

## Mr. James Henderson

MA, MB, BChir, MRCS, MD, FHEA,  
EurDipHandSurg, FRCS(Plast)



Consultant Plastic, Reconstructive & Hand Surgeon  
Honorary Senior Lecturer, University of Bristol

[www.jameshenderson.net](http://www.jameshenderson.net)

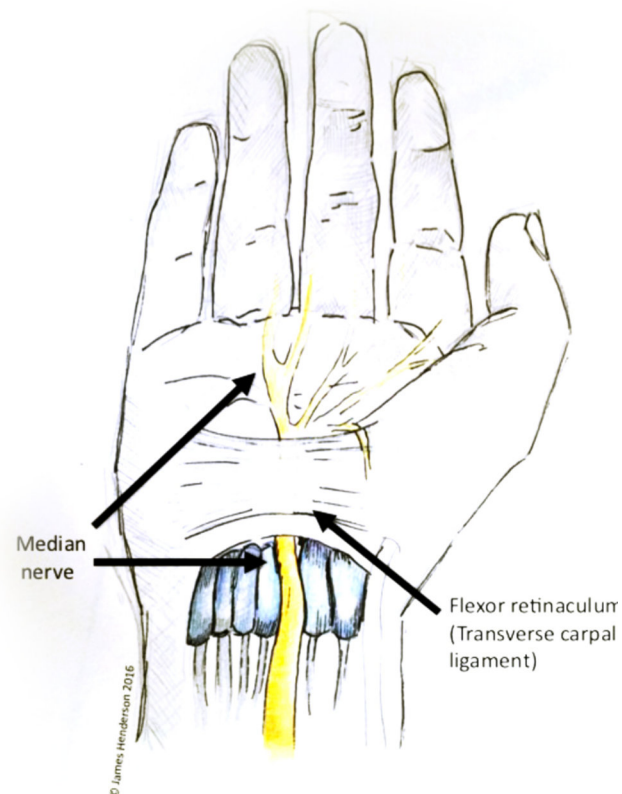
## Carpal Tunnel Syndrome

Carpal tunnel syndrome arises as a result of compression of the median nerve within the carpal tunnel. This nerve supplies sensation to the thumb, index finger, middle finger, and usually to half of the ring finger, as well as supplying the small muscles at the base of the thumb and some others within the hand.

The condition occurs commonly, and we usually don't find a cause. It is more common however in pregnancy, after injury, and in those with diabetes, thyroid disease or rheumatoid arthritis.

Although carpal tunnel syndrome is very common, there are a number of rarer causes of similar symptoms. A specialist hand surgeon will exclude these by talking to you about your symptoms, examining you carefully, and possibly conducting some tests if there is doubt.

The main symptom is usually altered sensation in the affected fingers and thumb, and a tingling or 'pins and needles' in these digits. Symptoms are often worse at night and can wake people from sleep. Certain activities can also bring on the symptoms: driving, reading and using the telephone for example. In mild cases the symptoms disappear after a short period, sometimes people find that shaking their hand helps. In severe cases, the symptoms become continuous, and weakness of the muscles in the thumb base can occur. Some people experience pain, which may also be felt in the forearm.



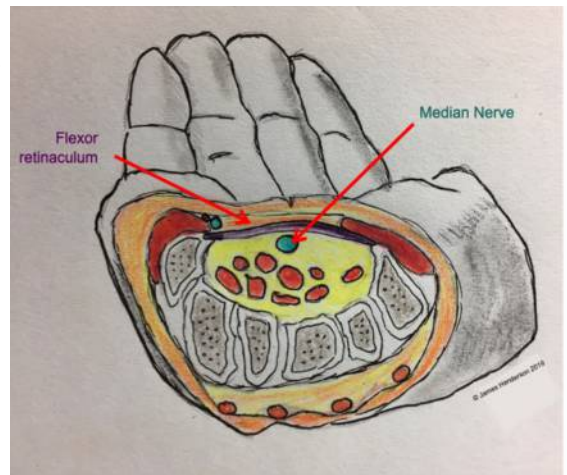
The diagnosis can often be made without any tests, but nerve conduction studies are needed to confirm the diagnosis if there is any doubt. These tests are performed by a colleague in the outpatient department.

## Treatment

Sometimes carpal tunnel syndrome settles with splints or rest/alteration of activities.

In early or mild cases, a steroid injection can be helpful and may completely resolve the problem or give a useful period of respite. Steroid injections can also help to confirm the diagnosis if there is uncertainty about the site of nerve compression.

Surgery is a very reliable cure for carpal tunnel syndrome and is performed frequently. The operation is usually done under local anaesthetic with a tourniquet on the arm, which is slightly uncomfortable for about 10 minutes. Regional or general anaesthesia are available for patients who prefer.



Carpal tunnel decompression surgery involves making a cut in the palm and dividing the thick, fibrous flexor retinaculum that forms the roof of the carpal tunnel (see diagram).

Surgery usually leads to rapid resolution of pain and tingling/pins and needles. Depending on the severity of the nerve compression, sensation and strength may be slower to recover.

Although this is a routine operation, it still means that you will not be able to use your hand fully for a few weeks, and it is usually uncomfortable to put weight through the palm for a few months ('pillar pain'). There are very small risks of infection, bleeding or nerve injury with this surgery.

The diagnosis and treatment options will be discussed fully at your consultation.

© James Henderson 2016