

Sever's Disease (Calcaneal Apophysitis)

Explanation of Diagnosis

Sever's disease is a **growth plate inflammation** in the **heel bone (calcaneus)** caused by **repetitive stress and pulling from the Achilles tendon**. It commonly affects **active children and adolescents (ages 8-14)**, especially those in running or jumping sports. Symptoms include **heel pain, tenderness, swelling, and stiffness, particularly after activity**. It is not a true disease but rather a **temporary growth-related condition** that improves with proper management.

Specific Work Modifications

- **If work requires prolonged standing or walking, take breaks and elevate the foot when possible.**
- **Wear cushioned, supportive shoes with a slight heel lift** to reduce stress on the Achilles tendon.
- **Use heel cups or gel inserts** to absorb impact and relieve heel pressure.
- **Avoid walking barefoot on hard surfaces.**

Specific Activity Modifications

- **Avoid high-impact activities** (running, jumping, basketball, soccer) until pain improves.
- **Modify workouts** by switching to **low-impact activities** like swimming or cycling.
- **Use proper warm-ups and stretching routines** before returning to sports.
- **Gradually reintroduce activities** once pain resolves, using heel support.

Recommended Supplements

- **Calcium (1000-1200 mg daily)** - Supports bone growth and repair.
- **Vitamin D3 (1000-2000 IU daily)** - Enhances calcium absorption.
- **Magnesium (300-400 mg daily)** - Aids in muscle relaxation and recovery.
- **Collagen peptides (10 g daily)** - Supports tendon and ligament health.
- **Omega-3 fatty acids (1000 mg daily)** - Reduces inflammation in the heel.

Recommended Nutrition and Hydration

Diet Recommendations:

- **Bone-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 growth and repair.

- **Limit processed foods, excess sugar, and soda**, which can weaken bone health.

Hydration Tips:

- **Drink at least 2-3 liters of water daily** to support joint and tissue health.
- **Limit sugary drinks and caffeine**, which can interfere with calcium absorption.

Home Exercise Prescription

Perform **2-3 times daily** to reduce pain and improve flexibility:

Stretching & Mobility

1. 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.**

2. Plantar Fascia Stretch

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

3. 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.**

Strengthening & Stability

4. Heel Raises

- Stand and slowly raise onto your toes, then lower.
- **10 reps, 2 times daily.**

5. Toe Towel Scrunches (Arch Strengthening)

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

6. Single-Leg Balance Exercise

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

Avoid excessive running, jumping, and high-impact activities until symptoms improve.

Helpful Books

1. "Sports Injuries Guidebook" - Robert Gotlin, DO
2. "The Young Athlete's Guide to Sports Medicine" - Jordan Metzl, MD

Click here for more orthopedic patient information.

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