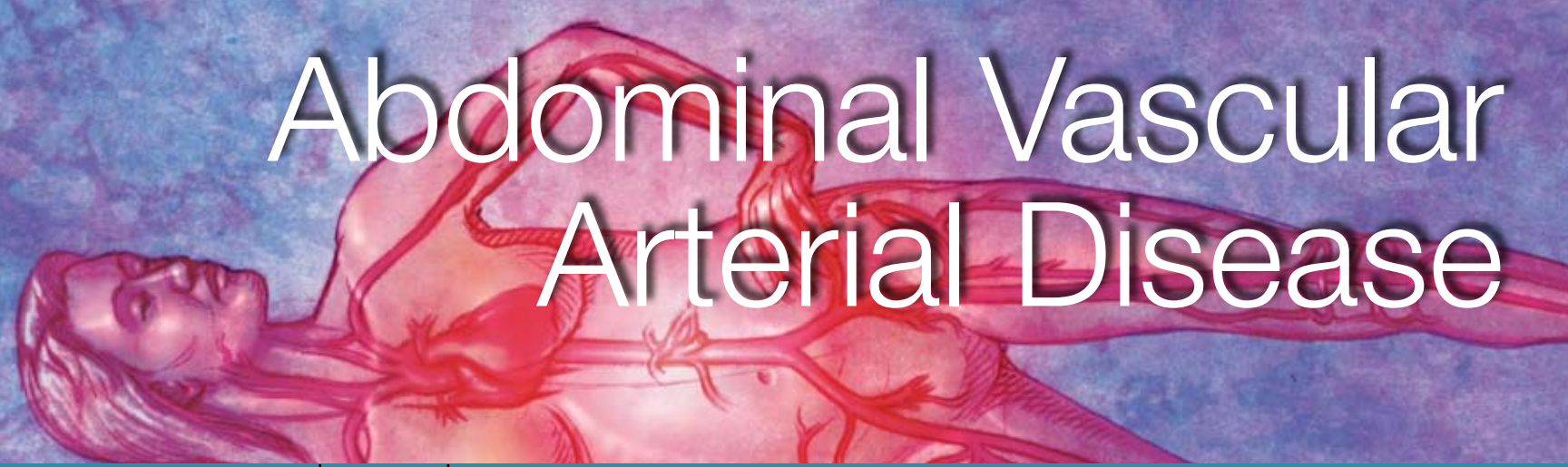

Abdominal Vascular Arterial Disease

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PATIENT GUIDE

Abdominal Vascular Arterial Disease

SOCIETY FOR VASCULAR ULTRASOUND

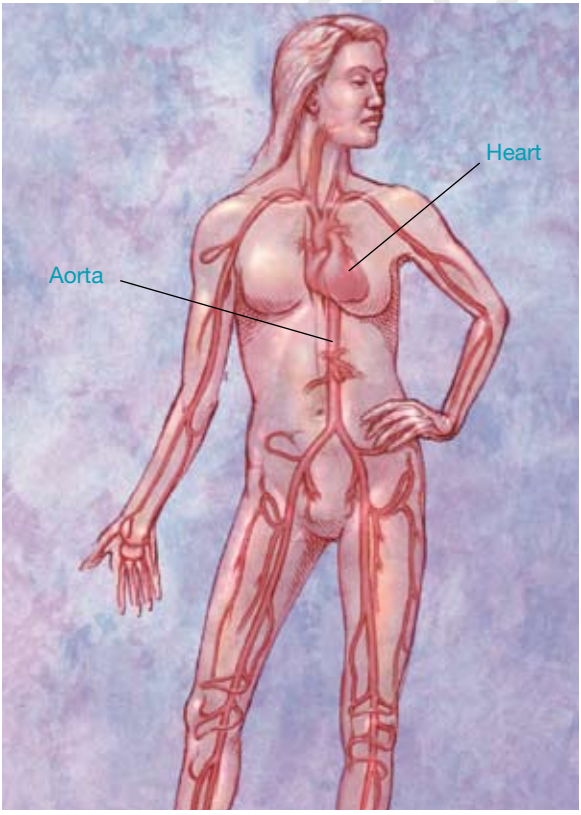
People take better care

of their health when they know

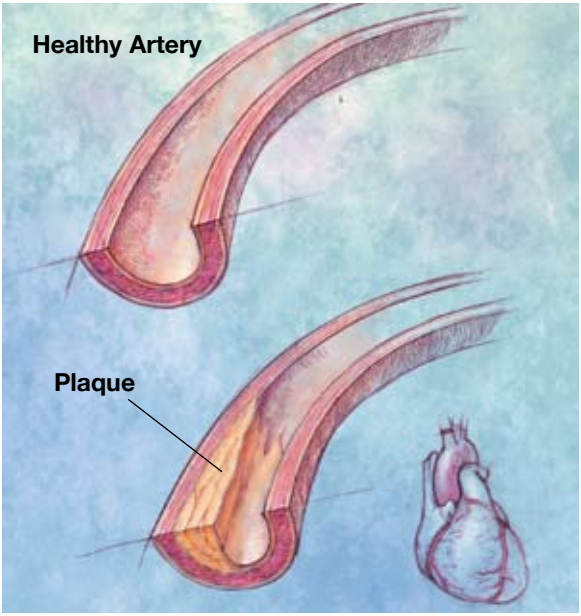
what's going on in their bodies. For those with abdominal vascular arterial disease, this means understanding how arteries work and what happens when disease affects or damages them. This booklet will help you better understand some of the most common types of abdominal circulatory problems.

How Circulation Works

Transportation is the sole function of the circulatory system. Oxygen and nutrients are delivered to the body's cells and organs via the blood supply. To get blood to the abdomen and lower half of your body, blood is transported from the heart via the aorta into your stomach area. The abdominal aorta then gives off several small branches that carry blood to the stomach, liver, spleen, kidney and intestines. At the navel (bellybutton area), the aorta divides into two arteries that carry blood to the lower extremities.



Abdominal Vascular Arterial Disease



NARROWING OF THE ARTERIES

Atherosclerosis

Normally the inner wall of an artery is smooth and firm, allowing blood to flow freely. However, as years go by arteries may be affected by atherosclerosis and the inner lining of the artery becomes thickened and rough by build-up of cholesterol or fatty materials. This build-up is called plaque. It may cause the artery to narrow or even close off completely. Atherosclerosis occurs in all vessels to some extent, although the arteries of the heart, neck and legs are the most commonly affected.

POOR BLOOD SUPPLY

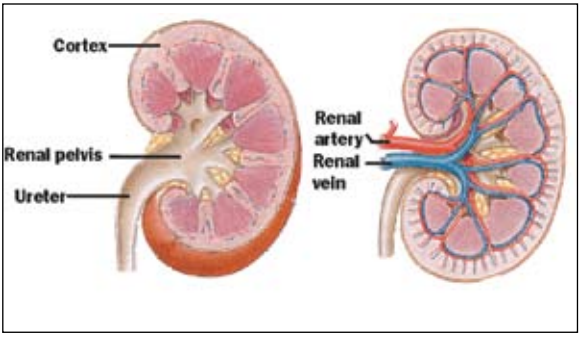
Mesenteric Ischemia

The celiac artery, superior mesenteric artery and the inferior mesenteric artery supply blood to the stomach and intestine. Patients that complain of abdominal pain may be suffering from several gastrointestinal disorders. Sometimes these symptoms lead the physician to consider ischemia (poor blood supply) of these organs. These patients frequently have severe abdominal pain after eating and suffer severe weight loss.

LOW BLOOD FLOW TO THE KIDNEYS

Renovascular Hypertension

One of the kidney's functions is to regulate the body's blood pressure. If there is a narrowing in the renal artery that reduces the flow to the kidney, the kidneys can be fooled into thinking that the pressure in the body is too low. Cells within the kidney will release a chemical that assists in raising the body's blood pressure. Approximately 1-6% of the hypertensive populations in the United States is generally considered to have underlying renal artery disease. Renal artery stenosis is most likely to be found in patients with severe hypertension



The Kidneys

that is difficult to control with medication, or in hypertensive children.

WEAKENED ARTERIAL WALL

Aneurysms

An aneurysm occurs when part of the arterial wall weakens. The weak wall stretches and expands like a balloon. As it expands the wall becomes thinner and weakens even more. It may reach the point were it becomes so thin that it ruptures (bursts or tears open). Aneurysm may occur in any blood vessel in the body, but the most common place is in the abdomen just below the renal arteries.

Who is Most at Risk?

Abdominal vascular arterial disease can affect a patient of any age, but is most commonly found in patients over the age of 45 years. There is not a sure way of knowing who will develop abdominal arterial disease. Individuals with abdominal arterial disease, however, commonly share many characteristics:

- Heart disease
- High blood pressure
- Smoking
- Diabetes
- Elevated cholesterol levels
- Family history of vascular disease
- Abnormalities in the blood

How Can I Reduce the Risk?

You cannot totally prevent the occurrence of aneurysmal disease or atherosclerosis or alter the role heredity plays in its development. However, evaluating your lifestyle and making necessary changes can reduce your overall risks.

SMOKING Tobacco causes constriction of the blood vessels, thus decreasing the flow of blood, and exacerbates atherosclerosis. Therefore, all attempts should be made to stop smoking.

EXERCISE Exercise has been shown to promote healthy arteries and improve circulation. It is important to gradually increase physical activity and begin an exercise program as directed by your physician.

DIET Reduction of cholesterol and saturated fats in the diet and maintenance of normal weight may decrease the risks of atherosclerosis.

HYPERTENSION AND DIABETES Regular checkups are a necessity. Keeping doctors' appointments and following their instructions cannot be overemphasized.

Abdominal duplex study of the vessels of the abdomen.

Studies to Determine Diagnosis

If your physician suspects that you have an abdominal aneurysm or abdominal arterial disease, diagnostic studies may be ordered to determine the extent of the problem. The diagnostic procedures may be noninvasive or invasive.

NONINVASIVE: Noninvasive tests are performed on the outside of the body and do not require the use of needles, catheters, or dye. The procedures are painless and without side effects. A variety of noninvasive techniques have been developed and can be performed on an outpatient or inpatient basis. Patients with abdominal arterial disease may be scheduled for a blood flow (Doppler ultrasound) study. Duplex technology has the ability to create ultrasound images of the blood vessels. This method also allows the speed of blood flow to be determined within these vessels.

INVASIVE METHODS: An arteriogram is an x-ray picture of the artery. It is achieved by putting a contrast material (dye that shows up on x-ray) into the artery and then taking x-ray pictures. The dye is injected via a small tube (catheter) which is inserted into one of the blood vessels. An arteriogram usually requires hospitalization.

Treatment

Depending on the outcome of all of your medical testing, your physician will decide if medical treatment is necessary. Regardless of outcome, reducing the risk factors may reduce the progression of disease. Treatment seldom, if ever, consists of only one course of action. Even if surgery is performed, the underlying disease may remain present and continuous medical care may be required.

Your Next Appointment

The test your physician has scheduled for you is called:

_____

_____

It will take approximately:

_____ minutes _____ hours

Report to: _____

Address: _____

Date: _____

Time: _____

Special instructions

_____

_____

_____

_____

_____

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