at the wrong time. However, there are no miracle-type surgeries and there are aggregates of failures with all types. By and large, the vast number of these procedures when performed at the proper time are successful. Remember, specified objectives are to be achieved and these achievements can only be made when performed where indicated.

Believe in affirmative action and your practice will not be replete. The public is apt to serve us well when entrusted with the most modern of all procedures, that is ambulatory surgery in all phases. Mediocrity is not what our profession of podiatry wants. We want high specific standards that can be obtained by no other specialty other than our own. Therefore, our training must be specific in specific areas. Of course, the number of minimal incision type surgeries have increased but let's compare it with the curettage procedure in abortion. In 1972 curettage procedures for abortions was 88.6%, in 1978 it increased to 94.6%. Now that is really and truly only a small percentage of increase. However, prior to 1972 going into the 60's and coming to 1972 the per cent of increase was great since this was a new method that worked. It was practical and accepted. This is the analogy that I am bringing into minimal traumatic surgery, and of course, when I refer to minimal traumatic surgery I am referring to minimal incision surgery. There is no such thing as a closed surgery and I abhor the inference. Therefore, why can't we just call surgery, "Surgery". Apparently there is a gap of knowledge and information on methodology in minimal incision surgery. The goal of the Academy of Ambulatory Foot Surgery is to review via cadaver surgery and courses the essential elements necessary to perform minimal incision surgery and how these elements can be incorporated into your everyday practice. Competence is ascertained by results over a period of time. Our allied health professionals must look at our profession in awe and must refer patients to us for toe surgery, metatarsal surgery, and rear foot surgery. After all, this is our main specialty. I pray that our lecture today and tomorrow may act as a catalyst for only a few men who not only peruse through my words but truly dissect and decipher their meaning. How I aspire to convert only a few. You see, there is no left and there is no right. There is only a middle but in the middle there are many ways of doing things . . . A, B, C, D, E . . . which do you follow? It should be the one that functions best in your hands. There is no unequivocable method, however, in my opinion there are some that are better than others since they cause less trauma and a patient can be controlled somewhat better.

There are, of course, a multitude of approaches to lesser metatarsal osteotomy procedures. Today I will describe a procedure which I have used for a number of years with a vast amount of success. My methodology in performing osteotomies on the second, third and fourth metatarsal bones is identical. The fifth metatarsal bone is approached in a different manner. Imperative it is, that the right location be chosen to enumerate the destiny of the osteotomy healing prognosis. The question — how do we choose the right location. It is common knowledge at this time that cancellous bone does heal faster than medullary bone areas, therefore, we should try to stay in the area of the surgical neck. However, be assured, that the medullary bone osteotomy procedures will heal even though I personally do not feel these are the areas of choice in the lesser metatarsal bones except possibly at specific times when the fifth metatarsal is approached in a slightly more proximal manner. I would like at this point to disregard first metatarsal osteotomies where more of a variance is indeed necessary in my opinion. To start off with finding our location of lesser osteotomies, needed is the tactile sensation of feeling the plantar aspect of the foot and with our forefinger simply probing and pushing superiorly on the plantar aspect of the involved metatarsal and on the involved tyloma or intractable lesion. This of course will give us some idea of our location



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for the osteotomy site even though we are plantar. It at least allows us to set up our body in a position so that a blade, #15, in our case, is introduced from the dorsal aspect alongside the metatarsal bone. There is a variable location to make your incision of course since the location of the lesion due to skin movement may be more distal or more proximal. How many times I have been asked the question, if the lesion seems to be under the base of the proximal phalanx, is an osteotomy indicated. Or if the lesion seems to be farther back than the head of the metatarsal will an osteotomy suffice. The answer in both instances is usually yes. One must remember that in medicine there is no panacea. However, even medicine does follow the rules of physics to some degree and 1 + 1 usually = 2, so therefore gentlemen and ladies, pressure/counterpressure effect is most important. If the pressure/counterpressure is changed usually success is imminent. Variables are intractable keratoses where adhesions are present or possibly an occlusion cyst being present, or possibly scar tissue where the areas was surgically approached in a an alternative manner by another specialty and a burn or excision produced more damage than good. At this point, an incision is made on the dorsum of the foot approximateley ¾ of the way over on the dorsum of the metatarsal bone. I cite ¾ since this is just a figure that falls into my mind. I believe that the #15 blade should hit the very edge of the metatarsal bone without causing any damage and just so slightly being veered off the side of the metatarsal bone in the area of the surgical neck. The tissue may then be cleared at the inception of bur usage only osseous tissue is touched and osseous sound is heard. It is my contention that a greenstick surgical fracture is the most advantageous type of osteotomy procedure. There is never a dislocation since the bone is being held by the capsule and by the tendinous and ligamentous anatomy of the area. When approaching a fifth metatarsal the incision is made laterally with a #11 blade. Our point of incision is just behind the surgical neck. This is an easy point to ascertain since the bulge of the head can be felt with the thumb or forefinger quite readily. In this case a fail-safe hole is drilled on approximately a 10-12° angle rather than a transverse osteotomy such as we perform on a second, third and fourth metatarsal bone. Following the fail-safe hole, the bone is sculptured upwards and downwards until only periosteal tissue is left and a greenstick fracture is performed at that point. In both instances the only bandages that are used are two gauze pads and a 2" elastoplast tape. One suture is used in either case. Patients are placed in their normal shoe since this works as a cast. They are certainly told not to walk in their barefoot for six weeks.

Hammer toe procedures are multiple and varied. We prefer performing hammer toe surgery in a minimal traumatic method in most instances. All toes are performed via the same type of incision other than the left fifth toe since I am right-handed. With the #11 blade an incision is made on the medial aspect of the toe on the right foot and on the lateral aspect of the toe on the left foot other than the fifth left foot where the incision is made on the medial aspect going straight downwards. Dissection is performed clearing up to the phalangeal head and beneath the tendon. At this point, a heliocoidal bur is introduced to start a wedge of bone being removed. We then switch to what I call the "workhorse" which is the Fisher bur. We continue delving through the phalangeal shaft until an osteotomy or diaphysectomy is performed and work just slightly forward to eracicate or ossicide a section of the head. We then switch to a large Brophy bur and continue with our ossicide procedure until the head is eradicated. Many times we must switch over to a Shannon 44 to smoothe or eradicate a small section of bone on the edge or corner. It is imperative that Polaroid x-ray examination be taken during this surgery.

There is another method of approaching arthroplastic type procedures with an incision on the lateral or medial aspect of the digits. The incision is made in much the same manner that we described previously. A #67 Beaver blade is then introduced to dissect beneath the tendon up into the capsular area and incising the collateral ligaments. A #44 Shannon bur is introduced on the shaft and an osteotomy procedure performed at that point. Dissection is continued and the head is removed en toto. One or two sutures are used. The incision is on the side of the toe. This is a new procedure that we have been working with for some time now. It is quite

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hard to perform through a one or two suture opening and in most instances we use one suture. It is less painful than a traditional hammer toe and yet more uncomfortable than a minimal incision-type surgery that was described previously.

First metatarsal osteotomy procedures in our office are performed in two different manners. Mainly, one is a V wedge osteotomy from the dorsum of the foot when there is a normal metatarsus primus varus angle with minimal hallux valgus. The second method is the so-called Wilson type osteotomy where just behind the head a fail-safe hole is made at approximately a 10-15° angle going from distal to proximal. The sculpture is then continued in an upward and distal manner swerving the 44 Shannon around to make the dorsal ledge of bone point forward. The third angulation is placing the bur back in the 10-15° angle and swerving the 44 Shannon backwards as the sculpturing is performed plantarly. Shortly the bone will loosen and be able to be adjudicated to any position that you deem necessary. Bandaging of course is extremely important in all of the instances of a first metatarsal. We do keep a first metatarsal restricted in motion for 5-6 weeks with tape and a Reece post surgical shoe is always used. There should be freedom of motion before the flexible cast is applied and if motion is free enough, even the first redressing is not too uncomfortable. Darvocet N 100 mg. is all that is used post surgically and in most of our cases patients take from 0-3 Darvocet N tablets. They are ambulatory at all times.

Remember doctors, I have proposed for many years that our approach be only to symptomatic areas. I have worked with many men in this profession and have asked them to approach surgical correction in the foot in the same manner. Therefore, there is much less of a chance to cause an iatrogenic problem. I think after a number of years I have won the endorsement of this judgment from many other podiatrists. I think it offers the most effective and realistic control of the patient and the greatest prognosis. The patient should not be threatened that comes into our office with a multitude of surgical invasion if they are truly not necessary. A toe may be crooked, it may not cause any prob-





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lems. Therefore, I say, let it be until the day that it is "ripe" for any surgical approach. When does it become "ripe", WHEN IT HURTS THE PATIENT. Our relationship with the patient will be only closer when they see that only true pathology is approached. Of course, there are times when this cannot be so. The thing that comes to my mind immediately is the second toe that overlaps the great toe and the great toe is in a valgus position. It is not futile but almost futile to try and correct the second toe without bringing the great toe over into a more normal plane of existence. I say it is not futile since the patient may be satisfied to have a second toe that has been operated upon. A second toe that may be fatter and flatter but at least there is no bump on the dorsum hitting the top of the shoe. Perhaps it is a very senile patient and you want to cause the least amount of trauma that you are able just to keep this patient safe and happy. Remember, any surgical approach involves not only our patient but their friends, families and neighbors. It sends ripples of fear through that group and changes the way that the patient lives for a short while. Therefore, we must meaningfully govern our approach and must face up to the fact that although the correction may not cause much pain, it does have a devastating effect on the person who has been operated on. So therefore, I repeat again, let's just roll up our sleeves and actually do what we decide to do, not do what is beyond our jurisdiction and capabilities. I for one am tired of seeing men promise more than they can deliver. I know that you are also.

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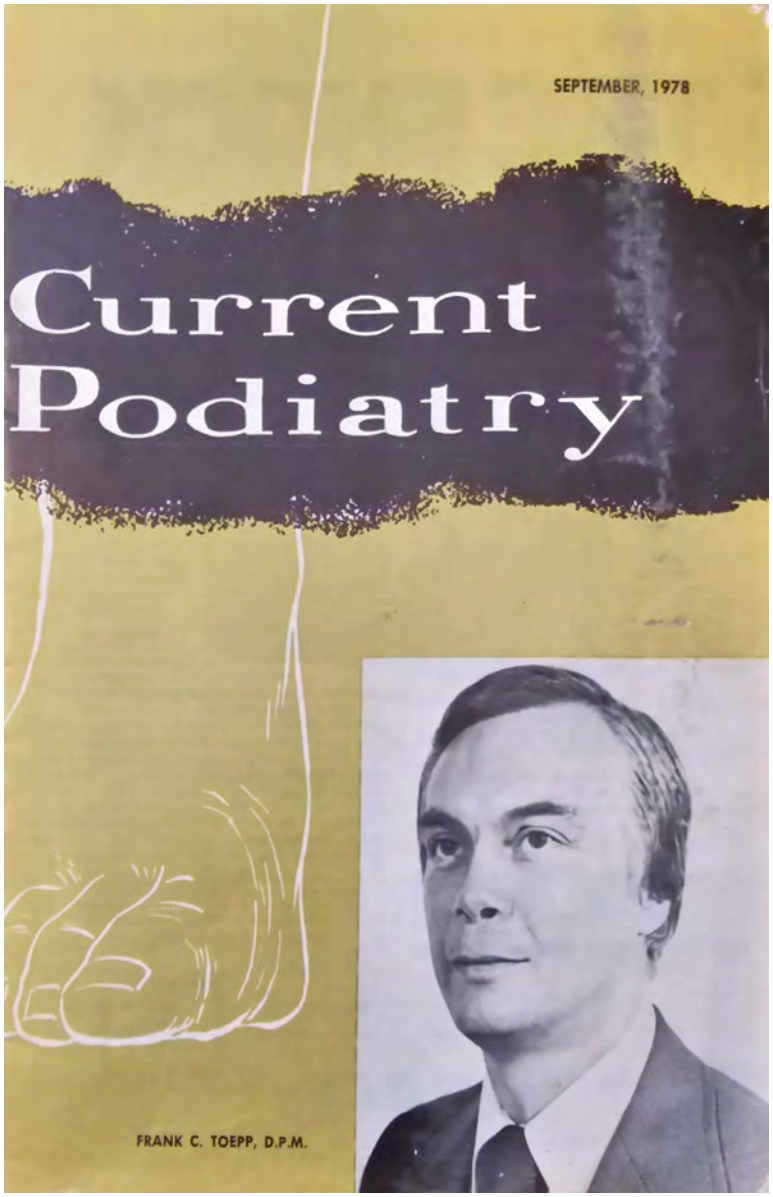


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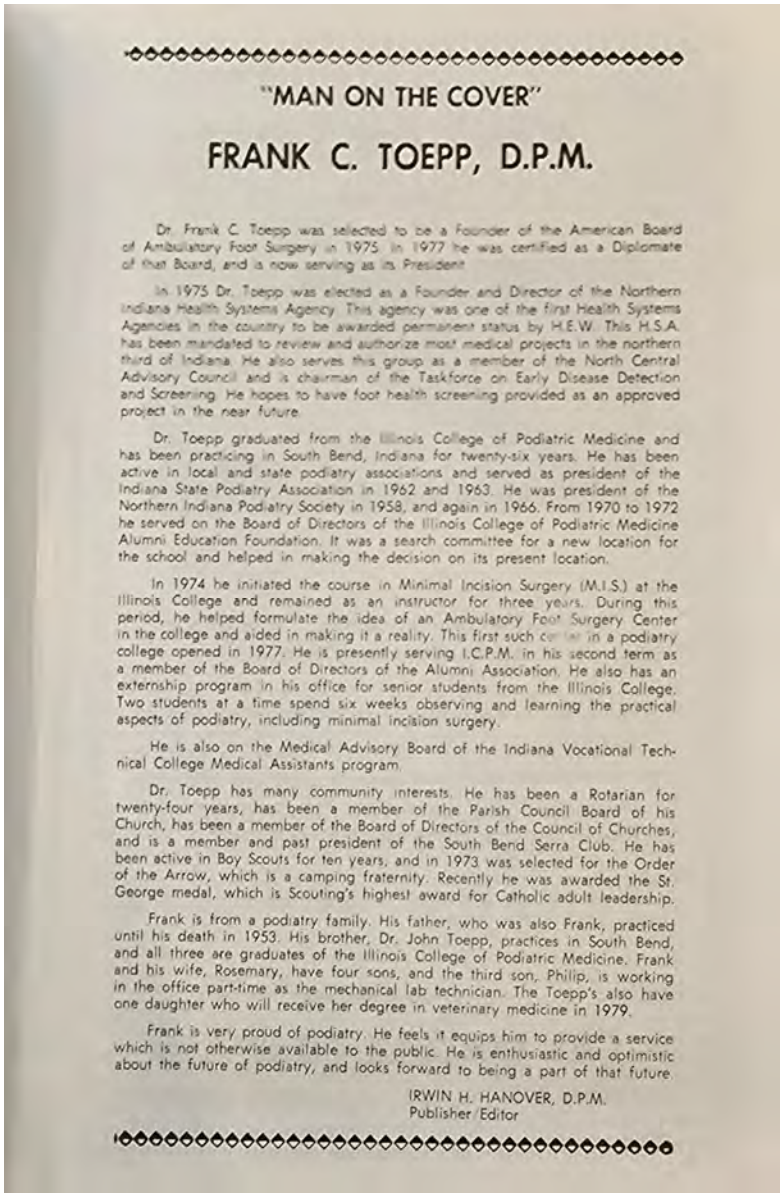

"MAN ON THE COVER"

# FRANK C. TOEPP, D.P.M.

Dr. Frank C. Toepp was selected to be a Founder of the American Board of Ambulatory Foot Surgery in 1975. In 1977 he was certified as a Diplomate of that Board, and is now serving as its President.

In 1975 Dr. Toepp was elected as a Founder and Director of the Northern Indiana Health Systems Agency. This agency was one of the first Health Systems Agencies in the country to be awarded permanent status by H.E.W. This H.S.A. has been mandated to review and authorize most medical projects in the northern third of Indiana. He also serves this group as a member of the North Central Advisory Council and is chairman of the Taskforce on Early Disease Detection and Screening. He hopes to have foot health screening provided as an approved project in the near future.

Dr. Toepp graduated from the Illinois College of Podiatric Medicine and has been practicing in South Bend, Indiana for twenty-six years. He has been active in local and state podiatry associations and served as president of the Indiana State Podiatry Association in 1962 and 1963. He was president of the Northern Indiana Podiatry Society in 1958, and again in 1966. From 1970 to 1972 he served on the Board of Directors of the Illinois College of Podiatric Medicine Alumni Education Foundation. It was a search committee for a new location for the school and helped in making the decision on its present location.

In 1974 he initiated the course in Minimal Incision Surgery (M.I.S.) at the Illinois College and remained as an instructor for three years. During this period, he helped formulate the idea of an Ambulatory Foot Surgery Center in the college and aided in making it a reality. This first such center in a podiatry college opened in 1977. He is presently serving I.C.P.M. in his second term as a member of the Board of Directors of the Alumni Association. He also has an externship program in his office for senior students from the Illinois College. Two students at a time spend six weeks observing and learning the practical aspects of podiatry, including minimal incision surgery.

He is also on the Medical Advisory Board of the Indiana Vocational Technical College Medical Assistants program.

Dr. Toepp has many community interests. He has been a Rotarian for twenty-four years, has been a member of the Parish Council Board of his Church, has been a member of the Board of Directors of the Council of Churches, and is a member and past president of the South Bend Serra Club. He has been active in Boy Scouts for ten years, and in 1973 was selected for the Order of the Arrow, which is a camping fraternity. Recently he was awarded the St. George medal, which is Scouting's highest award for Catholic adult leadership.

Frank is from a podiatry family. His father, who was also Frank, practiced until his death in 1953. His brother, Dr. John Toepp, practices in South Bend, and all three are graduates of the Illinois College of Podiatric Medicine. Frank and his wife, Rosemary, have four sons, and the third son, Philip, is working in the office part-time as the mechanical lab technician. The Toepp's also have one daughter who will receive her degree in veterinary medicine in 1979.

Frank is very proud of podiatry. He feels it equips him to provide a service which is not otherwise available to the public. He is enthusiastic and optimistic about the future of podiatry, and looks forward to being a part of that future.

IRWIN H. HANOVER, D.P.M.
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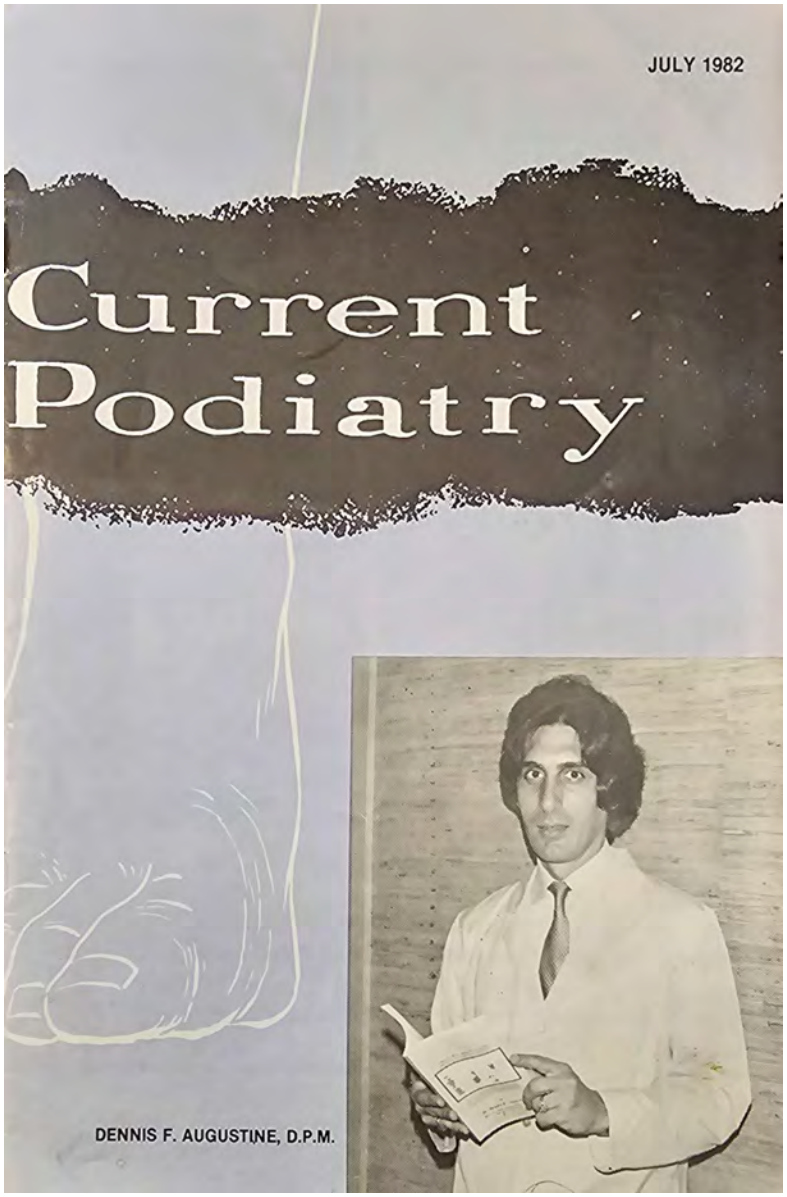


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