



# MANAGING WRIST PAIN IN GYMNASTICS

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FIG 1

**T**he wrist is a frequently injured site for gymnasts. It can be an acute (sudden onset) or chronic (pain over a longer period of time)

injury in nature. Acute injuries include wrist sprains, strains and fractures. These injuries should be managed by immediate first aid. If there is a loss of motion or strength the athlete should be referred to a medical professional for further evaluation. The chronic injuries occur due to repetitive stress to the musculoskeletal system and joints. As the volume to training and level of skill increases, the incidence of chronic wrist injuries can increase.

The dorsal (back) aspect of the wrist is one of the most commonly injured areas in gymnastics (Fig. 1). As the 'grip' muscles develop (wrist and finger flexors), the wrist joint will have a tendency to lose flexibility in extension and hyperextension. The loads placed on the wrist and fingers in extension during practice and competition can irritate the joint and decrease the gymnast's ability to perform skills. Injuries like 'dorsal wrist impingement' and 'distal radial stress fractures' are the most common problems with overuse and excessive loads to the gymnast's wrist.

Prevention is the number one component to young gymnasts to prepare their upper extremities for the forces that will be placed on them during activity. Stretching the 'grip' muscles is vital to the functionality and resiliency of the joint (Figure 2). This will provide the joint the flexibility needed when the wrist goes into extension. The wrist joint will have a better proprioceptive response to the increased motion.

Another way to prevent wrist pain is to improve wrist mobility. This can be done by manually gliding the wrist (distal end being pressed posterior) into extension as the palm of the hand is flat on a table or solid surface (Figure 3). This movement replicates the mobility required at the wrist to perform gymnastics skills.



FIG 2

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FIG 3



FIG 4

Strength, range of motion, flexibility, and bracing can all be important components of prevention, protection and treatment for the gymnast. Strengthening the wrist extensors (fig 4) will help to maintain wrist extension. Strength of the wrist flexors, extensors and rotators must to be developed due to the excess amount of gripping and rotating the athlete must perform in a gymnastics routine. Strength and flexibility go hand in hand as the wrist must actively move through flexion and extension effortlessly, pain-free and with a great amount of stability. Protection from abnormal stresses is another important aspect in the treatment of wrist injuries. Wrist bracing and/or taping can be helpful in protecting the joint from excessive movement and stress during gymnastics activities.

In conclusion, a gymnast will have the opportunity to be more successful if his/her wrists are capable of performing all necessary movements within the activities of their daily practice and competition routines. This can be achieved with preventative measures such as strengthening, stretching and maintaining proper mobility in the wrist joint. ✕

# TRAIN LIKE A CHAMPION

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[www.usa-gymnastics.org/champion](http://www.usa-gymnastics.org/champion)