

## TOTAL KNEE ARTHROPLASTY REHABILITATION GUIDELINES Dr. Steven Pennington

2500 W "A" St Suite 201, Moscow, ID 83843 (208) 883-2828 825 SE Bishop Blvd Suite 120, Pullman, WA 99163 (509) 332-2828

	Post-Op (0-2 weeks)
OSMS Appointments	<ul> <li>Medical appointment at 2 weeks</li> <li>Physical therapy will begin as directed by your physician and as indicated on your physical therapy order</li> </ul>
Rehabilitation Goals	<ul> <li>Full weight-bearing unless otherwise specified</li> <li>Full extension and 90 degrees of flexion by two weeks</li> <li>Formal PT initiated during the hospital stay. Physical therapy attendance is 2-3 times a week for 3-6 months</li> <li>Acute pain management</li> <li>Reduce swelling using ice packs or cryotherapy</li> </ul>
Precautions	<ul> <li>Avoid kneeling for 6 months</li> <li>Avoid jarring/twisting movements while weight-bearing</li> <li>DC assistive device when appropriate LE motor control is achieved (no quad lag with SLR and no signs of quad inhibition)</li> <li>Do not get incision wet for 7-10 days</li> </ul>
ROM Exercises	<ul><li>90 degrees of flexion by 2 weeks</li><li>PROM/AAROM/AROM</li></ul>
Suggested Therapeutic Exercises	<ul> <li>ROM to begin immediately post-op at 0-60 degrees and advanced 10 degrees daily</li> <li>Quad activation</li> <li>Hip/glute open chain strengthening</li> <li>Crutch/gait training</li> <li>Weight-shifting/single leg balance, NMES to quadriceps</li> <li>Ice is used liberally to diminish swelling</li> <li>Weight-bearing is begun immediately unless restricted by the orthopedist</li> <li>Ankle dorsiflexion while supine</li> </ul>
Cardiovascular	Stationary bicycle for ROM (no resistance)
Exercises	Rocking chair for knee flexion
Progression Criteria	Once 90 degrees of flexion achieved, incision is well-healed, quad control is achieved and pain is tolerable

PHASE II: after Phase I criteria met, usually 2-6 weeks		
OSMS	<ul> <li>Medical appointment at 6 weeks with films</li> </ul>	
Appointments	<ul> <li>Physical therapy continues twice weekly</li> </ul>	
Rehabilitation Goals	<ul> <li>Independent ambulation with assistive device prn</li> </ul>	
	<ul> <li>120 degrees of motion expected by 6 weeks</li> </ul>	
	Continue quad/hamstring strengthening	
	<ul> <li>Increase functional exercise, balance, coordination, and endurance</li> </ul>	
	<ul> <li>Maintenance of uninvolved side</li> </ul>	
Suggested Therapeutic Exercises	<ul> <li>Transition from oral narcotics to NSAIDs (Celebrex, Advil, Tramadol,</li> </ul>	
	Meloxicam, etc.)	
	<ul> <li>Mini-squats, modified step-ups and leg presses</li> </ul>	
	<ul> <li>Ankle/hip and upper extremity strengthening</li> </ul>	
	<ul> <li>After 6 weeks, ok to begin using heat modalities</li> </ul>	



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ROM/Stretching	<ul> <li>PROM (pain free): hip flexion, extension to neutral if contracture present</li> </ul>
	<ul> <li>Gentle PROM, flexion AAROM in supine per guidelines</li> </ul>
	<ul> <li>Upright bike for ROM (maintain hip flexion precautions by starting with</li> </ul>
	higher seat)
	<ul> <li>Soft tissue mobilization and scar mobilization once incisions are closed</li> </ul>
Cardiovascular	• Stationary bike with resistance, swimming, Nu-step, elliptical, Stairmaster,
Exercises	Nordic track

PHASE III: after Phase II criteria met, usually 6+ weeks		
OSMS	<ul> <li>Medical appointment at 12 weeks, with films</li> </ul>	
Appointments	<ul> <li>Physical therapy continues weekly until goals are completed</li> </ul>	
Rehabilitation	<ul> <li>Full, symmetric knee extension</li> </ul>	
Goals	<ul> <li>Lifelong preservation of knee function</li> </ul>	
	<ul> <li>Preserve ROM using stationary bike</li> </ul>	
Suggested	<ul> <li>OK to begin outdoor as weather permits</li> </ul>	
Therapeutic	<ul> <li>Advance aerobic training as tolerated (walking, swimming, golf, hiking,</li> </ul>	
Exercises	Stairmaster, weight training, elliptical trainer)	
	Advanced plyometrics	
	<ul> <li>Return to sports is allowed after 4 months</li> </ul>	
	<ul> <li>Experienced cross-country skiing, doubles tennis, gardening and downhill skiing allowed</li> </ul>	
Progression Criteria	<ul> <li>Swelling in the knee is common for up to 18 months post-op and should be treated aggressively with ice/rest</li> </ul>	
	<ul> <li>Return to high impact exercises such as running and jumping is discouraged</li> </ul>	
	<ul> <li>A lifelong commitment to exercise is encouraged for maintenance of joint arthroplasty</li> </ul>	