

## Success story: Vertical Orthotics



### A technology breakthrough based on perseverance and imagination

Vertical Orthotics has designed and manufactured a unique product whose value in the field of podiatry is driving growth throughout Australia, with global markets beckoning. The company has developed its technology and its business by carefully selecting specialist advice and assistance, including that of the NSW Department of State and Regional Development.

Neil Smith is the founder and managing director of Vertical Orthotics. He has invented a new device and developed it into a product that has the potential to 'side-step' the competition. It deals with the process of producing highly accurate inserts in footwear to help correct foot alignment and gait problems. He has tested the product through highly reputable third party research and used the outside expertise required to refine the product, build the business structure, and develop the essential marketing strategies. The Department of State and Regional Development (DSRD) has played an important role in helping the company progress through each of these stages.

Orthotic devices straighten the feet and, in turn, help correct upper body problems. Until Neil Smith's invention, the procedure involved the patient being in a sitting or prone position while the feet were held in what was thought to be proper alignment prior to making a plaster cast, which then allowed the appropriate shoe insert to be made.

### Realising the vision

Mr Smith, who originally worked as an orthopaedic lab technician for many years, realised that this static fitting system was too subjective. He believed that the ideal arrangement was to have the cast made in a weight-bearing position, with the patient standing up, to obtain the most accurate alignment. "I was told that this was impossible but I persevered and eventually stumbled upon the solution," Mr Smith said.

"Essentially, the patients stand on foam plates and their natural standing position is found; the heel is aligned for both feet, followed by the same process for the forefeet. They then step out of the mould and we have an exact replica of the feet, taking into account the varying forces that are unique to every individual and only identified by the weight-bearing method."

### Establishing the credentials

Three years ago, Mr Smith produced the first prototype of his Foot Alignment System (FAS), which now takes all the conjecture out of the required shape of the device and the accompanying modifications on the cast. He had the device tested by the Podiatry Department at LaTrobe University against the prevailing static method and the device was confirmed as clearly superior in terms of its accuracy, reliability, comfort and control.

Mr Smith had the system patented and he then refined the prototype prior to entering into a series of licensing agreements with podiatrists who undertake the alignments and then send the casts to the Vertical Orthotics laboratory where the inserts are made. The company operates license agreements in four states and expects the network to grow rapidly as marketing and industry referrals unfold.

## Appreciating strategic support

DSRD introduced Vertical Orthotics to its BioBusiness program by first providing vital support for design engineers to further refine the orthotic device, to improve its efficiency and marketing appeal. A series of support and advice activities followed, including the introduction of specialist management, medical and manufacturing consultants. This assistance helped shape the business into its current competitive and efficient form.

The product is already attracting overseas interest and DSRD has assisted by supporting market research into export potential. This included a consultant's visit to the prestigious annual Medica convention in Düsseldorf, resulting in a detailed report on competitive products. "This report confirmed that while there are numerous alternative products, there is no other corrective weight-bearing device anywhere in the world at present," Mr Smith said.

## Planning for the future

Vertical Orthotics currently employs six full-time staff, plus Mr Smith and two family members. Turnover has been growing at around 10 per cent per annum and in the first three months of 2003 this growth jumped to 20 per cent compared with the same period the previous year. Mr Smith looks forward to an on-going relationship with DSRD as his business expands into international markets.

## Business Tips

- Maintain self-confidence to achieve goals
- recognise the importance of outsourcing specialist expertise
- value all customers, large and small
- vigorously maintain product quality
- seek assistance from DSRD's Bio Business program.

## For further information contact

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