

Patellofemoral Pain Syndrome

Diagnosis Explanation:

Patellofemoral Pain Syndrome (PFPS), also known as **runner's knee**, is a common condition causing pain around or behind the **kneecap (patella)** due to **overuse, muscle imbalances, or improper kneecap tracking**. It is common in **runners, cyclists, and athletes** but can also affect people who perform **repetitive knee bending, prolonged sitting, or stair climbing**. Symptoms include **dull, aching pain** in the front of the knee, worsened by **squatting, running, kneeling, or prolonged sitting**.

Specific Work Modifications:

- **If your job requires standing or walking:** Use **supportive footwear or orthotics** and take breaks when needed.
- **If your job involves lifting:** Avoid **deep squatting and twisting movements**. Use proper lifting mechanics.
- **If your job is desk-based:** Keep the knee **elevated** when sitting and perform **gentle stretches** throughout the day.
- **Avoid:** Kneeling, deep squats, prolonged standing, excessive stair climbing, and repetitive knee stress.

Specific Activity Modifications:

- **If you run or play sports:** Reduce mileage and switch to **low-impact activities** like swimming or cycling.
- **If you hike:** Use **trekking poles** for support and avoid steep inclines.
- **If you do weightlifting:** Avoid **deep squats, lunges, and leg presses**. Focus on **controlled, low-impact movements**.
- **Avoid:** Jumping, running on hard surfaces, prolonged kneeling, and repetitive stress on the knee joint.

Recommended Supplements:

- **Collagen Peptides** - 10g daily for cartilage support.
- **Glucosamine & Chondroitin** - 1500mg/1200mg daily for joint health.
- **Omega-3 Fatty Acids** - 1000mg daily to reduce inflammation.
- **Vitamin C** - 500mg daily to promote collagen synthesis.
- **Turmeric (Curcumin)** - 500-1000mg daily for pain relief.

Recommended Nutrition and Hydration:

- **Increase Omega-3 Intake** (salmon, walnuts, flaxseeds) to reduce joint inflammation.
- **Consume Collagen-Rich Foods** (bone broth, citrus, tomatoes) to support cartilage.

repair.

- **Eat Anti-Inflammatory Foods** (leafy greens, berries, nuts, turmeric) to reduce swelling.
- **Limit Processed Foods & Sugars** to decrease joint inflammation.
- **Hydration:** Drink **8-10 cups of water daily** to maintain joint lubrication and prevent stiffness.

Home Exercise Prescription (Rehabilitation for Patellofemoral Pain Syndrome)

Early Phase (0-2 Weeks, Reducing Pain & Swelling):

- **RICE Protocol** - Rest, Ice (15-20 min, 3x/day), Compression (brace if needed), Elevation.
- **Quadriceps Sets** - Tighten thigh muscles, hold for 5 seconds, repeat **10 reps, 3x/day**.
- **Heel Slides** - Gently slide heel toward buttocks to improve mobility, **10 reps, 2x/day**.
- **Seated Knee Extensions** - Slowly extend knee, hold for 5 seconds, repeat **10 reps, 2x/day**.

Strengthening Phase (2-6 Weeks, Regaining Strength & Stability):

- **Straight Leg Raises** - Keep knee straight, lift leg, hold 5 seconds, repeat **10 reps, 2x/day**.
- **Clamshells (Hip Strengthening)** - Lie on your side, open and close knees, **10 reps, 2x/day**.
- **Mini Squats (No Deep Bending)** - Slight knee bends while keeping weight on heels, **10 reps, 2x/day**.
- **Glute Bridges** - Lie on back, lift hips while keeping knees bent, **10 reps, 2x/day**.

Advanced Phase (6+ Weeks, Improving Stability & Return to Activity):

- **Step-Ups** - Step onto a low platform, push through the heel, repeat **10 reps, 2x/day**.
- **Lateral Band Walks** - Step sideways with a resistance band around thighs, **10 steps each way, 2x/day**.
- **Stationary Cycling** - Low resistance for **10-15 minutes/day** to maintain mobility.
- **Balance Exercises** - Stand on injured leg for **10-20 seconds**, increase as tolerated.

Helpful Books:

1. *The Knee Injury Bible: Everything You Need to Know About Knee Pain, Prevention, and Treatment* - Kevin R. Stone, MD.
2. *Heal Your Knees: How to Prevent Knee Surgery and What to Do If You Need It* - Robert Klapper, MD, and Lynda Huey.

Click [here](#) for more orthopedic patient information.

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