

2019-2020

Vascular and Endovascular Surgery Residency Program



Our mission:

To serve. To heal.
To educate.



Welcome from our Program Director



Thank you for your interest in our ACGME-accredited Vascular and Endovascular Surgery Residency Program at Cooper Medical School of Rowan University and Cooper University Hospital. This program offers an integrated 0+5 residency designed to guide trainees through all essential areas of vascular care following the completion of their medical school education. Cooper University Health Care is the largest academic medical center and the only Level I Trauma Center in southern New Jersey. The medical center serves the needs of a broad patient population consisting of primary, secondary, and tertiary medical care.

Our residency program encompasses a wide breadth of vascular practice from outpatient varicose vein procedures to a robust open aortic experience. Cooper has a strong endovascular experience and we take great pride in the open surgical experience provided by an exceptionally talented faculty.

Joseph V. Lombardi, MD, FACS

Professor and Chief, Division of Vascular and Endovascular Surgery
Program Director, Vascular Surgery Residency

Both our endovascular and open aortic outcomes have been consistently over the 90th percentile when compared with other programs.



A Note from the Department Chief



Jeffrey P. Carpenter, MD

"We provide a rich and varied training experience with a large and growing surgical volume."

CooperHealth.edu

Greetings and thank you for your interest in training at Cooper.

We are southern New Jersey's only academic, tertiary care medical center. As such, we provide a rich and varied training experience with a large and growing surgical volume.

I became Chairman in 2008, after 23 years at the University of Pennsylvania. Since then, Cooper has seen the addition of its new Cooper Medical School of Rowan University, which graduated its first class in 2016. This has deepened our academic resources and enriched the training environment. The campus has seen a number of expansions during this time, with the addition of 25 operating rooms for a total of 38, including two robotic rooms, a room equipped with a CT scanner, a room with an O-arm, 3 hybrid OR/angiographic suites, and state-of-the-art laparoscopy rooms.

The affiliation of Cooper with the world renowned MD Anderson Cancer Center in Houston, Texas, to create MD Anderson Cancer Center at Cooper, has dramatically increased the volume of oncologic and reconstructive surgeries, providing many opportunities for participation in advanced treatment and research protocols.

Our Level 1 Trauma Center is the region's largest and busiest, offering surgical trainees a rich experience in management of traumatic injuries and reconstruction. Our faculty has more than doubled in size since 2008 and now numbers more than 70 surgeons. While they are clinically excellent and busy, they are also extremely academically productive and seek to collaborate with trainees to mentor them in research.

In 2017, the Department of Surgery at Cooper published over 100 articles and book chapters. Our faculty serve on the editorial boards of many journals and are nationally and internationally recognized as leaders in their specialties. We have an active basic science research program, with emphases on regenerative medicine and epigenetics. The department maintains both a large animal and small animal vivarium with two large animal operating rooms. We are passionate about education of surgical trainees and welcome your interest in our programs.

Jeffrey P. Carpenter, MD

Chairman and Chief, Department of Surgery

serve

Vascular Surgery Residency Program



“One of the things that our program prides itself on is the attention to detail we expect out of our trainees. We want our residents and fellows to not just understand vascular surgery but to be fluent in its nuance and subtlety.”

...

Jose Trani, MD

Associate Program Director,
Vascular and Endovascular
Residency Program

Assistant Professor of Surgery,
Cooper Medical School of Rowan University

Medical Director,
Vascular Laboratory

The overall goal of the Vascular and Endovascular Surgery Residency at Cooper is to provide a foundation for graduates of the program to develop into expert clinicians that are proficient in all aspects of the diagnosis, management, and treatment of vascular disease. These goals are fostered in an environment of progressively graded clinical, operative experience and responsibility. In doing so, the fellow will ultimately exercise mature surgical judgment and operative skills which prepare him or her to provide independent care to patients with vascular disease. Our faculty is enthusiastic, committed to teaching, and together has over 30 years of fellowship experience.

The case volume provides ample opportunity for residents to develop and master a large breadth of vascular interventions including both open and endovascular procedures. Recent graduates have been in the 90th percentile relative to their peers for both open and endovascular aortic procedures. During their training, residents have the opportunity to use devices only available through aortic and peripheral clinical trials in addition to newly FDA approved “next generation” devices such as fenestrated endografts for the treatment of complex aortic pathology.

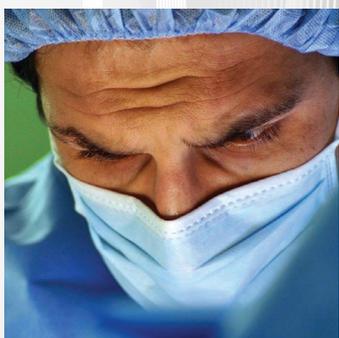
The integrated Vascular and Endovascular Surgery Residency Program is designed to provide residents with a focused understanding of general surgery principles as well as a broader understanding of multidisciplinary aspects that are essential to a modern vascular specialist practice. This will be accomplished through rotations on core general surgery services in addition to the vascular surgery services. These experiences will be supplemented through the addition of rotations in critical care, radiology, cardiology, and cardiothoracic surgery.

The vascular surgery clinical service is divided into three separate components, the ambulatory service, the inpatient service, and the Virtua Voorhees service. Similar to the vascular fellows’ curriculum, the inpatient and outpatient services are designed to provide a focused experience in those areas.

Vascular surgery residents at Cooper are expected to maintain and expand upon the six core competencies at the foundation of surgery until they have reached the level expected of a new practitioner. The resident will divide time between inpatient and outpatient clinical service and percutaneous service. While on the inpatient clinical service, the resident will be expected to manage the intensive care unit and flow patients from pre-operative planning and assessment through the post-operative period.

The outpatient service focuses on ambulatory procedures including percutaneous arterial and venous therapies. The outpatient resident will also have ample time to see and evaluate patients in Cooper’s many outpatient clinics and to develop familiarity with clinical ultrasonography. Residents are expected to participate in ongoing research with one or several faculty

Curriculum



**“Teaching residents
for over 25 years
has proved to be a
tremendously
enjoyable and
rewarding part
of my career.”**

•••

Jeffrey P. Carpenter, MD

Chairman and Chief, Department of Surgery;
Vice President, Perioperative Services,
Professor of Surgery,
Cooper Medical School of Rowan University

members during their training. Adequate time is allotted to pursue research projects, particularly during the percutaneous rotation.

The curriculum will encompass the major areas of modern vascular surgery.

- Cerebrovascular techniques include carotid artery endarterectomy, both, awake and asleep, as well as carotid stenting are both discussed in detail as well as seen in clinical practice.
- Aortic interventions, both open and endovascular, encompass both the thoracic and the abdominal aorta and clinically are frequently performed in conjunction with the cardiothoracic service.
- A full range of peripheral procedures are used from various percutaneous devices designed to cross complete lesions through retrograde approaches for recalcitrant lesions in high risk operative candidates.
- Open bypass procedures have been increasing in number for good operative risk patients as their patency is unsurpassed by current percutaneous techniques.
The practice serves a growing dialysis population with many opportunities to evaluate and treat both late chronic kidney disease patients as well as patients with multiple access failures who are now advanced access patients.
- Finally, the curriculum and clinical experience are designed to provide ample opportunity to develop a deeper understanding of acute and chronic venous disease processes, a rapidly growing area of vascular surgery.

The Vascular and Endovascular Surgery Residency provides educational opportunities through both formal and informal settings. The weekly vascular surgery conference is the cornerstone of the formal educational process. The conference schedule is designed to encompass all of the major clinical topics germane to clinical vascular surgery and is based upon the Core Curriculum. Conference is conducted in a case-based format with management discussion centered around current literature. Relevant basic science topics are covered in a monthly conference. Bi-monthly ultrasound lectures are conducted to provide residents and fellows with a basic understanding of ultrasound physics and sources of imaging error. These lectures, combined with weekly hourly side by side imaging interpretation with a senior vascular ultrasound technologist, provide a solid knowledge base in preparation for the Physician Vascular Interpretation examination. Less formal learning goes on consistently through the interactions between residents and faculty in the form of walk rounds, pre-operative case discussion, and discussion of patient management strategies for patients who present to the consult service.

Educational Conferences and Activities



Journal Club

A monthly Journal Club is designed to familiarize residents with the current vascular surgical literature. Each conference will cover two or three articles and/or clinical guidelines that are selected by a supervising faculty member. Copies of each article should be distributed to all residents, and pertinent faculty one week prior to the Journal Club. The vascular resident should be able to concisely present the purpose and methods of the study as well as review of the figures and results presented in the paper. A vascular surgery faculty member will act as moderator. The goal is to be able to evaluate current literature based upon the data presented, the scientific validity of their observations, and the overall applicability of this information to current practice.

Morbidity and Mortality

A discussion of deaths and complications of patients either on the vascular service or on another service who underwent a vascular procedure will be performed on a bi-monthly basis. Residents are assigned to present case synopses for which they were involved in patient care. Residents are expected to concisely present patients for discussion, including the indication for the procedure, the complication, and outcome. Literature supporting management decisions should also be presented. The vascular faculty will moderate the presentations as well as lead discussions regarding alternative treatment options and the risks and benefits of differing treatment strategies.

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Residency Rotation Schedule (0+5)

Curriculum

GS:
General Surgery

VS:
Vascular Surgery

SICU/TSICU:
Trauma/Surgical
ICU

ACS:
Acute Care Surgery

MICU/CT:
Medical Intensive
Care Unit/
Cardiothoracic
Surgery

NF:
Night Float

PRS:
Plastic Surgery

TR:
Trauma

Locations

CUH:
Cooper University
Hospital

Integrated Program Rotation Schedule Year 1

| Period | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|
| Site | CUH | CUH | CUH | CUH |
| Service | VS | VS | GS | GS | ACS | PRS | GS | NF | SICU | VS | VS | TR |
| Inpatient / Outpatient | I/O | I | I | I | I/O | I |

Integrated Program Rotation Schedule Year 2

| Period | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---------------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Site | CUH | CUH | CUH | CUH | CUH | CUH | CUH | CUH | CUH | CUH | CUH | CUH |
| Service | MICU | CT | CT | VS | VS | CT | GS | VS | VS | VS | CT | VS |
| Inpatient / Outpatient | I | I/O | I/O | I/O | I/O | I/O | I | I/O | I/O | I/O | I/O | I/O |

Integrated Program Rotation Schedule Year 3

| Period | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Site | CUH | Jeff | CUH |
| Service | VS | VS | VS | CT | CT | VS | VS | VS | CT | CT | VS | VS |
| Inpatient / Outpatient | I | I/O | I | I/O | I/O |

Integrated Program Rotation Schedule Year 4

| Period | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Site | CUH |
| Service | VS |
| Inpatient / Outpatient | I/O |

Integrated Program Rotation Schedule Year 5

| Period | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Site | CUH |
| Service | VS |
| Inpatient / Outpatient | I/O |

How to Apply



Contact Information

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Contact:

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or

Sheeran-Ashley@CooperHealth.edu

Website:

CooperHealth.edu/residencies/
vascular

Address:

Cooper University Health Care
Division of Vascular Surgery
Three Cooper Plaza, Suite 411
Camden, NJ 08103

ERAS — Residency (0+5)

The Vascular Surgery Integrated (0+5) Residency Program participates in ERAS— the Electronic Residency Application Service. Information regarding the ERAS application process and timeline is available on the website listed below.

Please submit complete application materials by December 1 through ERAS:

- ERAS common application
- Two letters of recommendation
- Dean's Letter (MSPE)
- Medical School Transcript
- USMLE Report
- Curriculum vitae
- Personal statement describing your training goals and future career plans
- Photograph (optional)
- ECFMG certificate (if applicable)

aamc.org/students/medstudents/eras

In addition, Cooper University Health System/Cooper Medical School of Rowan University Programs is to abide by the All In Policy for categorical PGY-1 positions. Participation in the National Resident Matching Program's (NRMP) computerized match, and rules of the Match Participation Agreement will apply, information on the website listed below.

nrmp.org/residency/main-residency-match

The program director and two additional faculty members will review complete applicant files. Invitation for interview will be based upon their recommendations.

Eligibility

- Must be a graduate of an American or Canadian medical school accredited by the Liaison Committee on Medical Education (LCME) or the American Osteopathic Association (AOA).
- If a graduate of a foreign medical school, must be certified by the Educational Commission for Foreign Medical Graduates (ECFMG), earned through passing the Foreign Medical Graduate Examination in the Medical Sciences (FMGEMS), Part 1 and Part II examinations of the National Board of Medical Examiners (NBME), or the United States Medical Licensing Examination (USMLE); and by meeting all other requirements of the ECFMG.
- All medical school graduates must qualify for registration (PGY-1) or licensure (PGY-3 and beyond) as issued by the New Jersey State Board of Medical Examiners.

The Cooper Campus and Surrounding Area



The expansion project at Cooper is a direct reflection of the growth in services that Cooper has experienced over the past several years.



It is extraordinary to have such a high concentration of leadership at one institution, but then, Cooper is an extraordinary health care system.

Cooper University Hospital is the center of a growing Camden health sciences campus that includes the hospital, Cooper Medical School of Rowan University (CMSRU), MD Anderson Cancer Center at Cooper, Sheridan Pavilion at Three Cooper Plaza medical offices, the internationally acclaimed Coriell Institute for Medical Research, and the Ronald McDonald House. Adjacent to the Cooper Plaza/Lanning Square neighborhood, Cooper has a long history of outreach and service efforts to its local community. Some of these initiatives include health and wellness programs for the neighborhood, development of neighborhood parks and playgrounds, and outreach to programs into local schools.

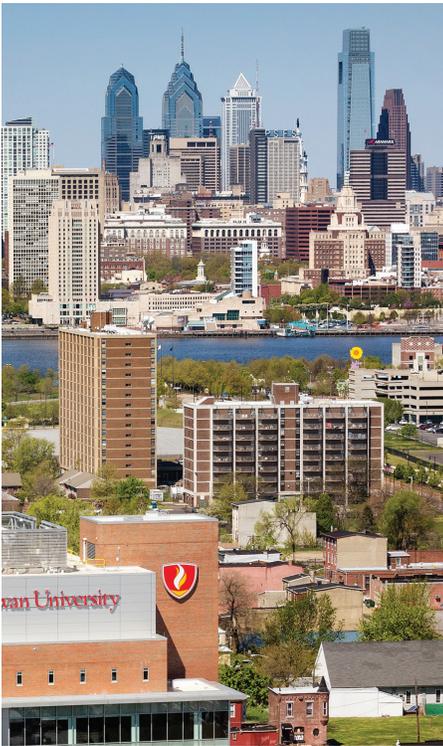
The hospital's 312,000-square-foot, 10-story Roberts Pavilion features an expansive lobby and concourse, a restaurant and coffee shop, business center, gift shop, and chapel. State-of-the-art patient care facilities include private patient rooms, technologically advanced operating room suites with hybrid imaging capabilities, and an advanced laboratory automation facility. The Emergency Department features 25 beds, dedicated isolation suites, and autonomous CT scanning technology. Designated floors serve specific patient populations, including those needing advanced surgical and heart care, along with South Jersey's only dedicated 30-bed inpatient cancer unit.

Also in the Roberts Pavilion is the 25,000-square-foot Dr. Edward D. Viner Intensive Care Unit—featuring 30 private patient rooms equipped with the latest in advanced technology, and allowing 360-degree patient access. Five patient rooms are capable of negative pressure isolation, and five rooms have chambered isolation alcoves. In addition, an enlarged room with operating room caliber lighting is outfitted to perform bedside exploratory laparotomy in patients considered too medically unstable for transport to the operating room.

Cooper University Health Care and MD Anderson Cancer Center in Houston, Texas, partnered in 2013 to create MD Anderson Cancer Center at Cooper. MD Anderson has consistently been named one of the nation's top two cancer hospitals by U.S. News & World Report.

Our partnership is a full clinical integration between the two programs. MD Anderson at Cooper physicians adhere to the same philosophy, processes, and guidelines set by MD Anderson in Houston, and patients receive the same proven practice standards and treatment plans provided at MD Anderson. Today at MD Anderson at Cooper, patients have access to more clinical trials for more types of cancer than ever before, as well as a full range of supportive care services.

The Cooper Campus and Surrounding Area, continued



Advanced, comprehensive cancer services are provided at our Camden, Voorhees, and Willingboro campuses. Cooper Digestive Health Institute locations are fully accredited MD Anderson at Cooper locations providing innovative gastrointestinal cancer prevention, detection, and treatment services. Additional cancer clinical services are provided at multiple locations throughout the Philadelphia-South Jersey areas.

CMSRU's Medical Education Building is located on the Cooper Health Sciences Campus on South Broadway, between Benson and Washington Streets in Camden. The medical school, which opened in July 2012, was designed to support an innovative curriculum that integrates knowledge of basic science concepts, early clinical experience and patient care, self-directed learning, teamwork, and medical and non-medical activities for the greater community's benefit.

The Cooper Health Sciences Campus is located in the heart of Camden's business district. The academic medical center campus is easily accessible by car or public transportation via the PATCO and bus terminal adjacent to the hospital.

Cooper is a short walk or drive from the exciting Camden waterfront, which includes a magnificent waterfront park and marina; the Adventure Aquarium; and the BB&T Pavilion, which hosts nationally renowned entertainment throughout the year. Nearby are the Sixers Training Complex, L3 Communications complex, Lockheed Martin, Rutgers University Camden Campus, and Camden County College. There are expected to be \$350M in transportation and infrastructure improvements within the next four to five years to handle the influx of thousands of new employees to the area and students at nearby growing academic campuses.

Cooper is conveniently close to Philadelphia. Just a mile-long drive over the Benjamin Franklin Bridge will put you at the doorstep of Philadelphia's cultural, culinary, and historic venues. South Jersey also offers a range of living and entertainment options. Quaint towns such as Haddonfield and Collingswood are just 10 minutes away. The lights and action of Atlantic City and popular beach towns such as Cape May and Ocean City are a one-hour drive from Cooper.

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Cooper Camden Campus Map



The most up-to-date directions to Cooper University Hospital are available at:
CooperHealth.org/Locations

campus



One Cooper Plaza · Camden, NJ 08103-1489 · CooperHealth.edu

Hospital Main Number: **856.342.2000**

Graduate Medical Education: **856.342.2922**