

**Post-operation diagram for outpatient physiotherapy after ACL plastic surgery  
(with semitendinosus/Gracilis double loop technology)**

Wound healing	Time	Main aims	Physiotherapeutic measures
Inflammation phase: 0-5 d & proliferation phase: 5-21 d	Postop. Week 0-3	<ul style="list-style-type: none"> <li>• ↓ Swelling</li> <li>• ↑ passive mobility</li> <li>• Innervations training m. quadriceps and m. ischiocrurale (Co-contraction of hamstring &amp; quadriceps)</li> <li>• Proprioception training</li> <li>• ↑ Muscular stability in ↑ flexion angle</li> <li>• ½ body weight load*</li> </ul>	<ul style="list-style-type: none"> <li>• Passive, assistive and active knee and patella mobility</li> <li>• Muscular stability of the m. quadriceps and m. ischiocrurale (closed chain), isometric non-dynamic</li> <li>• Gait training, 3 point gait</li> <li>• Home trainer</li> </ul>
Consolidation phase: 21-60 d	Postop. week 3-4	<ul style="list-style-type: none"> <li>• Complete subsidence of swelling</li> <li>• ↑ active and passive mobility</li> <li>• Increase balance and proprioception training</li> <li>• Full exertion</li> <li>• ↑ extensive muscular endurance in ↑ flexion angle</li> </ul>	Plus: <ul style="list-style-type: none"> <li>• Building up exertion gait training</li> <li>• Extensive muscular endurance training (closed chain)</li> <li>• Muscle stretching, soft tissue techniques</li> <li>• Increase from stabile to labile support surfaces</li> <li>• Aqua jogging</li> </ul>
	Postop. Week 5-6	<ul style="list-style-type: none"> <li>• Fully active and passive flexion and extension</li> <li>• Complex balance and proprioception training</li> <li>• ↑ intensive muscular endurance in ↑ flexion angle</li> </ul>	Plus: <ul style="list-style-type: none"> <li>• Functional leg alignment training</li> <li>• Labile support surface with additional work</li> <li>• Intensive muscular endurance training (closed chain)</li> </ul>

Reorganisation and conversion phase: 60-500 d	Postop. week from 7 <sup>th</sup>	<ul style="list-style-type: none"> <li>• Complex stabilisation and coordination training</li> <li>• Hypertrophy training in ↑ flexion angle</li> <li>• Ankle training</li> </ul>	Plus: <ul style="list-style-type: none"> <li>• Building up running –ABC</li> <li>• Hypertrophy training (closed chain)</li> <li>• From 10<sup>th</sup> week: Building up jumping: Squatting/countermovement/ Drop jump</li> </ul>
	Postop. Week 12-24	<ul style="list-style-type: none"> <li>• Reintegration</li> <li>• Competitive spec. Build-up training</li> </ul>	<ul style="list-style-type: none"> <li>• After 4 months: running sports, aqua jogging, Biking sports</li> <li>• After 6 months: cross-country skiing (classic), Swimming (crawl, breaststroke )</li> <li>• After 9 months: cross-country skiing (skating), skiing, snowboard, ice hockey, football, tennis, volleyball, basketball</li> </ul>
<p>* until a good m.quadriceps innervations is performed or the swelling has subsided.</p>			