Deborah® Heart and Lung Center

In alliance with

Cleveland Clinic
Heart, Vascular and Thoracic Institute

2020-2021

DEBORAH HEART AND LUNG CENTER
CARDIOLOGY AND CARDIOVASCULAR SURGERY
OUTCOMES

DEBORAH HEART AND LUNG CENTER 2020-2021 OUTCOMES REPORT

Measuring and understanding outcomes of medical treatments promotes quality improvement. Created by Deborah Heart and Lung Center and Cleveland Clinic, this outcomes report is designed for the physician audience and contains a summary of surgical and medical treatments, with data on patient volumes and outcomes and a review of new technologies and innovations.

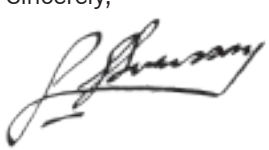
LETTER FROM THE CHAIR OF CLEVELAND CLINIC'S SYDELL AND ARNOLD MILLER FAMILY HEART, VASCULAR & THORACIC INSTITUTE

We are proud to present 2020-2021 outcomes from the cardiology and cardiovascular surgery program at Deborah Heart and Lung Center, which has an ongoing collaborative relationship with Cleveland Clinic's Miller Family Heart, Vascular & Thoracic Institute to promote best practices and optimal quality in cardiovascular caregiving.

This overview of outcomes, volumes, and quality metrics reflects some of the fruits of that collaboration, which involves members of Deborah ranging from physicians and other health care providers to administrative personnel. It refers to national benchmarks established by the American College of Cardiology and The Society of Thoracic Surgeons and stems from our commitment to give every patient the best possible outcome and experience. We believe that transparency around clinical outcomes is essential to improving quality and efficiency as we all continue to move toward ever more value-based care delivery.

Cleveland Clinic's Heart, Vascular & Thoracic Institute is gratified by the success of our collaborations with our affiliate and alliance members like Deborah. Our goal is to develop relationships with providers nationwide to enhance the quality and value of cardiovascular care in our communities. We welcome your comments and feedback, and we thank you for your interest.

Sincerely,



Lars G. Svensson, MD, PhD
Chairman, Miller Family Heart,
Vascular & Thoracic Institute
Cleveland Clinic

LETTER FROM THE PRESIDENT AND CHIEF EXECUTIVE OFFICER

As we enter the 100th anniversary of the Deborah mission of providing care to all patients without regard to social or economic barriers, on behalf of Deborah Heart and Lung Center, our Board of Trustees, physicians and staff, I am pleased to share with you our cardiovascular outcomes guide. This guide is produced in conjunction with Cleveland Clinic's Heart, Vascular & Thoracic Institute, of which Deborah is an alliance member.

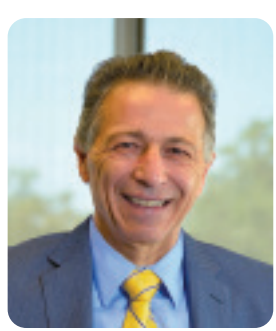
This report highlights Deborah's role as a center of excellence in the region for advanced cardiac, pulmonary, and vascular care. Rapid adoption of state-of-the-art care, including the latest techniques, devices, and therapeutics, has yielded exceptional results. In three short years, we have grown our Advanced Heart Failure Program to the largest in the area and have become one of the highest-volume left ventricular assist device (LVAD) centers in the nation.

Throughout this report are data that reflect high marks for Deborah for compliance with protocols, adherence to best practice standards, and implementation of rigorous procedures that result in excellent patient outcomes: low mortality, reduced morbidity, and timely postsurgical discharges with a low readmission rate. Our team is proud of the work we do each and every day to improve our patients' lives.

Deborah has a long history of medical and clinical education dating back to the very first cardiac surgery performed in New Jersey by Dr. Charles Bailey in 1958. This commitment continues today with one of the largest cardiovascular fellowship training programs in the country. Our commitment to education extends also to a wide range of clinical and nonclinical areas including vascular surgery, nursing, advanced practice providers, respiratory care, lab, imaging, pharmacy, healthcare administration, dietary, and even culinary arts. This proud legacy of organizational commitment to the future of young professionals is ingrained in our culture.

We welcome a continued partnership with our outside medical partners as we share a mission and goal to provide the quality, customized care that patients today expect and seek out. The information contained in this booklet demonstrates once again that we have earned the confidence we have inspired in our referring physicians and patients for nearly 100 years.

Joseph Chirichella
President and CEO
Deborah Heart and Lung Center



WHAT'S INSIDE

ABOUT DEBORAH HEART AND LUNG CENTER

Deborah Heart and Lung Center in Browns Mills, New Jersey, is an 89-bed hospital that specializes in the diagnosis and treatment of heart, lung, and vascular disease in adults and children. Deborah is a recognized leader in patient care and innovative healing, hosting numerous clinical trials and maintaining one of the largest cardiology fellowship programs in the country.

Founded in 1922, Deborah is a nationally recognized specialty hospital treating patients throughout the tri-state region: New York, Pennsylvania, and New Jersey. Deborah's 55-acre campus has a full-service emergency department operated by Capital Healthcare System, Inc., several hotel-style guest residences, and a medical office building with urgent care, primary, and specialty physician offices and outpatient rehabilitative services.

From July 2020 to June 2021, the providers in Deborah's outpatient clinic recorded 71,907 visits; during the same time frame, Deborah performed the following:

- 1,632 surgical procedures
  - Open heart 314
  - Transcatheter aortic valve replacement 156
  - Left ventricular assist device 25
  - MitraClip™ 13
  - Vascular and endovascular 785
  - Other surgeries 339
- 3,013 diagnostic and interventional procedures
- 765 electrophysiology procedures
- 1,175 ablations

Deborah's teaching program and robust clinical research department showcase the energy of the brightest new talent and the promise of cutting-edge trials, making Deborah the site of many medical firsts.


Exit Only

PATIENT EXPERIENCE

The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) is the first national standardized, publicly reported survey of patients' perspectives of hospital care. The HCAHPS Survey is a 29-item instrument and data collection methodology for measuring patients' perceptions of their hospital experience and allows valid comparisons to be made across hospitals - locally, regionally, and nationally. Deborah continues to lead patient engagement and satisfaction results throughout New Jersey and competes at the national level.

	Deborah	National Average	New Jersey Average
Patients who gave their hospital a rating of 9 or 10 on a scale from 0 (lowest) to 10 (highest)	86%	72%	66%
Patients who reported YES, they would definitely recommend the hospital	87%	71%	66%
Patients who reported that their nurses "Always" communicated well	85%	80%	76%
Patients who reported that their doctors "Always" communicated well	84%	81%	76%
Patients who reported that they "Always" received help as soon as they wanted	67%	67%	58%
Patients who reported that the staff "Always" explained about medicines before giving it to them	62%	63%	58%
Patients who reported that their room and bathroom were "Always" clean	72%	73%	69%
Patients who reported that the area around their room was "Always" quiet at night	57%	63%	55%
Patients who reported that YES, they were given information about what to do during their recovery at home	87%	86%	83%
Patients who "Strongly Agree" they understood their care when they left the hospital	59%	52%	46%

Source: Medicare website

NEW JERSEY CARDIAC REPORT CARD

The New Jersey Department of Health regularly releases comparative data on New Jersey's 18 licensed cardiac surgery centers in order to better inform patient decisions. There is strong evidence that this kind of information prompts hospitals to examine their process of care in order to improve the overall quality of coronary artery bypass graft (CABG) surgery, prevents infections, and ultimately saves lives.

Coronary Artery Bypass Graft (CABG) Surgery Mortality Rates

	Number of Cases	Mortality Rate*	95% Confidence Interval (CI)
New Jersey Statewide	8,006	1.80	
Deborah Heart and Lung Center	**396**	**0.18***	**(0.00, 0.99)**

*Risk-adjusted mortality rate significantly lower than the New Jersey statewide mortality rate based on 95 percent confidence interval.

In the latest state cardiac surgery report, released August 2021, Deborah Heart and Lung Center achieved the following:

- **Significantly lower** risk-adjusted mortality rates for CABG than the New Jersey statewide rate based on 95 percent confidence interval
- **The sixth highest** CABG surgery volume in the state, representing **5%** of all CABG procedures in the state
- Having the only cardiothoracic surgeon (Ronald Ross, MD) who achieved a risk-adjusted mortality rate **significantly lower** than the statewide rate

"This cardiac surgery report card highlights the outstanding outcomes at Deborah. Both the hospital and cardiothoracic surgeon Dr. Ronald Ross have a risk-adjusted mortality rate 'significantly lower ... than the statewide rate,' which is a testament to Deborah's excellent surgical program."

Paul Burns, MD
Chair, Cardiothoracic Surgery

SOCIETY OF THORACIC SURGEONS

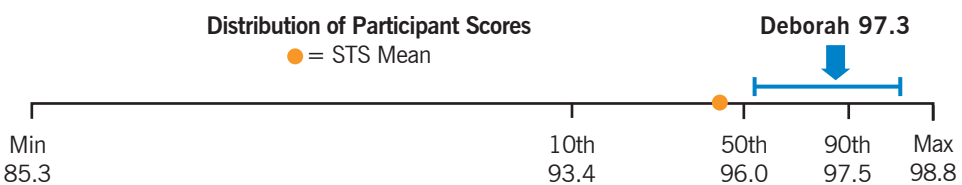
Quality Ratings

The Society of Thoracic Surgeons (STS) rating system – rating the benchmarked outcomes of cardiothoracic surgery programs across the United States and Canada – is one of the most sophisticated and highly regarded overall measures of quality in healthcare. Ratings are calculated using a combination of quality measures for specific procedures performed by an STS Adult Cardiac Surgery Database participant.

Deborah performs at levels of "as expected" or "better than expected," which is consistent with good or excellent performance based on the STS standards.

AVR

Participant Score (95% CI)	STS Mean Participant Score	Participant Rating
97.3% (96.1, 98.3)	95.6%	★★★



Blue bracket = 95% Confidence Interval (CI)

The Society of Thoracic Surgeons. (2021). Press release templates for announcing three-star ratings [Press release]. Retrieved from https://www.sts.org/media/sts-public-reporting-toolkit/press-release-templates-announcing-three-star-ratings

AVR Surgery (Isolated and with CABG)

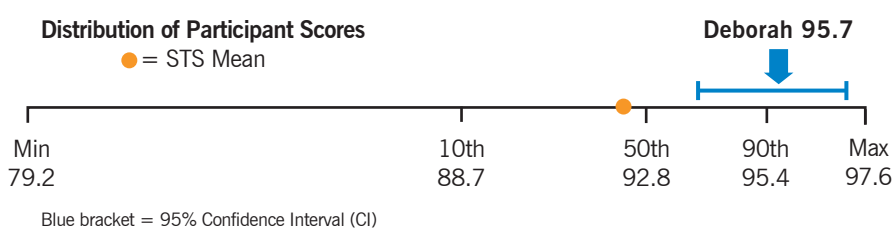
Aortic Valve Replacement (AVR) is a procedure performed by a cardiothoracic surgeon during which a patient's failing aortic valve is replaced with a mechanical or biological heart valve. The aortic valve can be affected by a range of diseases as well as by the normal aging process. As a result, the valve can either become leaky (aortic regurgitation) or partially blocked (aortic stenosis).

The STS evaluates surgical data based on both isolated AVR surgery and AVR surgery combined with coronary artery bypass grafting (CABG).

Deborah earned a three-star rating in both categories, placing its outcomes for isolated AVR during the three-year period from January 2018 to December 2020 among the 4-8% of participants that earned three stars, and during the same time frame, for AVR+CABG, among the 4-7% of participants that earned three stars.

AVR+CABG

Participant Score (95% CI)	STS Mean Participant Score	Participant Rating
95.7% (94.0, 97.2)	92.3%	★★★



Blue bracket = 95% Confidence Interval (CI)

Mitral Valve Replacement/Repair (Isolated and with CABG)

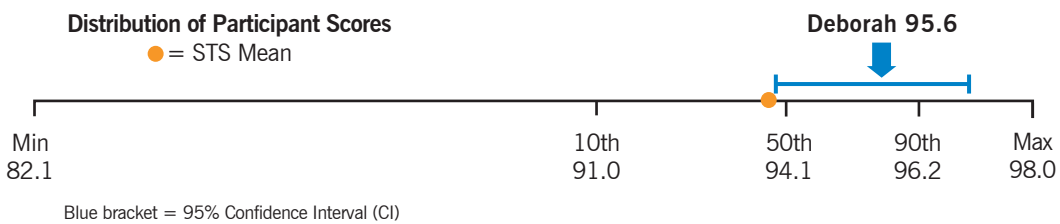
Mitral valve replacement/repair (MVRR) is surgery to replace or repair a patient's mitral valve that is not working properly because it is leaking (mitral valve regurgitation) or narrowed and not opening properly (mitral valve stenosis).

The STS evaluates surgical data based on both isolated MVRR surgery and MVRR combined with CABG.

Deborah earned a three-star rating in both categories during the three-year period from January 2018 to December 2020. This is the first time Deborah has been evaluated in the STS MVRR database.

MVRR

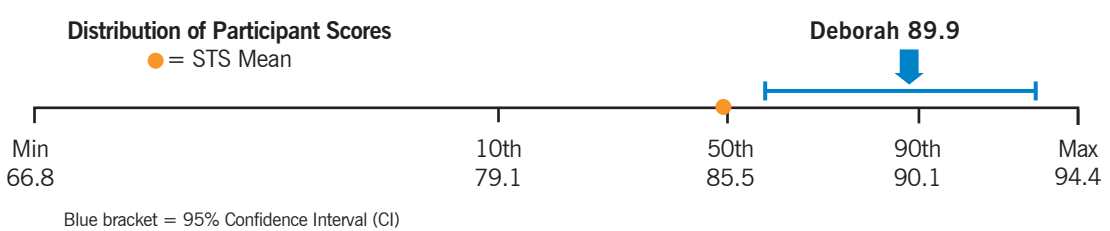
Participant Score (95% CI)	STS Mean Participant Score	Participant Rating
95.6% (93.9, 97)	93.8%	★★★



Blue bracket = 95% Confidence Interval (CI)

MVRR+CABG

Participant Score (95% CI)	STS Mean Participant Score	Participant Rating
89.9% (86.1, 93.2)	85%	★★★



Blue bracket = 95% Confidence Interval (CI)

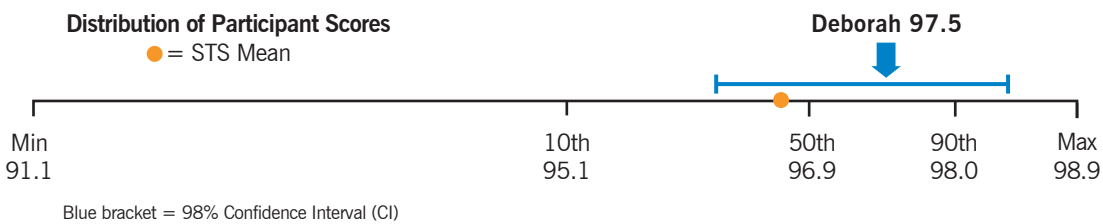
CABG

Coronary artery bypass graft (CABG) surgery is the most commonly performed heart operation in the United States. The operation is designed to bypass blockages in the patient's coronary arteries in order to restore normal or near normal blood flow to the entire heart during rest and exercise. Though an occasional patient needs only one bypass graft, most people who are candidates for CABG have blockages in several of their coronary arteries and need between three and five bypass grafts.

The latest analysis of data for CABG surgery covers a one-year period, from January 2020 to December 2020. Additional CABG outcomes data are found on the following pages.

CABG

Participant Score (98% CI)	STS Mean Participant Score	Participant Rating
97.5% (96.2, 98.4)	96.7%	★★

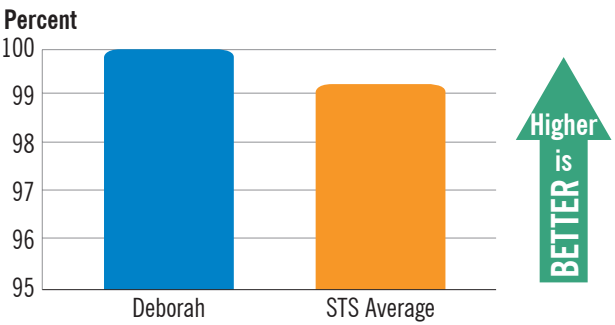


Blue bracket = 98% Confidence Interval (CI)

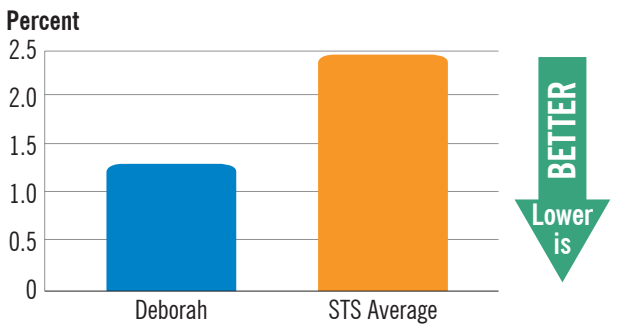
ISOLATED CORONARY ARTERY BYPASS GRAFT OUTCOMES

Internal Mammary Artery Use

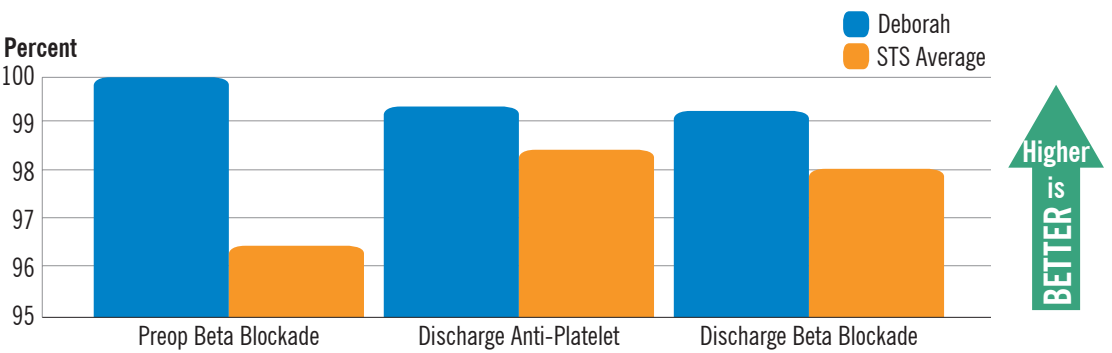
Arterial grafts are known for their excellent long-term patency and are the conduits of choice for coronary revascularization. In 2020, 100% of patients undergoing primary isolated revascularization procedures received at least one arterial graft.



Risk-Adjusted Operative Mortality

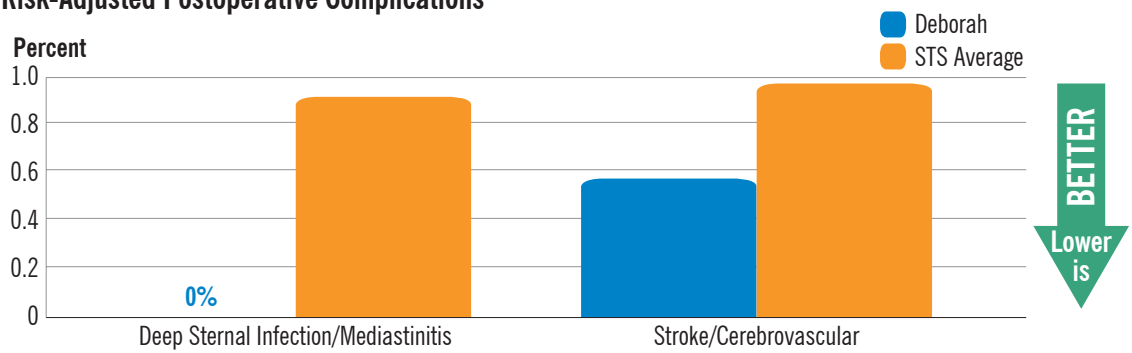


Perioperative Medications

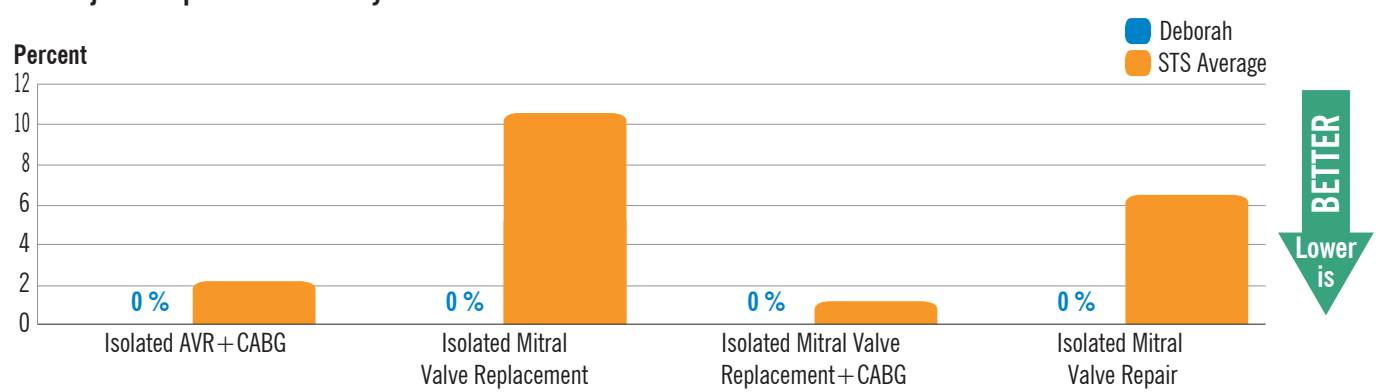


The Society of Thoracic Surgeons. Risk Adjusted Report. STS period ending December 2020.

Risk-Adjusted Postoperative Complications



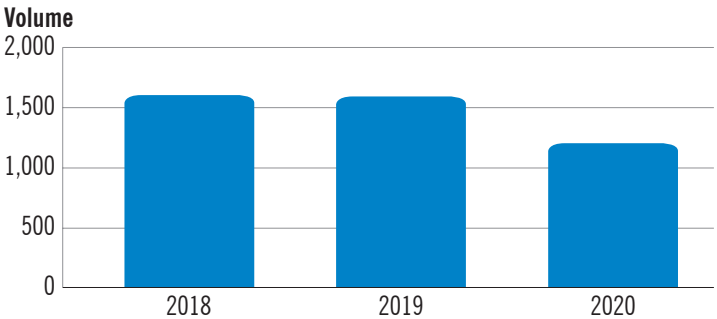
Risk-Adjusted Operative Mortality



The Society of Thoracic Surgeons. Risk Adjusted Report. STS period ending December 2020.

INTERVENTIONAL CARDIOLOGY

Percutaneous Coronary Intervention (PCI)



Deborah's interventional cardiologists saw a slight dip in volume in 2020, caused by the COVID-19 pandemic and the mandated pause on many elective procedures. Despite this, it is noteworthy that throughout the height of the pandemic, Deborah performed PCI on over 1,200 patients.

Percutaneous Coronary Intervention (PCI) Metrics

HealthCare Center (HCC)

Recognition for hospitals that demonstrate a commitment to a comprehensive, high quality culture in the care of cardiac patients.

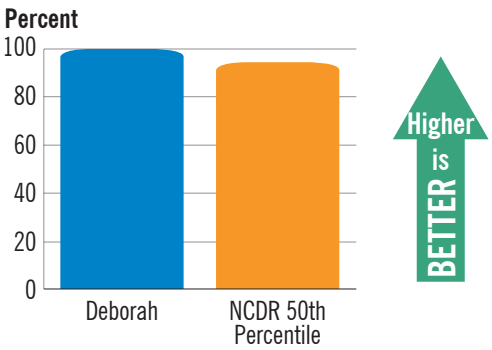
Use of aspirin to reduce the chance of blood clots after PCI.	★★★★
Use of a P2Y12 inhibitor medication to reduce the chance of blood clots after PCI.	★★★★
Use of a statin to decrease cholesterol after PCI.	★★★★
Use of all recommended medications (aspirin, P2Y12 inhibitor medication, and statin) to reduce the chance of blood clots and decrease cholesterol after PCI.	★★★☆

Source: National Cardiovascular Data Registry (NCDR®) CathPCI Registry®. Publicly reported metrics 2020

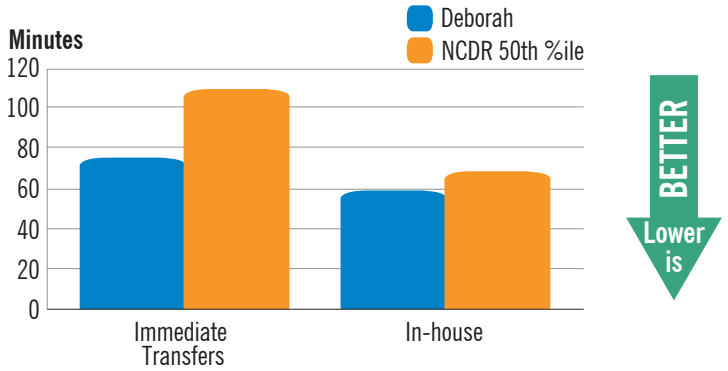
NATIONAL CARDIOVASCULAR DATA REGISTRY

Patients with STEMI

PCI ≤ 90 Minutes



Median Time



When a patient experiences a ST-elevation myocardial infarction (STEMI), the best window of time for a successful outcome is within 90 minutes. Deborah maintained this standard, which dramatically improved the outcomes for these patients.

"Knowing that time is of the essence during a heart attack in order to preserve muscle tissue integrity, Deborah has an outstanding record of swift response times. The hospital meets the industry standard of patients getting an emergency PCI within 90 minutes of a heart attack 100 percent of the time, with a median door-to-balloon time of 76 minutes. Beating the industry standard on time has had a profoundly positive impact on long-term outcomes for our heart attack patients."

Richard Kovach, MD
Interventional Cardiologist
Division Director, Interventional Cardiology and Endovascular Medicine

Source: NCDR CathPCI Registry 2020Q4

STRUCTURAL HEART

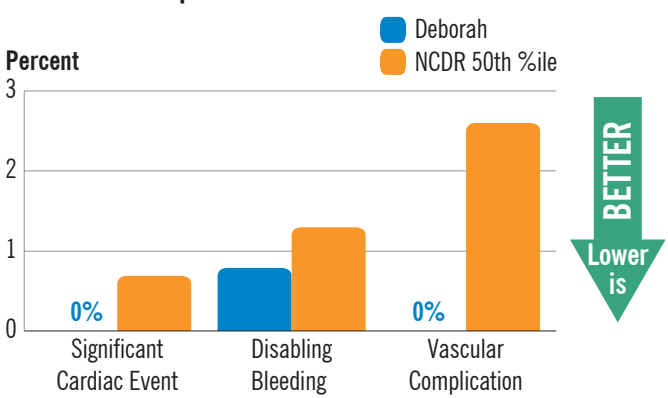
The Deborah Structural Heart Program uses a variety of sophisticated procedures for complex heart repairs, including transcatheter aortic valve replacement (TAVR) for minimally invasive heart valve repair. Improvements have occurred, with a steady decline in permanent pacemaker or implantable cardioverter defibrillator (ICD) implants post-TAVR; receiving moderate sedation (versus general anesthesia) during the procedure; and a reduction in major bleeding events and strokes. The combination of these enhanced outcomes means quicker recovery for patients, a reduced length of stay, and less long-term medical management associated with having a permanent implanted device.

Volume

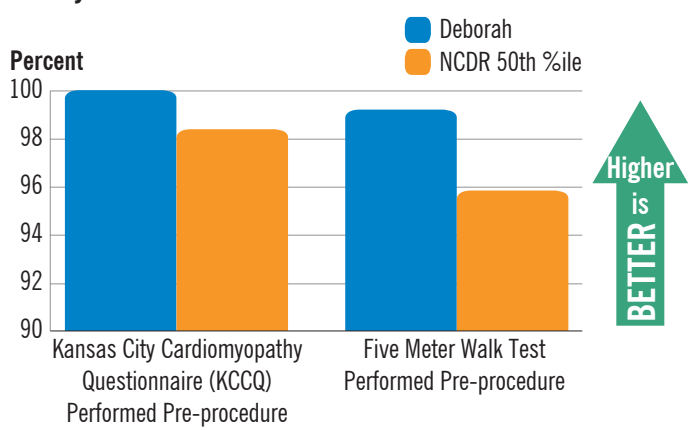
	2017	2018	2019	2020
Surgical aortic valve replacement	51	52	55	27
TAVR	84	86	115	132

Source: STS/ACC TVT Registry™ Outcomes Report Q4 2020

2020 TAVR Complications



Quality Process Metrics



Source: STS/ACC TVT Registry 2020Q4

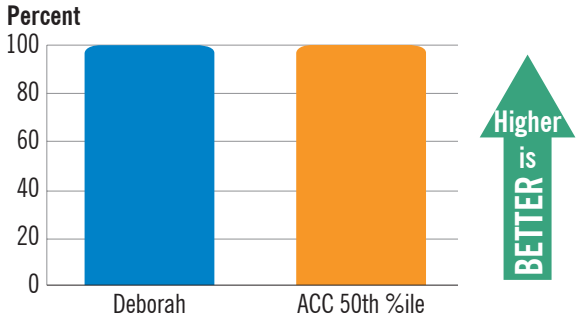
ELECTROPHYSIOLOGY

Left Atrial Appendage Occlusion (LAAO)

	2018	2019	2020
Case Volume	42	47	56

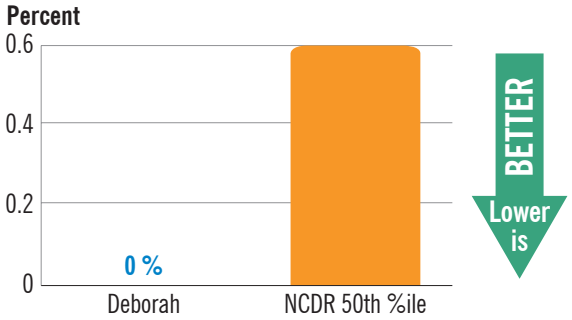
Source: ACC/National Cardiovascular Data Registry (NCDR®) Left Atrial Appendage Occlusion (LAAO) Registry™ Outcomes Report Q4 2018, 2019, 2020

Patients Evaluated for Bleed Risk Using the HAS-BLED Score

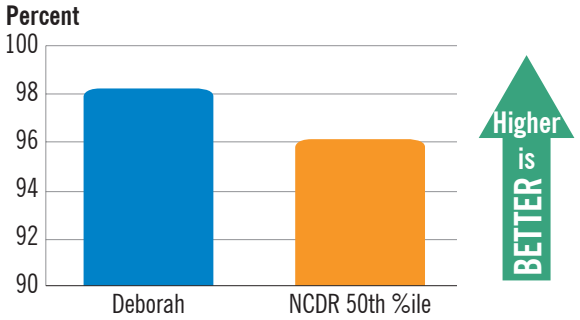


LAAO Complications

Proportion of patients with a major complication either intra or post procedure and prior to discharge

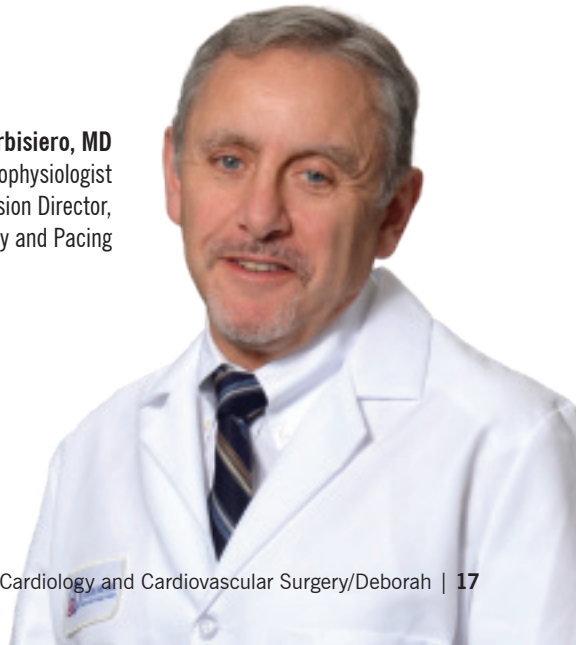


Proportion of LAAO Procedures Successful Excluding Those Procedures Canceled



"Deborah has 100% compliance for patients who, prior to having a WATCHMAN™ implant, are properly evaluated for their stroke and bleeding risk, as well as determining that they meet the FDA indications for the device implant. This guarantees that patients are receiving the right care every time and ensures uniformity in care delivery across the patient continuum."

Raffaele Corbisiero, MD
Cardiac Electrophysiologist
Division Director,
Electrophysiology and Pacing

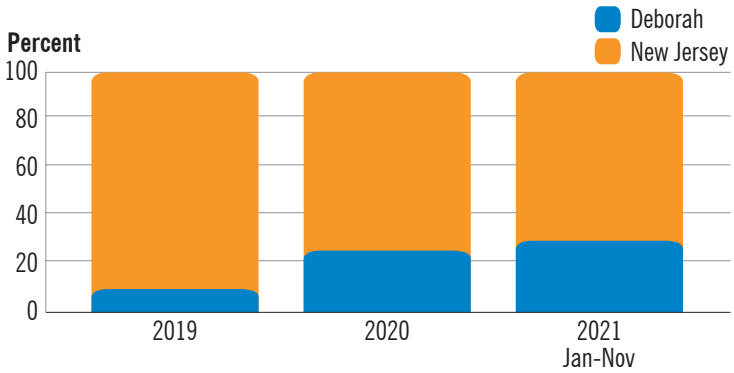


HEART FAILURE: LEFT VENTRICULAR ASSIST DEVICE PROGRAM

In 2019 Deborah launched its left ventricular assist device (LVAD) program, which subsequently earned accreditation as a DNV GL Healthcare, US, Certified Ventricular Assist Device Facility. Deborah's LVAD program offers both bridge-to-transplant and destination therapy implantation, and plays a key role in the hospital's overall Advanced Heart Failure Program. Some key program highlights:

- Deborah was **the first** in South Jersey to implant a durable LVAD
- Of 80 destination therapy LVAD centers in the United States, Deborah was among the top two highest-volume centers in 2021
- Deborah is home to South Jersey's **only** comprehensive cardiogenic shock program
  - 2019 survival at Deborah was 70% compared to 50% nationwide
  - Comprehensive, all-inclusive cardiogenic shock therapies are offered, including intra-aortic balloon pump (IABP), Impella® pump, all right ventricular assist devices, and extracorporeal membrane oxygenation (ECMO)
  - In 2020 Deborah was the first South Jersey center to implant Impella 5.5 for a cardiogenic shock patient
- Deborah's LVAD program volume places it among the **top growth** centers in the Delaware Valley region

LVAD Program Growth Since Inception



"Since launching our LVAD program in 2019, we have seen astronomical growth. It is clear that there was a large unmet need in the Delaware Valley region, and that Deborah is now providing the community with a critically important medical service. In a few short years, Deborah's program has grown so much it is now the highest-volume implant center in New Jersey."

Kulpreet Barn, MD
Cardiologist
Director, Heart Failure Program

INNOVATIONS

Educational Realignment

Last year the Deborah Fellowship Program was realigned with Sidney Kimmel Medical College at Thomas Jefferson University, forming a new partnership to enhance Deborah's resources and maximize an exceptional educational experience and opportunity for the specialists of tomorrow. Professional tracks include all Accreditation Council for Graduate Medical Education (ACGME):

- Advanced Heart Failure and Transplant Cardiology
- Cardiac Electrophysiology
- General Cardiology
- Interventional Cardiology
- Vascular Surgery

Minimally Invasive Procedures

Deborah's Interventional Team continues to innovate with new devices and procedures designed to expand the pool of patients who are eligible to undergo minimally invasive procedures. Newer-generation devices have the ability to address those patients' conditions with more efficient approaches, providing solutions that offer shorter hospital stays with less risk.

- G4 MitraClip™ procedure for leaking mitral valves (mitral regurgitation, or "MR")
- The ALTO® Abdominal Stent Graft System, a new-generation graft for abdominal aortic aneurysm repair
- The TIGEREYE™ device, which improves on image-guided systems for treating chronic total occlusions of the peripheral arteries

Remote Patient Monitoring

Fueled by rapid changes in technological advancements, Deborah has quickly ramped up its use of remote healthcare models. Adoption of these models was accelerated during the pandemic to keep patients safe from virus exposure while remaining on top of patients' complex health needs.

- Nearly 800 patients last year were enrolled in remote cardiac monitoring that caught serious life-threatening situations like atrial flutter, enabling quick intervention to prevent possible stroke, heart attack, or pulmonary embolism.
- Nearly 1,300 patients were closely followed in 2020-21 through Deborah's anticoagulation clinic.
- The shift to telemedicine enabled over 2,800 patients to stay in close contact with their Deborah specialist and continue receiving vital medical care.

PHYSICIAN LISTING

Betsy Schloo, MD
Vice President, Medical Affairs

David Altimore, DO
Cardiology

Kulpreet Barn, MD
Cardiology/Heart Failure

Thomas Barnes, MD
Vascular Surgery

Renee Bullock-Palmer, MD
Cardiology

Paul Burns, MD
Cardiothoracic Surgery

Kane Chang, MD
Vascular Surgery

Chunguang Chen, MD
Cardiology

David Chiapaikeo, MD
Vascular Surgery

Raffaele Corbisiero, MD
Electrophysiology

Joseph Costic, DO
Cardiothoracic Surgery

Harit Desai, DO
Interventional Cardiology

Alan Ghaly, DO
Cardiology

Elizabeth Hurt, DO
Cardiology

Daniel Ice, MD
Interventional Cardiology

Navinder Jassil, MD
Endocrinology

Vijay Kamath, MD
Vascular Surgery

Pedram Kazemian, MD
Electrophysiology

Cynthia Kos, DO
Cardiology/Heart Failure

Richard Kovach, MD
Interventional Cardiology

Courtney Krathen, DO
Interventional Cardiology

Jonathan Krathen, DO
Electrophysiology

Vijay Marwaha, MD
Interventional Cardiology

Mark Moshiyakhov, MD
Cardiology

Jatinchandra Patel, DO
Interventional Cardiology

Mitul Patel, DO
Interventional Cardiology

Ronald Ross, MD
Cardiothoracic Surgery

Saman Safadjou, MD
Vascular Surgery

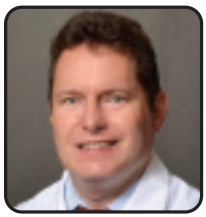
Kintur Sanghvi, MD
Interventional Cardiology

Scott Siegal, DO
Cardiology

Sara Sirna, MD
Cardiology

Sena Sumathisena, MD
Cardiology

PHYSICIAN LISTING



Stephen Justin Szawlewicz, MD
Cardiology

Aaron Van Hise, DO
Interventional Cardiology

Vincent Varghese, DO
Interventional Cardiology

Denise Zingrone, DO
Cardiology

Rania Aboujaoude, MD
Infectious Diseases

Boban Abraham, MD
Pediatric Cardiology

Waqas Anjum, MD
Anesthesiology

Igor Balatsky, MD
Hospital Medicine

Michael Bilof, MD
Bariatric Surgery

Michael Cane, MD
Critical Care Medicine

Marcella Frank, DO
Pulmonary Medicine

Cara Garofalo, MD
Pediatric Cardiology

Robert Keddis, MD
Anesthesiology

Zeeshan Khan, DO
Pulmonary Medicine

Marina Liem, MD
Radiology

Nandini Madan, MD
Pediatric Cardiology

David Maletzky, DO
Hospital Medicine

Andrew Martin, MD
Pulmonary Medicine

Muhammad Muntazar, MD
Anesthesiology

Michael Neary, MD
Critical Care Medicine

Alexander Poulathas, DO
Hospital Medicine

William Qiu, MD
Radiology

Achillina Rianto, MD
Anesthesiology

Guzal Seyal, MD
Hospital Medicine

Whitney Sharp, DO
Hospital Medicine

Howard Waksman, MD
Pulmonary Medicine

Basil Yurcisin, MD
Bariatric Surgery

Additional Physicians

Pratik Panchal, MD, Interventional Cardiology
Aarti Patel, MD, Electrophysiology

OVERVIEW OF SERVICES

BARIATRIC SURGERY

- Duodenal switch
- Gastric bypass surgery
- Gastric sleeve surgery
- Revision surgery

CARDIOLOGY

- Atrial fibrillation (AFib)
- Cardiac amyloid evaluation
- Congenital heart disease diagnostics and intervention
- Coronary artery disease
- Hyperlipidemia
- Hypertension
- Women's Heart Center

CARDIOTHORACIC SURGERY

- Adult congenital heart surgery
- Aortic repair (great vessel) aneurysm/dissection
- Bi-ventricular assist devices
- Combined valvular and coronary procedures
- Coronary artery bypass grafting (CABG)
- Endoscopic vein harvesting
- Left ventricular assist device (LVAD)
- Myomectomy procedures
- Off-pump coronary artery bypass graft surgery (OPCAB)
- Percutaneous cardiac assist devices
- Pericardial procedures (window)
- Radial artery harvesting
- Tissue and mechanical valve implants
- Transcatheter aortic valve replacement (TAVR)
- Valve repair, replacement and reconstruction

CONGESTIVE HEART FAILURE (CHF)

- Cardiogenic shock
- CardioMEMS™ implant for heart failure monitoring
- Extracorporeal membrane oxygenation (ECMO)
- Heart failure and LVAD implant management
- Left ventricular assist device (LVAD)
- Transplant cardiology, management of advanced heart failure

ELECTROPHYSIOLOGY

- Arrhythmia evaluation (all forms)
- Cardioversion
- Complex arrhythmia ablations
- Congestive heart failure evaluation and biventricular device treatment (CRT-P/CRT-D)
- Defibrillator lead extractions
- Implantable cardioverter defibrillator (ICD)
- Pacemakers (including leadless pacemakers)
- Radiofrequency ablation for AFib using Stereotaxis remote navigation
- Tilt table test
- WATCHMAN FLX™ implant

IMAGING SERVICES

- 3D echocardiography
- 3D transesophageal echocardiography (3D TEE)
- Arterial Doppler
- Cardiac computed tomography angiography (CTA)
- Computed tomography (CT)
- Coronary computed tomography angiography (CCTA)
- Diagnostic ultrasound
- Digital X-rays
- Dynamic 4D cardiac computed tomography (4D CT)
- Echocardiogram
- Electrocardiogram (ECG or EKG)
- Event monitor
- Exercise arterial Doppler
- Fluoroscopy
- Holter monitor
- Low-dose CT scan for lung cancer
- Low-dose nuclear myocardial perfusion stress testing
- Nuclear stress testing
- Pediatric echocardiography
- Positron emission tomography - computed tomography (PET/CT) scanning
- Pulse volume recordings
- Pyrophosphate nuclear imaging
- Stress echocardiogram
- Transesophageal echocardiogram
- Treadmill stress testing
- Vascular ultrasound

INTERVENTIONAL CARDIOLOGY/ENDOVASCULAR MEDICINE

- 3D vascular stents
- Adult congenital procedures
- Alternative access (including popliteal pedal access for complex anatomy)
- Angioplasty with drug eluting stents
- Cardiac catheterization
- CardioMEMS implant for heart failure monitoring
- Carotid procedures and interventions
- Chronic total occlusion (CTO): diagnostics and interventions
- Deep vein thrombosis
- Intravascular ultrasound and fractional flow reserve (FFR)
- Left atrial appendage closure (LAAC) device: WATCHMAN FLX™
- Limb salvage procedures for critical limb ischemia
- Mitral valve repair (MitraClip)
- Paravalvular leak closure
- Percutaneous endovascular abdominal aortic aneurysm repair (PEVAR)
- Pulmonary emboli
- Transcatheter mitral valve repair (TMVR)
- Transradial catheterization and interventions
- Valvuloplasty
- Varicose vein ablation
- Venous disease

OVERVIEW OF SERVICES

STRUCTURAL HEART DISEASE PROCEDURES

- Atrial septal defect (ASD) closure
- Patent ductus arteriosus (PDA) closure
- Patent foramen ovale (PFO) closure
- Transcatheter aortic valve replacement (TAVR)
- Ventricular septal defect (VSD) closure

PEDIATRIC CARDIOLOGY

- Congenital heart disease evaluation
- Pediatric arrhythmia management
- Perinatal cardiology

PULMONARY MEDICINE

- Asthma management
- Chronic obstructive pulmonary disease (COPD) management
- Endobronchial ultrasound-guided biopsy (EBUS)
- Occupational lung disease
- Oncology Clinic – lung nodules and mass evaluations
- Post-COVID Recovery Program
- Pulmonary disability evaluations
- Pulmonary exercise studies
- Respiratory/breathing evaluation
- Smoking cessation

REHABILITATION SERVICES

- Balance therapy
- Cardiac rehabilitation
- Physical therapy
- Pulmonary rehabilitation

RESEARCH/CLINICAL TRIALS

- More than 30 innovative clinical trials in process

SLEEP MEDICINE

- Activation of Inspire device for obstructive sleep apnea
- Diagnosis and treatment of sleep disorders
- Insomnia – primary and secondary
- Narcolepsy
- Sleep apnea syndrome
- Sleep deprivation syndromes
- Sleep movement disorders

THORACIC (LUNG) SURGERY

- Chest wall procedures
- Esophageal procedures
- Lung volume reduction surgery
- Mediastinal procedures
- Pleural procedures
- Pulmonary resections (wedge, lobectomy, pneumonectomy, segmentectomy)
- Tracheal procedures
- Video-assisted thoracoscopic lung surgery (VATS)

VASCULAR SURGERY

- Aortic aneurysm (AA) surgical repair
- Carotid endarterectomy
- Carotid stenting
- Dialysis access creation and endovascular maintenance
- Distal bypass surgery of lower extremities
- Endovascular abdominal aortic aneurysm repair (EVAR)
- Endovascular stent graft repair of thoracic aortic aneurysm (TAA)
- Endovascular stenting for peripheral arterial disease
- Fenestrated endovascular aneurysm repair of pararenal aortic aneurysm
- Limb salvage bypass surgery and endovascular therapy
- Stent/graft repair of abdominal aortic aneurysm (AAA)
- Surgical revascularization and bypass surgery for peripheral arterial disease
- Transcarotid artery revascularization (TCAR)
- Treatments for chronic venous insufficiency, varicose veins, deep vein thrombosis

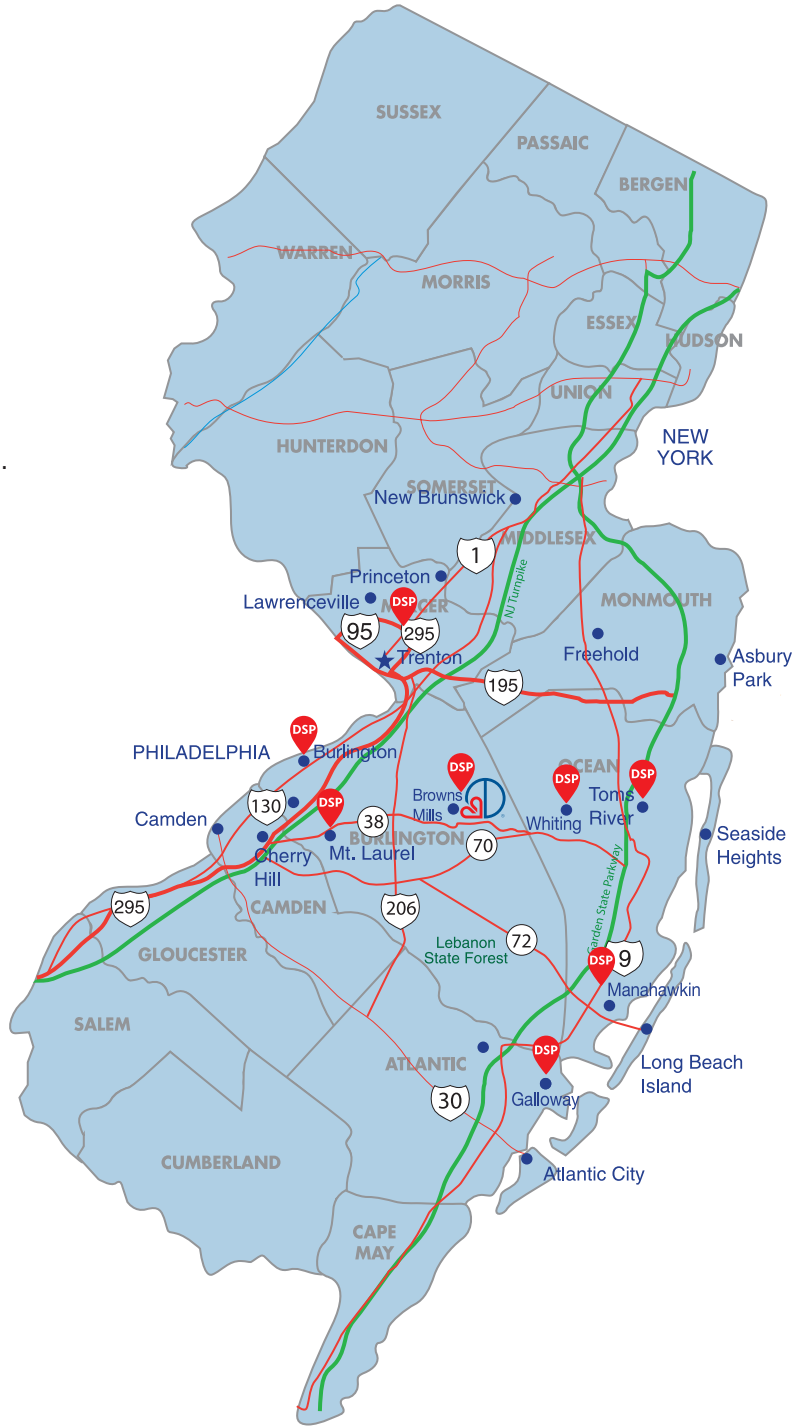
WOUND HEALING AND HYPERBARIC TREATMENT

- Arterial and venous pumps
- Bioengineered skin substitutes
- Compression wraps
- Growth factors
- Hyperbaric oxygen therapy (HBO)
- Negative pressure wound therapy
- Ultrasonic debridement
- Wound matrix and collagen dressings

ADDITIONAL SERVICES ON CAMPUS

- Diabetes and endocrinology
- Emergency department operated by Capital Health
- Outpatient pharmacy
- Pain management
- Primary/Specialty care offices
- Urgent care

Deborah Specialty Physicians is a private physician practice, with offices located throughout Burlington, Ocean, Mercer, and Atlantic counties. The locations specialize in cardiology, electrophysiology, endocrinology, pediatric cardiology, vascular surgery, and advanced heart failure. The name “DEBORAH” is a registered trademark of Deborah Heart and Lung Center, and is used under license granted by Deborah. All Rights Reserved.



Deborah®
Heart and Lung Center

In alliance with

Cleveland Clinic
Heart, Vascular and Thoracic Institute

Deborah Heart and Lung Center

200 Trenton Road
Browns Mills, NJ 08015

(800) 214-3452 (Physician Referral)

DemandDeborah.org

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