

MUSCLE STRAIN — LEG & CALF

Soleus Strain

Understanding your injury and getting back to full speed

WHAT IS IT?

The soleus is the deep, flat calf muscle beneath the gastrocnemius. Because it works hardest with the knee bent, it is the endurance runner's calf muscle — and its strains are often mistaken for simple tightness.

A **strain** means muscle fibers were overstretched. We grade strains I–III: **Grade I** — mild, microscopic fiber injury; **Grade II** — moderate, a partial tear with strength loss; **Grade III** — severe, complete disruption.

HOW IT HAPPENS

Distance running, hill repeats, or increased mileage; typically a gradual or subacute onset rather than one sharp moment.

WHAT IT FEELS LIKE

Deep calf ache or tightness that builds during a run, tenderness deep in the lower calf, pain with a bent-knee calf raise more than a straight-knee one.

HOW LONG RECOVERY TAKES

- **Grade I:** 1–2 weeks
- **Grade II:** 2–6 weeks
- **Grade III:** 6–10 weeks

TREATMENT

Almost all muscle strains heal without surgery. For the first 72 hours: relative rest, ice 15–20 minutes several times daily, compression, and *gentle* motion — complete rest slows healing. Then a progressive program: pain-free motion → isometrics → strengthening → **eccentric loading** (strengthening the muscle while it lengthens — the phase that prevents re-injury) → sport-specific work.

Bent-knee (seated) calf raises target the soleus specifically; running re-entry uses a walk-jog progression with volume capped below symptom threshold.

RETURNING TO SPORT

Return when strength is at least **90% of the other side**, motion is full and pain-free, and you can perform your sport's movements at full speed without hesitation. Returning before the muscle is re-strengthened is the main cause of re-injury.

PREVENTING THE NEXT ONE

Graduated mileage increases (avoid >10–20% weekly jumps), soleus-specific strengthening for runners.

WHEN TO CALL US

Focal shin-bone tenderness rather than muscle tenderness suggests a tibial stress injury — different problem, different plan; tell us if pain localizes to bone.

CALL THE OFFICE RIGHT AWAY

Pain not controlled by medication, fever over 101.5°F, spreading redness or warmth, or new numbness or weakness. Direct office line (513) 441-5639; after hours (513) 354-3700.



SCAN FOR THE LATEST VERSION ONLINE

robertpettitmd.com/handouts/soleus-strain.pdf

This handout is for general patient education and does not replace personalized medical advice. Always follow the specific instructions given by Dr. Pettit and your care team.