What Is Carpal Tunnel, and Are Your Workouts to Blame?

Is this the ultimate excuse to never plank or burpee again?

By Gabrielle Kassel | July 31, 2019



PHOTO: JOHN FEDELE/GETTY IMAGES

Overhead squats are the hardest exercise EVER. As a CrossFit coach and avid exerciser, this is a hill I'm willing to die on. One day, after some particularly heavy sets, even my wrists were sore. When I mentioned this to my coach, he said my tender wrists might be indicative of a larger issue. Cue: The sigh heard around the box.

Of course, I immediately went home and started googling my symptoms (I know, rookie mistake). Again and again, Dr. Google told me I had carpal tunnel

syndrome. While a *real* doc assured me that I *don't* have carpal tunnel syndrome (and that my forearm muscles were just sore), I wondered: Could you actually give yourself carpal tunnel with your workouts?

What Is Carpal Tunnel Syndrome?

Simply put, carpal tunnel syndrome is caused by a pinched nerve in the wrist—but to *really* understand what carpal tunnel is, you need a little Anatomy 101.





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Turn your palm toward you and make a fist with your hand. See all those things move in your wrist? Those are tendons. "The hand is closed by nine tendons which run down the wrist and create a 'tunnel' (known as the 'carpal tunnel')," explains Alejandro Badia, M.D., board-certified hand, wrist, and upper extremity orthopedic surgeon with Badia Hand to Shoulder Center in FL. "Nestled in the middle of the tunnel is the median nerve, which runs from your forearm into your thumb and most of your fingers." Surrounding the tendon is a lining called the tenosynovium. When this thickens, the diameter of the tunnel decreases, which can, in turn, compress the median nerve.

And when that median nerve gets compressed or pinched? Well, that's carpal tunnel syndrome.

That's why the symptoms of carpal tunnel syndrome often include tingling or numbness in the hand, or aching, soreness, weakness and pain in the wrists and hands, says physical therapist Holly Herman, D.P.T., and author of *How to Raise Children Without Breaking Your Back*.

Sometimes a sign of carpal tunnel is a persistent ache that radiates into the first three fingers of the hand, but other times, "patients will report that it feels like their fingertips are going to explode," says Dr. Badia says. Many people who have carpal tunnel also report being woken up in the middle of the night from tingling or numbness in their hands.

What Causes Carpal Tunnel?

Anything that causes the body (specifically, the tendons and/or tenosynovium) to swell or retain water—and therefore, causes the carpal tunnel to narrow—can be linked to carpal tunnel syndrome.

Unfortunately, according to Dr. Badia, the number one risk factor of carpal tunnel is your sex (ugh). "Being a woman is one of the biggest culprits of carpal tunnel syndrome," says Dr. Badia. In fact, women are three times more likely to have carpal tunnel than men, according to the National Institute of Neurological Disorders and Stroke. (FYI: Women are way more likely to tear their ACLs too.)

What gives? Well, the tenosynovium thickens in response to fluid retention and, as Dr. Badia explains, "Estrogen can cause you to retain water, which can cause the tendons and tenosynovium to swell and make the tunnel more narrow." That's why carpal tunnel syndrome is especially common during pregnancy and menstruation when estrogen levels naturally increase. (Related: Your Menstrual Cycle Phases—Explained).

Estrogen levels aren't the only culprit; any condition that causes weight gain, fluid retention, or inflammation increases the risk of carpal tunnel. That's why "diabetes, hypothyroidism, autoimmune disorders, and high blood pressure are also linked to the syndrome," says Dr. Bandia. Even having a high-sodium (aka water-retaining) diet can exacerbate the symptoms.

People who have previously experienced wrist or hand injury may be at higher risk, too. "A previous trauma like a fractured wrist can alter the anatomy in the wrist and can predispose you to developing carpal tunnel symptoms," says Dr. Badia.

Can Working Out Cause Carpal Tunnel?

Nope! Your workout can't cause carpal tunnel syndrome, says Dr. Badia; however (!) if you already have carpal tunnel syndrome or are predisposed to the syndrome, consistently bending or flexing your wrist while you work out can agitate the median nerve and exacerbate the symptoms, he says. So, exercises like planks, push-ups, snatches, mountain climbers, burpees, and, yep, overhead squats could worsen the symptoms.

If you have carpal tunnel, your doctor may advise you to cut back on exercises that put your wrist in that position or to perform them on your first, says Dr. Badia. Pro tip: if that hurts your finger or knuckles, consider adding an ab mat or folded towel beneath your hand for comfort. (Or just do forearm planks instead.)

Dr. Badia notes that a lot of cyclists come into his office with wrist complaints: "If you have carpal tunnel and you don't keep your wrist neutral while you ride and instead are extending your wrist constantly, it's going to exacerbate the symptoms." For this, he recommends wearing a soft brace (like this one or this one) that forces the wrist into a neutral position while you ride. (Related: 5 Big Mistakes You Could Be Making in Spin Class).

How to Test for Carpal Tunnel

If you think you have carpal tunnel, call up an expert. There are a few carpal tunnel tests they might do to diagnosis you.

The Tinel's Test involves tapping the inside of the wrist right at the base of the thumb, explains Dr. Herman. If a shooting pain radiates into the hand, it's an indication that you may have carpal tunnel.

The Phalan's Test involves putting the backs of your hands and fingers together in front of you with fingers pointing downward for 90 seconds, says Dr. Herman. If the sensation in fingers or hand changes, that means you might indeed have carpal tunnel syndrome.

Other docs will go right to the third option: an electromyography (or EMG) test.

"This is really how you diagnose carpal tunnel," says Dr. Bandia. "We put electrodes on the forearms and the fingers and then measure how the median nerve is conducting." If the nerve has been compressed, the nerve flow will be reduced.

How to Treat Carpal Tunnel Syndrome

It might sound obvious, but if your doctor thinks an underlying condition like diabetes or thyroid dysfunction is the cause, those should be treated first. Beyond that, there are surgical and non-surgical treatment options for carpal tunnel syndrome.

Typically, the first line of action is to wear a brace during activities that bring on symptoms (like biking, yoga, sleeping, etc) and to non-surgically reduce any inflammation with things like ice packs and OTC anti-inflammatory meds, says Dr. Herman. At the very early stages. Dr. Badia says vitamin B supplements may even help.

If none of these "easy" fixes work, your doc may recommend a cortisone injection or surgery. A cortisone injection is an anti-inflammatory steroid that when injected around the median nerve can help decrease swelling of the area, and therefore relieve compression on the nerve—research shows it's one of the most effective treatments available. For less advanced cases, it can get rid of the syndrome completely, while in more advanced cases it may simply ease symptoms for a short period of time. For a long-term solution, "there's a super short surgical procedure that involves widening the canal by cutting one of the ligaments that's compressing the nerve," says Dr. Bandia.

Otherwise? Drop and give us 20—you have no excuse not to plank, push-up, or burpee now.

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