

**Prospective Observational Study of an Integrated Therapeutic Initiative for Extremities (POSITIVE): Implementation of an Integrated Orthotic and Rehabilitation Program in the Civilian Setting**

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**Purpose:** The Return to Run (RTR) pathway currently utilized in the military has been demonstrated to facilitate return to duty, recreation, and physical activity and decrease pain in high-functioning patients who have sustained high-energy lower-extremity trauma. A recent study also demonstrated that the processes and outcomes are translatable across military settings; however, to date there is no evidence on implementation of this pathway in the civilian setting. We sought to evaluate the feasibility of implementation of a similar, Return to Performance (RTP) pathway at a high-volume, Level I civilian trauma center. RTP combines a custom variable cadence ankle-foot orthosis (VCAFO) with an 8-week exercise program designed to improve performance and reduce pain.

**Methods:** A prospective observational study was conducted to enroll all patients eligible for the VCAFO. Patients were followed from initial referral through 1 year. A large, national prosthetic and orthotic company was utilized for brace manufacture and fitting. Physical therapy services were provided in the outpatient setting.

**Results:** The RTP pathway has been fully operational for 5 years. There was an initial 2-year run-in period for initial training of therapists and prosthetists and logistic implementation at our institution. 58 patients participated in the full RTP pathway, and 21 received RTP via remote rehabilitation delivered through a manual. An additional 6 patients met with the lead physical therapist for at least 1 visit. All expenses for prostheses as well as therapy sessions have been covered by insurance. 32 prosthetists have been trained locally in the fabrication of the brace with an additional 70 trained at the brace manufacturer's most recent national meeting. 13 physical therapists have been trained to perform functional rehabilitation through the RTP pathway.

**Conclusion:** Implementation of the RTP pathway can be translated and scaled to the civilian setting. The study has successfully replicated the brace fabrication necessary for optimal outcome in the RTR pathway, although there are remaining questions about scaling of physical therapy. This provides evidence that the process can be decentralized and the benefits of dynamic bracing in high-functioning patients following lower-extremity trauma can be translated to the civilian population.