



Formthotics®

Custom Medical Orthotics

Formthotics were born from an observation in the sand and a realisation that our feet were never designed to cope with the hard, flat and unforgiving surfaces of our modern day environment.

In New Zealand during the 1970s, the innovative doctor and sports medicine specialist, Dr Charlie Baycroft looked for a more effective way to treat patients with common foot problems, providing comfort and support in their day to day lives. Dr Baycroft knew that by creating the closest possible contact between a patient's foot, orthotic and shoe, the foot would be given the natural support it needs, similar to the support provided by the soft sand.

Meanwhile, co-inventor of Formthotics, professional skier (at the time), boot fitter and now Director of Foot Science International, David Boyd had discovered how custom orthotics improved his skiing and even allowed his ski boots to be comfortable! He researched the use of thermoplastic foam to make custom orthotics and developed prototypes for testing.

A chance meeting with Dr Baycroft gave them the opportunity to share ideas, combine product designs and begin a 30 year partnership. This sharing of ideas rapidly resulted in the first version of Formthotics. The desire to develop and improve products to keep people active and mobile is one of the few things that hasn't changed over the years.

designed & manufactured by



Foot Science
International

Foot Science International (FSI) design and manufacture products to help treat those suffering lower back and limb pain, to prevent injuries and falls and to provide greater comfort and performance.

We are a world leader in CNC milling technology for thermoplastic foam and have a substantial investment in production capacity. In the 1980s, we pioneered the milling of our proprietary closed cell polyethylene foam to produce high quality products suitable for all types of feet and footwear. We continue to innovate, using the latest technologies to create quality solutions.

Supporting lower extremity research for over 30 years

Our product design is based on over 30 years of extensive medical research, particularly around biomechanical and neuromotor aspects.
formthotics.com/medical/research

Long established strong relationships across the globe

We have a strong network of distribution partners around the world.
Our distributor in Austria has been successfully selling our products since 1988.

Quality products and service are at our core

At FSI, consistent quality products and quality service are extremely important.
Our staff are passionate about delighting people with superior products, exceptional customer service, and being socially and environmentally responsible in everything we do.



NEW ZEALAND.COM
Licence No.100038

The Formthotics™ Medical System is an application of Panjabi's model of spinal stability that was published in 1992 and has altered the treatment of back pain. Panjabi proposed that dynamic stability was related to the interaction and function of 3 subsystems:

- The Passive Subsystem consisting of the bones, ligaments and capsules.
- The Active Subsystem of the muscles.
- The Neural Subsystem of mechanoreceptors, nerves, CNS and motor end plates that controlled the activity of the muscles.

We propose a new paradigm in which musculoskeletal pain stems from adverse effects of our modern environment and lifestyle. This is particularly true of the environment under the foot and modern footwear, which create an environment opposite to that of our genetic evolution.

This modern environment induces mechanical and neuro-motor adaptations in lower extremity function. These are stressful to tissues and will be revealed as "overuse" syndromes if loading is increased or the natural resilience of the tissues is decreased by aging or injury.

Formthotics™ "naturalise" the interface between the body and the environment with beneficial effects on musculoskeletal function, health and enjoyment of life.

A key element in the success of this method is creating total contact foot orthoses. This can be done best by thermoforming Formthotics™. The Formax™ foam will hold a moulded shape longer, better and more accurately than any EVA.



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FORMAX™ FOAMS

Formax™ is made from a range of high grade proprietary thermo-formable polyolefin closed cell foams manufactured specifically for Formthotics™. The main foam is proprietary polyethylene foam which is firmer, more resistant to heat, and will hold a moulded shape longer, better and more accurately than an EVA. It is non-porous and flexible, lightweight, supportive, resistant to fungi and mould, and hypo-allergenic.



THERMOFORMABLE

Formthotics™ are thermoformed (heat moulded) at relatively low temperatures. They can be moulded and re moulded for maximum control and comfort. Due to the 3D Milling and the unique attributes of the Formax™ foam, they retain their new shape (even after intense use and re-heating) to ensure lasting total support.



3D MILLED

Formthotics™ are 3D milled from a block of foam, not compressed or injection moulded like many other foam orthotics. This means that Formthotics™ have the right amount of foam in the right places to provide the right anatomical support for the skeletal system of the foot.



ANTI-MICROBIAL

Formthotics™ are antimicrobial – they inhibit the growth of microorganisms such as bacteria and fungi. In addition to being hyper-allergenic and waterproof they contain Ultrafresh™, an antimicrobial treatment applied during manufacturing. Ultrafresh™ actively discourages and destroys many of the bacteria and fungi that create foot odour and staining, keeping the orthotics cleaner and fresher.



FORMTHOTICS MEDICAL SYSTEM

Formthotics™ are designed to be heated and fitted by a medical practitioner using the Formthotics™ Medical System.

Refer to the next page for more information.

The Formthotics™ Medical System is a patient centric process of assessment, utilising your expertise to quickly and effectively select, fit and adjust Formthotics™.

The system is a comprehensive clinical method to improve lower limb function with custom-fitted Formthotics™ and includes:

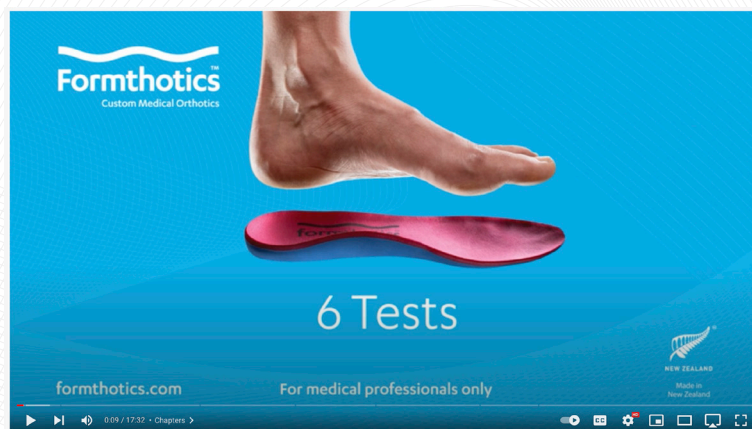
6 Tests - objective clinical tests

6 Steps - to select, fit and adjust Formthotics™ Custom Medical Orthotics

The system is based upon scientific literature as well as theoretical and clinical insight from respected health professionals in the fields of sports medicine, musculoskeletal medicine, podiatry and physiotherapy. It is an evidence-based, 'holistic' approach to producing functional foot orthoses.

6 Tests - Objective clinical tests

Using well known clinical assessments – the subtalar motion, alignment, supination resistance, Jacks, balance and forefoot stability tests – practitioners can thoroughly evaluate the requirements of the patient and quickly gain a view of the task required for their customised Formthotics™.



6 Steps - Selecting, fitting and adjusting Formthotics™

The 6 Steps include the selection of the best Formthotics™ model, the thermoforming and fitting process, the physical adjustment of the orthotic by grinding and shaping, functional posting as well as in-shoe testing.

