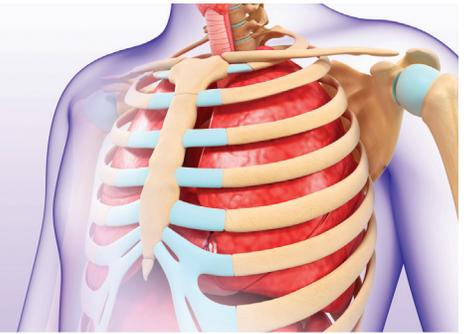


Pediatric Chest Wall Deformity Program

ucsfbenioffchildrens.org/surgery-clinic



CLINIC LOCATIONS for consultation



NUSS PROCEDURE

0 major complications from Nuss procedure*

0-2 pain score on post-op day from Nuss procedure†



PAIN-FREE RECOVERY

Cryoanalgesia for pain-free recovery, developed by UCSF surgeons

* 2017-2022, bar dislocation or cardiac injury † 2022

EARLY AND IMPROVED TREATMENT OPTIONS LEAD TO OPTIMAL OUTCOMES

From mechanical devices to minimally invasive surgical procedures, children with chest wall malformations now have improved treatment options that did not exist as recently as five years ago. Pain-free recovery, outpatient surgical treatments and zero major complications from the Nuss procedure are some examples.

Children should be referred to a pediatric surgeon as soon as a chest wall malformation is observed, to enable early development of an effective treatment plan. The condition usually worsens over time if left untreated.

CONDITIONS TREATED

There are three types of chest wall malformations:

- Pectus excavatum, in which the breastbone sinks inward
- Pectus carinatum, where the breastbone protrudes outward
- Pectus arcuatum, a rare form of pectus carinatum characterized by a very short sternum that points forward at the top and angles back at the bottom (often confused with pectus excavatum)

These conditions usually become evident around age 10, though some are observed at birth. They occur in boys more frequently than in girls (4 out of 5 cases).

[MORE →](#)

INFORMATION / REFERRALS

- **PHONE** (877) 822-4453 (877-UC-CHILD)
- **FAX** Oakland: (510) 985-2202 | San Francisco: (415) 353-4485

Pediatric Chest Wall Deformity Program

SERVICES OFFERED

- Nuss procedure, a minimally invasive technique for treating pectus excavatum, in which a metal bar is inserted in the chest to push the chest wall out. The bar is removed after 2-3 years.
- Advanced techniques, which have resulted in zero major complications and enable outpatient surgery with minimal time in the hospital.
- Modified Ravitch procedure, used to treat pectus carinatum and pectus excavatum, in which a long incision is made across the chest to remove deformed cartilage, followed by insertion of a metal bar to support the chest.
- Cryoanalgesia pain management (first published by UCSF surgeons) used in conjunction with the Nuss procedure and modified Ravitch procedure. Nerve axons in the chest are frozen and then allowed to regenerate over three months, resulting in pain-free recovery.
- Nonsurgical treatments such as orthotics, suction devices, exercise regimen and braces, tailored to the child's individual condition.

WHY REFER TO UCSF?

- Complete evaluation by an expert, multidisciplinary team including pediatric surgeons, anesthesiologists, radiologists, orthotists and child life specialists.
- Full imaging and testing available for thorough evaluation, including chest X-ray, pulmonary function test, exercise stress test, echocardiogram, electrocardiogram, MRI or CT scan and allergy tests.
- Highly skilled child life specialists help patients and families prepare for and recover from surgery.
- Full-service orthotics lab available.
- Access to a clinical trial for a new magnet device for young patients with pectus excavatum.
- Superior pain management and results.
- Patients seen at Oakland, San Francisco, San Ramon and Walnut Creek locations.
- Can accept national and international patients.

OUR TEAM

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