Stabilising the kneecap using arthroscopic trochleoplasty

Information for the public
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What has NICE said?

There is not much good evidence about how well this procedure works or how safe it is. It should only be used if extra care is taken to explain the risks and extra steps are put in place to record and review what happens.

Surgeons who are expert in managing unstable kneecaps should decide which patients should be offered this procedure. It should only be done by surgeons with experience in trochleoplasty done as an open procedure and in arthroscopic procedures on the knee.

More research on this procedure is needed.

What does this mean for me?

Your health professional should fully explain what is involved in having this procedure and discuss the possible benefits and risks with you. In particular, they should explain the uncertainty about the evidence on how likely it is to improve your symptoms and possible

side effects. You should also be told how to find more information about the procedure. You should only be asked if you want to agree to this procedure after having this discussion.

Your health professional should ask you if details of your procedure can be collected.

Other comments from NICE

NICE said that this procedure is only suitable for a small number of patients.

The condition

In this condition the kneecap (patella) is not secure in its normal position and can slip sideways as the knee bends, causing pain and discomfort. In some people this is because the groove at the end of the thigh bone (the trochlea), which the kneecap slides up and down in, is too shallow or uneven. The medical name for this is trochlear dysplasia.

The condition can be treated using physiotherapy and exercises to strengthen the muscles around the knee. Surgery to deepen the groove is another option – this is called trochleoplasty. It is usually done using open surgery, which has risks such as scarring and infection.

NICE has looked at using arthroscopic trochleoplasty as another treatment option. Click on to the next page to find out more.

The procedure

Arthroscopic trochleoplasty aims to deepen the groove that the kneecap sits in, in the same way as open trochleoplasty. But it is carried out using an arthroscope. This is a long, thin, tube-shaped instrument with a camera on the end, which is inserted through small cuts around the knee. The aim is to cause less damage to the soft tissue than open surgery does, which should reduce pain after the operation and allow the patient to recover quicker.

The patient is given a general or regional anaesthetic. The arthroscope and other instruments are inserted through cuts around the knee and the cartilage over the groove is

moved aside. A surgical shaver is then used to deepen the groove that the kneecap sits in. The cartilage is then returned and fixed in place. The ligament holding the kneecap in place is often operated on at the same time.

Benefits and risks

When NICE looked at the evidence, it decided that there is not much good evidence to show that this procedure works well or is safe. The 2 studies that NICE looked at involved a total of 31 patients.

Generally, they showed the following benefits:

- improvements in symptoms, including
  - pain when climbing stairs, squatting, running, jumping or when sitting for a long time with knees bent
  - limping, swelling and dislocation
  - muscle wasting
  - ability to flex the knee
  - need for support when walking
  - daily living activities and sports
  - quality of life
- almost all people were 'satisfied' with the operation
- no patients had a dislocated kneecap in the 29 months after the operation.

Five people needed more surgery for pain or because the kneecap had become displaced (partly dislocated).

One patient had a suspected infection at the site of the operation, which was treated with antibiotics.

If you want to know more about the studies see the guidance. Ask your health professional to explain anything you don't understand.

Questions to ask your health professional

- What does the procedure involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make me feel worse?
- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What care will I need after the procedure?
- What happens if something goes wrong?
- What may happen if I don't have the procedure?
- What is your personal experience of the procedure?

Medical terms explained

Cartilage

Gristly tissue that covers the end of the bones, acting as a shock absorber.

Ligament

A tough band of tissue that joins bones together.

About this information

NICE interventional procedures guidance advises the NHS on the safety of a procedure and how well it works.

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