

## Cardiac Catheterization

Cardiac catheterization is an invasive procedure involving the insertion of a catheter into the heart to determine oxygen levels and pressure readings within the heart chambers. Other measurements include cardiac output and ejection fraction. To visualize the right side of the heart, the catheter is inserted through an arm or leg vein. To visualize the left side of the heart, the catheter is inserted into the femoral, brachial, or radial artery. Indications for cardiac catheterization include assessing for unstable angina, heart failure, valvular dysfunction, and congenital disease.



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### Considerations

#### Fluttering Sensation

##### Butterflies

Inform the patient that a temporary fluttering sensation may occur as the catheter is passed. After the procedure, instruct the patient to report any chest pain or pressure that require follow-up.

#### Contrast Media

##### Contrasting-con with the Media

During a cardiac catheterization, contrast media is injected to help visualize the structures and motion of the heart. Prior to administration, assess the patient's sensitivity to contrast media by asking about a history of allergy to iodine-based contrast agents. Explain to the patient about a feeling of warmth as the dye is injected. During administration, the patient may be instructed to cough or take a deep breath.

#### NPO 6-12 Hours

##### NPO-zipper-mouth with (6) Sax and (12) Carton

The patient is sedated during a cardiac catheterization. To minimize the risk of aspiration, instruct the patient to withhold food and fluids for 6-12 hours prior to undergoing cardiac catheterization.

### After Procedure

#### Bed Rest

##### Bed

The patient should be placed on bed rest for 2-6 hours following cardiac catheterization. The duration of bed rest depends on the type of vascular closure device used.

#### Assess Circulation

##### Assess-man Circulation-symbol

After cardiac catheterization, assessing the patient's circulatory status is critical. Frequently assess circulation in the extremity used for catheter insertion by checking peripheral pulses, color, and sensation. Instruct the patient to keep the extremity of the insertion site straight.

### **Assess for Bleeding**

#### **Assess-man and Blood**

After the procedure, observe the puncture site for hematoma or bleeding. If necessary, a compression device may be placed over the arterial site.

### **Monitor Vital Signs**

#### **Vitals Monitor**

After cardiac catheterization, close monitoring of the patient's vital signs and ECG readings are critical in determining complications related to the procedure. The patient should be assessed for hypotension, hypertension, dysrhythmias, and respiratory difficulty. Since contrast media acts as an osmotic diuretic, the patient's urine output should also be assessed to determine adequate hydration.