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# Plantar Fasciitis: Steroid Injections vs. PRP injections

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# Plantar Fasciitis: Platelet Rich Plasma or Steroid injections?



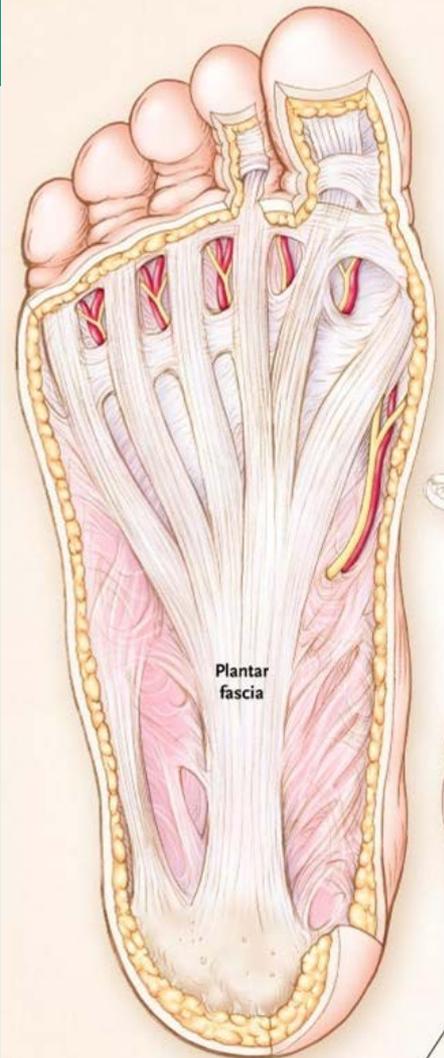
# What do we want to know?



In patients with chronic plantar fasciitis, is a platelet-rich plasma injection or a corticosteroid injection more beneficial for long-term pain reduction?

# What is the plantar fascia?

- Thick connective tissue
  - Originates at the calcaneus
  - Insertion: heads of the metatarsals or proximal phalanges
- Functions to provide support for the foot
- Absorbs part of the total load of the foot
- Assists with push off in walking
  - Windlass mechanism





# So what is plantar fasciitis?

- Inflammation of the plantar fascia in the arch of the foot
- Degeneration
  - Caused by microtears in the fascia that cannot heal



# Steroid Injections

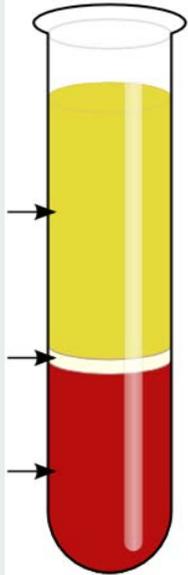
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- Goal is to decrease inflammatory process
- Commonly used steroids
  - Prednisolone
  - Methylprednisolone
- May be administered with a local anesthetic
  - Lidocaine



# PRP injections

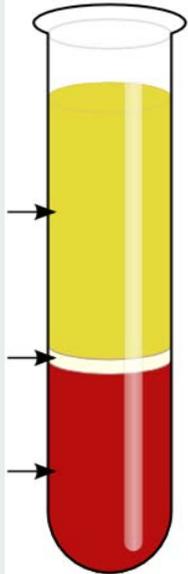
- Uses a sample of the patient's blood
- Centrifuge
  - Single or double spin method
- Injection delivers platelets and growth factors to injured area
  - Due to hypovascularization, these growth factors would never otherwise get to this area
- Activating agents
  - Calcium chloride or thrombin



# PRP injections

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- Cytokines from the platelets enhance fibroblast migration and proliferation, increase vascularization, and improve collagen deposition
- Also beneficial for other conditions
  - Lateral epicondylitis
  - Ligament sprain
  - Tendon injuries



# Effectiveness and relevant factors of platelet -rich plasma treatment in managing plantar fasciitis: A systematic review

- All studies showed significant improvement with no side effects or complications when using PRP to treat patients with chronic PF
  - Comparison results
- PRP could be a safe and effective treatment for long term pain reduction in patients with chronic PF

# Chronic plantar fasciitis: Effect of platelet -rich plasma, corticosteroid, and placebo

- Both steroid and PRP injections are effective treatments for chronic PF
- PRP is as effective or more effective than steroid injections at 3 months post-injection
- Limitations:
  - Small sample size
  - Need a longer follow-up window

# Comparative study for the treatment of plantar fasciitis by corticosteroids versus platelet rich plasma.

- PRP injections are a successful and superior treatment to steroid injections for pain reduction in patients with chronic PF
- Limitations:
  - Small study size
  - Different administers
  - Follow up was by phone, so some patients were noncompliant to the follow up
  - No placebo group

# Plantar fasciitis: Outcome evaluation of plantar fasciitis treated with PRP against steroid injection.

- PRP showed none of the negative effects seen with corticosteroid injections
- PRP is a safe and efficient treatment for PF with no recurrence, side effects, or complications

# What is the final conclusion?

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- Short term, there is little to no difference between steroid injections and PRP injections
- Long term, PRP shows increased benefit for pain reduction in patients with chronic plantar fasciitis
  - PRP seems to be a safe treatment option with little to no side effects

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