CSIS
CENTRE FOR SPORTS INJURY SURGERY

Rehab guide for patients following:

ACL Reconstruction (with/without synthetic PCL, PLC or MCL Recon)

Prepared for: Rehabilitation Therapists
Prepared by: Louw van Niekerk, FRCS(Orth)
24 July 2019
Revision: 4

	Movement	Mobility	Rehab/Exercises	Goals before progression
Immediately post-op	No limit to active movement unless concurrent micro# of PFJ (then avoid active 50-30º)	PWB with crutches until 0º extensor lag and slow normal gait pattern	• **Full active and passive knee extension** • Cryotherapy • Circulatory exercises • Isometric quads	• Upright posture • **No limp if judged not to require crutches** • Quads control with 0º lag
Discharge - 2 weeks	No limit to active movement unless concurrent micro# of PFJ (then avoid active 50-30º)	PWB with crutches until 0º extensor lag. Wean from crutches (unless concurrent tibiofemoral micro#	• Isometric quads/ hamstrings • CKCQ within 60º • ROM • Basic proprioception	• Full passive extension • Independent gait • 0º lag SLR • Donor site scar healed
Week 2-6	FROM with proviso's above	FWB with proviso's above	• **Ensure full active and passive extension** • Concentric hams and CKCQ • Basic proprioception and balance • Low resistance static bike • Core • VMO/Hip abductor strength and balance	• **Full active and passive extension** • Normal gait • Full quad control • Diminishing small effusion

	Movement	Mobility	Rehab/Exercises	Goals before progression
Week 6-12	Ensure knee extension complete	No restrictions	• **Ensure full active and passive extension** • High resistance/ low reps strength lower limb • Bike/static bike mid resistance • Core • Basic plyometrics • Proprioception	• **Ensure full active and passive extension** • VMO/Hip abductor balance • 30-50% Hams strength • Proficient in basic plyometric programme • Proficient in basic proprioception programme
Week 12-24	**If extension (comparable to the contralateral knee) is incomplete refer back to surgeon**	• Jog/Walk programme • Solo tennis/ squash from 16/52	• High resistance/ high rep strength of VMO, hip abductors and hamstrings • Bike high resistance • Advanced proprioception • Advanced plyometrics	• Bilateral proprioceptive control • Hamstring strength 70% of contralateral • Quads volume and strength • 20 minutes continuous jog • No anterior knee pain

SUMMARY

Objectives

- Full knee extension comparable to contralateral side to be encouraged from day one. Any passive block to extension after 6 weeks needs re-referral
- Proprioception work to start ASAP and not necessarily follow the strength programme
- Aim for jog/walk programme by 12-13 weeks. This will vary greatly among patients of various athletic ability. Start with 1 minute jog (slow shuffle) and 2 minutes walk on a soft surface/treadmill and increase to 2 minutes jog and 1 minute walk by the end of 20 minute session. Three minute cycles can be increased to 5 minute cycles dictated by anterior knee pain/effusion and athletic ability and then to 10 minute-, 15 minute- and 20 minute cycles. When 20 minute jog/walk cycles are well tolerated there is no restriction to straight line running. Shuttle sprints, pivoting and cutting can now be commenced.

- Aim to return to racket sport by 16-20 weeks
- Return to rugby, football, hockey, netball etc. 20-36 weeks unless failure to achieve final objectives.

Notes

- It is not unusual for there to be bruising (and swelling with erythema over the hamstring donor site scar) extending to the medial aspect of the heel for the first 2 weeks post-op that then resolves by week 4.
- Post surgery patients are routinely reviewed in the orthopaedic clinic at 4-6 weeks, 3 months and 6 months
- Earlier review if patient fails to meet goals
- Routine post-operative flexion limiting brace is not required unless concurrent PFJ microfracture surgery involving a surface area of >1x1cm^2
- Flexion limiting brace may still be required if microfracture in the PFJ has been performed over a surface area > 1x1cm^2
- Clinical queries to be directed to sportsinjurysurgeon@gmail.com