



READY TO PLAY

Don't risk it! Come back healthy, fit, and prepared to perform at your best!

Injury Process

When an outside force or load is applied to muscles, ligaments, tendons, or nerves, the tissue will respond by gradually deforming or lengthening. If the load becomes too great, the structure will tear (fail). The healing process for new injuries (of any severity) occurs in stages. An effective and efficient rehab is planned to work in conjunction with these phases:

Characteristics	Acute Inflammatory Phase	Repair Phase	Remodeling Phase
Duration	0 - 72 hours after injury	72 hours - 6 weeks after injury	6 weeks - 12 months (dependent on type and severity of injury)
Response	<p>Special cells migrate to the injury site to "clean up" the damaged area</p> <p>*Anti-inflammatory medications can prevent the body's natural healing process and may be contraindicated for the first 3 days after injury.</p>	<p>Special cells actively repair the torn tissue structures and scar tissue is formed at the injury site</p> <p>*Complete the healing process and protect the tissue as it heals (for up to 6 weeks the scar tissue is still weak and vulnerable to reinjury)</p>	<p>Scar tissue is integrated into healthy tissue, remodeled, and strengthened</p>
Rehab Goals	Decrease pain, decrease swelling, promote range of motion (ROM)	Restore flexibility and gently apply load to newly formed tissue (avoid overloading)	Increase muscle strength, neuromuscular control, and return to competition
Intervention	<p>"PEACE" = Protection, Elevation, Avoid Anti-Inflammatories, Compression, and Education</p> <p>Modalities: Electrical Stimulation and Laser</p> <p>Referral to a specialist for diagnostic testing if applicable.</p>	<p>Gentle joint or tissue mobilization, stretching, and gentle strengthening exercises.</p> <p>Tape or brace to support healing structures.</p>	<p>Sport-specific and pre-competition training - exercises focused on restoring movement patterns, muscle strengthening, endurance training, power, speed, agility, coordination, tennis practice, and joint tissue mobilization as needed.</p> <p>Functional tests that mimic tennis skills and movements.</p>

The Road To Recovery

Rehabilitation following a sports injury restores the athlete to a pre-injury level of physical and psychological competitive fitness. It encompasses acute injury management followed by a progressive, functional, and cardiovascular exercise program that prevents deconditioning of the total body and rehabilitates the injury.

- For significant injuries where the recovery will be several weeks to months, rehabilitation should take place at home with your personal physiotherapist and medical team.
- For some minor injuries, rehab can be done while in competition with rest, proper care, and protection (tape/brace).

Injured Tissue	Healing Time
Muscle	Regeneration begins within 3-5 days after the start of a rehab program and rest from sporting activity, and complete healing can take 14-21 days. A complete muscle tear may require longer.
Ligament	Some strength is regained by 5 weeks after injury, 50% at 6 months, 80% at 1 year, and 1-3 years for the ligament to regain 100% of its strength.
Tendon	20-30% of strength is gained by week 5 but chronic tendon injuries (tears and tendinopathies) may require 12 weeks or more (up to one year) to rehabilitate fully. Complete tendon ruptures require surgical repair and may take 1 year or more to rehab.
Bone	Fractures (broken bones) including stress fractures usually need 3-6 weeks of immobilization (cast or brace to prevent movement) depending on the location, extent, and blood supply to the area. Once out of the immobilizer, the weakened muscles need to be strengthened which takes between 1-6 more months.

Return To Glory

Use this checklist to help you make safe smart decisions before returning to match play:

- You should have full range of motion in all directions
- You should have no pain or swelling with exercise or activity
- Your strength should be restored in all muscles related to the injured structure
- You should be able to perform tennis-specific exercises and drills without pain
- Your balance should be restored both on and off the court
- Your fitness level is peak and you can practice at 100%
- You can play a practice set without any pain

