

A clear cut treatment for pes cavus

It was Josh Burns's stint as a shoe salesman during high school that led him to podiatry.

"I was working in the shoe shop to get a bit of extra cash after school and I saw a whole lot of foot problems," Josh, now 30, recalls.

Today, almost 15 years later, the University of Sydney PhD graduate and podiatric researcher, lecturer and clinician has converted that awareness into studies of what's causing some of those problems and how to fix them.

Josh has completed one of the world's most comprehensive studies of the assessment and treatment of painful high-arched feet.

The study was part of a four-year PhD thesis funded by the Australian Podiatry Education and Research Foundation. It developed a tried and true 'recipe' for a custom foot orthosis that reduces pain and improves the health of people with painful high-arched feet.

"We know a lot about flat feet but we don't know all that much about high-arched feet which we call pes cavus," Josh says (pes stands for foot and cavus stands for cave and literally means cave through the foot.)

"I looked at a whole lot of different ways of assessing this type of foot. The big problem with high arched feet is that not much of the foot is in contact with the ground. There is more pressure on the heel and the ball of the feet and that can cause pain. We also know that about 10 per cent of the population has pes cavus and of these, about 60 per cent experience pain."

Josh wanted to find out whether customised foot orthoses, which podiatrists have been recommending for years, based on their experience of their effectiveness, could in fact be scientifically proven to be effective pain reducers.

There were no clear guidelines for their construction and there was limited evidence of their efficacy, so Josh conducted a clinical trial. It was to be the world's first randomised controlled trial of customised foot orthoses for this condition.



He allocated customised foot orthoses to one group of 75 people with painful pes cavus and to another group of 79 people who also suffered painful pes cavus he allocated 'sham' orthoses. The sham orthoses were made simply of flat latex foam. Then, after three months, the participants were surveyed for foot pain, function and quality of life improvements. They were also measured for changes in plantar pressure across the whole foot, the rearfoot, midfoot and forefoot.

The customised orthoses-wearing trial participants reported, on average, a 74 per cent reduction in foot pain while the sham orthoses-wearing participants reported a 43 per cent foot pain reduction.

"That mirrors what we call the placebo effect of most experiments," Josh says.

Throughout his PhD, Josh also examined what makes an effective orthosis and says he has developed specific prescription guidelines that work. His recipe for the semi-rigid polypropylene device with a lateral extrinsic heel plate and a full length cushioned top cover was published along with his research paper in the May/June 2006 edition of the Journal of the American Podiatric Medical Association. This paper will be reprinted by permission in the Australasian Journal of Podiatric Medicine in December 2006.

"What we have now is a black and white clear cut description that podiatrists can follow to the letter," he says.

Josh, who graduated in 1996 with first class honours and a university medal for

the best honours thesis in the University of Western Sydney's health faculty, says the evidence from his research has given the podiatry profession a validated treatment option for reducing foot pain and disability in people with painful pes cavus.

He also praised APERF and said that for the sake of podiatry's future, more research is needed.

"Podiatry needs to strive for an increased profile and an improved position in the health hierarchy," he says.

"Health insurance companies in many countries are looking at our profession and are asking why they should cover podiatry. My study is evidence of our profession's effectiveness so we can go to governments and the insurance industry and say it's important to provide (insurance) coverage."

The Australian Podiatry Education and Research Foundation funds research into the causes, prevention and treatment of foot problems. It relies on donations. To contribute, send a cheque made payable to APERF to the Australasian Podiatry Council, 89 Nicholson St, Brunswick East, Vic 3057, visit www.apodc.com.au/apodc/aperf.htm to donate online or participate in our ebay auctions. All donations over \$2 are tax deductible. •

Australian Podiatry Education & Research Foundation

Call for Grant Applications
Deadline: 31 October 2006

Eligibility for Application

APERF Grants are open to all people involved in foot and related research. Grants may be allocated to experienced researchers and/or new researchers and will only be provided to research projects that are considered to be meritorious. Funds can only be allocated to an approved Australian research or public institution.

To obtain a copy of the Guidelines and Application Form, please visit our website at www.apodc.com.au/apodc/aperf.htm to download, or contact: APERF 89 Nicholson Street, Brunswick East, Vic 3057 Phone: 03 9416 3111 Fax: 03 9416 3188 Email: apodc@apodc.com.au.

