

Flat Feet (Pes Planus)

Explanation of Diagnosis

Flat feet occur when the **arches of the feet collapse**, causing the entire sole to make contact with the ground. This can be **congenital (from birth) or acquired over time** due to **weak muscles, ligament laxity, obesity, aging, or injury**. Symptoms may include **foot pain, fatigue, shin splints, knee pain, and even lower back discomfort** due to improper alignment.

Specific Work Modifications

- **Wear supportive, arch-supporting shoes** or custom orthotics to reduce strain.
- **Avoid prolonged standing or walking on hard surfaces** without proper support.
- **Use anti-fatigue mats** if standing for long periods.
- **Modify tasks to allow sitting breaks** to relieve foot fatigue.
- **Strengthen foot muscles with regular exercises** to improve arch support.

Specific Activity Modifications

- **Avoid high-impact activities** like running and jumping on hard surfaces.
- **Modify workouts** by switching to **low-impact activities** like swimming, cycling, or elliptical training.
- **Wear proper footwear with motion control** if engaging in sports or exercise.
- **Perform foot-strengthening exercises daily** to reduce discomfort and prevent injury.

Recommended Supplements

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

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 ligament and muscle

function.

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

Hydration Tips:

- **Drink at least 2-3 liters of water daily** to support 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 arch support:

Strengthening Exercises

1. Arch Lifts (Short Foot Exercise)

- Stand barefoot and try to 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 walking barefoot, high-impact activities, and unsupportive shoes 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.