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PATIENT RECOVERY GUIDE

The NUSS Procedure

A guide to your pectus excavatum correction, recovery, and life with the bar at William Osler Health System

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- This booklet is for general educational purposes only and does not constitute medical advice.
- Instructions given to you by Dr. Irshad's team always take precedence over information in this booklet.
- If you are experiencing a medical emergency, call 911 or go to Emergency immediately.
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ABOUT YOUR PROCEDURE

What is the NUSS Procedure?

Pectus excavatum is a condition in which the breastbone (sternum) is sunken inward, creating a concave appearance of the chest. In significant cases, this can compress the heart and lungs and affect breathing and exercise capacity.

The NUSS procedure is a minimally invasive surgical correction. Dr. Irshad inserts a curved steel bar beneath the sternum through two small incisions on each side of the chest. The bar is flipped into position, pushing the sternum forward to its correct shape. The bar is secured with stabilisers and remains in place for approximately 3 years, after which it is removed in a second, shorter procedure.

Dr. Irshad was the first surgeon to introduce the NUSS procedure at William Osler Health System.

BEFORE SURGERY

Preparing for your NUSS procedure

6 or more weeks before surgery:

- Complete all pre-operative assessments required by Dr. Irshad's team (echocardiogram, CT chest, pulmonary function tests).
- Stop smoking if applicable.
- Begin aerobic exercise to improve fitness and lung function before surgery.

2–4 weeks before surgery:

- Stop blood thinners as specifically directed. Do NOT stop without instruction.
- Stop herbal supplements.
- Arrange 4–6 weeks of recovery support at home.
- Discuss pain management expectations with the team — pain in the first 2 weeks is significant.

The night before and day of surgery:

- Nothing to eat after midnight. Clear fluids until 2 hours before arrival.
- Take only approved medications with a small sip of water.
- No jewelry, nail polish, or contact lenses.
- Confirm your driver and overnight support person. Expect a hospital stay of 2–4 days.

RECOVERY

Week-by-week recovery guide

Hospital (Days 1–4)	• Pain is managed aggressively with IV medication, nerve blocks, and oral pain medications • Do not hesitate to ask for pain relief • Physiotherapy will help you breathe deeply and sit upright • Most patients are discharged after 2–4 days
Weeks 1–2	• Significant pain is normal and expected • Take all pain medications as prescribed on schedule — do not wait until pain is severe • Rest at home. Short, gentle walks are encouraged • No lifting, twisting, or reaching overhead
Weeks 3–4	• Pain improves substantially • Continue walking and gradually increase activity • No driving until completely off narcotic pain medications
Weeks 5–6	• Most patients feel comfortable for daily activities • Return to school or desk work typically occurs around this time • Follow-up with Dr. Irshad
Months 2–6	• Gradual return to non-contact sports and exercise as cleared by Dr. Irshad • Contact sports and heavy lifting remain restricted
6 months+	• Full activity including contact sports cleared at Dr. Irshad's discretion • Bar remains in place for 3 years total
Year 3 Bar Removal	• The bar is removed in a short day surgery procedure • Results are permanent — the chest wall holds its corrected position after removal

LIVING WITH THE BAR

Activity and restrictions

RESTRICTIONS WHILE THE BAR IS IN PLACE

- No contact sports for 6 months after surgery.
- No heavy lifting (over 10 lbs) for 6 weeks.
- No activities with a risk of direct chest impact for 6 months.
- Swimming and light aerobic exercise: permitted after 6–8 weeks (confirm with Dr. Irshad).
- Always inform healthcare providers (dentists, other surgeons, emergency doctors) that you have a chest bar in place.
- MRI safety: the bar is MRI-compatible — inform MRI staff of the bar at all times.

Bar displacement: If you notice a visible change in the shape of your chest, new asymmetry, or a sudden worsening of discomfort, contact our clinic immediately at (905) 458-4520. Bar displacement is uncommon but requires prompt

assessment.

WARNING SIGNS

When to seek immediate care

GO TO EMERGENCY OR CALL 911 IF YOU EXPERIENCE:

- Sudden, severe shortness of breath
- Chest pain that is new or worsening
- Fever above 38.5°C (101.3°F)
- Signs of wound infection: redness, warmth, swelling, or pus at incision
- Coughing up blood
- A swollen or painful leg (possible blood clot)

CALL OUR CLINIC AT (905) 458-4520 IF YOU HAVE:

- Pain not controlled by your prescribed medications
- Any visible change in chest shape suggesting bar movement
- Wound concerns: redness, warmth, or discharge at incision sites
- Any question or concern about your recovery — no question is too small

QUESTIONS? CONTACT OUR CLINIC

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