
Recurrent Unremitting Quadriceps Tendonitis/ Tendinosis Rehabilitation Program

I. Phase I of I.

Goals: Diminish pain and inflammation
Promote quad tendon healing
Improve quadriceps strength
Enhance flexibility
Control functional stresses

Treatment Regimen:

- Hot packs applied to knee – quad tendon
 - Ultrasound to quadriceps tendon
 - Transverse friction & soft tissue massage
 - Warm-up bicycle (10 min.) light bike
 - Stretch (hamstrings quadriceps, gastroc)
 - Application of pain stimulation to each side of patella tendon or infra-patellar fat pad x 10 minutes (use this technique only if needed)
 - Electrical stimulation parameters
 - Waveform: Russian
 - Frequency: 2500 Hz pulse; width: 200 MS; Rate: 50/sec
 - 60 pulses per second (pps)
 - duty cycle 10 on/10 off; ramp of 1 second
 - pad placement- 1"x1" electrodes placed on each side of inflamed/painful tendon (After 3 minutes, palpate tendon, should be less painful and becoming numb, if not, move electrodes)
 - Quadriceps strengthening program
 - E-stim to quadriceps*
 - Quad sets*
 - SLR flexion*
 - Hip abduction*
 - Leg press with theraband around distal thigh (ABDuct first then squat)
 - Wall slides with theraband around distal thigh (only 60-70 deg PAINFREE ROM)
 - Standing hip extension
 - Hip ER/IR theraband
 - Sidelying clams with manual resistance
 - RDLs
 - Standing on foam stability position with ball catches
 - Star drill (5 cones)
 - Tilt board squats with ball catches
- *Monitor subjective pain level response (goal level 4-5)
- Stretch (aggressive stretching) hip flexors, quads, hamstrings, hip abductors (stretch everything)
 - Laser to quad tendon
 - Cryotherapy ??? (only use ice if you get sore)

Pain (noxious) Stimulation Protocol

- Clinical muscular electro-stimulator
 - Specific parameters
 - Frequency: 2500 Hz pulse width: 200MS
 - Rate: 60 pulses per second (pps)
 - Ramp: 1 sec
 - Waveform: Russian
 - Duty cycle: 10 on/10 off
 - Time: 12 minutes
 - Electrode placement
 - 1" X 1" electrodes placed on each side of painful tendon or infrapatella fat pad
- * after 3 minutes palpate tendon, if not becoming less painful or numb, move electrodes