



## CARDIAC CATHETERIZATION

The purpose of this document is to provide written information regarding the risks, benefits and alternatives of the procedure named above. This material serves as a supplement to the discussion you have with your physician. It is important that you fully understand this information, so please read this document thoroughly.

**The Procedure:** Cardiac catheterization (cardiac cath) is a diagnostic test that provides detailed information about the heart: the size and shape of its different chambers, its pumping action, the condition of its valves, and its blood supply. Although new testing techniques exist, cardiac cath is the optimal means of obtaining detailed information to make decisions regarding the best method of treatment for you. Small plastic tubes called catheters are introduced into an artery and/or a vein in an arm or leg, either through a small incision or directly via a needle puncture. These catheters are directed toward the heart while observed by x-ray and are used to measure pressures in the heart and in vessels near it. Samples of heart tissue can be taken (heart biopsy) for examination under a microscope. X-ray movies called angiograms are made while x-ray dye is injected to outline the heart's structures and provide a picture of important aspects of the heart's pumping function. Similar pictures called coronary angiograms are also taken of the arteries of the heart. If applicable, pictures of bypass grafts or other blood vessels may also be performed. Although the test is relatively safe, there are risks associated with it.

### Benefits

You might receive the following benefits. The doctors cannot guarantee you will receive any of these benefits. Only you can decide if benefits are worth the risk.

1. Determination of the cause of chest discomfort and provide important information as to the best method of treatment for you.

### Risks

Before undergoing this procedure, understanding the associated risks are essential. No procedure is completely risk-free. The following risks are well recognized, but there may also be risks not included in this list that are unforeseen by your doctors.

1. The blood vessels into which the catheters are inserted may be damaged, with either continued leakage of blood into the tissue or narrowing of the vessel resulting in reduced

blood flow. This rarely occurs, but if it does, surgical repair may be required.

2. There may be bleeding from the site(s) of entry which may require surgery.
3. You may develop a temporary lump or "bruise" at the entry site(s) caused by this leakage of blood.
4. There rarely may be damage to the vessels or heart chambers caused by the entry of catheters

5. You may experience occasional “skipped” heart beats due to the placement of catheters within the heart. These are usually respond to removing the catheter
6. You may develop irregular heart rhythms, either fast or slow. Usually these require no treatment or respond promptly to medications. On rare occasion, a temporary pacemaker is needed to increase a slow heart rate; or, an electrical shock is needed to stop a very fast heart rate. This occurs in less than 3% of cases.
7. You may experience a generalized warm feeling after injection of x-ray dye. This usually lasts <1 minute and is normal.
8. You may develop allergic reaction to the dye, usually in the form of a rash or itching.
9. Occasionally, more serious allergic reactions may occur, leading to low blood pressure or difficulty in breathing. These more serious reactions to the x-ray dye are rare. You

should let your doctor know if you have had a problem with x-ray dye or iodine in the past.

10. X-ray dye is removed from the body by the kidneys. In rare cases, the kidneys are damaged by the passage of the dye. After the procedure, you are encouraged to drink fluids and will be given additional fluids intravenously to protect your kidneys. Kidney damage occurs in less than 1% of cases unless the function of the kidney is abnormal before the procedure.
11. Blood clots may develop when the catheters are inserted. These blood clots may migrate to any part of the body and result in stroke (1 in 3000) or heart attack (2 in 1000).
12. You may die from the procedure (1 in 1000).
13. Pain may be associated with this procedure and the healing process.

### Alternatives

The alternatives include:

1. Not undergoing the procedure.
2. Medical therapy.

If you decide not to have this procedure, there are associated risks to this decision. Please discuss it with your doctor.

If you have any questions regarding the procedure, risk, benefits, or alternatives to this procedure, ask your physician prior to signing any consent forms.



\_\_\_\_\_  
Patient Signature

\_\_\_\_\_  
Date