



MINIMALLY INVASIVE HEART SURGERY

At Gundersen, we take the 'open'
out of heart surgery

Gundersenhealth.org/heart/surgery/second-opinion

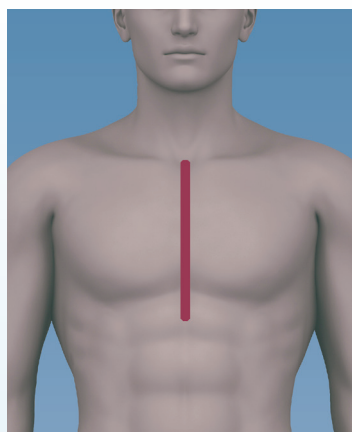
GUNDERSEN
HEALTH SYSTEM®

Where Caring Meets Excellence

Innovative technique allows heart surgery through small incisions

At Gundersen Health System, we are using an innovative technique called minimally invasive cardiac surgery (MICS), to perform heart bypass (coronary artery bypass grafting or CABG) and heart valve repair through a very small incision between the ribs.

The biggest difference with this new approach is the way the surgeon accesses the heart. With traditional open heart surgery, the surgeon makes a long cut vertically through the breast bone to open the chest and access the heart. The result is a long, zipper-like scar. Not so with MICS.



Open heart surgery
(sternotomy) scar



Minimally invasive
heart surgery scar

Benefits of MICS

The minimally invasive approach requires just a small three-to four-inch incision between the ribs. Two smaller one-inch incisions are also needed for the surgeon's instruments. Because the surgeon does not have to crack open the chest or cut through bone, there are many benefits to MICS compared to the traditional open heart surgery, such as:

- Less blood loss, eliminating the need for blood transfusions in most cases
- Lower risk of infection
- Shorter hospital stay—one and a half fewer days on average
- Faster recovery—up and walking within 24 hours and recovery in two to six weeks
- Minimal scarring
- Cardiac rehab can start sooner
- Return to work and driving quicker
- Restrictions are lifted sooner—usually two to four weeks

Turn to a leader



Prem Rabindra,
MD, FACS

Gundersen heart surgeon Prem Rabindra, MD, FACS, has been a cardiothoracic surgeon at Gundersen since 2002. Always working on the cutting edge in his field, Dr. Rabindra was one of the first in the nation to learn and offer MICS.

Since 2009, Dr. Rabindra has used MICS to performed heart bypass for more than 300 patients. Today, a third of all heart bypass surgeries at Gundersen are performed using MICS-CABG.

Dr. Rabindra is one of only a handful of doctors who can do MICS-CABG on up to four vessels in a single surgery. He has performed multiple-vessel bypasses on more than 200 patients. Using MICS, he can also perform bypass in conjunction with other procedures such as valve surgery.

Dr. Rabindra now teaches and conducts educational lectures on the technique nationally and internationally. Surgeons have come to Gundersen from across the U.S. and as far away as Colombia, Brazil, China and Japan to learn MICS. Dr. Rabindra is one of only three surgeons in North America who has the experience to teach the multi-vessel bypass technique.

Our Heart Surgery Outcomes (5-year averages, 2010–2014)

	Gundersen Health System	Like Group – Midwest Region	National
Inpatient Mortality 2010–2014 (30-Day Mortality)	0.8%	1.6%	1.6%
Operative Mortality 2010–2014	1.3%	2.2%	2.0%
Infection (Deep Sternal Wound) 2010–2014	0.3%	0.3%	0.3%

*Lower is better across all measures.

Nationally recognized by Healthgrades®

Here's how Healthgrades®, a leading independent healthcare ratings organization, ranks Gundersen:

Clinical Excellence

- Healthgrades Distinguished Hospital Award-Clinical Excellence™ 8 years in a row
- Healthgrades America's 50 Best Hospitals™

Heart Services

- Coronary Intervention Excellence Award™
- Top 10 percent in Nation for Cardiology Services
- Five-star recipient for Coronary Interventional Procedures
- Five-star recipient for Treatment of Heart Attack
- Five-star Recipient for Pacemaker Procedures

Minimally invasive heart surgery by the numbers

2009

The year Gundersen Health System began offering heart bypass using an innovative minimally invasive cardiac surgery (MICS) technique.

Number of patients who have had MICS heart bypass at Gundersen.



300+

3 INCHES

Size of the incision—between the ribs—a surgeon typically needs to perform MICS. There's no need to open the chest, so there's less pain, blood loss and risk of infection.

200+

Patients who have had two, three or four vessels bypassed in a single MICS procedure at Gundersen. At most other hospitals offering MICS for heart bypass, surgeons will only attempt a single bypass. Gundersen's Prem Rabindra, MD, FACS, is among just a handful of heart surgeons in the country using MICS for heart bypass surgery on up to 4 vessels, as well as one of the few to perform a bypass in conjunction with other procedures, such as valve surgery.



1 IN 3

Heart bypass surgeries now performed at Gundersen using MICS versus traditional open heart surgery.

1,050 MILES



Distance one patient traveled—from Macon, Georgia—to have MICS heart bypass performed at Gundersen.

29 SURGEONS

have come to Gundersen from across the U.S. and as far away as Colombia, Brazil, China and Japan to learn MICS. Dr. Rabindra is one of only three surgeons in North America who has the experience to teach the multi-vessel bypass technique.



6 WEEKS

Faster recovery—on average—after heart bypass with MICS (2-6 weeks) compared to traditional open heart surgery (8-12 weeks).

1½ DAYS

Fewer hospital recovery days—on average—for a MICS heart bypass patient versus open heart surgery.



(608) 775-2335

The number to call to learn more about MICS bypass surgery or visit gundersenhealth.org/heart.

People get back to work—and life—sooner with MICS

"They did four bypasses—two of my arteries were more than 90 percent blocked. I'd started back to work two months from the day of surgery. With minimally invasive surgery, I felt much better very quickly. I feel like I have a second lease on things."

—Michael Boehde, Trane Company engineer

"It was a total surprise that the surgeon didn't open my chest. Instead of a large chest scar, I was left with just a 3-inch scar. I had a quick recovery—a month later I was back to work. The new [minimally invasive] surgery helped with my quick, less painful recovery. In no time I was back to doing everything I did before. I know I am fortunate. I don't take that for granted."

—Merlin Doblar, funeral home coach driver

"The MICS heart bypass surgery was much easier than expected and recovery was fairly quick after only four days in the hospital. Although I was dreading the surgery, I'm very pleased with how it all went. Before surgery, it seemed like a good time to retire from local politics. By the time the election rolled around, I felt so much better that I decided I'd keep up with it."

—Marv Iverson, West Salem Village Board member

Is MICS right for you?

While there are advantages to minimally invasive surgery, it is not right for every patient. On the flip-side, there are patients who are candidates for MICS who may have been turned down for traditional surgery. Because surgery and recovery from MICS is less stressful on the body, these patients might now be candidates for surgery. It is important to emphasize that MICS is still major heart surgery. Some pain should be expected and varies by patient.

Get a second opinion

If you need heart surgery, you need to know all of your options. For your own peace of mind, get a second opinion from Gundersen.

You may be a candidate for a minimally invasive heart surgery. Gundersen is one of only a handful of medical centers in the country to offer up to quadruple bypasses as well as heart valve repairs using MICS. Most heart surgery centers offer only the traditional open heart surgery. While this approach remains a safe and effective option, MICS offers additional benefits to the right candidates. A second opinion at Gundersen can determine if MICS is right for you.



A second opinion at Gundersen can provide answers to questions you might have, such as:

- “Do I really need the surgery my doctor recommended?”
- “Is there a newer or safer procedure or non-surgical option that may be right for me?”
- “Does my surgeon have the expertise, experience or good track record for the surgery I need?”
- “What can I expect after surgery?”

Call to schedule a consultation

If you get your healthcare at Gundersen Health System, talk with your doctor or cardiologist to learn if you are a candidate for MICS.

If your provider is part of another healthcare organization, you can still select Gundersen as your healthcare provider or for a second opinion. You should check with your insurance plan to see if a second opinion appointment or tests are covered, if Gundersen is an in-network or out-of-network provider, and what, if any, are your out of pocket costs. We can provide you with a cost estimate. Plus, we'll work with you and your care provider to get access to necessary medical records and test results that you may have already had.

To schedule an appointment, you can also contact Gundersen Cardiovascular Surgery at (608) 775-2335 or (800) 362-9567, ext. 52335 or email our team at heart@gundersenhealth.org.

Call on our Concierge Services team

If you choose to come to Gundersen Health System, our concierge services team is available to help make your experience as smooth as possible. You can look to the team to help you with:

- Airport pick-up or assisting with other transportation needs
- Hotel/motel reservations
- Directions, maps and other information
- Providing information about events in the La Crosse area
- Ordering food or making restaurant reservations

Frequently asked questions

What is MICS-CABG?

MICS-CABG (pronounced like “mix cabbage”) is an acronym for minimally invasive cardiac surgery-coronary artery bypass grafting. This is a minimally invasive surgical technique performed through a small incision between the ribs, in which a graft is placed to bypass a blocked heart artery.

What is the advantage of MICS over traditional open-heart surgery?

The biggest difference with the MICS technique is how the surgeon approaches the heart. With traditional heart bypass surgery, a long cut is made through the breast bone to open the chest. With the MICS-CABG procedure the surgeon uses a much smaller incision between the ribs. Because it isn't necessary to “crack open” the chest or cut through bone, MICS results in less blood loss, risk for infection and scarring.

How long can I expect my recovery to take?

Recovery is unique to each patient based on age, overall health and condition before surgery. But compared to open heart surgery, most patients who have MICS experience shorter hospital stays and faster recovery, and are able to start cardiac rehab sooner. Restrictions are lifted sooner with most patients back up to speed in two to four weeks compared to the six to eight weeks with traditional surgery.

Will you need to stop my heart for the operation?

No. MICS is an “off-pump” operation meaning it's performed on a beating heart. There's no need to be on a heart-lung bypass machine. The support of a pump may be required in rare cases when the heart is weak, but the operation is still performed on the beating heart.

I have other health issues. Is MICS CABG an option for me?

Possibly. Because MICS has a lower risk for infections and blood loss, it's often a better option, especially for patients who have health issues such as diabetes or asthma. Our surgeon and cardiologist will determine if you're a candidate for MICS.

What if I need valve and bypass surgery?

Can these both be done through a minimally invasive approach?

Yes. While not all patients who need valve surgery and heart bypass surgery will be candidates for this hybrid procedure, we do offer it to those who are.

Why should I choose Gundersen Health System?

In addition to having an internationally renowned heart surgeon who is one of only a handful of surgeons to do minimally invasive heart surgery on up to four vessels, check out our 10 things you should know about Gundersen!

TOP 10 THINGS YOU SHOULD KNOW ABOUT

**GUNDENSEN
HEALTH SYSTEM**
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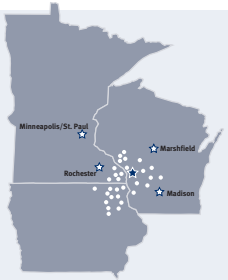
Where we're consistently among the best in the nation for quality and service

- Healthgrades America's 50 Best Hospitals™ for 2014, 2015 and 2016
- Gundersen Health Plan Senior Preferred HMO, Medicare's highest, five-star rating for the fifth year in a row
- Healthgrade's 2015 Distinguished Hospital Award for Clinical Excellence™ based on clinical quality performance, ninth consecutive year
- Becker's Hospital Review 50 Great Health Systems to Know
- 2015 Community Value Leadership Award from Cleverly+Associates, recognizing Gundersen for value provided to its communities.

healthgrades



TOP 1% IN THE NATION



Where patients get the care they need, close to home

- Serving western Wisconsin, southeastern Minnesota and northeastern Iowa
- More than 60 locations including three regional partner hospitals and their clinics
- Integrated delivery system of hospitals and regional medical, behavioral, renal and eye clinics
- 501(c)(3) not-for-profit organization
- Gundersen Medical Foundation
- Gundersen Health Plan
- Largest healthcare education program in the region
- Clinical research program

Where innovative ideas start and become a model for the world

Our Respecting Choices® program, for advance care planning, is used in hospitals across the country as well as Canada, Singapore, Australia, Ireland, Germany and Spain.



We're clinician led



- Medical leaders partner with business managers at every level.
- Leadership development model highlighted as best practice seven times by The Advisory Board.
- Practicing clinician leaders ensure what's best for business is also best for patients.

Where we're improving, lowering costs

- Part of unique partnership with other high-quality healthcare organizations in a State Value Network, learning, sharing and teaching.
- Dedicated to delivering great care for lower costs.



Where we care for people around the world

Our Global Partners' volunteers travel to Nicaragua, Ethiopia and South Dakota in community-to-community partnerships, where they learn from us and vice versa.



Where community wellness is a priority

- Heart attack and stroke programs integrate with regional emergency rooms for faster care and better outcomes.
- Our partnership in the La Crosse Medical Health Science Consortium has resulted in groundbreaking research and a community focus on binge drinking.
- 117 employees volunteered 1,436 hours to help people in our own back yard at the St. Clare Health Mission.



6 MILLION+ MINUTES
OF ACTIVITY WAS REPORTED IN THE
2015 MINUTES IN MOTION CHALLENGE



Where healthy employees are our business

Worksite wellness clinics, the Gundersen Health Plan, and a wide range of on-site services keep employees healthy, and ensure area employers a healthy bottom line.

OVER 18,000 PEOPLE
BENEFITTED FROM HEALTH SCREENINGS AND EDUCATION
AT WORKSITES OR COMMUNITY EVENTS IN 2015

Where we're committed to a healthier environment

- We are the first known health system in the nation to offset 100% of our fossil fuel use with local renewable energy. (10/14/14)
- Saving \$2 million per year in energy costs helps reduce the cost of healthcare operations.
- 41,400 tons of fossil fuel carbon dioxide reduced annually.
- Purchasing \$1 million of local feedstocks for heat annually, keeping those dollars in area communities.



\$2 MILLION PER YEAR SAVED THROUGH
ENERGY CONSERVATION

Where we are a regional economic leader

- Largest employer in the region.
- Largest property taxpayer in La Crosse County.
- Employ more than 7,500 people and purchase local goods and services benefitting the regional economy.
- \$500-600 million in revenue from outside of La Crosse County.



7,500 EMPLOYEES



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GUNDERSSEN
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Where Caring Meets Excellence

Additional website of interest

www.explorelacrosse.com

If you have any other questions, talk with your cardiologist or you can call our Cardiovascular team at (608) 775-2335 or (800) 362-9567, ext. 52335 or email us at heart@gundersenhealth.org.

GUNDERSEN **HEALTH SYSTEM®**

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