

Over Pronation and Foot Alignment

Explanation of Diagnosis

Overpronation occurs when the **foot rolls excessively inward** while walking or running, leading to **misalignment of the ankle, knee, and hip**. It can cause **foot pain, shin splints, plantar fasciitis, Achilles tendonitis, knee pain, and lower back pain**. Overpronation is often linked to **flat feet, weak foot muscles, improper footwear, or biomechanical imbalances**.

Specific Work Modifications

- **Wear supportive, motion-control shoes** designed for overpronation.
- **Use custom orthotics or arch supports** to improve foot alignment.
- **Avoid prolonged standing or walking on hard surfaces** without proper support.
- **Take breaks to stretch and elevate feet** to reduce fatigue.
- **Use anti-fatigue mats** if standing for long periods.

Specific Activity Modifications

- **Avoid barefoot walking or running**, especially on hard surfaces.
- **Modify workouts** by switching to **low-impact activities** like swimming or cycling.
- **Use proper footwear and insoles** for sports or weightlifting.
- **Perform strengthening exercises** to correct foot alignment and prevent injuries.

Recommended Supplements

- **Collagen peptides (10 g daily)** - Supports ligament and tendon strength.
- **Vitamin D3 (1000-2000 IU daily)** - Helps with bone and joint health.
- **Calcium (1000-1200 mg daily)** - Strengthens bones and reduces stress on joints.
- **Magnesium (300-400 mg daily)** - Helps with muscle relaxation and foot cramps.
- **Omega-3 fatty acids (1000 mg daily)** - Reduces joint inflammation.

Recommended Nutrition and Hydration

Diet Recommendations:

- **Bone and joint-supporting foods:** Dairy, leafy greens, almonds, and fortified cereals.
- **Anti-inflammatory foods:** Fatty fish, turmeric, berries, and walnuts.
- **Protein-rich foods:** Chicken, eggs, lentils, and dairy to support foot and leg muscles.
- **Limit processed foods, sugar, and alcohol**, which can worsen inflammation.

Hydration Tips:

- **Drink at least 2-3 liters of water daily** to maintain muscle and joint function.
- **Limit caffeine and alcohol**, which can dehydrate tissues and slow recovery.

Home Exercise Prescription

Perform **2-3 times daily** to strengthen foot muscles and improve alignment:

Strengthening Exercises

1. Arch Lifts (Short Foot Exercise)

- Stand barefoot and lift your foot arch without curling your toes.
- **Hold for 5 seconds, repeat 10 reps per foot.**

2. Toe Towel Scrunches

- Place a towel on the floor and use your toes to **scrunch it toward you**.
- **10 reps, 2 times daily.**

3. Heel Raises with a Ball

- Stand with a small ball between your heels and perform **heel raises** while squeezing the ball.
- **10 reps, 2 times daily.**

Stretching & Mobility

4. Calf Stretch (Straight & Bent Knee)

- Stand facing a wall, place one foot back, and keep the heel on the ground.
- **Hold for 20-30 seconds, repeat 3 times per leg.**

5. Plantar Fascia Stretch

- Sit and pull your toes back toward your shin.
- **Hold for 20-30 seconds, repeat 3 times per foot.**

6. Rolling Massage with a Ball

- Use a **tennis ball or frozen water bottle** under the foot and roll it gently.
- **1-2 minutes per foot, 1-2 times daily.**

Avoid excessive foot rolling, flat shoes, and high-impact activities until symptoms improve.

Helpful Books

1. "Every Woman's Guide to Foot Pain Relief: The New Science of Healthy Feet" - Katy Bowman
2. "Fixing Your Feet: Injury Prevention and Treatment for Athletes" - John Vonhof

Click here for more orthopedic patient information.

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