

Piriformis Syndrome

Explanation of Diagnosis

Piriformis syndrome occurs when the **piriformis muscle (located deep in the buttocks) compresses or irritates the sciatic nerve**, leading to **buttock pain, numbness, tingling, or radiating pain down the leg**. It is often caused by **overuse, prolonged sitting, poor posture, or muscle imbalances**. Symptoms may worsen with walking, running, sitting for long periods, or climbing stairs.

Specific Work Modifications

- **Use an ergonomic chair with lumbar support** to reduce hip strain.
- **Avoid prolonged sitting**; stand and stretch every 30-45 minutes.
- **Use a seat cushion or wedge** to reduce pressure on the piriformis.
- **Modify tasks** to limit repetitive squatting, bending, or prolonged standing.
- **Apply heat or ice (15-20 min, 3-4 times daily)** to reduce pain and inflammation.

Specific Activity Modifications

- **Avoid high-impact activities** like sprinting, jumping, or deep lunges.
- **Modify workouts** by switching to **low-impact exercises** like swimming, cycling, or yoga.
- **Stretch and strengthen the hip muscles** before and after activity.
- **Use proper form** during exercises to prevent muscle strain.

Recommended Supplements

- **Magnesium (300-400 mg daily)** - Helps with muscle relaxation and reduces cramping.
- **Collagen peptides (10 g daily)** - Supports muscle and soft tissue healing.
- **Omega-3 fatty acids (1000 mg daily)** - Reduces inflammation and nerve irritation.
- **Vitamin D3 (1000-2000 IU daily)** - Supports nerve and muscle function.
- **Turmeric (500 mg twice daily)** - Provides natural anti-inflammatory benefits.

Recommended Nutrition and Hydration

Diet Recommendations:

- **Anti-inflammatory foods:** Fatty fish (salmon, sardines), turmeric, berries, walnuts, and olive oil.
- **Muscle-repair foods:** Lean protein (chicken, fish, eggs), Greek yogurt, and legumes.
- **Collagen-boosting foods:** Bone broth, citrus fruits, and bell peppers.

- **Limit processed foods, sugar, and alcohol**, which can increase inflammation.

Hydration Tips:

- **Drink at least 2-3 liters of water daily** to keep muscles hydrated and reduce stiffness.
- **Limit caffeine and alcohol**, which can contribute to muscle tightness and dehydration.

Home Exercise Prescription

Focus on gentle stretching and strengthening. Avoid aggressive movements that increase pain.

Phase 1: Pain Relief & Mobility (Days 1-5, Reduce Tightness & Improve Movement)

1. Ice or Heat Therapy

- Apply **ice for acute pain or heat for muscle relaxation** (15-20 minutes, 3-4 times daily).

2. Seated Piriformis Stretch

- Sit upright, cross the affected leg over the opposite knee, and gently press down.
- **Hold for 20-30 seconds, repeat 3 times.**

3. Figure-4 Stretch (Lying Down)

- Lie on your back, cross the affected leg over the opposite knee, and pull toward the chest.
- **Hold for 20-30 seconds, repeat 3 times.**

Phase 2: Strength & Stability (After 5-7 Days, Once Pain Improves)

4. Glute Bridges (Hip & Core Strengthening)

- Lie on your back, bend knees, and lift hips while squeezing the glutes.
- **10 reps, 2 times daily.**

5. Clamshells (Hip Abductor Strengthening)

- Lie on your side with knees bent, lift the top knee while keeping feet together.
- **10 reps per side, 2 times daily.**

6. Pelvic Tilts

- Lie on your back with knees bent, tighten your core, and flatten your lower back.
- **10 reps, 2 times daily.**

Phase 3: Return to Activity (After 2-3 Weeks, If Pain-Free)

7. Standing Hip Abduction

- Stand tall and lift one leg sideways without tilting the torso.
- **10 reps per leg, 2 times daily.**

8. Single-Leg Balance Exercise

- Stand on the affected leg for **15-30 seconds**, increasing time as tolerated.
- **Repeat 2-3 times per leg.**

Avoid deep squats, prolonged sitting, and sudden twisting movements until fully healed (typically 4-6 weeks).

Helpful Books

1. *"Rehab Science: How to Overcome Pain and Heal from Injury"* - Tom Walters, DPT
2. *"The Sciatica Relief Handbook"* - Chet Cunningham

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Contact a Key West orthopedic clinic or reach out to Dr. Jason Pirozzolo.