

GROWTH PLATE FINGER INJURIES

Advice for parents, climbers and coaches



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- The Climbing Physio

1. What is a growth plate?

A growth plate is an area of active bone growth, near the ends of bones in children and teenagers. They harden to solid bone when a child has stopped growing, meaning adults do not have them.



2. How do they get injured?

Growth plates are the weakest part of your bone, even weaker than the tendons and ligaments around it!

Growth plates are at greater risk of being injured at higher or more intense training loads.

Known causes are "micro traumas" (mini injuries), that build up over time, causing a bigger injury. We also see these injuries happening suddenly. Most often when using smaller crimps with rotation.

3. Who is at risk?

Growth plates are at risk of injury until the bone has matured around ages 17-18. Teenage climbers are most at risk of growth plate injuries during pubertal growth spurts, **i.e. shoe size increasing!**

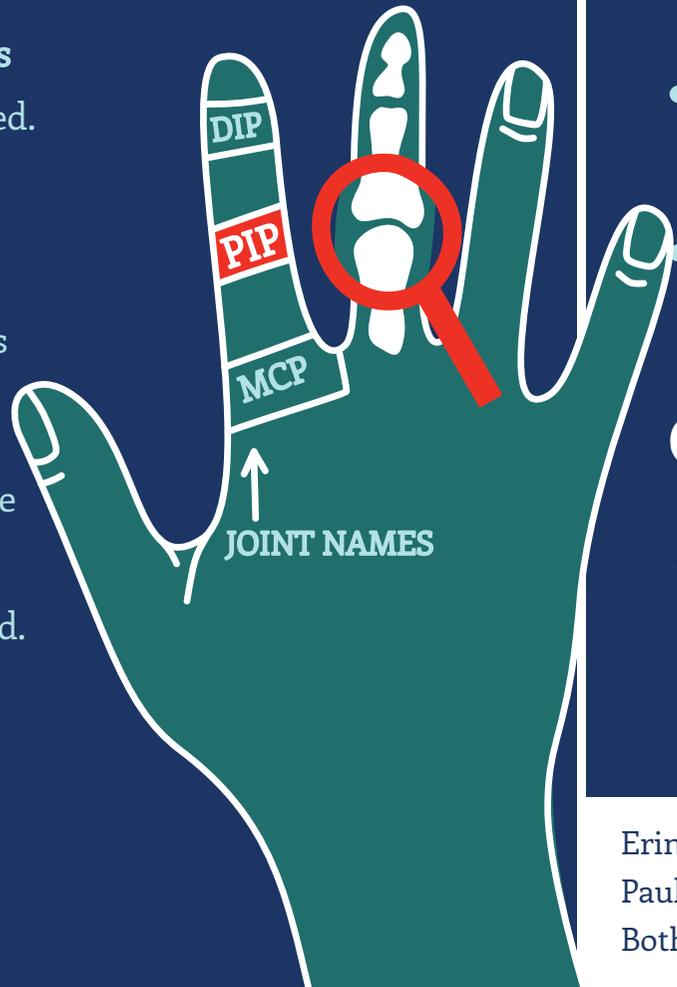
4. Signs and symptoms.

PIP swelling and tenderness on the knuckle when pressed.

Visible **loss of range of movement** (it can't straighten/bend as much as the other fingers).

Joint pain when pushing the finger **fully bent or fully straight** with the other hand.

ANY stiffness or pain the following day! **This should not occur in adolescents.**



5. What should you do if you notice symptoms?

- **Stop climbing and seek medical advice.** These symptoms suggest a growth plate issue.
- Diagnosis is made via imaging (not ultrasound) and if confirmed, requires further input from an orthopaedic (hand) doctor.
- Typical time frames to **stop climbing is 6-8 weeks** and you may need another scan to confirm healing.
- It is really important to try catch these injuries early on to avoid permanent changes.

6. Injury prevention.

Avoid full crimping, use half crimp or open grip instead. Use good footwork, avoid dynos and deadpoints. A coach can help develop finger strength safely!

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