

## What is cardiac catheterization?

Cardiac catheterization (KATH-e-ter-i-ZA-shun) is a medical procedure doctors use to diagnose and treat certain heart conditions.

### How does cardiac catheterization work?

The doctor places a long, thin, flexible tube called a catheter (KATH-e-ter) into a blood vessel in your arm or groin (upper thigh). Then the doctor threads the catheter to your heart. Through the catheter, doctors can do tests and treatments on your heart.

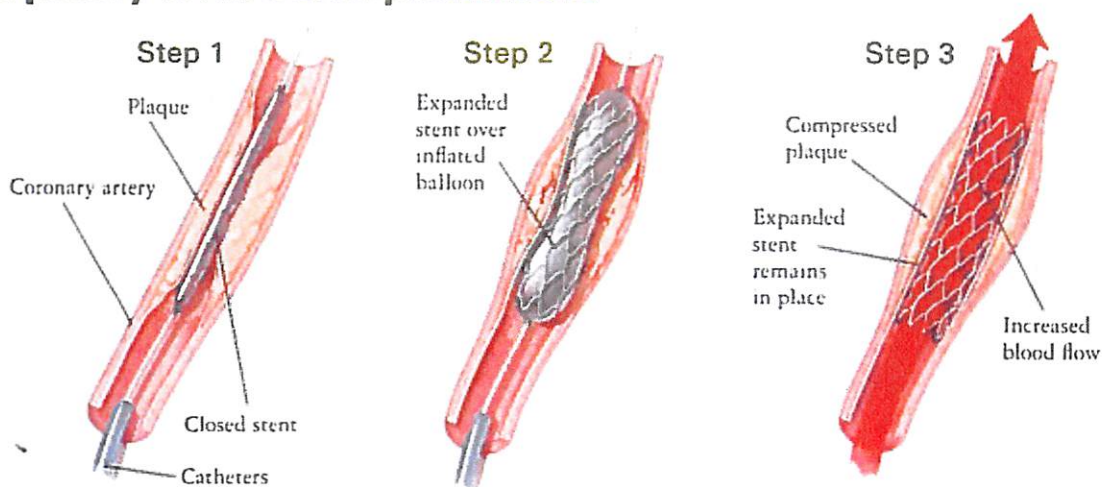
When the doctor puts the catheter into your arm, the procedure is called transradial (tranz-RAY-dee-al) catheterization. When the doctor puts the catheter into your groin, the procedure is called transfemoral (tranz-FEM-er-al) catheterization.

### Why do I need a cardiac catheterization?

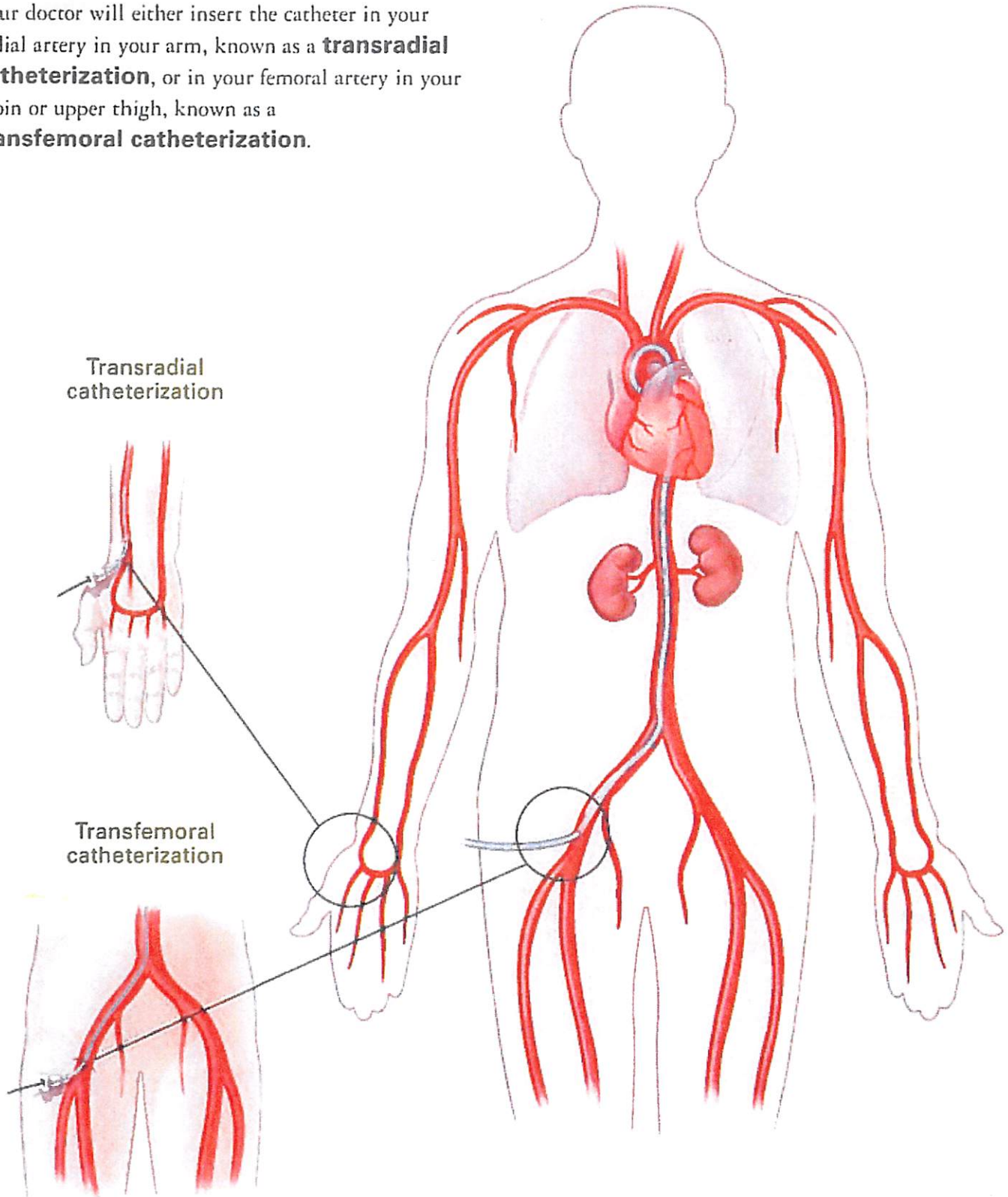
Doctors may want to do a cardiac catheterization for several reasons. The most common reason is to understand the cause of chest pain. Chest pain may be a symptom of coronary heart disease (CHD). Cardiac catheterization can show whether plaque is narrowing or blocking your heart's arteries.

If your doctor chooses to treat your condition during your catheterization, this is referred to as an **intervention** or interventional catheterization. Doctors can treat CHD during cardiac catheterization with a procedure called angioplasty (AN-jee-oh-plas-tee). Often, angioplasty is used to place a stent, which is a small mesh tube that is used to treat narrowed or weakened arteries in the body. During angioplasty, a tiny collapsed stent covering a deflated balloon is threaded through the catheter and into the blocked artery (Step 1). When the balloon is inflated, it expands the stent and pushes the plaque against the artery wall, creating a wider pathway for blood to flow to the heart (Step 2). The balloon is then deflated and removed along with the catheter, leaving the expanded stent in the artery (Step 3).

## Angioplasty with stent placement



Your doctor will either insert the catheter in your radial artery in your arm, known as a **transradial catheterization**, or in your femoral artery in your groin or upper thigh, known as a **transfemoral catheterization**.



Transradial catheterization

Transfemoral catheterization