Rehabilitation Following Anterior Cruciate Ligament (ACL) Reconstruction: Mr Louw Van Niekerk

Week	Movement	Mobility	Rehabilitation Exercises	Goals before progression
Day 1-Discharge	No limit to active Movement.	Weight bearing with Elbow crutches to comfort	Cryotherapy Circulatory exercises Range of Movement exercises End of Range extension mobilisations Patella mobilisations Static quads/straight leg raise (if no lag) Gait re-ed	Good understanding of post-op rehab. No complications following surgery.
Discharge -10 days		Wean from elbow Crutches as able	Progress above Isometric quads/hams Closed kinetic chain quads (avoiding knee flexion greater than 60°) Flexibility Proprioceptive work/weight transference Other muscle groups not to be neglected and core stability.	Controlled pain Achieve full extension Increase range of movement Independent mobility Straight leg raise with no lag
Day 10-Week 6		Independent mobility. Good reciprocal gait pattern	Progress above Scar massage Progress strengthening (avoiding open kinetic chain quads)-co-contraction Early plyometrics-lunges Cardio-vascular exercise	Full range of movement Full patella mobility Pain free Good co-contractive muscle Control Minimal effusion

Week	Movement	Mobility	Rehabilitation Exercises	Goals before progression
Week 6- Week 12			Progress above Open kinetic chain quads between 90° and 40°knee flexion. Power walking duration/speed/incline. Light plyometric training. Trampette jogging. Begin sport/occupation specific tasks.	No effusion. Muscle power 80% of contralateral side Good proprioception. No mechanical, patello-femoral or other soft tissue problems.
From 3 months			Progress above Closed kinetic chain quads through full range. Jogging/running-progressing surface/ distance/speed Open kinetic quads through full range at 4 months. Progress above to incorporate: Run/sprint/cut/pivot/accelerate/decelerate	Muscle power 80-90% of contra-lateral side Proprioception 90% of contralateral side
From 5 months			Return to training (non-contact) Return to non-contact sports	Maximal strength and endurance Symptom free training Normal proprioceptive control
From 6 months			Earliest return to contact and Jumping sports	Unrestricted confident function

This protocol is a guideline for the rehabilitation of ACL patients; it should be tailored to suit individual patients with regard to the type of Graft and their occupational/sporting demands.

Avoid breaststroke swimming for 3/12.

Achieving full extension early in rehab is a necessity; any FFD can result in patello-femoral irritation, and hinder rehab.

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