

## Adam Lindsay, MD, MS

TOTAL KNEE ARTHROPLASTY (TKA) REHABILITATION GUIDELINE				
Time Period	Weight-bearing	Range of Motion And Pain goals	Permitted Exercises	Other
Phase 1 (weeks 0-2)	WBAT  Walk with appropriate assistive device 5-10 minutes, 3-5 x per day	≤15°- 90°; do not push past 90°  <5/10 pain DECREASED EDEMA  Gentle ROM and stretching	ONLY Twice a day: Supine or elevated ankle pumps Quad Sets Glut Sets Knee Flexion with Gravity Assist SLR	Progress when able to complete 2x10 reps w/o fatigue  Consider safety and fall risk needs  NMES for quads PRN
Phase 2 (weeks 2-6)	Assistive device until able to walk without a limp	≤10-105° <4/10 pain Decreased edema Exercise bike 5-10 min fwd/backward NO RESISTANCE	Seated SL knee extension SLR Standing ham curls Sidelying Hip Abduction SAQ Standing B Calf Raise Sit to Stand Quarter Wall Squats SL stand/march Multidirectional Stepping	Complete 2x 10 reps w/o fatigue  NMES as needed  Progress double limb balance to single limb
Phase 3 (weeks 6-12)	Assistive device until able to walk without a limp	<5-120° <3/10 pain Decreased edema  Exercise bike as tolerated	Seated SL knee extension Seated SL Hamstring SL Leg Press SL Calf Press Stand hip Ext, Flex, Abd, Add Step ups/downs Forward lunge SL Standing progression Tilt board Squats Wall squats to 90° Stability ball supine hip extension	Complete 2x 10 reps w/o fatigue  Walking program or cardiovascular fitness  Work toward independent exercise program
Phase 4 (weeks 12+)		≤5-125° < 2/10 pain Decreased edema	*as above Step up, downs, side Multi-directional Lunge Star excursion balance reaching Wall squats with 5-10 sec holds at 90° Sport Cord walking Fwd, Side ways, Backward, braiding SL stand progression	Meets ROM and Discharge goals  3x/wk continue HEP  Encourage healthy lifestyle and regular exercise indefinitely

## DO NOT add any resistive exercise such as ankle weights, resistive bands, cable columns, or machine until 6 wks

PT – encourage ice, NSAIDS (per MD x 6-12 weeks), and compression daily after exercises and prior to bed to reduce narcotic intake. Please respect irritability of joint. PT sessions should not require narcotics. If struggling with pain and has NMES, can direct use of TENS function for pain control as needed.





## **NMES Treatment Parameters:**

Electrode Placement: Vastus Medialis Oblique(VMO) and Rectus Femoris(RF)

<u>Limb Position:</u> Sitting, Knee at 60° with strap at full resistance

Frequency: 50 Hz

Pulse Duration: 300 μs

Intensity/Amplitude: Max as tolerated by individual

On:Off Time: 10 sec on: 30 sec off

<u>Total Treatment Time Per Session</u>: 10 minutes

<u>Treatment Frequency</u>: 1 to 2 sessions per day for 6 weeks