

Fig. 7



The Hospital Stay

Normally you would be admitted to hospital the day before the operation. You will be encouraged to get out of bed and walk around the day after surgery. Most people are well enough to go home between two and four days after their operation.

Post Operative Course

When you first go home you will need to take things easy for a few weeks. The wound will need to be kept dry for the first week, so it would be better to shower around it rather than lie in the bath. You will be encouraged to keep mobile by going for a walk or two every day and there is no particular need to immobilise your neck in any form of collar after this procedure. Car journeys can sometimes be a little uncomfortable, and, as your neck may also be a little sore initially, it is best to avoid the car for a few weeks (apart from your journey home).

Your symptoms may not settle immediately, particularly if the spinal cord itself has been compressed as well as an exiting nerve. There is in fact a great variation in both the amount and speed of recovery, depending largely on the degree and duration of symptoms prior to operative.

Getting back to work & the long term

The main aim of this procedure is to relieve the compression of the spinal cord and/or nerve. Exactly what you are capable of doing in the future depends to a large extent on the severity and duration of symptoms beforehand, and the extent to which they recover. A large proportion of people, however, make a full recovery (particularly those with purely arm symptoms) and are able to return to work, sports and other activities without problems.

Follow up

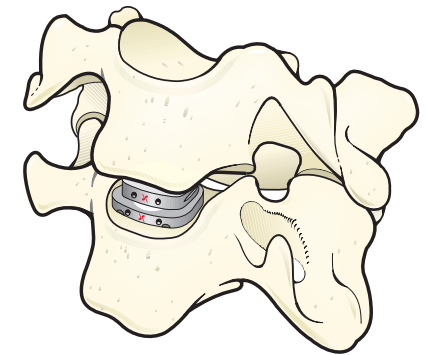
You will be seen very regularly after this operation, initially after a few weeks and then at three, six and twelve months. As part of our long term follow up of cervical arthroplasty patients we will also ask you to fill in some questionnaires both before your operation and at intervals afterwards. Ultimately this will just involve an annual questionnaire. Obviously these are extremely important in order to enable us to present future patients with accurate long term information about the procedure.

You will also be given a 'Cervical Arthroplasty Passport' to take with you with details of your operation and the type of artificial disc you have.

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Anterior Cervical Discectomy & Arthroplasty (Artificial Cervical Disc Implantation)

A Patient's Guide



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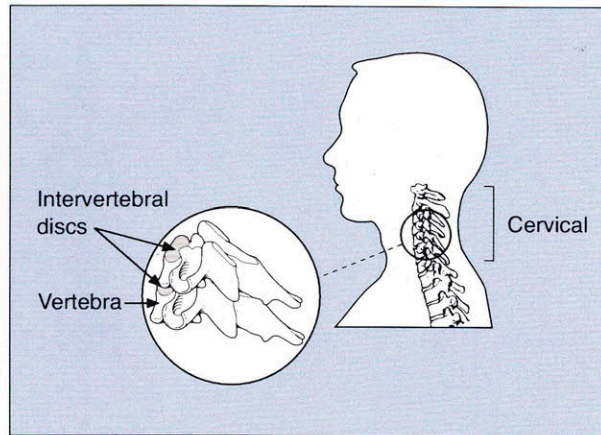
Introduction

This is intended to reinforce what you have already been told about your forthcoming operation.

Anatomy

The cervical spine (neck) consists of seven bones called vertebrae, joined together by small joints (facet joints) and a spongy intervertebral disc, which allow movement between the bones and thus flexibility of the neck (Fig. 1).

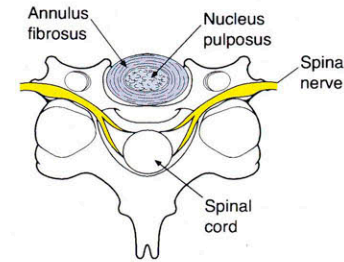
Fig. 1



Each disc has a central spongy part (nucleus pulposus) and a tougher outer coat (annulus fibrosus), with the spinal cord and nerves directly behind (Fig. 2).

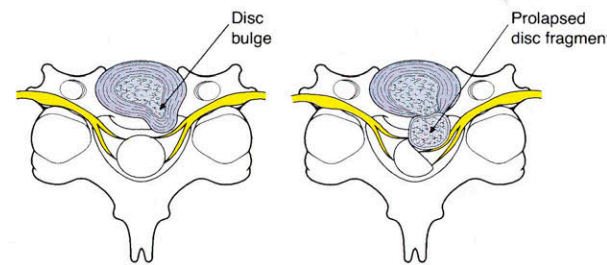
As we age the disc dries out and becomes less spongy with small tears in the fibrous coat. Eventually the outer coat may tear, allowing some of the spongy nucleus to bulge out and press on the spinal cord and/or nerves; or even for a piece to come out of the disc space completely and press directly on these structures (Fig. 3).

Fig. 2



This prolapsed intervertebral disc may cause severe pain as well as weakness and/or sensory loss in those areas of the arm/hand supplied by the nerve. If the spinal cord itself is compressed, weakness and sensory changes in the legs, as well as problems with the bladder and bowels, may result.

Fig. 3



Can it get better on its own?

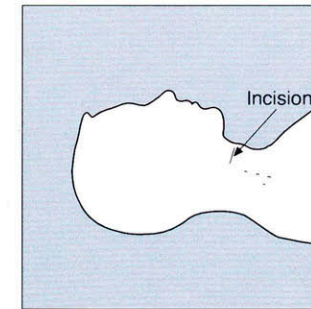
If the disc bulge is not too large then sometimes the symptoms may settle over six to eight weeks. If the bulge is large, or if the spinal cord is compressed then surgical removal of the offending disc is usually required.

Anterior Cervical Discectomy

This is one of the commonest neurosurgical operations and has been performed for over 50 years. Under a general anaesthetic (so you

are asleep) a short horizontal incision is made on the front of the right side of the neck. The structures of the neck are gently separated to expose the front of the vertebrae and discs (Fig. 4).

Fig. 4



Using the operating microscope the disc is then removed from the front to decompress the spinal cord and nerves behind.

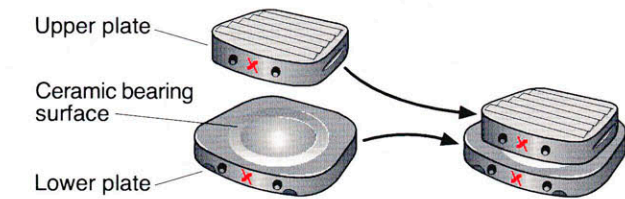
Arthroplasty (Artificial Disc Implantation)

Traditionally the disc has been replaced either with the patient's bone or with an artificial metal or ceramic block that fuses the two vertebrae together. Whilst this operation works well patients do lose a little movement in their neck as a consequence of the two bones being fused together and this is even more noticeable in patients who need two discs removing and so have three vertebrae fused together.

Furthermore, fusing two bones together puts more stress on the discs above and below resulting in more wear and tear and an increased risk of symptoms from other levels (adjacent segment disease) perhaps needing surgery in the future. This risk is thought to be about 3% per year in patients who have had two vertebrae fused.

Over the last few years mobile arthroplasties (artificial discs) have started to be used, usually made of a combination of titanium or steel, and plastic or ceramic components (Fig. 5).

Fig. 5



By putting in a mobile arthroplasty (artificial disc) neck movements are preserved and it is also hoped that the incidence of symptoms from other levels (adjacent segment disease) over the years will be reduced (although this is NOT yet definite as this procedure is relatively new).

Once the disc has been removed therefore, a mobile cervical arthroplasty will be inserted and the wound closed up. This is done with an invisible dissolvable suture, so there will be no clips or stitches to remove (Figs. 6 & 7).

Fig. 6

