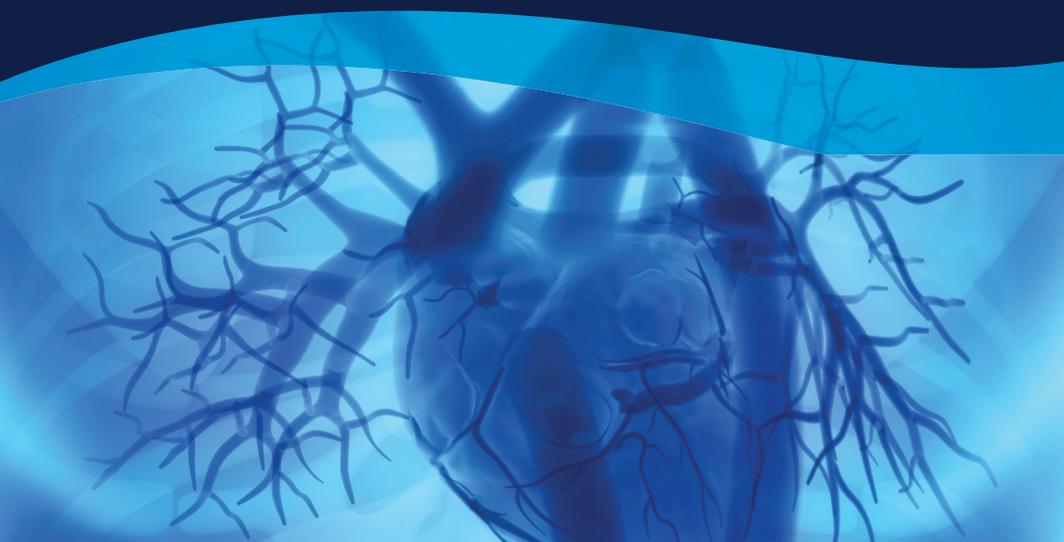


MINIMALLY INVASIVE CARDIAC SURGERY

# Clinical Advance

UCSF Health is a major referral and destination center for minimally invasive cardiac surgery, featuring high volumes, extensive experience and quality outcomes.



## A Breakthrough Surgical Approach

### Minimally Invasive Coronary Artery Bypass Grafting (CABG)

- UCSF has one of the highest-volume minimally invasive cardiac surgery programs in the country.
- Surgeons Rodrigo de Souza, MD, and Tom C. Nguyen, MD, FACS, FACC, are among the first in the Bay Area to perform minimally invasive CABG.

#### INFORMATION / REFERRALS

Phone: (415) 353-8195 | Fax: (415) 353-1312  
[ucsfhealth.org/cardiacsurgery](https://ucsfhealth.org/cardiacsurgery)

# Minimally Invasive Coronary Artery Bypass Grafting (CABG)

## What is minimally invasive coronary artery bypass grafting (CABG)?

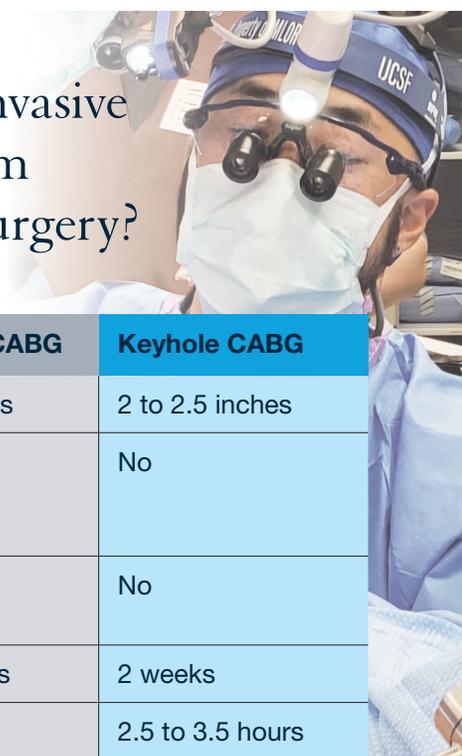
One of the most common cardiac procedures, coronary artery bypass grafting (CABG, or “cabbage”) prevents and treats blocked arteries. While traditional CABG surgery is effective, the procedure is invasive and may not be indicated for all patients.

UCSF Health offers several minimally invasive cardiac procedures. Each patient’s condition will be evaluated, and our multidisciplinary team will recommend the best plan of care, whether it be traditional CABG surgery or a minimally invasive option.

During minimally invasive CABG, our cardiac surgeons access the heart via a small incision (or “keyhole”) between the ribs. Bilateral internal mammary arterial grafting is used in most cases, reducing complications and improving long-term outcomes compared with single internal mammary arterial grafting. Your patient’s heart is not stopped during the procedure, and the aorta is not touched, minimizing the patient’s risk of stroke.

We also offer a hybrid CABG procedure with percutaneous stenting.

## How is minimally invasive CABG different from traditional CABG surgery?



	Traditional CABG	Keyhole CABG
Incision size	8 to 12 inches	2 to 2.5 inches
Requires opening the chest (open heart surgery)	Yes	No
Requires stopping the heart	Yes	No
Recovery time	5 to 6 months	2 weeks
Surgery time	4 to 5 hours	2.5 to 3.5 hours

## What are the benefits of minimally invasive CABG?

Minimally invasive cardiac procedures provide outcomes comparable to those achieved with open surgery. These techniques enable your patients to recover faster, experience less pain and have less scarring.

Your patient may experience the following benefits of minimally invasive CABG:

- Less pain
- Lower risk of infection and other surgical complications
- Lower risk of stroke and arrhythmia
- Shorter hospital stay
- Faster recovery time and quicker return to normal activities
- Less blood loss and reduced need for blood transfusions
- Decreased mechanical ventilation time
- Shorter surgery time and less time under anesthesia
- Better aesthetic results (smaller scars)

In most cases, your patient can resume normal activities 10 to 15 days after surgery.

## Who is a candidate for minimally invasive CABG?

We believe that small incisions make a big difference. The risks to the patient are virtually the same for traditional CABG and minimally invasive CABG. However, a less aggressive approach is indicated for patients in very poor health, those concerned about having open surgery, and patients with chronic obstructive pulmonary disease (COPD), diabetes, obesity, low weight or immunosuppressive disorders.

This procedure may not be appropriate for patients with extremely enlarged or weak hearts, or those receiving radiation therapy on the chest.

Our second-opinion program offers patients access to leading specialists at UCSF Health. If your patient is facing a complex medical issue or difficult treatment decision, having a second opinion from a world-class academic medical center can provide valuable guidance and peace of mind.

## How will I be kept informed about my patient’s progress?

We believe the inclusion of the referring physician at every step of the way is key to a successful outcome for each patient. Our team will communicate with you before and after surgery, and patients will be advised to follow up with their referring physician after the procedure.

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## ONE OF THE NATION'S BEST IN CARDIOLOGY

UCSF Medical Center is one of the nation's best hospitals for cardiology & heart surgery, according to U.S. News & World Report's 2021-22 Best Hospitals rankings.

**UCSF** Health