Cubital tunnel syndrome

This leaflet will help you to understand cubital tunnel syndrome. It gives advice and will help you through the process of managing and treating your symptoms conservatively (without surgery). If you have any questions, please speak to your therapist.

What is cubital tunnel syndrome and why do I have it?
Cubital tunnel syndrome is when your ulnar nerve gets compressed or irritated at your elbow. The ulnar nerve runs from your spine to your hand, providing the feeling to your little and ring finger and power to the small muscles of your hand.

As the ulnar nerve comes down the arm it runs down the inside of your arm and passes through the cubital tunnel. Sometimes the nerve can get irritated in this tunnel, which can cause symptoms of pain, numbness or pins and needles, and weakness.

What are the signs and symptoms?
Early symptoms can include pins and needles or numbness, that comes and goes, in the little and ring fingers. You might also have pain at the inside of your elbow. You might find most of your symptoms occur over night or first thing in the morning. Later these symptoms can become more constant and, in more severe cases, there is noticeable loss in some of the muscles (muscle wasting) between the fingers. This is seen on the back of the hand between the thumb and index finger. You may also notice a loss of grip strength.

What causes cubital tunnel syndrome?
There are different factors that can contribute cubital tunnel syndrome. Some of the most common causes are:

- repetitive elbow bending (this could be due to your job or a hobby)
- intense gripping while driving
- resting in a position with your elbow bent for a prolonged period of time, for example, when sleeping
- direct trauma to the elbow
- previous elbow fracture
- osteoarthritis.

Cubital tunnel syndrome is more commonly seen in people who:

- are male
- are over the age of 50
- have hobbies or a job involving repetitive elbow movement
- have other health conditions, such as arthritis.
Do I need any tests to confirm the diagnosis?
Your GP or therapist can perform a physical examination to see if they can reproduce your symptoms. The results of this examination combined with your reported symptoms are often enough to diagnose cubital tunnel syndrome. In some cases nerve conduction studies (NCS) may be requested to assess the signals passing along the ulnar nerve.

It is also important to rule out any other conditions.

What conservative treatments are available?
Typically mild to moderate cases of cubital tunnel syndrome can be treated with hand therapy. There is a lot you can do for yourself with the guidance of a healthcare professional.

These are some key points to help you self-manage your symptoms:

- **Positioning**. Avoid bending the elbow for prolonged periods of time (for example, when you are on the phone, or leaning your head on your hand, resting your elbow on a firm surface).
- **Awareness**. Avoid performing aggravating tasks for prolonged periods. Some tasks can be broken down into smaller pieces, or adaptive aids can be used. For example, you could use headphones on the telephone to avoid having your elbow bent for a long time.
- **Resting**. Take regular breaks from repetitive tasks, and rest with your elbow in a comfortable position.
- **Wearing an elbow splint**. This is usually worn at night. It helps to keep the elbow in a neutral or slightly bent position, which reduces the pressure on the nerve. Splints can be provided by your therapist.

Advice about splinting
We recommend that a splint is worn at night, every night for 6-8 weeks. It may take several weeks before you notice a difference in your symptoms. If symptoms are improving, but not fully resolved, the splint can be worn for up to 12 weeks at night.

A hand towel can be folded in half and then wrapped around your elbow and secured with elastic bands or tape (make sure that it is not too tight, or cutting off circulation). This will be comfortable enough, but will stop your elbow from bending too much. Neoprene elbow splints can be bought in chemists or online, or supplied by your hand therapist.

This photo demonstrates a towel wrapped around the elbow to prevent elbow bending at night time.

This photo demonstrates a commercial elbow brace that can be bought online or supplied by your hand therapist.
**Recommended exercises**
These can be done during the day, as well as wearing the splint at night. The exercises should be done without wearing the splint.

**Cardiovascular (heart) exercise**
Completing an exercise or activity that increases your heart rate, and makes you breathe heavier/deeper for 15-20 minutes can help to reduce your symptoms. This type of exercise helps to improve circulation, particularly to your hands. Examples of this kind of activity include brisk walking, cycling, gardening, or vigorous housework. You should do this type of exercise most days, or every day if possible.

**Upper limb strengthening exercises**
Both of these exercises should be done until the muscles in your arm and around your shoulder blades begin to feel tired. Have a 10-15 second rest, and then repeat two more sets of the same number of repetitions.

1. **Shoulder blade squeezes.** Squeeze your shoulder blades together, and then allow your shoulders to relax. Then roll your shoulder backwards and down. Allow your shoulders to relax.

2. **Arm raises:**
   - Begin in position one holding a light weight. You can use a drink bottle filled with water, a tin of food, or anything similar that you have at home.
   - Bend your elbow to position two.
   - Lift the weight above your head to position three.
   - **With control** move back to position two, then position one.

If you have a shoulder injury, avoid raising the weight above your head and only bend and straighten your elbow with the weight.
Nerve gliding exercises
Ulnar nerve gliding exercises can also be helpful to move the ulnar nerve through the cubital tunnel. You are likely to experience a pulling sensation into your little finger but this exercise should not be painful or make your symptoms worse. If your symptoms do get worse, change the exercises (just go to position two and back to one) to make them less challenging, or reduce how many repetitions you do. Alternatively, take a day or two off from the exercises, or stop them altogether if the symptoms are being made worse.

- Start with your arm and hand in position one. Your wrist should be extended with your elbow in a gentle extension.
- Move to position two by raising your arm to be level with your shoulder.
- Move to position three. Your palm should face the side of your head and your neck should tilt away from it.
- Hold for a count of 10-20 seconds and then relax.

Repeat the full exercise 5-8 times, 1-3 times every day.

When to get help
You should contact your GP or hand therapist if you:
- experience symptoms in both hands
- have constant numbness, and pins and needles in both hands
- difficulty doing fine (fiddly) motor tasks, for example, doing up buttons and handling coins
- coordination issues, for example, walking in a straight line
- loss of bladder or bowel control
- if there is no change in your symptoms after consistently wearing splints at night for up to 12 weeks, or if your symptoms are getting worse.

If your symptoms are not getting better using conservative management, there are other options that can be discussed with your GP or healthcare provider.
Contact us
Your therapist was ............................................................... You can contact us directly if you have any queries or would like to change or cannot make your appointment, t: 020 7188 4172 or 4174, 8am-5pm, e: handtherapyappointments@gstt.nhs.uk

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit w: www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline
If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline. t: 020 7188 8748, Monday to Friday, 9am-5pm

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For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.
t: 020 7188 8801 (PALS) e: pals@gstt.nhs.uk
t: 020 7188 3514 (complaints) e: complaints2@gstt.nhs.uk

Language and accessible support services
If you need an interpreter or information about your care in a different language or format, please get in touch. t: 020 7188 8815 e: languagesupport@gstt.nhs.uk

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t: 111 w: www.111.nhs.uk

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