**GENERAL INFORMATION**

The popliteal artery runs behind the knee joint. An aneurysm is a ballooning out of a blood vessel.

An aneurysm of the popliteal artery is usually caused by weakening of the artery wall as the result of cholesterol deposits (atherosclerosis). Popliteal aneurysms occur most frequently in older men. About half the time, the popliteal aneurysm can be present in both legs. Also, about 75% of such individuals have an aneurysm elsewhere in their body, mostly in the abdominal aorta.

**COMMON SIGNS AND SYMPTOMS**

- Rarely, it may cause pain and tenderness behind the knee.
- Sometimes there may be decreased blood flow to the leg because tiny clots forming in the aneurysm flow downward to block small vessels in the foot.

**DIAGNOSIS**

- Anyone with a pulsating mass behind the knee should be considered to have a popliteal artery aneurysm.
- **CT scan (computed tomography scan):** A machine shaped like a huge doughnut is used to take special x-rays. You will lie on the table inside the hole in the “doughnut.” The x-rays are taken as very thin slices through the area of the knee. This makes it possible to see the size and other fine details of the arteries and surrounding tissues.
- **Arteriogram:** Dye is injected into the aorta and pictures taken as the dye travels down into the popliteal artery to show the aneurysm.

**TREATMENT**

- There is a real risk that the aneurysm could form a clot and block the popliteal artery completely, causing gangrene of the leg.
- There may be small clots breaking off a larger one in the aneurysm. These small clots block small arteries further down until enough of the small arteries get blocked that the leg cannot survive.
- Many times the above happens without any warning.
- The treatment is an operation as soon as possible, even though the aneurysm is not producing any symptoms or is small. There is too great a risk of what may happen if the problem is not corrected (Fig. 1).

**PREOPERATIVE PREPARATION**

- You will have a thorough physical examination with special attention to your aorta, the other leg vessels, and the arteries to your brain.
- You will have an examination of your blood, urine, heart (EKG), and lungs (chest x-ray).
- Do not eat or drink anything for 8 hours before the operation.
- Shower (and shave) as usual on the morning of the operation.
- You may be given medicine that will make you feel drowsy before you are brought to the operating room.

**OPERATION**

- You will be asleep for the operation, or epidural or spinal anesthesia will be given.
- Usually, a piece of vein from your leg is used to reconnect the vessels across the back of your knee after the aneurysm is removed.
- You will not receive a blood transfusion unless it is absolutely necessary.
- The operation usually takes 2 hours.

**POSTOPERATIVE CARE**

- You will be taken to a recovery room where the doctors and nurses are very experienced in taking care of patients with your condition. As soon as you are coming along well enough, you will be transferred to a regular hospital room.
- That day you will be helped to stand next to the bed.
- Bending your knees can be harmful during this healing period. A program will be worked out in which you either stand, walk, or you lie on a couch with your knees straight.
- As with any operation, complications are always possible, some of them serious. With this type of operation, complications can include clotting of the graft vein, which requires immediate reoperation; bleeding; gangrene of the foot or leg; heart problems; and possibly others.
- You should be able to go home in about 5 days.
- Arrangements will be made for your medicine, follow-up office visit, and stitch removal.

**HOME CARE**

- Continue with the program started while you were in the hospital.
- You may walk about as you wish, and even climb stairs, but don’t overdo it. Take frequent rest periods and don’t forget: Do not bend your knees severely.
- You may eat as you did before the operation.
- Unless instructed otherwise, you may shower as you wish, with any dressings on or off.
- There may be narrow strips of tape across the incision. It’s all right if they get wet; they will be removed in the doctor’s office.
- After you dry yourself, replace any dressings with clean, dry ones.
- Take medicine as prescribed for your pain.

© Copyright 1999 by WB Saunders Company. All rights reserved.
• Driving a car with an automatic shift may not seem too demanding. However, if you suddenly have to slam on the brakes or twist to turn the steering wheel, you may strain the sutures or tear something. During your follow-up visit, let’s discuss when you can resume driving.
• You may resume sexual activity whenever you choose.
• You may return to work when you feel up to it, but let’s talk about it first during an office follow-up visit.

CALL OUR OFFICE IF
• Your foot or leg becomes pale or develops new pain that won’t let up. If you cannot reach the surgeon right away, go to the hospital emergency room.

• You develop any unusual signs or symptoms.
• The incision becomes red or swollen, or there is drainage from it.
• You develop a temperature higher than 100°F.
• You have any questions.

AFTER CARE
The nature of your problem is such that you must be examined at regular intervals for the rest of your life to keep track of the other vessels in your body. For this reason, it is very important that you faithfully keep your doctors’ appointments even if you are feeling perfectly well.