

Gymnast's Wrist (Physiolysis of the Distal Radius)

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Definition- Young athletes have growth centers at the ends of the long bones in the body. These growth centers can be subject to stress injuries when they are exposed to repetitive stress or loading. Gymnast's wrist is a condition caused by repetitive stress to the radius bone (wrist bone). It is commonly seen in athletes engaged in gymnastics, skate boarding, cheerleading, and weight lifting.

Clinical symptoms- Physiolysis of the distal radius typically presents as pain in the wrist. It is often worse with extremes of wrist motion (especially pulling the wrist back). Swelling and redness may also be present. Performance may be impaired due to pain and reduced range of motion. The condition frequently affects both wrists.

Physical exam- Children and adolescents with gymnast's wrist are often tender around the distal radius (wrist). There may be associated swelling and decreased range of motion. Decreased strength in the wrist and hand may also be present.

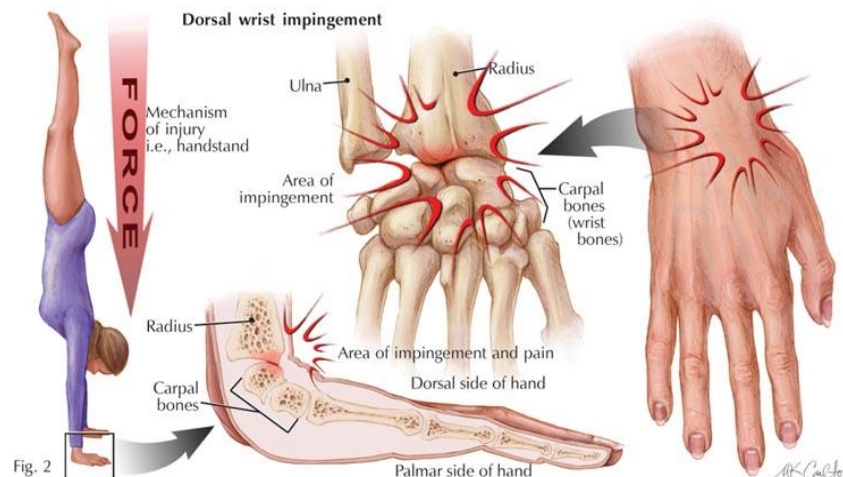
Diagnostic test- Plain x-rays may show changes at the growth plate, including widening or narrowing. The films may also show cystic or sclerotic changes of the distal radius. If the x-rays are normal, a MRI may be indicated to look for more subtle changes related to the stress injury.

Differential diagnosis-

- Wrist sprain/strain
- Tendonitis
- Infection

Treatment- Conservative treatment measures include relative rest (limiting activities which cause pain), ice (especially after activity), and anti-inflammatory medicines (motrin or naproxen). Splints, wraps, and taping may help to decrease the load placed on the radius. Physical therapy may be beneficial to stretch and strengthen the wrist flexors and extensors. If pain continues despite these measures, a period of complete rest and/or immobilization may be necessary for 6-8 weeks.

Outcomes- With adequate rest and rehabilitation, most children are able to return to sports and activities with little to no pain. Continuing to participate through the pain can result in growth arrest and angular deformities about the wrist (ulnar variance).



Dr. Locke's clinical care team

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