QUEENSLAND ORTHOTIC LAB

Richie AeroSpring

Midfoot Offloading System

Clinical Indication:

- ❏ Treatment of sprain of the tarsometatarsal (TMT) joints including Lisfranc joint injuries.
- ❏ Treatment of degenerative arthritis of the midfoot joints.

Features:

- ❏ Carbon fibre ankle foot orthosis - controls ankle joint dorsiflexion and load on the Achilles tendon
- ❏ Custom functional foot orthosis (one pair) - controls rearfoot pronation, patented Richie ArchLock™: offloads the medial-central band of the plantar fascia
- ❏ Carbon fiber footplate with toe rocker - offloads dorsiflexion bending moments across the midfoot, 1 cm heel lift bilateral

Mechanism:

- ❏ The Richie Aerospring Midfoot Offloading System is designed to improve the protection of the midfoot joints provided by walking boots. While walking boots reduce load on the midfoot from the Achilles and provide a rigid rocker sole, there is no arch contour which is critical to support of the TMT joints. The new Aerospring Midfoot Offloading System provides a brace to limit Achilles loading, a rigid carbon fibre footplate to reduce bending moment across the midfoot joints and a custom contoured foot orthosis to prevent sagittal plane collapse of the TMT joints. A graduated heel lift system further offloads the Achilles and the midfoot joints.

Scientific Background:

- ❏ Lisfranc sprains or injuries to the TMT joints are often misdiagnosed, are challenging to treat, and often lead to permanent disability. (1-3) Treatment of the sprain where the midfoot joints are stable, with no evidence of diastasis usually requires immobilization in a walking boot for a minimum of 8 weeks. (3,4) When open reduction and internal fixation is required, the post-operative course requires up to 12 weeks of boot immobilization. (4,5)

Visit www.qol4feet.com.au
Email info@qol4feet.com.au
Phone 07 3823 1531
1/10 Christine Place, Capalaba QLD 4157

- ❏ Walking boots address several deforming forces on the TMT joints but do not provide proper arch support to prevent sagittal plane collapse across the midfoot joints. The bulk and limb length discrepancy imposed by walking boots discourages long term use and leads to poor patient compliance with poor clinical outcomes. The Richie AeroSpring Midfoot Offloading System offers a welcome alternative for patients facing long term immobilization after a Lisfranc/midfoot sprain. The lightweight carbon fibre brace allows ease of ambulation while the thin composite footplate will not disrupt leg length. The brace can be quickly loosened at the proximal attachment to allow full mobility of the ankle while driving an automobile.

How to order:

Scanning:

- ❏ Take a scan of both feet (same as your foot orthotic scans)
- ❏ Email the scans along with a completed order form to info@qol4feet.com.au

Casting:

- ❏ Take a cast of both feet (same as your foot orthotic casts)
- ❏ Send the casts along with a completed order form to:
  QOL, 1/10 Christine Place, Capalaba, QLD, 4157

References

1. Ardoin GT, Anderson RB. Subtle Lisfranc injury. Tech Foot Ankle Surg. 2010;9(3):100-106.
2. Calder JD, Whitehouse SL, Saxby TS. Results of isolated Lisfranc injuries and the effect of compensation claims. J Bone Joint Surg Br. 2004;86(4):27-30.
3. Nunley JA, Vertullo CJ. Classification, investigation, and management of midfoot sprains: Lisfranc injuries in the ath- lete. Am J Sports Med. 2002;30(6):871-878.
4. Kuo RS, Tejwani NC, Digiovanni CW, et al. Outcome after open reduction internal fixation of Lisfranc joint injuries. J Bone Joint Surg Am. 2000;82-A(11):1609-1618.
5. Teng AL, Pinzur MS, Lomasney L, Mahoney L, Havey R. Functional outcome following anatomic restoration of the tarsal-metatarsal fracture dislocation. Foot Ankle Int. 2002;23(10):922-926.