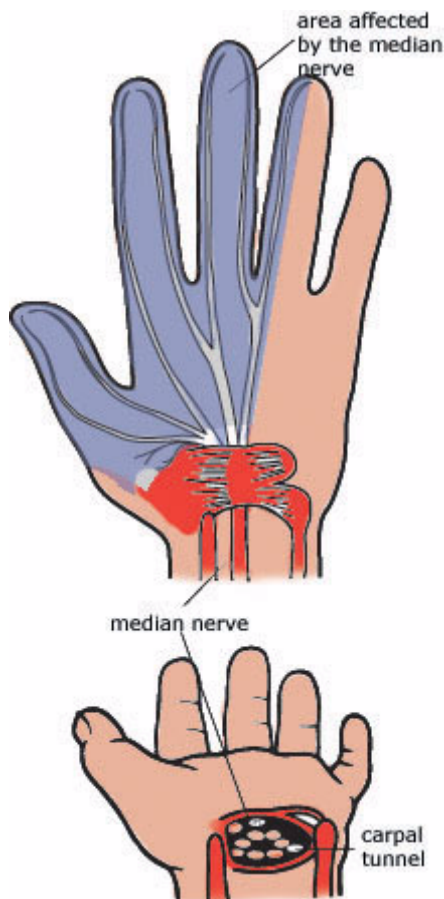


Carpal tunnel syndrome

What is carpal tunnel syndrome?

It is a painful disorder of the hand caused by pressure on a very large nerve called the *median nerve* as it passes through a 'tunnel' at the wrist.

The tunnel is formed by a tough membrane that makes a 'roof' to a natural arch produced by a group of wrist bones (known as the *carpal bones*). The purpose of this membrane is to keep the many tendons, arteries and nerves that pass under it in place. When it thickens, it causes too much pressure on these structures, especially the sensitive nerve.



Who gets it?

It is quite a common disorder, especially in middle-aged women and in pregnant women. It is thought to be caused by hormone changes causing swelling of the membrane and extra fluid in the tunnel. People doing a lot of hard manual work (such as farmers) seem prone to carpal tunnel syndrome. Sometimes an illness such as rheumatoid arthritis may cause it.

What are the symptoms?

The symptoms are tingling and numbness of most of the hand. The little finger is usually free of symptoms. Pain may shoot up the arm from the wrist. One or both hands may be affected. The pain and tingling is usually worse at night and causes you to wake from a deep sleep. It may be relieved by hanging your hand over the side of the bed and shaking or rubbing it. Warmth seems to aggravate the problem (e.g. under warm bedclothes and washing up in hot water).

What are nerve conduction studies?

Sometimes the diagnosis of median nerve compression is not clear cut, so to confirm the diagnosis scientifically and also test the function of the nerve (especially for damage) a special machine is used to test the nerve.

What are the risks?

It is not a serious problem, but if not treated it can cause permanent weakness and numbness of the thumb and index and middle fingers.

What is the treatment?

Sometimes the problem clears up without treatment, and in some people fluid tablets may help. In pregnant women a splint worn on the wrist at night is helpful, but once the baby is born the problem usually settles of its own accord.

An injection of cortisone into the tunnel can give dramatic relief for quite a long time, especially in people with rheumatoid arthritis.

However, most cases require a small operation to relieve the pressure on the nerve. This is done by cutting through the tough membrane so that more space is created for the nerve in the tunnel. It is a most successful operation, leading to immediate relief of the discomfort.