

ANTERIOR CERVICAL DISCECTOMY AND FUSION

Anterior- Front

Cervical- Neck

Discectomy- Removal of disc

Fusion- Interbody spacer placed between two vertebrae allowing fusion to prevent recurrence of symptoms, maintain opening for nerve roots to exit and prevent pressure on spinal cord.

DEFINITION:

A neurosurgical neck procedure, where compressed (or “pinched”) nerves supplying the arms are decompressed.

INDICATIONS:

- Cervical radicular pain (*arm pain*);
 - Cervical radiculopathy (*arm numbness and weakness*);
 - Cervical myelopathy (*spinal cord compression with difficulty in fine finger movements, walking and balance*). This usually arises from a cervical disc prolapse (*disc rupture*) or osteophytes (*bony spurs from “wear and tear”*) causing foraminal stenosis (*narrowing of the bony opening where nerves exit the spine*) or pressure on the spinal cord.
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SUCCESS OF THE OPERATION:

Improvement in arm pain, numbness and weakness occurs in 80 - 90% of patients. The longer and more severe the symptoms, full recovery may not occur. If you have had symptoms that are very severe over many months, the bruising and swelling on the nerves may take weeks/ months to slowly improve. With pressure on the spinal cord, the operation is mainly to stop you getting worse with most patients getting some improvement.

RISKS OF THE OPERATION:

The total risk of Anterior Cervical Discectomy and Fusion is approximately 2%.

Specific risks are:

- Infection;
- Bleeding;
- Hoarse voice (*dysphonia*);
- Problems with swallowing (*dysphagia*);
- Horner’s syndrome (*small pupil and drooping eyelid*);
- Nerve root damage (*causing pain, numbness and weakness in the arms*);
- Damage to the spinal cord (*causing weakness of arms and legs- quadriplegia, or paralysis- quadriplegia*);

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RISKS OF THE OPERATION:

- Failure of the fusion or movement of the cage.

General risks associated with any surgical procedure are heart attack, pneumonia, blood clots in the legs (*DVT*), which can travel to the lungs (*pulmonary embolus*), stroke, drug reaction, general anaesthesia and death.

BEFORE SURGERY:

Tell Mr Malham about any medical conditions or previous operations. If you have a medical condition such as diabetes, heart problems, high blood pressure or asthma, Mr Malham may arrange for a specialist physician to see you for a pre-operative assessment and medical care following the neurosurgery.

Inform Mr Malham of medication that you are taking and/or have allergies to medications. Patient must stop using the following, 10 days pre-operatively:

- Aspirin
- Plavix
- Isocover
- Asasantin

Patient must stop using blood thinning medication (*such as Warfarin*), 3-5 days pre-operatively.

THE OPERATION:

The procedure is performed under general anaesthesia.

A small incision is made on the lower right side of the neck, in line with your skin creases. The approach is between the muscle on the side of the neck (*sternocleidomastoid*), the voice box (*larynx*) and food pipe (*oesophagus*). These are gently held to one side with a retractor.

The correct spine level is checked by an x-ray.

Under the microscope the damaged disc is removed. Any bony spurs compressing the nerve roots and spinal cord are removed by a diamond drill or special instruments. The holes in the bone where the nerves exit are widened. An interbody spacer, called a "cage" made of titanium filled with artificial bone (**tricalcium phosphate**) and inserted into the disc space. This fuses the two vertebrae together, prevents bones rubbing together again causing a recurrence, and keeps the exiting nerves and spinal cord free of any compression. The titanium cage is fixed to the above and below vertebrae by small titanium screws, which is MRI compatible and will not set off any airport metal detectors.

A small safety drain is left in the wound and the wound is closed with dissolving stitches. They dissolve slowly over 60 days.

You are then woken from the anaesthetic, the breathing tube is removed from your throat and you are taken to recovery.

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AFTER SURGERY:

You will be carefully watched in the recovery ward in theatre for one hour after the operation, and then transferred back to the neurosurgery ward. The nursing staff will carefully monitor your breathing, heart rate, blood pressure, arm and leg strengths regularly.

You will have pain relief from a drip into your vein, which you can control with a button to push (*PCA = Patient Controlled Analgesia*). This has a safety cut out so that you cannot overdose on pain medication.

The next day you will be able to get out of bed and walk around with the physiotherapist and nurses.

The safety drain is removed the day after surgery.

For the first two days after surgery you will be given a soft diet as you may have a sore throat and difficulty swallowing hard food. These symptoms will improve.

You will be given a soft neck collar to wear only when out of bed and walking around for 4 weeks after the operation. You will not be required to wear the collar in bed at night.

Once you are comfortable walking around and independent you will be able to go home, which is normally 1 - 3 days following the operation.

You will be provided with pain relief medication or a prescription prior to leaving hospital.

Do not drive for a period of 4 weeks following the surgery, but you can travel in a car as a passenger.

Do not perform heavy lifting or vigorous physical work for 4 weeks after the operation.

You will be reviewed at Mr Malham's rooms 4 weeks after the operation and an appointment will be given to you prior to discharge from hospital. You may wish to ring the rooms once you are home to obtain a time that suits you.