

TROCHANTERIC BURSITIS (GTPS)

Nonoperative Physical Therapy Protocol

PATIENT

PHYSICIAN

Andrew L. Merritt, MD

DATE OF REFERRAL

PT START DATE

For the patient

Greater trochanteric pain syndrome (GTPS), sometimes called trochanteric bursitis, causes pain on the outer hip where the gluteal tendons attach to the greater trochanter. The main cause is **squeezing (compression) of those tendons**, not simply a "tight IT band." Any position that brings your leg across the midline (crossing your legs, letting your hip drop) presses the tendons between the IT band and the bone. Physical therapy removes that compression, rebuilds tendon strength with carefully graded loading, and teaches you how to move so the pain does not return. **Most people improve significantly over 3 to 6 months.** Crossing your legs, letting your hip drop, and sleeping on that side without a pillow between your knees are the most common reasons it fails to improve.

PROTOCOL AT A GLANCE

DIAGNOSIS · GOAL	Squeezed gluteal tendons. Remove the squeeze, then rebuild strength
ACTIVITY	Full weight as tolerated; cane in the opposite hand if you limp
PHYSICAL THERAPY	2 times a week at first, then 1–2 times a week, then weekly and as needed
KEY PRECAUTIONS	No leg crossing, hip drop, IT band or figure-4 stretches, or clamshells. Pillow between the knees at night
PROGRESSION	Holds, then heavy slow strength, then dynamic loading. Pain $\leq 3/10$, settled in 24 hours
RETURN TO ACTIVITY	Most improve in 3 to 6 months (severe: up to 12). Then strengthen 2× a week

Recovery Timeline

Phase	When	PT visits	Focus
1	Weeks 0–4 (to 6)	2× a week	Remove compression, isometric (non-moving) strengthening, gait and pain, positions to avoid
2	Weeks 4–12	1–2× a week	Progressive gluteus medius strengthening, weight-bearing exercise, bike, stairs and walking
3	Weeks 12–24+	1× a week, then as needed	High-load and dynamic strength, return to full activity, maintenance, discharge

Questions about your PT progress? Call our office or bring them to your next appointment. We are always glad to coordinate with your therapist.

For the Therapist

Check the surgeon notes first. They override anything else in this protocol. Questions or setbacks: call (425) 656-5060.

Surgeon notes and special instructions

General principles

- **Diagnosis.** GTPS encompasses gluteal tendinopathy and trochanteric bursitis. MRI evidence indicates gluteal tendon pathology (gluteus medius and minimus) is the primary driver in most cases, with bursal inflammation secondary. The mechanism is compressive load on the deep undersurface fibers of the gluteal tendons at the greater trochanter, not simply overuse tension.
- **Compression mechanism.** Compression occurs whenever the hip moves into adduction (crossing legs, hip drop, side-lying without pillow separation, ITB stretching). The IT band acts as a compressive strap: any hip adduction position tightens the ITB across the greater trochanter, squeezing the gluteal tendons. Eliminating compressive positions is as important as the exercise program.
- **Structure.** Compression elimination followed by systematic progressive loading. Typical total course 3–6 months; severe or degenerative cases may extend to 12 months. Progression is criteria-based throughout.
- **Load management.** Complete rest deconditions the tendon. The goal is smart loading: isometrics (no compression) in Phase 1, heavy slow resistance in Phase 2, dynamic/elastic in Phase 3. Never go from rest directly to high-load dynamic activity.
- **Pain monitoring rule.** Pain $\leq 3/10$ during exercise, returning to baseline within 24 hours, is acceptable. Pain $> 3/10$ or lasting > 24 hours: reduce load. Patients monitor pain first thing each morning for consistency.
- **Gluteus medius emphasis.** The primary target is the gluteus medius and minimus, not the TFL, upper gluteus maximus, or ITB tensioners. Cue "trochanteric abductors" and minimize superficial hip tensioner activation.
- **Clamshell is contraindicated.** It forces the patient to lie on the affected hip (direct compression) while performing hip adduction in the start position. It provides low gluteus medius activation and should be avoided throughout treatment.
- **ITB and piriformis stretching are contraindicated.** Stretching the ITB or piriformis (figure-4, cross-body stretch) moves the hip into adduction and dramatically increases tendon compression. These are the most common therapy errors that worsen GTPS.

PHASE

1

Pain Reduction and Load Management

Weeks 0–4 (to 6)

For the patient: what to expect

Your hip is irritated and reactive. The most important thing right now is learning which positions squeeze the outer hip and avoiding them. You will learn new sitting, standing, sleeping, and walking habits. Exercises in this phase involve holding a muscle tight without moving the joint. This reduces pain, keeps your strength, and protects the tendon. You should feel muscle tiredness during the holds, not sharp hip pain.

WEIGHT BEARING	Full weight bearing as tolerated. Cane in the opposite hand if antalgic gait or Trendelenburg lurch is present (a cane reduces hip joint contact force by 20–25%). Avoid prolonged single-leg standing on the affected side (hip drop increases compressive load on the trochanter)
RANGE OF MOTION	No end-range stretching. Gentle active ROM in non-provocative planes only; ROM without compression is unrestricted. Avoid hip adduction, ITB stretching, and piriformis (figure-4) stretching. Stationary bike when comfortable, seat high to minimize the hip flexion compression angle

Goals

- Eliminate compressive loads on the gluteal tendons through posture and activity modification
- Educate on lateral hip precautions; full compliance required
- Pain-free or minimally painful isometric loading ($\leq 3/10$)
- Normalize gait; assistive device if Trendelenburg is present
- Cross-train to maintain cardiovascular conditioning
- Start lumbopelvic postural control and trunk stabilization

Move on when

- ☐ Full compliance with lateral hip precautions; no symptom-provoking positions
- ☐ Isometric holds at 70% effort with pain $\leq 3/10$
- ☐ Pain not increasing over the 24-hour monitoring window
- ☐ Normalized gait; Trendelenburg absent or improved
- ☐ 30-sec single-leg stand with light fingertip support, pain-free

Exercises

Exercise	How
Isometric abduction (supine, belt or band)	Band around both ankles, press out against it; hip in neutral to slight abduction, not adduction. Hold 45–60 sec $\times$ 5 reps, 2–3 $\times$ a day. Progress from 40% to 70% maximal effort over the phase
Isometric hip hitch	Stand on the affected leg; lift the other foot about 1 cm by hitching the hip up (lateral pelvic tilt). Knee fully straight. Hold 45–60 sec $\times$ 5 reps
Hip hitch with toe tap	Hip hitch, then tap the unaffected toes to a step and back while holding the lateral pelvic position. 5 reps $\times$ 45 sec
Side-lying isometric abduction	Affected side up, not down. Pillow between the knees; "imagine preparing to lift the top leg" without moving. Hold 45–60 sec $\times$ 5 reps
Standing isometric abduction	"Imagine doing the side splits"; no movement, sustained abductor contraction. 45–60 sec $\times$ 5 reps
Supine bridges (double-leg)	Feet hip-width, drive through the heels, avoid hip internal rotation at the top. 3 $\times$ 15. Goal: pain-free gluteal contraction

Trunk stabilization	Anti-rotation dead bug: supine, arms and legs opposing in table-top. 3 × 10 slow reps. No hip adduction
Pelvic tilt and posture retraining	Standing, seated, and walking, with cues for a neutral pelvis, level iliac crests, and no hip adduction
Stationary bike	Seat raised to minimize hip flexion compression; no resistance at first; 15–20 min for conditioning and gentle ROM
Well-leg and upper-body conditioning	As needed
Ice	Lateral hip after activity as needed, 20 min on, 20 min off

For the patient: positions that may aggravate symptoms

- Crossing your legs (sitting, standing, or lying) can increase outer hip pressure. Try to keep your legs uncrossed when comfortable
- Letting your hip drop to one side while standing may provoke symptoms. Standing evenly on both legs is usually more comfortable
- Stretching the IT band or piriformis (figure-4 stretch, cross-body hip pull) can irritate the outer hip. Best avoided if they cause pain
- Foam rolling directly over the outer hip may be uncomfortable. Skip it if painful
- Sleeping on the affected side without a pillow between your knees may cause night pain. A pillow between the knees often helps
- Deep hip bending or low seats may be uncomfortable. Raising the seat height can reduce symptoms
- A cane or trekking poles can help if walking is painful or the hip feels unstable

PHASE

2

Isotonic Loading · Heavy Slow Resistance

Weeks 4–12

For the patient: what to expect

Your hip is less reactive and ready for strengthening. You will start exercises with moving resistance, beginning with lighter loads and building up gradually. The key rule is the same: **pain 3 out of 10 or less during exercise, and back to your usual level by the next morning.** If pain goes beyond that, reduce the load; do not push through. Hip precautions continue: still no crossing your legs, no IT band stretching, and no lying on the affected side without a pillow.

WEIGHT BEARING	Full. Wean from the assistive device as gait normalizes and abductor strength improves. Monitor for Trendelenburg returning with more activity
RANGE OF MOTION	Progress to full functional ROM. Stretching for non-ITB/piriformis restrictions is permissible if hip flexor tightness is documented, in non-adducted positions. Continue to avoid ITB and piriformis stretching. Bike progressed to moderate resistance, 20–30 min

Goals

- Build tensile load capacity of the gluteal musculotendinous complex
- Restore hip abductor strength, gluteus medius emphasis (within 20% of the other side)
- Correct kinetic chain deficits; eliminate hip adduction drift in functional tasks
- Maintain lateral hip precautions while progressing to functional ROM
- Advance low-impact cardiovascular conditioning

Move on when

- ☐ 3–4 sets × 6 reps with load through full ROM, pain ≤3/10, no increase lasting >24 hours
- ☐ Full ROM equal to the other side
- ☐ No pain with ADLs or sustained walking
- ☐ No tenderness over the gluteal tendons at rest
- ☐ 30-sec single-leg stand, pain-free, no trunk deviation
- ☐ Hip abductor strength within about 20% of the other side

Phase 2a exercises: Weeks 4–6, non-weight-bearing, low load

Exercise	How
Side-lying hip abduction	Affected side up. Pillow between the knees to start; lift the top leg into abduction, pelvis stacked. 3 × 15. Cue "trochanteric abductors"; minimize TFL and upper gluteus maximus
Supine bridges (double-leg, progressed)	Drive through the heels, neutral pelvis, no hip adduction at the top. 3 × 15
Band side glides	Standing upright, band above the knees; step sideways with a neutral trunk, no hip adduction or crossover. 3 × 15 steps each direction
Isometrics	Continue as needed for pain management; same prescription as Phase 1

Phase 2b exercises: Weeks 6–10, progressive weight bearing

Exercise	How
Single-leg bridge	Affected leg supporting, other knee bent. Progress to a 5-sec hold. 3 × 10–12
Step-ups (4-inch)	Lateral or forward; abductor control keeps the pelvis level. 3 × 10. Watch for Trendelenburg and hip adduction drift
Offset or split-stance squat	Weight shifted more to the stance leg; squat to 30–45°, neutral pelvis. 3 × 10

Standing hip abduction	With support, then band resistance. 3 × 15. Hip neutral; no adduction at the start or end position
Lateral band walk	Band above the knees, step sideways keeping a shoulder-width stance. 3 × 15 steps each direction
Stationary bike	20–25 min; progress to moderate resistance

Phase 2c exercises: Weeks 8–12, higher-load functional

Exercise	How
Single-leg squat (partial)	30° → 45°. Watch for hip adduction drift and Trendelenburg. 3 × 10. Mirror feedback
Romanian single-leg deadlift	Hinge at the hip, pelvis level; high gluteus medius demand. 3 × 10. Start with bilateral support
Step-down (eccentric)	Stand on a step; lower the other leg slowly under eccentric abductor control. 3 × 10
Lateral lunge	Controlled lunge to the side, knee over the foot, hip neutral. 3 × 10
Leg press (affected leg)	0–60° arc. 3 × 12, progressive resistance
Heavy slow resistance	Start at 3 × 15; increase load while reducing reps toward 3 × 6 over the phase. Target effort RPE 7/10

Precautions

- Lateral hip precautions continue: no adduction, no ITB or piriformis stretching, no lying on the affected side without a pillow
- Exercise every other day, not daily; tendons need recovery time between loading sessions
- Start exercises in a modified ROM that avoids hip adduction; progress to functional ROM as strength and pain allow
- Pain monitoring rule: ≤3/10 during exercise and back to baseline within 24 hours is acceptable
- No heavy eccentric loading or plyometrics in Phase 2; progress systematically through isotonic loading first
- Do not advance to Phase 3 exercises if pain is still reactive

PHASE

3

Dynamic Loading and Return to Activity

Weeks 12–24+

For the patient: what to expect

You are ready for faster, heavier exercises: jogging, light jumping, and sport-type movement. Hip precautions relax gradually as your tendon gets stronger, but keep leg-crossing loads and IT band stretching to a minimum until discharge. **Tendons need ongoing loading to stay healthy: do not stop your maintenance program when the pain goes away.**

WEIGHT BEARING · MOTION

Both full and unrestricted. Progressive single-leg and impact loading. Maintain hip flexor and rotator flexibility in non-provocative positions. Gradually relax lateral hip precautions as tolerated

Goals

- Prepare the tendon for high-speed, elastic energy demands
- Return to walking, running, recreation, and sport
- Consolidate kinetic chain mechanics under dynamic load
- Long-term maintenance strengthening $\geq 2\times$ a week
- Symmetrical hip abductor strength ($\geq 90\%$ of the other side)

Move on when

- ☐ Pain-free with prolonged walking and stairs
- ☐ Single-leg stand ≥ 30 sec, pain-free, no trunk deviation
- ☐ Hip abductor strength $\geq 90\%$ of the other side (handheld dynamometry or functional testing)
- ☐ Step-down test: smooth eccentric control, no dynamic valgus, no pain
- ☐ Single-leg hop for distance $\geq 90\%$ LSI
- ☐ Pain-free continuous 20-min jog, flat surface
- ☐ Maintenance program in place, $\geq 2\times$ a week
- ☐ Activity goals met; discharge criteria achieved

Exercises

Exercise	How
Heavy slow resistance	Continue as maintenance: 3–4 $\times$ 6–15 reps, every other day
Single-leg squat · step-downs	Squat to progressive depth, 60–90°, 3 $\times$ 12, monitor alignment throughout. Step-downs (6–8-inch) 3 $\times$ 15, excellent eccentric gluteus medius load
Bulgarian split squat · lateral step-ups	Split squat 3 $\times$ 10–12 each leg; lateral step-ups (8-inch) 3 $\times$ 12–15
Nordic hamstring curls	Assisted to unassisted. 3 $\times$ 6–10
Vertical jump · lateral bounds	Double-leg jump, stick the landing, 3 $\times$ 8 (quiet landing, neutral knees). Lateral bounds, bilateral, controlled deceleration, 3 $\times$ 6 each direction
Single-leg hops	Hop in place → hop for distance → lateral hops. Skipping and bounding for elastic energy loading
Run-walk intervals	Start 1 min run : 2 min walk $\times$ 5 on a flat surface; build to a continuous 20-min run over 4–8 weeks
Isometrics	As needed for pain management after reactive episodes

Precautions

- Progress plyometric and running exercises every 3rd day at first; volume before intensity
- Pain monitoring rule continues: $\leq 3/10$ during activity, back to baseline within 24 hours
- Reactive pain (flare-up) after activity: reduce volume and intensity; return to Phase 2 exercises temporarily
- Avoid cambered roads for running (they force the hip into adduction); use a flat or treadmill surface at first
- HSR at least 2× a week as maintenance; rapid de-loading deconditions the tendon

Return to Activity Criteria

Each level builds on the one before it.

Return to daily activity

- No pain with prolonged walking, stairs, or sit-to-stand
- 30-sec single-leg stand, pain-free, no Trendelenburg
- Step-down 10 reps without pain or compensation
- Hip abductor strength $>80\%$ of the other side

Return to recreational walking and low-impact exercise

- All Phase 2 criteria met
- 10-min continuous walk, pain-free, at a comfortable pace
- Progress by the 10% rule: no more than a 10% increase in distance or intensity per week
- Flat or treadmill surface at first; avoid cambered roads

Return to running

- Phase 2 criteria and early Phase 3 criteria met
- Single-leg hop test $\geq 90\%$ LSI
- Pain-free double-leg plyometrics
- Progress run-walk 1:2 → 1:1 → continuous; typically 6–8 weeks once running begins

Return to sport and high-load activity

- Phase 3 criteria met
- Pain-free with high-load resistance exercises in all positions
- Hop testing $\geq 90\%$ LSI
- Activity-specific drills at full volume without reactive pain
- Maintenance strengthening program established

Clinical note: tendons need ongoing mechanical loading to maintain collagen integrity. Rapid de-loading causes catabolic change even after full recovery. Emphasize year-round maintenance loading at least 2× a week.