

# GET ACTIVE. STAY ACTIVE.

*Is carpal tunnel syndrome common among cyclists?*

■ *Angela  
Clinton Township*

By: Margaret Leone, ATC  
Rehabilitation Institute of Michigan

Carpal Tunnel Syndrome (CTS) results when there is inflammation pressure on the median nerve as it passes through the wrist. The carpal tunnel is a small canal or tunnel near the base of your palm on your hand. Bones, tendons, and thick ligaments surround this nerve.

Many believe that constant repetitive use of the hand can cause this problem such as using a keyboard. This is usually referred to as repetitive, accumulative trauma disorder, or an overuse injury. But many people do not think that CTS can be connected with cyclists/mountain biking injuries.

Usually cyclist/mountain bikers have the same complaints as someone who uses a keyboard. Here are some of the most common symptoms people report: numbness feels like it's in the entire hand even through the thumb, index, and middle fingers. Having numbness or pain when you wake up. Feels like you have to hang your hand down and shake it to get relief, and at times you feel shocks from the center of your wrist to your hand. Many people can have all these symptoms but many only have one or two of the symptoms.

Cyclists/mountain bikers suffer upper-body overuse syndromes from extreme weight bearing on the handlebars and vibrations transmitted from rough riding surfaces to the cyclist via the bike. These conditions can predispose the upper extremities to injury, a result of unnatural and prolonged periods of compression and muscle contraction. Extreme weight bearing can cause the rider to maintain a secure grip on the handlebars, which in fact puts your weight directly on the median nerve. This hyperextended wrist position can lead to numbness in the fingers and hands. It could certainly compromise the carpal tunnel and/or aggravate any pre-existing carpal tunnel syndrome. Constant

contraction of the muscles of the forearm can also lead to chronic problems such as tendonitis and fascial irritation.

Cyclists need to remember to establish a basic level of condition at the beginning of the season before increasing mileage, hill climbing, or intensity. These training errors too early on in the season can frequently contribute to overuse injuries. If experiencing any type of symptoms temporary modifications of their riding habits maybe required.

First, rather than taking a complete break from cycling the injured cyclist can often benefit from relative rest, such as decreasing mileage, hill climbing, and emphasizing low-resistance easy pedaling.

Second, simply putting the cyclist in a neutral riding position can treat an overuse injury. If this treatment does not resolve the symptoms or if the cyclist with an overuse injury already rides in a neutral position, specific adjustments to the bicycle maybe indicated. Possible causes of CTS may include excessive vibration, incorrect frame size, handlebars too low, or reach too long.

Suggested adjustments for excessive vibration is to use wider tires, lower inflation pressure, padded gloves and grips, or consider adding or adjusting front suspension. Having the correct frame size is important. If the handlebars are too low then try to raise the handlebars, add bar ends or change your hand position frequently. If your reach is too long using a shorter and/or more upright stem might work.

If you try all of these possibilities and are still having symptoms, seeking a hand surgeon, orthopedic doctor, or someone that specializes in hand and nerve problems would be highly recommended. The physician might suggest physical therapy, splints, and other courses of treatment specific to your needs.

Please submit any questions you may have for our sports medicine experts by e-mailing [cangelel@dmc.org](mailto:cangelel@dmc.org). In the subject line, please write, "Get Active, Stay Active." We will respond to all the questions we receive and select one each month to feature in our column.

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