

# Case Studies

A balancing act – all is not always what it seems

Robert\* is a fit and active man in his early sixties. A regular at the gym, casual runner and part-time running coach. He presented as a referral after sustaining a mid-shaft 5th metatarsal fracture. An intramedullary screw fixation had been performed. The surgeon had given him the green light to return to activity and considered a podiatry review a good idea.

## Foot and lower extremity problems

Robert explained he was forever rolling his ankle and his running suffered from calf and lateral leg strain which he managed by rest, massage and running through the pain! His motion control shoes tended to have a lot of lateral wear and he always 'ripped the back out' of the internal heel counters. Because of his flatter arches he had always been fitted with a motion control shoe by shoe stores.

## Diagnosis and testing

Indeed his feet were of the flatter variety to look at but he did also have some bandy legs sitting over top of them. Asking him to perform a star excursion test was more akin to a man dancing the jive. Bilaterally there was low supination resistance on static stance, the affected side more so, as it was with a simple Windlass (Jack's) test. An x-ray showed some lateral talar tilt and marking a spatial position of the sub-talar longitudinal axis certainly placed it with some lateral deviation. The mid-foot was very stiff but succumbed nicely to some routine mobilisation..

## Achieving comfort and performance

We reviewed his functional strength and gait with walking and running then started to put together a treatment plan. The course of action:

1. We worked on the premise that although his foot was rolling toward medial loading, the action around the sub-talar joint had a greater supinatory moment. It seemed we didn't have to push the arch up and out but stop the foot moving laterally to start with.
2. Shoes were first, moving into one with less support in the rear and mid-foot. To these we fitted a low volume pair of Formthotics Medical Low Profile Dual Hard and modified these with a rearfoot lateral post that went just behind 5th metatarsal.
3. After agreeing to a small rehab exercise programme and an incremental return to activity, Robert was sent out to see how it went.
4. On his first review he had made a return to all activity and noted how he felt more stable especially with his running. No discomfort and his calf and lateral leg issues

had not raised their heads.

5. Subsequent review was only better news with Robert doing runs – which were once the ones that stopped him in his tracks.

## **Learnings**

The take away message is that form does not always depict function. An understanding of how load parameters on tissues and structures can be changed and altered should be a foremost consideration when using modified devices as part of treatment programme.

*As told by Richard Van Plateringen, Sports Podiatrist | Dunedin Podiatry, New Zealand*

*\*not patient's real name*