# **BMJ** Best Practice

## Patient information from BMJ

Last published: Oct 22, 2017

## Carpal tunnel syndrome

If you have carpal tunnel syndrome, you may get numbness or tingling in your thumb and fingers. You may also have aching in your wrist. There are good treatments that can help and prevent long-term damage.

We've brought together the best research about carpal tunnel syndrome and weighed up the evidence about how to treat it. You can use our information to talk to your doctor and decide which treatments are best for you.

## What is carpal tunnel syndrome?

Your carpal tunnel is a narrow gap between the bones inside your wrist. The nerve that carries messages between your brain and your hand runs through this gap. If you have carpal tunnel syndrome, the gap gets narrower and squeezes this nerve.

Although some illnesses, such as rheumatoid arthritis, can cause carpal tunnel syndrome, doctors usually can't say why people get the condition. However, we do know that certain things can increase a person's risk. These include being a woman; being over age 30; being overweight; and having a job that involves a lot of bending or twisting of the hands or wrists, or the use of vibrating tools.

Women sometimes get carpal tunnel syndrome when they're pregnant, but it usually goes away after they give birth.

### What are the symptoms?

If you have carpal tunnel syndrome, you will probably feel numbness, tingling, burning, or aching pains in your wrist, hand, and fingers. Your grip may be weak and you might drop things. The pain may be worse when you make repetitive movements, or hold your hand in one position (for example, when holding a book or newspaper). Your symptoms may wake you up at night. Shaking your hand may make it feel better.

Carpal tunnel syndrome can affect both your hands. If it does, the hand you use most (your right hand if you're right-handed) will probably be worse.

To diagnose carpal tunnel syndrome, your doctor will ask you about your symptoms and examine your wrist and hand. You will also probably have a test that measures the

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electrical activity of your nerves and muscles to confirm that you have carpal tunnel syndrome (and not another condition) and to see how bad it is. You may hear this test called **electromyography**.

## What treatments work?

It's important to get treatment for your carpal tunnel syndrome as early as possible. The condition can sometimes cause permanent damage. Treatment can prevent this.

Two of the main treatments for carpal tunnel syndrome are **wrist splints** and **injections of corticosteroids**.

If splints and corticosteroid injections don't help - or if your carpal tunnel syndrome is severe - your doctor may recommend having **surgery**.

Some treatments for carpal tunnel syndrome, such as medicines, aren't usually given to women who are pregnant. But splints can be helpful.

#### **Splints**

Your doctor may suggest wearing a splint at night to stop your wrist bending. Studies suggest that this improves symptoms for around 7 in 10 people. Your doctor will probably recommend wearing a splint at night for at least one to two months, and for longer if it helps.

Wearing a splint during the day as well doesn't seem to help any more than just wearing it at night. However, your doctor may recommend limiting any activities during the day that make your symptoms worse.

You can buy ready-made wrist splints, or you can have one custom made to fit your wrist. You can discuss your options with your doctor.

#### **Corticosteroid injections**

If splints alone aren't helping enough, your doctor may recommend also having an injection of a medicine called a corticosteroid into your wrist. You may hear this medicine called a 'steroid' for short. However, corticosteroids are not the same as the anabolic steroids used by some athletes and bodybuilders. They are similar to chemicals your body makes naturally to fight inflammation.

A steroid injection will probably improve your symptoms within a few weeks and the improvements may last for several months. In studies, as many as 7 in 10 people had improvements up to six months after their injection. However, there's a small risk that the needle could damage the tendons or nerves in your wrist.

#### Extra medicines

Your doctor may recommend using other treatments along with splints and corticosteroid injections to help with your symptoms. These include:

• **Non-steroidal anti-inflammatory drugs (NSAIDs)**. If you have a lot of inflammation (for example, if you also have rheumatoid arthritis), your doctor may recommend taking

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an NSAID. These medicines reduce both pain and inflammation. They include drugs like ibuprofen (which you can buy over the counter) and celecoxib (which you can get only on prescription).

• **Diuretics (water tablets)**. Some people with carpal tunnel syndrome get swelling in their wrist and hand caused by a build-up of fluid. This can make their symptoms worse. Taking a diuretic tablet for a couple of weeks can help reduce this extra fluid.

#### Surgery

Surgery can take the pressure off the nerve in your wrist if you have more severe carpal tunnel syndrome or if other treatments haven't worked. Up to 9 in 10 people who have surgery are better afterwards.

You will be awake during the surgery but you will be given a local anaesthetic to make your wrist numb. Doctors can do the operation through a cut at the base of your hand. This will be about 5 centimetres (2 inches) long. Or they can use keyhole surgery, which is done through smaller cuts with the help of a tiny camera. Both operations work about as well as each other, but having keyhole surgery may mean you'll recover a bit faster.

You should be able to go home the same day as your operation. Side effects after surgery can include nerve damage, numbness, weakness in your hand, and pain in your scar. But these are usually mild and eventually go away.

### What will happen to me?

Many people with carpal tunnel syndrome find that their symptoms get slowly worse, but this may take several years. Carpal tunnel syndrome can also get better for periods of time, especially after pregnancy. But don't ignore your symptoms. After a while if the nerve becomes more damaged it may actually be harder to notice that something is wrong. If you have any numbness, tingling, pain, or weakness in your hand or wrist, see your doctor. Most people will get better with treatment.

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