

Patient Information

Neurosurgery Department

Cervical disc replacement

Your Cervical Spine

The vertebrae (spinal column bones), which encircle and protect your spinal cord, are separated by shock-absorbing discs. The discs give your spine the flexibility to move. Nerves branching from the spinal cord pass through openings in the vertebrae to other parts of your body.



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Why do I need surgery?

As discs lose their water content because of disease or age, they lose their height and bring the vertebrae closer together. The consequence is a weakening of the shock absorption properties of the disc and a narrowing of the openings for the nerves in the sides of the spine. Additionally, a loss of disc height may cause the formation of bone spurs, which can push against your spinal cord and/or nerves. When a disc ruptures in the cervical spine, it puts pressure on one or more nerve roots (called nerve root compression) or on the spinal cord, causing pain and other symptoms in the neck and arms. Living with this pain or weakness and tingling in the arms can be disabling.

Disc degeneration

With the advice of your doctor, you may have tried other treatments for some time now which did not relieve your pain or other symptoms. Or perhaps your doctor has determined that irreparable damage would result without surgery. Your doctor has recommended that you consider the PRESTIGE®LP Cervical Disc Prosthesis, which provides for motion following surgery, instead of the more common fusion procedure.



Image showing Spinal column. Disc fragment pushing on nerve root. Reduced height because of degenerated discs

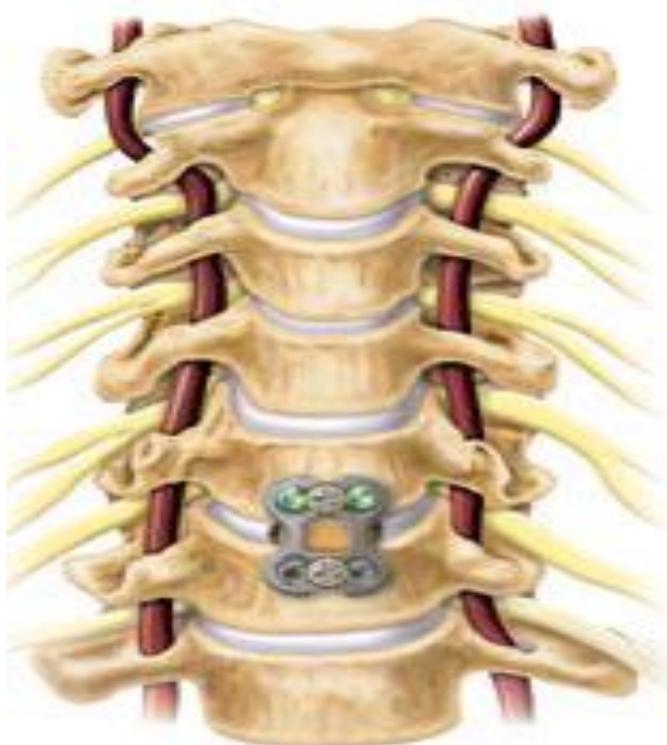
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How is this procedure different from a fusion?

A fusion procedure may treat your short-term symptoms, alleviating neck and arm pain. However, clinical evidence suggests that physical stress to vertebrae involved in a fusion may accelerate disc degeneration elsewhere in your neck. In contrast, the PRESTIGE® LP Cervical Disc Prosthesis replaces the disc removed by the surgeon. The artificial disc is designed to allow motion at the treated level.



Vertebrae fuse (join together) restricting movement and flexibility.



A plate is attached to the vertebral bodies to stabilize the bones until fusion occurs

What is involved in a PRESTIGE® LP Cervical Disc System procedure?

This surgery involves the use of a new medical device, which is designed to replace the disc which sits between the vertebrae in your neck. Your disc, which is damaged or diseased, is surgically removed through an incision made in the front of the neck. In its place, your surgeon will prepare a space and insert a PRESTIGE® LP Cervical Disc Prosthesis. The device uses a ball and socket design which is designed to allow for motion to be preserved.



Motion and flexibility are maintained with a non-fusion procedure.

What should I expect from the surgery?

This surgical procedure is expected to relieve the symptoms of a nerve root or spinal cord compression caused by the damaged disc. The surgery associated with the PRESTIGE® LP Cervical Disc System is designed to allow for motion at the operated disc level, unlike a fusion surgery.

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Complications

As with all surgery there are potential risks to be aware of. Please discuss these with your surgeon. Research studies of this procedure have produced the following information:

- Disc prosthesis migration was noted in 2% of patients undergoing prosthetic cervical disc implant, although no migration was greater than 3.5 mm from initial implant site.
- Re-intervention was required in 3% of patients, two patients to treat residual symptoms, and one patient for removal of a haematoma (blood clot).
- Temporary hoarseness 13%
- Moderate dysphagia (swallowing difficulties) 4%
- Recurrent laryngeal (voice box) nerve palsy 4%

Preparing for surgery

You will be called to attend the neurosurgical pre-admissions clinic before your surgery, to check your overall health. Please tell the staff at this clinic what medications you are taking, and **ask if you should stop taking any medications before surgery.**

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Preoperative Fasting Instructions:

FOR MORNING OPERATIONS	STOP TAKING AT:
Food or milk	2:30 am
Black tea/coffee/ squash (not juice)/ Pre-Op carbohydrate drink	6:30 am
Water	Arrival to hospital
Please do not chew gum on the day of surgery	

FOR AFTERNOON OPERATIONS	STOP TAKING AT:
Food or milk	7:30 am
Black tea/coffee/ squash (not juice)/ Pre-Op carbohydrate drink	11:00 am
Water	Arrival to hospital
Please do not chew gum on the day of surgery	

Your hospital stay should be between two and five days, depending on individual circumstances.

To make your recovery easier, prepare your home for life after surgery. Place important things within easy reach. Remove safety hazards which might cause you to lose your balance. Arrange for someone to help you at home and around the house after surgery.

Be sure you read and understand this entire booklet. Your surgeon is required to discuss with you the potential risks, as well as benefits, of this surgery.

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After surgery

Ask your surgeon about your specific recovery plan following surgery. It is important to follow your doctor's instructions carefully to recover from surgery as quickly as possible and increase your chances of a successful outcome.

After surgery your surgeon may refer you to a physiotherapist who will teach you exercises to improve your strength and increase your mobility. The goal of physiotherapy is to help you become active as soon as possible, using safe body movements that protect your neck.

Recovering from pain and surgery is an ongoing process. How fast you recover depends on your commitment to working closely with your physiotherapist, and moving and exercising correctly, as recommended by your surgeon.

A postoperative care booklet is available. Please ask for this from the ward staff or at the hospital's Health Information Centre if you are not given a copy before you are discharged.

Your role in recovery

The ongoing health of your neck really depends on you. You should always follow your surgeon's recommendations, such as seeing your physiotherapist regularly. Remember to move and exercise properly as you return to a more active lifestyle. Good body mechanics keep your spine well aligned and reduce pain, but maintaining a safe, balanced position may require some changes in how you go about daily activities. For instance, you may need to learn different ways of standing, sitting, or lifting to avoid re-injuring your neck. You and your surgeon will continue to work together during your recovery. Before you leave the hospital, your surgeon may schedule follow-up visits with you so they can evaluate your progress, advise you about your activity level, and adjust any medication, if necessary. Sometimes your doctor may recommend follow-up tests to make sure you are healing properly.

On discharge you will be advised about wound care, it is recommended you do not get the wound wet for a least five days post procedure. You will

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not be able to drive for at least 6 weeks after your operation. It is recommended you do not lift any heavy objects until you have been seen by the consultant at your follow up meeting

If you need any further information or clarification please contact Ward 43:
Tel 024 7696 8240/5330 or via the switchboard on 024 7696 4000

References

1. Hilibrand AS, Robbins M. Adjacent segment degeneration and adjacent segment disease: the consequences of spinal fusion? Spine J 2004; Nov-Dec;4(6 Suppl):190S-194S. Review.
2. NATIONAL INSTITUTE FOR CLINICAL EXCELLENCE
INTERVENTIONAL PROCEDURES PROGRAMME Interventional procedures overview of prosthetic intervertebral disc replacement of the cervical spine. February 2005.

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