

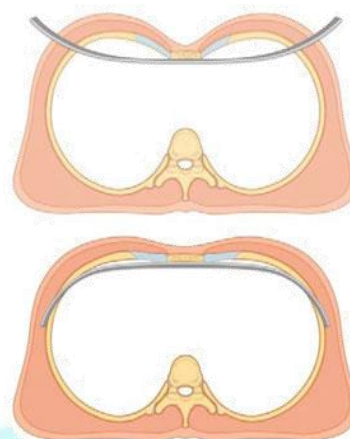


## Operation Information

### NUSS Procedure

#### Introduction

The NUSS procedure is a surgical intervention to correct a condition called Pectus Excavatum (funnel chest). Pectus Excavatum describes an abnormal appearance of the rib cage with the chest wall caved-in. It is often a congenital abnormality in child but it can also develop after birth. It might be due to too much growth of the connective tissue that joins the ribs to the sternum. This results in the sternum to grow inward. The condition can be mild to severe. In severe condition, physical activity and breathing will be impaired. Also, the functions of heart and lungs can be affected. In addition, the abnormal appearance of the chest may cause some kind of emotional stress. To correct the above, the NUSS procedure is indicated.



Source:  
<https://www.rwjbh.org/images/sbmc/Nuss-Procedure.jpg>

#### Outcomes

This operation is a minimally invasive surgery. Through the surgically correction, the appearance of the chest will be improved and the breathing problem will also be solved.

#### Procedures

1. The operation is performed under general anaesthesia.
2. The doctor will make two small surgical cuts and a smaller cut in the centre of your chest.
3. Insert a thoracoscope (thin tube containing a light and a camera) into the chest cavity
4. Insert the steel bar that will push your chest into shape.
5. Wounds are closed with stitches.

#### Possible Risks and Complications

1. Wound bleeding
2. Wound infection
3. Pneumothorax (Presence of air in the chest cavity)
4. Hemothorax (Blood collection in the chest cavity)
5. Bar displacement
6. Pericarditis
7. Pericardial effusion

\*\* 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. Good hygiene can prevent surgical wound infection. Therefore, we advise you to clean up yourself 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. Please inform doctor if you are taking medications that affect blood coagulation, such as Aspirin, Warfarin, Xarelto or Pradaxa, nonsteroidal anti-inflammatory drug (NSAID) such as Ibuprofen, Naproxen and Chinese medication.
4. An anti-embolism stocking may be arranged according to doctor's prescription to prevent post-operative deep vein thrombosis.
5. Nurse will supply surgical soap to you for washing your whole body, especially your chest area.
6. No food or drink six hours before operation.
7. Please change into a surgical gown after removing all belongings including undergarments, dentures, jewellery and contact lenses.
8. Please empty your bladder before the operation.

## **Post-operative Instructions**

### **General**

1. After general anaesthesia, you may:
  - experience discomfort in the throat after tracheal intubation.
  - experience side effects of anaesthesia including feel tired, drowsy, nausea or vomiting. Inform the nurse if symptoms persist or worsen.
2. This operation requires 4-5 days of hospitalization for pain management due to the rather drastic change in chest shape. Please inform the nurse of wound pain. Proper pain relief treatment by injection or oral medication may be prescribed by the doctor.
3. You will need to stay in bed for one day after the operation. Beware to keep the back straight. With oxygen therapy as necessary.
4. Full recovery can take several weeks, during which time your physical activities might need to be restricted. Avoid trunk rotation or sit in bed with the thoracic spine flexed.
5. In some cases, it may be necessary to place small tube(s) in the incision to drain fluid. These are removed when the drainage stops, usually after several days.
6. To speed the recovery, the doctor and nurses will encourage you to do activities such as deep breathing, walking and sitting in a chair gradually.

### **Wound Care**

1. According to your condition, the chest incision is covered by sterile dressing.
2. The wound dressing will be changed according to doctor's order.
3. You may take shower after the operation but must ensure that the dressing is waterproof and remains clean and dry

### **Diet**

1. A normal diet may be resumed as instructed after recovery from anaesthesia.

## **Advice on Discharge**

1. Always keep a good posture with a straight back. Any strenuous activity at least the first 6 weeks after the operation should be avoided.
2. Please comply with the medication regime as prescribed by your doctor.
3. There may be some swelling of the incision. After the incision is healed, you will be able to feel a firm ridge under the incision.
4. Immediately consult your doctor or return to hospital for professional attention in the shortness of breath, chest pain, blood stain and pus stain fluid from the wound, shivering, high fever over 38°C or 100.4°F, or any other unusual symptoms, etc.
5. Any follow-up consultations should be attended as scheduled.

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.

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Compiled by Union Hospital Operating Theatre (OT) Governance 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