The Peripheral Artery Disease Program at the Massachusetts General Hospital Fireman Vascular Center provides specialized diagnosis and treatment options as well as ongoing care for patients with peripheral artery disease of the extremities.

**OUR APPROACH**
Clinicians at the Massachusetts General Hospital Fireman Vascular Center are leaders in the development and use of medical, endovascular and surgical interventions to diagnose, treat and prevent complications of peripheral artery disease (PAD), a circulatory condition in which arteries narrowed by atherosclerosis (buildup of plaque within the arteries) reduce blood flow to the limbs, particularly to the legs and arms.

**A MULTIDISCIPLINARY APPROACH TO VASCULAR CARE**
The Mass General Fireman Vascular Center is one of the only vascular centers in the country with specialists in every area of vascular disease. Our Peripheral Artery Disease Program brings together a team of clinicians from multiple disciplines to provide care from many perspectives, including:
- Endocrinology
- Foot and ankle orthopedics
- Nutrition
- Physical therapy
- Podiatric medicine
- Vascular and endovascular surgery
- Vascular imaging and intervention
- Vascular medicine and cardiology
- Vascular and cardiovascular nursing services
- Wound care

We work together with each patient and their referring physician to coordinate a personalized treatment plan.

**SPECIALISTS DEDICATED TO NONINVASIVE VASCULAR IMAGING**
Our team includes experts in diagnostic imaging who are specially trained to detect abnormalities in the vascular system and whose practice focuses specifically on vascular disease.

To diagnose PAD accurately, our specialists rely on noninvasive tests that use inflatable cuffs similar to those used to measure blood pressure. These tests can be performed during a regular office visit and include:
- **Ankle-brachial index (ABI)**, a test that measures blood pressure at the ankle and in the arm to determine the severity of PAD
- **Pulse volume recording (PVR)**, a noninvasive technique developed and introduced by clinicians at Mass General to measure the blood flow in the upper and lower extremities

Other diagnostic techniques include:
- **Duplex ultrasound**, which uses sound waves to evaluate blood flow
- **Computed tomography angiography (CTA)**, where dye is injected into the vein to get detailed images of blood vessels and tissue
- **Magnetic resonance angiography (MRA)**, a type of MRI that provides images of blood vessels

All of our diagnostic tests may also be performed at our convenient Waltham location.

**TREATMENT PLANS TO HELP PATIENTS LIVE MOBILE, ACTIVE LIVES**
Depending on the disease severity, PAD symptoms may range from leg discomfort while walking to severe pain at rest or skin breakdown with ulceration. Our goal is to design individualized treatment plans that enable patients to lead active lives.
lifestyles and minimize the risk of cardiovascular complications. To treat PAD, our clinicians consider several therapeutic options, including:

- **Medical therapy:** Medications are used to reduce the cardiovascular risk and/or symptoms associated with PAD. These important therapies control blood pressure, cholesterol and diabetes, and block platelet activity (blood clotting)

- **Smoking cessation:** Our vascular specialists guide patients through smoking cessation and other lifestyle changes to treat associated conditions

- **Exercise therapy:** This approach helps patients walk further without pain and enjoy the benefits of greater cardiovascular fitness; exercise sessions involve walking on a treadmill and performing other lower body training exercises

- **Endovascular therapies:** These minimally invasive treatments offer an alternative to conventional surgery, do not require an incision in the skin and typically offer a shorter recovery time. By inserting narrow plastic tubes, or catheters, into the blood vessels, our specialists are able to access and open sites with cholesterol plaque blockage through a variety of techniques:
  - **Angioplasty:** A balloon-tipped catheter is placed into the artery and advanced to the obstructed area. The balloon is inflated to expand the blockage, and then deflated and retrieved, widening the narrowed artery
  - **Medicated balloon angioplasty:** A balloon-tipped catheter, with a medication on its surface to prevent re-narrowing, is placed into the artery and advanced to the obstructed area. The balloon is inflated to expand the blockage, and then deflated and retrieved, widening the narrowed artery
  - **Stent:** Often performed during angioplasty, this technique inserts a mesh-like device at the point of the cholesterol blockage and is expanded permanently into the vessel wall, propping open the blockage
  - **Atherectomy:** A specialized catheter with directable cutting blades, laser tip or polishing drill is advanced through the cholesterol plaque repeatedly, removing plaque debris from the vessel wall to restore flow in the channel

- **Surgical bypass:** Blood flow is rerouted around the blocked blood vessel by attaching a conduit (a vein harvested from the body or a prosthetic tube) above and below the point of obstruction

Additionally, we work in close collaboration with cardiologists at the Mass General Corrigan Minehan Heart Center to treat associated cardiac conditions. Our clinicians provide long-term follow-up to ensure ongoing, personalized care over a lifetime.

**EVALUATING NEW TECHNOLOGIES THROUGH RESEARCH AND CLINICAL TRIALS**
The Fireman Vascular Center participates in major clinical studies that evaluate new technologies and devices to treat PAD. This allows us to bring our patients promising new treatments as quickly as possible. Our physicians are dedicated to pioneering research and serve on many national and international professional boards and societies. The team is committed to increasing awareness of PAD and tracking outcomes to improve care. Patients and family members can feel confident that our team is always striving to provide the best possible outcome.

**ONE CALL COORDINATES CARE**
**877-644-8346**

Our dedicated nurse coordinator is available Monday through Friday from 8:30 am to 5:00 pm to take relevant information about your condition and symptoms, and to make a timely appointment with the most appropriate specialist. We strive to see patients as soon as possible and assign every patient one clinician to organize care between members of our multidisciplinary team. From diagnosis to treatment and follow up, this physician guides patients through the care system and treatment process.