Peripheral Angioplasty and Stenting

What is peripheral angioplasty and stenting?

Angioplasty and stenting are treatments for narrowed or blocked blood vessels (arteries and veins).

- **Angioplasty** opens a blood vessel by inflating a small balloon inside it. The balloon is then removed.
- **Stenting** places a tube-shaped device called a stent in the blood vessel to keep it open.

While angioplasty can be done alone, it’s often combined with stenting.

Why is it done?

Peripheral angioplasty and stenting are used to treat narrowing of the arteries that supply the arms and legs. This condition is known as PVD, or peripheral vascular disease. It is also used to treat narrowing of the arteries in the head and neck, which can lead to a stroke.

These treatments are called “minimally invasive” because they involve only a very small incision (cut) in the groin area. Compared with surgery, they have fewer risks of complications and a shorter recovery.

What are the risks and benefits?

The table below lists the most common possible benefits, risks, and alternatives for angioplasty and stenting. There may be other benefits or risks in your unique medical situation. Talk with your doctor to learn about these risks and benefits. Be sure to ask any questions you might have.

<table>
<thead>
<tr>
<th>Possible benefits</th>
<th>Risks and possible complications</th>
<th>Alternatives</th>
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| Angioplasty and stenting can:  
• Relieve symptoms of PVD by opening a narrowed or blocked blood vessel that supplies an arm or leg  
• Help prevent or treat a stroke by opening a narrowed or blocked blood vessel that supplies the brain  | While angioplasty and stenting procedures are generally safe, they do have the following possible risks and complications:  
• Numbness or weakness below the catheter insertion (rare and temporary).  
• Bleeding or infection where the catheter was inserted (rare).  
• Allergic reaction to the contrast dye (very rare).  
• Reduced kidney function or kidney failure (rare). Tell your doctor if you have kidney disease or diabetes.  
• Blood vessel injury, a blood clot, stroke, or death (rare).  
• Exposure to x-rays, which can slightly increase your lifetime cancer risk.  
**Angioplasty has this additional risk:** Re-narrowing of the blood vessel at a later time. (A stent may reduce this risk.)  
**Stenting has this additional risk:** Blood clots in the stent. (You’ll need to take medicine to prevent clots for at least 6 to 12 months afterward.) | Alternatives to angioplasty and stenting may include:  
• Surgery to go around (bypass) or open a blood vessel  
• Medications |
How do I prepare?

☐ Follow all instructions on when to stop eating and drinking before your surgery. This will help prevent possible problems with any anesthesia.

☐ Arrange for a ride. Ask someone to drive you to and from the hospital.

☐ Tell your doctor if you have asthma, are allergic to any medicines or dyes, or if you’ve ever had a bad reaction to contrast dye. Contrast dye is used with a fluoroscopy (flou-ROSS-kuh-pee) (a special x-ray) to guide the doctor.

☐ Tell your doctor about all medicines you are taking or plan to take including all prescriptions, over-the-counter medicines (such as cough syrup or allergy pills), inhalers, patches, vitamins, and herbal remedies.

☐ Follow all instructions about your medicines. You may be prescribed medicine to take a few days before your procedure. If you take metformin, you will need to stop taking it 2 days before the procedure and have blood tests before starting it again. Be sure to check your blood glucose regularly during this time. Call your doctor if it goes higher than 300 mg / dL.

What can I expect during the procedure?

The procedure takes 1 to 2 hours. Here’s what you can expect:

• You are given medicine to make you feel comfortable. Numbing medicine is injected in the area of the incision. You will be awake during the procedure.

• A sheath (short plastic sleeve) is placed into a blood vessel, usually in your groin. A catheter (a thin, flexible tube) is put into the sheath.

• Contrast dye is injected through the catheter. (You will feel a warm sensation.)

• The catheter is moved to the narrowed or blocked artery. A small balloon at the tip of the catheter is used to open the vessel so blood can flow again.

• If a stent is needed, a small, wire mesh tube (stent) is moved to the blood vessel with a catheter. The stent will help keep the blood vessel open.

• The catheter and sheath are taken out. Pressure or a special closure device is placed on the insertion site to prevent bleeding.

• You are moved to a recovery unit. You may need to lie flat for up to 4 to 8 hours. You may be asked to drink lots of fluids to flush out the contrast dye.

Angioplasty
A balloon opens up a clogged blood vessel.

Stenting
A stent (tiny mesh tube) hold it open.