Elite BladeVT

Elite BladeVT combines an energy-storing-and-return prosthetic foot with a VT adaptor. It uses e-carbon foot springs to efficiently absorb energy during weight bearing and return it during off-loading, in order to aid propulsion. The C-shaped heel spring allows >10mm of vertical compliance when loaded axially and maximises the energy return. The forefoot spring extends up to act as the prosthetic pylon, giving extra flexibility and range-of-motion. The split toe spring, in combination with the separate heel spring, permits a tripod design for exceptional ground compliance. The VT element adds torsional compliance and enhances axial compliance, interface pressures and shear forces at the socket-residuum interface are reduced, protecting the skin of the residual limb and allowing the user to achieve an enhanced performance without fear of injury.

Clinical Outcomes using e-carbon feet

Much research confirms the substantial equivalency of all energy-storing and return feet, including Blatchford e-carbon feet[1].

With respect to **SAFETY**

- High mean radius of curvature for Esprit-style e-carbon feet[2]: “The larger the radius of curvature, the more stable is the foot”

With respect to **MOBILITY**

- Allow variable running speeds[3]
- Increased self-selected walking speed[4]
- Elite-style e-carbon feet (L code VL5987) or VT units demonstrate the second highest mobility levels, behind only microprocessor feet[5]

With respect to **LOADING SYMMETRY**

- Users demonstrate confidence in prosthetic loading during high activity[6]
- Improved prosthetic push-off work compared to SACH feet[7]
- Increased prosthetic positive work done[4]

With respect to **USER SATISFACTION**

- High degree of user satisfaction, particularly with high activity users[8]

Improvements in Clinical Outcomes using shock-absorbing pylon/torque absorber compared to rigid pylon

Improvement in **SAFETY**

- Reduced back pain during twisting movements e.g. golf swings[9]

Improvement in **MOBILITY**

- Reduced compensatory knee flexion at loading response[10]

- No reduction in step activity[11]
- Blatchford torsion adaptors match the able-bodied rotational range[12]

Improvement in **RESIDUAL LIMB HEALTH**

- Reduced loading rate on prosthetic limb[13], particularly at fast walking speeds[14]
- Users feel less pressure on their residual limb[15]

Improvement in **USER SATISFACTION**

- Patient preference, citing improved comfort, smoothness of gait and easier stairs descent[13]

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