Patient Decision Aid for people considering treatment options for carpal tunnel syndrome

- The information below is from patient.co.uk or NHS Oxfordshire’s Referral Guidelines unless stated otherwise.

What this Patient Decision Aid is for
This Patient Decision Aid is intended to help patients and health professionals in discussions about treatment options for carpal tunnel syndrome, particularly when an operation is being considered.

The Patient Decision Aid may be used in the consultation between GP and patient and can be taken away by the patient to be re-read and discussed with friends or family.

Links to further information on carpal tunnel syndrome and the options for treatment are given at the end of this leaflet.

What is carpal tunnel syndrome?
Carpal tunnel syndrome can cause pain and other symptoms in the hand. It is caused by pressure on a nerve around the wrist. Treatment is usually effective.

About 1 in 1000 people develop symptoms of carpal tunnel syndrome each year. Most cases occur in people in their 40s and 50s, but it can occur at any age. It is also common during pregnancy. Women are affected two to three times more often than men.

One or both hands may be affected. Symptoms tend to come and go at first, often after you use the hand. Typically, symptoms are worse at night and can wake you up. The symptoms may be eased for a while by raising the hand up or hanging it down. ‘Shaking’ the wrist may also give relief. Symptoms persist all the time if the condition becomes severe.

These symptoms are caused by pressure on the median nerve at the wrist, where the nerve and the tendons to the hand pass between the wrist bones and a ligament which lies across the front of the wrist (the transverse carpal ligament). Symptoms vary from mild to severe depending on how ‘squashed’ the median nerve becomes, and include:

- ‘Pins and needles’ or burning in part, or all, of the shaded area (usually these come and go); these fingers may become numb from time to time.
- Pain in the same area. The pain may travel up the forearm.
- Permanent numbness of the same finger(s), or in part of the palm, may develop if the condition becomes worse.
- Weakness of some muscles in the thumb occurs in severe cases. This may cause muscle wasting at the base of the thumb and eventually lead to poor grip.
Pathway for treating carpal tunnel syndrome (CTS)

In up to one in four cases the symptoms go away without needing any treatment.

In **mild to moderate** CTS, the symptoms **should pass within six months**, without the need for surgical treatment or the use of medication. In about two in three cases that develop during pregnancy, the symptoms go after the baby is born. Symptoms are most likely to go in people less than 30 years old.

So, no active treatment is an option, particularly if symptoms are mild. The situation can always be reviewed if symptoms get worse.

**STEP 1 – General measures**

Try not to over-use your wrist by excessive squeezing, gripping, wringing, etc. If you are overweight, losing weight may help. Painkillers may be prescribed to ease the pain. If the condition is part of a more general medical condition (such as arthritis) then treatment of that condition may help.

**STEP 2 – Wrist splints**

Your GP may advise you to try using a firm wrist splint to hold the wrist nearly straight (a position that minimizes pressure on the nerve), for example a ‘Futura’ splint. These are available from pharmacies or on-line for £10-20, although GPs cannot provide them on prescription. It can take up to 8 weeks to see the full benefit from wrist splints, so you should try them for this long before asking for a referral for step 3.

**STEP 3 - Steroid injections**

If you have **mild to moderate symptoms which do not improve after three months**, or where the symptoms get worse, you may benefit from an injection of steroids. This may reduce inflammation of the lining of the tendons in the wrist and reduce swelling (which causes pressure on the median nerve).

**STEP 4 – Surgery**

Your GP may ask if you would like to consider surgery if:

- **your symptoms have not improved after three months** trying other treatments, including at least eight weeks of night-time use of wrist splints and one steroid injection (if your GP recommended an injection)
- you have **advanced/severe symptoms** such as constant pins and needles, numbness and muscle wasting (these may not improve, even with surgery).
**Wrist splints**
The aim of the splint is to keep the wrist straight, in a position that minimises pressure on the nerve. This may be enough to cure the problem, if used early for a few weeks. For example, in one research trial comparing splinting with surgery, about one in three patients treated with a splint were satisfied with the relief of symptoms it gave. Splints are particularly useful when night symptoms are the main problem; some people find splints are a bit cumbersome during the daytime.

**Steroid injections**
Steroids reduce inflammation. An injection of steroid near the carpal tunnel can be helpful. One research trial found that a single steroid injection eased symptoms in about three in four cases, with about half of the treated people still free of symptoms a year later. Other studies report variable success rates with steroid injections.

One steroid injection should be enough if you are one of the people whose symptoms respond to steroids. There is no evidence that a second injection provides any additional improvement in symptoms.

**Surgery**
A small operation to divide the ligament over the front of the wrist and ease the pressure in the carpal tunnel usually cures the problem. It is done under local anaesthetic. You will not be able to use your hand for work for up to a few weeks after the operation. You will also need to avoid driving until the stitches are removed (about two weeks after surgery) as your insurance company may not cover you during this time.

A small scar on the front of the wrist will remain. There is a small risk of complications from surgery. For example, surgery carries a small risk of infection and damage to the nerve and long-term scar pain or tenderness.

**Other treatments**
Over the years, a wide range of other treatments have been suggested. These include diuretics (water tablets), exercises, vitamin B6, chiropractic manipulation of the wrist, yoga, magnet therapy and treatment with ultrasound. None of these treatments has good research evidence to support their use and so are not commonly advised. Steroid tablets may ease symptoms in some cases. However, there is a risk of serious side-effects from taking a long course of steroid tablets and this treatment is rarely used as an injection of a steroid (described above) probably works better.

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2 Nuffield Orthopaedic Centre, Oxford. Care of the hand after Carpal Tunnel Release.
What Matters to You?

This section incorporates parts of an interactive internet-based decision aid developed by healthwise.net

Your personal feelings are just as important as the medical facts. Think about what matters most to you in this decision, and show how you feel about the following statements.

**Reasons to have surgery**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Equally important</th>
<th>More important</th>
</tr>
</thead>
<tbody>
<tr>
<td>I tried several other treatments, but pain is still bad.</td>
<td></td>
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<tr>
<td>I can live with the pain while I give other treatments some more time to work.</td>
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<tr>
<td>I don't mind having surgery if it can get rid of my symptoms.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I just don't want to have surgery.</td>
<td></td>
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<tr>
<td>I'm not worried about the chance of problems from surgery.</td>
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<td></td>
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<tr>
<td>I don't want to take even a small chance of something going wrong with surgery.</td>
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<tr>
<td>I'm afraid of having lasting nerve damage from Carpal Tunnel Syndrome.</td>
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<td></td>
</tr>
<tr>
<td>I'm not worried that I'll have lasting nerve damage from Carpal Tunnel Syndrome.</td>
<td></td>
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</tr>
</tbody>
</table>

More important  Equally important  More important
How do you feel now?
Now that you’ve thought about the facts and your feelings, you may have a
general idea of where you stand on this decision. Show how you feel about
the options right now:

1. I feel I understand my options

2. I would like some more information on my options

3. I am ready to make a decision about the treatment that is best for me

Further information
If you would like further information on Carpal Tunnel Syndrome and your options:

1. Videos showing different approaches to treatment in the USA may give
   helpful background, but some options may be different in the UK.
   http://www.mayoclinic.com/health/carpal-tunnel-syndrome/MM00576

2. To hear about another patient’s experiences search under ‘carpal
   tunnel’ on Oxford’s DIPEX website:  http://www.healthtalkonline.org

3. For more technical information, search under ‘carpal tunnel’ on:
   Patient UK website: http://www.patient.co.uk/
   NHS Clinical Knowledge Summary website: http://www.cks.nhs.uk/home
If symptoms of Carpal Tunnel Syndrome continue after trying other treatments, some patients decide to have surgery to reduce the pressure on the median nerve in the wrist. This is done by cutting the ligament that forms the top of the carpal tunnel.

In open carpal tunnel release surgery, the transverse carpal ligament is cut, releasing the median nerve. The size and shape of the incision may vary. Sometimes the surgery may be offered using a telescope (an “endoscope”), although this carries no great advantage in terms of scar tenderness, and does have a higher risk of nerve damage.