



# Health Bulletin



## Smart Toe Implant Lets Foot Surgery Patients Go Wireless

(NAPSA)—It's no wonder that millions of Americans suffer from some form of foot pain. The American Podiatric Medical Association (APMA) estimates that by age 50, the majority of people have logged 75,000 miles on their feet.

Among the most common foot problems are “hammertoes”: a bending of the second, third or fourth toe at the middle joint, causing it to appear like an upside-down “V” when viewed from the side. Hammertoes are caused by a muscular imbalance that does not allow them to work in pairs to straighten the toe—usually the result of ill-fitting shoes that force the toes together and push the smaller toes into a bent position. Over time, the toe muscles shorten and lead to the often painful deformity.

Traditional surgery to fuse and stabilize the toe bones into their correct position depends on a “K-wire” inserted through the tip of the toe and down the center of the bones. Once inserted, the wire protrudes from the tip of the toe for four to six weeks during healing. The protruding wire is clumsy as well as painful, plus the open wound can increase infection risk.

To solve these problems, a new option called the Smart Toe™ Memory Implant is now available to surgeons and their patients. Available from MMI-USA, Inc., a manufacturer of innovative orthopedic products for hand and foot surgeons, the implant was created specifically to better treat toe pain and deformities such as hammertoes, other forms of deviated or crooked toes (such as mallet toes, claw toes, Morton's toe), as well as



**A new implant is making it much easier to correct painful conditions such as hammertoes, which can be the result of wearing ill-fitting shoes.**

toe deformities caused by severe arthritis, diabetes, stroke or even heredity. Treatment with the new implant produces the desired bone fusion, without having any wire exposed externally.

The new toe implant gets its “memory” from an alloy called NiTiNol, which has unique compressive—or shape memory—properties that are activated by body heat. Inserted after being cooled by the surgical team, the implant expands in width, securing it in place, then gradually shortens in length, creating compression across the joint line. The expansion and shortening processes encourage joint fusion and healing. The implant is also available in a different design that is superelastic, with a springlike action that does not require heat or cold to function.

In addition to the material's unique properties, the one-piece design of both types of implant bring advantages. Other implants commonly used to correct hammertoes consist of two pieces that

must be connected during surgery, risking disconnection and rotation afterward. Rotation is a frequent problem and can result in improper fusion. Because the Smart Toe implant is completely internal, it resists any movement or rotation and can be positioned where needed without disrupting otherwise healthy bone.

“I was looking for a better method for fusing the toe joints—one that would allow for stability without the use of external wires,” says Stuart Mogul, DPM, FACFAS, of Mogul FootCare ([www.mogulcare.com](http://www.mogulcare.com)) in New York City. “To date, patient satisfaction has been high.”

Another podiatrist, Arush Angirasa, DPM, AACFAS, of The Podiatry Group of South Texas, PA ([www.thepodiatrygroup.com](http://www.thepodiatrygroup.com)) in San Antonio, has seen similar, positive results in his study comparing the implant with K-wire fixation. The study followed 30 patients for 56 weeks. “Most people are quite apprehensive about having an external wire protruding from their toe after the surgery, which then has to be removed.”

Dr. Mogul, who performs much cosmetic surgery, also finds the implant easy to use. “It permits easy and precise placement in the toes and does not interfere with viable joints.”

For more information or to see a doctor about this new treatment, visit [www.HammertoeTreatment.com](http://www.HammertoeTreatment.com). To find a certified podiatric or orthopaedic foot surgeon in your area, visit the American College of Foot and Ankle Surgeons at [www.acfas.org](http://www.acfas.org) or the American Orthopaedic Foot & Ankle Society at [www.aofas.org](http://www.aofas.org).