

Proposed rehabilitation programme

In order to come up with an evidence-based algorithm for the rehabilitation of peroneal disorders in daily clinical practice, a programme is proposed based on evaluation of available protocols described in today's literature as well as personal experience of the centres involved in this study. It is emphasized that this protocol will ultimately require validation.

Following surgical treatment of peroneal tendon tears, patients should receive a post-operative lower leg splint for 2 days, followed by 12 days of a NWB lower leg cast. After removal of the stitches, patients are then permitted to weight bear in a walker boot or lower leg cast for 4 weeks pending surgeon preference. Six weeks post-operative, physiotherapy is initiated to restore ROM (Fig. 2) and strength. Strength exercises include isometric exercises in pain free range and electrical stimulation of the peroneal muscles (Fig. 3). Simultaneously, proprioception and balance are trained by seated or partial WB exercises and proprioceptive exercises on two legs (Fig. 4). Proprioceptive exercises are gradually expanded from controlled WB on two legs to full WB on two legs (Fig. 5). Eccentric, concentric and isotonic exercises are also started with the use of a theraband (Fig. 6). The strength of the foot and calf muscles is trained (Fig. 7), and the walking pattern is checked. Patients start to learn to walk again in a controlled setting either with use of an Alter-G trainer (Fig. 8) or a swimming pool in order to allow good motion in a partial WB setting to start with. This is helpful in preventing development of reactive peroneal tendinitis. No provocation of the peroneal tendons is allowed until 12 weeks post-operatively, and sports-specific rehabilitation is generally not initiated until at least 12 weeks of physiotherapy have concluded.



[Fig. 2](#)

Patient can start with active full ROM exercises: dorsiflexion, plantar flexion, inversion, eversion



[Fig. 3](#)

Strength exercises: using the RSQ1 for electrical stimulation. In the second phase you can use this device during isometric or isotonic exercises



[Fig. 4](#)

Proprioceptive training: progress from NWB/controlled WB on two legs to full WB on unstable surfaces



[Fig. 5](#)

Single leg balance activities (stable to unstable surfaces, without and with distractions)



[Fig. 6](#)

Strength exercises: eversion against theraband. This is one of the most important exercises



[Fig. 7](#)

Training of the strength of the foot and calf muscles



[Fig. 8](#)

Walking in an Alter-G trainer

Table 3

Overview of the proposed rehabilitation protocol of surgically treated peroneal tendon disorders, based on the evaluation of available protocols in literature

	0–2 weeks ^a	2–4 weeks ^a	6–8 weeks ^a	8–12 weeks ^a	12–24 weeks ^a	>24 weeks ^a
Weight bearing:						
1. Non-weight bearing	x					
2. Partial weight bearing		x	x			
3. Full weight bearing				x	x	x
Active Range of Motion			x			
Strength exercises			x			
Proprioceptive training			x	x		
Eccentric/concentric exercises				x	x	
Isotonic exercises				x	x	
Running					x	x
Sport specific training						x
Provocation peroneal tendons						x

^aNumber of weeks after operation