

# Plantar Fascia Rupture Test

Name: Jonathan Bennett Age: 45

Examiner's name: Dr. Susan Weaver Date: August 28, 2024

## Medical history

Check the patient's medical history for plantar fascia-related problems or if they have flat feet.

Recent complaints of severe heel pain following a strenuous run. Patient has flat feet.

## Windlass Test

### Part 1: Seated position (non-weight-bearing)

1. Have the patient sit on an examination table or chair with their affected leg extended.
2. Stabilize the patient's heel with one hand.
3. With the other hand, apply pressure to the base of the toes while passively dorsiflexing the patient's foot. This means pulling the toes upwards towards the shin.
4. Continue dorsiflexing until the patient reports pain or resistance is felt.
5. Lower the foot back to the starting position and repeat the procedure, this time asking the patient to actively dorsiflex their foot while you apply pressure on the base of the toes.

**Positive:** Pain provoked at the end of the range of motion.

**Negative:** No pain provoked.

### Part 2: Standing (weight bearing)

1. Have the patient stand on a stool with their metatarsal heads just off the edge, ensuring they place equal weight on both feet.
2. Passively dorsiflex the big toe until the end of the range while allowing the interphalangeal joint to flex.

**Positive:** Pain provoked at the end of the range of motion.

**Negative:** No pain provoked.

## Physical exam

Examine the affected foot for the following:

Tenderness in the plantar fascia area, especially the medial side

Swelling in the plantar fascia area

Bruising in the plantar fascia area

Tightness in the calf muscle

## Imaging

Please select which method/s were used:

- |                                            |                                              |
|--------------------------------------------|----------------------------------------------|
| <input checked="" type="checkbox"/> MRI    | <input type="checkbox"/> Bone scanning       |
| <input type="checkbox"/> Ultrasound        | <input type="checkbox"/> Computed tomography |
| <input checked="" type="checkbox"/> X-rays | <input type="checkbox"/> Other (specify):    |

Results of imaging:

MRI shows a partial tear in the plantar fascia with significant inflammation. X-rays indicate no fractures or other bone-related injuries.

## Additional notes

Patient has been advised to rest, use ice therapy, and consider a walking boot. Physical therapy will be discussed at the next follow-up if symptoms persist. Surgical intervention is not required at this time.

## References

Bolgla, L. A., & Malone, T. R. (2004). Plantar fasciitis and the windlass mechanism: A biomechanical link to clinical practice. *Journal of Athletic Training, 39*(1), 77–82. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC385265/>

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