





Hospital Universitari MútuaTerrassa BARCELONA



## THE NUSS PROCEDURE

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I will share with you the Nuss surgery we performed in pectus excavatum patients. Nuss surgery is a minimally invasive surgery performed by placing a bar in pectus excavatum patients. The Nuss surgery method was invented by Donald Nuss.

I have been performing Nuss surgery since 2005.

In my Nuss surgery adventure, which I started with a single bar at first, I currently have patients with 4 bars. In this presentation, I will explain in detail the different surgeries I have performed according to the number of bars with videos.

What needs to be done before surgery: PA and Lateral chest X-Ray Lung function tests, ECG Total blood count, blood type Skin Test for nickel allergy Anesthesia Consultation 6 Sided Photos are filed

In complex asymmetric deformities; CT scan, Echocardiogram Consultation for concomitant problems

- Marphan Syndrome → Genetic
- Scoliosis → Orthopedics
- Cardiac Problems → Cardiology

Before starting the surgery:

Check your setup and equipment

(size of bar, 30 degree optic, CO2 tube, guide tape, steel wire...) Use (approved) the correct instruments Always keep "the sternotomy saw" ready!!!

Golden rule:

1) Always see the tip of the introducer

2) Don't do blind dissection

3) If you can't see the tip of the introducer;

Try to do subxiphoid incision

&

Elevate the sternum

with wacum bell or crane

In Postoperative course; No chest tube

No ICU

We send the patient directly to ward

Nasal O2 - 2 It/min (for only first day)

Chest X – Ray (postoperative and before discharge)

Based on the complaints and clinical findings of my patients, I realized that wearing a single bar is not suitable for every patient.

I started to wear 2 parallel bars.

I observed in my patients with 2 parallel bars that complete correction does not provide complete correction in different deformities.

I started to apply the cross bar technique, so I achieved full correction in all types deformities and all age of patients.

With the cross bar technique, complete correction was achieved in patients with Grand Canyon type Pectus Excavatum, rib flare + pectus excavatum, short sternum and Sharp and one point Pectus excavatum.

After the cross bar technique, I started to insert 3 and 4 bars.

Thus, I achieved complete correction in more difficult cases.