

TENEX TENDON PROCEDURE PROTOCOL

Things to Avoid Before and After Your Procedure:

- Over-the-counter pain medicine like ibuprofen (Advil™, Motrin™), naproxen (Aleve™, Naprosyn™): Avoid 1 week before and 1 month after your procedure.
- Alcohol: Avoid 48 hours before your procedure. Do not consume alcohol while you are taking prescription pain medication.
- Tobacco and Nicotine: Consider talking to your physician or health care provider about stopping. These products impair your ability to heal and might reduce the beneficial effects of the procedure.
- Diet: There is no need to fast before the procedure. You may eat normal meals before your procedure and resume your regular diet when you feel able.

Make Sure Your Medical Team Provides you with the Following Before or at Your Procedure:

- A sling/crutches/brace/boot
- Physical Therapy prescription
- Follow-up visit times (approximately 2 weeks and 6 weeks after your procedure)

The Day of Your Procedure:

- The surgical scheduler will call you to give you a date and time of your procedure.
- Make sure you have a ride to the Boston Sports Performance Center, address above. Your ride can stay in the waiting room.
- Check in at the Sports Medicine desk and a nurse will bring you into the procedure.
- After the procedure you will receive further equipment and follow up appointments.

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PHASE I (0 to 3 days after procedure)

Appointments	<ul style="list-style-type: none"> No appointments during this time (rehabilitation appointments begin 10-14 days after procedure).
Goals	<ul style="list-style-type: none"> Protect the affected tendon. Pain control with Tylenol or prescription medications Do NOT take NSAIDs (Ibuprofen, Advil, Motrin, Aleve, Aspirin, etc.)
Precautions	<ul style="list-style-type: none"> Immobilization of the affected joint: <ul style="list-style-type: none"> Sling for rotator cuff, biceps tendons, tennis or golfer's elbow Partial weight bearing with crutches for patellar, quadriceps tendons, hip/ gluteal tendons Partial weight bearing with crutches and walking boot for Achilles / ankle tendons Partial weight bearing with crutches and walking boot for plantar fascia Driving is permitted as tolerated. Do not soak/submerge the joint in water for 3 days. Showering is OK. Keep ACE wrap or compression sleeve on for 3 days. It should be snug, but not tight. If you see swelling in your fingers/toes, the compression is too tight. Sterile strip bandages can be removed when they begin peeling off or after 7 days. Keep bandages and procedure area clean and dry.
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> Gentle active range of motion (AROM) exercises out of the immobilizing device.
Progression Criteria	<ul style="list-style-type: none"> 3 days after procedure.

PHASE II (3 to 10-14 days after procedure)

Appointments	<ul style="list-style-type: none"> No appointments during this time (MD and rehabilitation appointments begin 10-14 days after procedure).
Goals	<ul style="list-style-type: none"> Increase tolerance to daily activities. Wean from immobilizing device. Do NOT take NSAIDs (Ibuprofen, Advil, Motrin, Aleve, Aspirin, etc.)
Precautions	<ul style="list-style-type: none"> Weight bearing as tolerated, gradually weaning from assistive and immobilization devices. No oversteering of the tendon through exercise, lifting, or impact activity.
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> Continue with active range of motion exercises out of the device 3 times a day for 5 minutes a session. After an upper body procedure, lower body exercise are allowed. After a lower body procedure, upper body exercise are allowed. Can start low grade closed chain (foot on ground) program as pain allows.
Progression Criteria	<ul style="list-style-type: none"> 10-14 days after procedure.

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PHASE III (10-14 days after procedure to 6-8 weeks after procedure)

Appointments	<ul style="list-style-type: none"> Start physical therapy with rehabilitation appointments once every 1 to 2 weeks. Physician follow-up appointment 2 and 6-8 weeks after procedure.
Goals	<ul style="list-style-type: none"> Attain full range of motion. Improve strength and endurance. Improve balance and proprioception.
Precautions	<ul style="list-style-type: none"> Avoid high velocity / amplitude / intensity exercise such as throwing, running, jumping, plyometrics or heavy weight lifting. If you have post-activity soreness you should decrease the level of activity.
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> Stretching exercises for the affected joint at least once a day, 3-4 reps, holding for 30 seconds. Joint mobilization as needed to restore normal joint mechanics. May start light open kinetic chain exercises. Strengthening with emphasis on isometric and concentric activities initially and with eccentric progression as symptoms allow: theraband drills for the rotator cuff, dumbbell exercises for the wrist and elbow, single leg press for the knee, heel raises for the ankle, 3-4 sets of 6-12 reps at moderate intensity. Balance and proprioception activities: joint reposition drills for the upper extremity; single leg stand progressing to balance board drills for the lower extremity. Peri-pelvic and Core strengthening.
Cardiovascular Exercises	<ul style="list-style-type: none"> Non-impact activities with progressive resistance, duration, and intensity: upper body ergometer, elliptical trainer, stationary bike, deep water running, swimming.
Progression Criteria	<ul style="list-style-type: none"> Full range of motion. No pain with activities of daily living. Pain free 5/5 manual muscle testing of affected joint's muscle-tendon unit. Symmetric proprioception of the affected limb.

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PHASE IV (begin after meeting Phase III criteria, usually no sooner than 6-8 weeks after procedure)

Appointments	<ul style="list-style-type: none"> Physical therapy appointments are approximately once every 1 to 3 weeks. Physician clinic appointment 3 months after the procedure.
Goals	<ul style="list-style-type: none"> Good eccentric and concentric multi-plane strength and dynamic neuromuscular control to allow for return to work / sports.
Precautions	<ul style="list-style-type: none"> Post-activity soreness should resolve within 24 hours, if not decrease level of activity.
Suggested Therapeutic Exercises	<ul style="list-style-type: none"> Continued strengthening of the affected area with increases in resistance, repetition, and / or frequency. For the upper extremity: progressive training in provocative positions and work/sport specific positions including eccentric, endurance, and velocity specific exercises. For the lower extremity: impact control exercises with progression from single plane to multi-planar landing and agility drills with progressive increase in velocity and amplitude. Sport / work specific balance and proprioceptive drills. Continued peri-pelvic and core strengthening. Progress to sport specific functional exercise programs (throwing, running, etc.) with symptom based progressions. A long term home exercise program should be established to focus on injury prevention and long term functional goals, including correcting any biomechanical issues that contribute to the original injury.
Cardiovascular Exercises	<ul style="list-style-type: none"> Replicate sport or work specific energy demands.
Progression Criteria	<ul style="list-style-type: none"> Return to sport/work criteria. Good dynamic neuromuscular control with multi-plane activities and without pain. Approval from the physician and/or sports rehabilitation provider.

TENEX REHAB PROTOCOLS BY JOINT

<p>Knee</p> <ul style="list-style-type: none"> • Rest leg and foot today. • Use crutches partial weight bearing for 5-7 days and knee brace for 2 weeks. • Start daily general non-weight bearing range of motion exercises on 3rd day. • Light daily activity for 3 weeks, then progress as tolerated. • Typically, may begin sports-specific rehabilitation from 6 to 12 weeks. • Activity after 3 months to be determined by physician. 	<p>Achilles</p> <ul style="list-style-type: none"> • Rest foot and ankle today. • Wear walking boot for up to 2 weeks. • Start daily general non-weight bearing range of motion exercise on 3rd day. • May begin stretching exercises as tolerated at 3 weeks. • If asymptomatic after 6 weeks, may resume activity as tolerated, subject to physician approval. • No impact activity or sports specific rehabilitation until 6-8 week follow-up as subject to physician approval. • Activity after 3 months to be determined by physician. 	<p>Plantar Fascia</p> <ul style="list-style-type: none"> • Rest foot and ankle today. • Wear walking boot for up to 2 weeks. • Begin stretching exercises on the 3rd day. • If asymptomatic after 6 weeks, may resume activity as tolerated, subject to physician approval. • No impact activity or sports specific rehabilitation until 6-8 week follow-up as subject to physician approval. • Activity after 3 months to be determined by physician.
<p>Elbow</p> <ul style="list-style-type: none"> • Rest arm and hand today. • May resume nonrepetitive sedentary use of arm/hand in 3 days - using it to groom, dress, eat and drive. No sustained gripping. • Light daily activity for 3 weeks, then progress as tolerated. • May begin stretching and eccentric exercise at 3 weeks. • NO lifting objects with arm/hand greater than 5 pounds for 6 weeks. • May gradually resume normal use of arm/hand at 6 weeks as tolerated and subject to physician approval. • No impact activity or sports specific rehabilitation until 6-8 week follow-up as subject to physician approval. • Activity after 3 months to be determined by physician. 	<p>Shoulder</p> <ul style="list-style-type: none"> • Rest shoulder for first 3 days. • Passive pendulum exercise after 3 days. • Sling as needed no more than 3 days. • No overhead lifting with shoulder greater than 5 pounds for 2 weeks. • Increased range of motion over time as tolerated. • May gradually resume normal use of shoulder at 8 weeks as tolerated and subject to physician approval. • No impact activity, throwing, overhead activity or sports specific rehabilitation until 6-8 week follow-up as subject to physician approval. • Activity after 3 months to be determined by physician. 	<p>Hip</p> <ul style="list-style-type: none"> • Rest hip for first 3 days. • crutches partial weight bearing up to 2 weeks. • May begin routine daily activities at 2 weeks. • Week 4 begin closed chain strengthening; single leg therex; low impact, low intensity/no resistance aerobic ex • After week 6-8 progress to heavy load eccentrics RPE very hard • Avoid: prolonged hip adduction positions- standing genu valgus/Trendelenburg, crossed legs, ITB or piriformis stretching in adduction, clamshells • May gradually resume normal use of hip at 6 weeks as tolerated and subject to physician approval. • No impact activity until 6-8 week follow-up as subject to physician approval. • Activity after 3 months to be determined by physician.