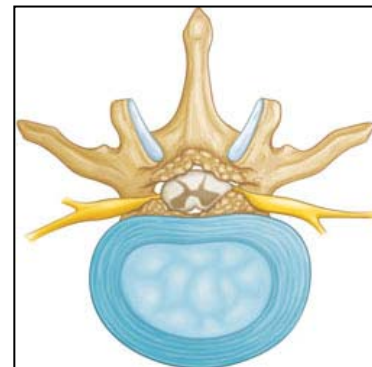


## Operation Information

### Anterior Decompression and/or Spinal Fusion

#### Introduction

This is a major surgery which utilizes a skin incision over the front of the body to approach the spine; Spinal fusion is surgery in which one or more of the vertebrae of the spine are united together or fused so that movement between them can no longer occur. Bone grafts are placed around the spine during surgery and the body then heals the grafts over several months.



Source:  
<http://orthoinfo.aaos.org/topic.cfm?topic=a00329>

#### Indication

1. Degenerative conditions causing compression of spinal cord or spinal nerves
2. Instability of the spine
3. Spine fracture
4. Spinal tumour
5. Spinal infection (tuberculous or bacterial)
6. Spinal deformity
7. Miscellaneous conditions causing spinal cord or spinal nerve damage

#### Procedure

1. The operation is performed under a general anaesthesia
2. The skin incision is usually on one side in the front of the body
3. A piece of bone will be harvested from the ilium, fibula or a rib to fill the defect at the spinal column (in special conditions synthetic material or allograft may be used)
4. Internal fixation devices such as plates and screws may be used if necessary

#### Possible Risks and Complications

1. General Risks and Complications:
  - i) Excessive bleeding causing shock, stroke, heart attack, etc., which may be fatal if severe
  - ii) Injury to the dura causing cerebrospinal fluid leakage or meningitis
  - iii) Delayed wound bleeding, haematoma formation and wound infection
  - iv) Problems in wound healing or persistent scar discomfort
  - v) Deterioration of pre-existing medical problems, e.g. heart disease and stroke
  - vi) Loosening or breakage of internal fixation device
  - vii) Failure of bone union
  - viii) Problems with iliac crest bone graft donor site such as wound infection, haematoma or persistent ache
  - ix) Recurrence or deterioration of the original spine condition

## 2. Risks and Complications Specific to Operative Site:

### Cervical spine surgery

- i) Haematoma at surgical site causing compression of trachea, which may cause breathing difficulty or even suffocation
- ii) Injury to the esophagus causing swallowing difficulty or even leakage of food into the mediastinum causing mediastinitis
- iii) Injury to the major neck artery or vein causing stroke
- iv) Injury to the thyroid gland causing thyroid hormone dysfunction
- v) Injury to the nerve supplying the vocal cord causing hoarseness of voice
- vi) Injury to the cervical spinal cord or nerves causing neurological damage, in extreme case may lead to tetraplegia, double incontinence and breathing difficulty

### Thoracic spine surgery

- i) Injury to the esophagus causing swallowing difficulty or even leakage of food into the mediastinum causing mediastinitis
- ii) Injury to the lung causing pneumonia or persistent pneumothorax
- iii) Injury to the aorta or vena cava causing torrential bleeding
- iv) Injury to lymphatic vessels causing chylothorax
- v) Injury to the thoracic spinal cord or nerves causing neurological damage, in extreme case may lead to paraplegia, double incontinence and breathing difficulty

### Lumbosacral spine surgery

- i) Reflex slowing of bowel movement causing abdominal distension and vomiting
- ii) Injury to the aorta or vena cava causing torrential bleeding
- iii) Injury to the abdominal structures, e.g. ureter, kidney, liver, bowel
- iv) Injury to the sympathetic nerves causing dryness and increase in temperature of the involved lower limb. It may also cause erectile dysfunction and retrograde ejaculation in men
- v) Injury to the spinal nerves causing neurological damage, in extreme case may lead to paraplegia, double incontinence

\*\* It is impossible to mention all the possible complications that may happen and the above is only a few important complications which may occur. Before agreeing for the operation, you must acknowledge and accept the fact that no matter how ideal the situation may be, these events may occur. Damage to peripheral organ, severe haemorrhage and leakage after operation, it may require another operation to deal with the complications.

## **Pre-operation Preparation**

1. Your doctor will explain to you the reason, the procedure and the possible complications. Patient will need to sign the consent form.
2. Preparation of external supportive device for spine immobilization after surgery, e.g. neck collar, may be needed.
3. No food or drink is allowed six hours before operation.
4. Nursing staff will assist you to clean the skin and perform shaving if necessary.
5. Change to operation attires and removal of loose objects (e.g. dentures, jewellery, contact lens etc).
6. Empty bladder before surgery.

## **Post-operation Instruction**

1. In general, diet is not allowed on the day after surgery (Please follow doctor's instruction).
2. Intravenous fluid replacement or blood transfusion may be necessary.
3. Analgesics will be prescribed for better pain control and facilitates rehabilitation.
4. Sometimes a urinary catheter is used for drainage of urine. Usually it will be removed in a few days.
5. Passing stool and urine will be arranged in bed in the lying position.
6. Lower limb exercise is encouraged to reduce the risk of deep vein thrombosis.
7. Turning of body is usually allowed within few days after surgery and this will not affect wound healing.
8. If wound drain is present, it would be removed in 2-3 days after operation.
9. When pain is getting less, sit out and then walking exercise will be started (please follow doctor's instruction).
10. Patient can be discharged home in 1-2 weeks after operation.

## **Advice on discharge**

1. Please contact your attending doctor or go back to hospital for excessive bleeding, collapse, severe pain or signs of infection at your wound site such as redness, swelling or fever (body temperature above 38°C or 100°F) etc.
2. Please keep the wound dry and clean. Take the medication as prescribed by doctor.
3. Follow up: Please attend the follow-up as arranged.

## **Possible Additional Procedures / Treatment**

1. Additional procedures may be needed intra-operatively or after the surgery to tackle the complications, e.g. debridement of wound infection, evacuation of haematoma.
2. Future removal of the internal fixation device if necessary.
3. Surgery due to recurrence or deterioration of the original spine problem.

## **Alternative Treatment**

Conservative Treatment: including physiotherapy and occupational therapy, result depends on individual patient and disease.

Remarks: Should you have any enquiries, please consult your doctor.

### Reference

Hospital Authority – Smart Patient (Website: [http://www21.ha.org.hk/smartpatient/tc/operationstests\\_procedures.html](http://www21.ha.org.hk/smartpatient/tc/operationstests_procedures.html))

Compiled by Union Hospital Consent Form Taskforce

The above information is for reference only, please enquire your physician for details  
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