Gymnast’s Wrist (Distal Radial Epiphysitis)

What is Gymnast’s Wrist?
Gymnast’s Wrist is irritation and inflammation of the growth plate (epiphysis) at the end of the radius (forearm bone) where it connects to the hand to form the wrist. In a child, the bones grow from areas called growth plates. The growth plate is made up of cartilage, which is softer and more vulnerable to injury than mature bone.

How does it occur?
Gymnast’s wrist is an overuse injury that occurs in up to 40% of young gymnasts. It usually appears during a period of increased intensity of gymnastic activity, such as when a gymnast moves to a higher competitive level. Impact activities like tumbling and vaulting put a large amount of compressive force on the growth plate in the wrist. This repetitive stress leads to inflammation and irritation in the growth plate.

If not treated properly, gymnast’s wrist can lead to premature closure of the radial growth plate, causing the radius to be shorter than the ulna. This resulting asymmetry in length of the two forearm bones results in uneven stress distribution at the wrist with impact activities, leading to chronic pain, stiffness, and difficulty competing in gymnastics.

What are the symptoms?
The most common symptom is wrist pain with impact activities. There may also be swelling and reduced range of motion.

How is it diagnosed?
Your doctor will review your symptoms and examine your wrist. X-rays may show signs of gymnast’s wrist such as irregular bone edges, scarring, or widening at the radial growth plate.

How is it treated?
A short period of rest from impact activities is required to remove the stress at the growth plate and allow it to heal. Pushing through pain will only make the injury worse. Ice will help to reduce the inflammation. Apply ice for 15-20 minutes, every 2-3 hours.

When can I return to gymnastics?
When the inflammation and pain have resolved, you may return to impact activities slowly and gradually. If your pain comes back, stop the irritating activities and see your doctor for further evaluation.

How can gymnast’s wrist be prevented?
Your doctor may recommend a wrist brace or taping to control wrist extension when you return to gymnastics. This may reduce the stress on your growth plate when you tumble and vault.

Exercises to strengthen your forearm and upper body muscles can improve the body’s ability to absorb the impact forces during tumbling and may reduce the risk of re-injury.
Do not train with pain. Pain is a sign of injury, stress, or overuse. Rest is required to allow time for the injured area to heal. If pain does not resolve after a couple days of rest, consult your physician. The sooner an injury is identified, the sooner proper treatment can begin. The result is shorter healing time and faster return to sport.

(illustration: http://www.hughston.com/hha/b_15_4_3b.jpg)