Operation Information

Posterior Decompression and/or Spinal Fusion

Introduction
This is a major surgery which utilizes a skin incision at the back 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.

Indications
1. Degenerative conditions causing compression of spinal cord or spinal nerves
2. Instability of the spine
3. Spine fracture
4. Spinal tumour
5. Spinal deformity
6. Miscellaneous conditions causing spinal cord or spinal nerve damage

Outcomes
The expected outcome of this operation is to relieve the pressure on the spinal cord or nerves, while maintaining as much of the strength and flexibility of the spine as possible.

Procedures
1. The operation is performed under a general anaesthesia
2. The skin incision is usually in the middle part at the back of the body
3. Surgery is performed depending on individual patient
4. Bone graft harvested from the ilium may be needed to fill the defect at the spinal column to enhance fusion (in special conditions synthetic material or allograft may be used)
5. May use internal fixation devices such as metal rods and screws 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) Bone removal causing instability of the spine
   x) Recurrence or deterioration of the original spine condition
2. Risks and Complications Specific to Operative Site:
   Cervical spine surgery
   i) Injury to the vertebral artery causing stroke
   ii) Injury to the cervical 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 lung causing pneumonia or pneumothorax
   ii) Injury to the aorta or vena cava causing torrential bleeding
   iii) Injury to the thoracic 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

** The risks listed above are in general terms and the possibility of complications is not exhaustive. Please understand that even though all operations are carried out with utmost professionalism and care this does not rule out the possibility of complications arising. In the event of peripheral organ damage or post-operative haemorrhage or leakage, further operations may be required.

Pre-operative Preparations
1. Bath with hair wash is appropriately way to prevent some level of surgical wound infection. Therefore, we strongly advise you to do so on the day of operation.
2. The procedure and possible complications will be explained by the doctor and a consent form must be signed prior to the operation.
3. Please inform the doctor and nurse all your past medical history, previous surgical operations, current medication and any complication with drug or anaesthesia.
4. Routine tests such as blood test, MRI scan or X-ray may be performed if necessary.
5. Preparation of external supportive device for spine immobilization after surgery, e.g. neck collar, thoracolumbosacral orthosis may be needed.
6. Nursing staff will assist you to clean the skin and perform shaving if necessary.
7. No food or drink six hours before operation.
8. Please change into a surgical gown after removing all clothing including undergarments, dentures, jewellery and contact lenses.
9. Please empty your bladder before the operation.

Post-operative Instructions

General
1. **After general anesthesia, you may:**
   - experience discomfort in the throat after tracheal intubation.
   - experience side effects of anesthesia including feel tired, drowsy, nausea or vomiting.
   Inform the nurse if symptoms persist or worsen.
2. Please inform the nurse of wound pain. Proper pain relief treatment by injection or oral medication may be prescribed by the doctor.
3. Intravenous fluid replacement or blood transfusion may be necessary.
4. Sometimes a urinary catheter is used for drainage of urine. Usually it will be removed in a few days later.
5. Passing stool and urine will be arranged in bed in the lying position.
6. You can be discharged home in 1-2 weeks after operation.

Wound Care
1. Please keep the wound dry and clean.
2. If wound drain is present, it would be removed in 2-3 days after operation.

Activities
1. Early mobilization is encouraged as soon as tolerance movement can speed up the recovery process.
2. Lower limb exercise is encouraged to reduce the risk of deep vein thrombosis.
3. Cough and breathing exercise reduces respiratory complication.
4. Turning of body is usually allowed within few days after surgery and this will not affect wound healing.
5. When pain is getting less, sit out and then walking exercise will be started (please follow doctor’s instruction).
6. Please avoid heavy lifting for 3 months and awkward twisting and leaning should be avoided postoperatively.
7. Swimming can be commenced once the wound is dry and you feel comfortable to do so.

Diet
In general, diet is allowed gradually on the day after surgery (Please follow doctor’s instruction).

Advices on discharge
1. Please comply with medication regime as prescribed by your doctor.
2. Immediately consult your doctor or return to hospital for professional attention in the event of excessive bleeding, collapse, severe pain or signs of infection at your wound site such as redness, swelling, shivering, high fever over 38°C or 100°F, or any other unusual symptoms etc.
3. Any follow-up consultations should be attended as scheduled.

Possible Additional Procedures / Treatment
1. More extensive instrumentation and fusion than originally planned may be needed.
2. Dural tear may happen intra-operatively require repair and prolonged bed rest post-operatively.
3. Additional surgical procedures may be needed to tackle complications, e.g. debridement of wound infection, evacuation of haematoma.
4. Future removal of the internal fixation device if necessary.
5. Additional surgery may be needed for recurrence or deterioration of the original spine problem.

Alternative Treatment
Conservative Treatment: including physiotherapy and occupational therapy, result depends on individual patient and disease.
Should there be any enquiries or concerns, please consult the attending doctor.

Under the professional care of the doctor, you will gradually recover. We wish you all the best during your treatment and recovery.

If you have any questions after reading the entire leaflet, please write them down in the spaces provided in order for the doctor to further follow-up.

Compiled by Union Hospital Consent Form Committee

The above information is for reference only, please enquire your physician for details
Our Hospital reserves the RIGHT to amend any information in this leaflet without prior notification