الكلية التقنية الهندسية
قسم هندسة تقنيات الأجهزة الطبية

Catheterization Laboratory

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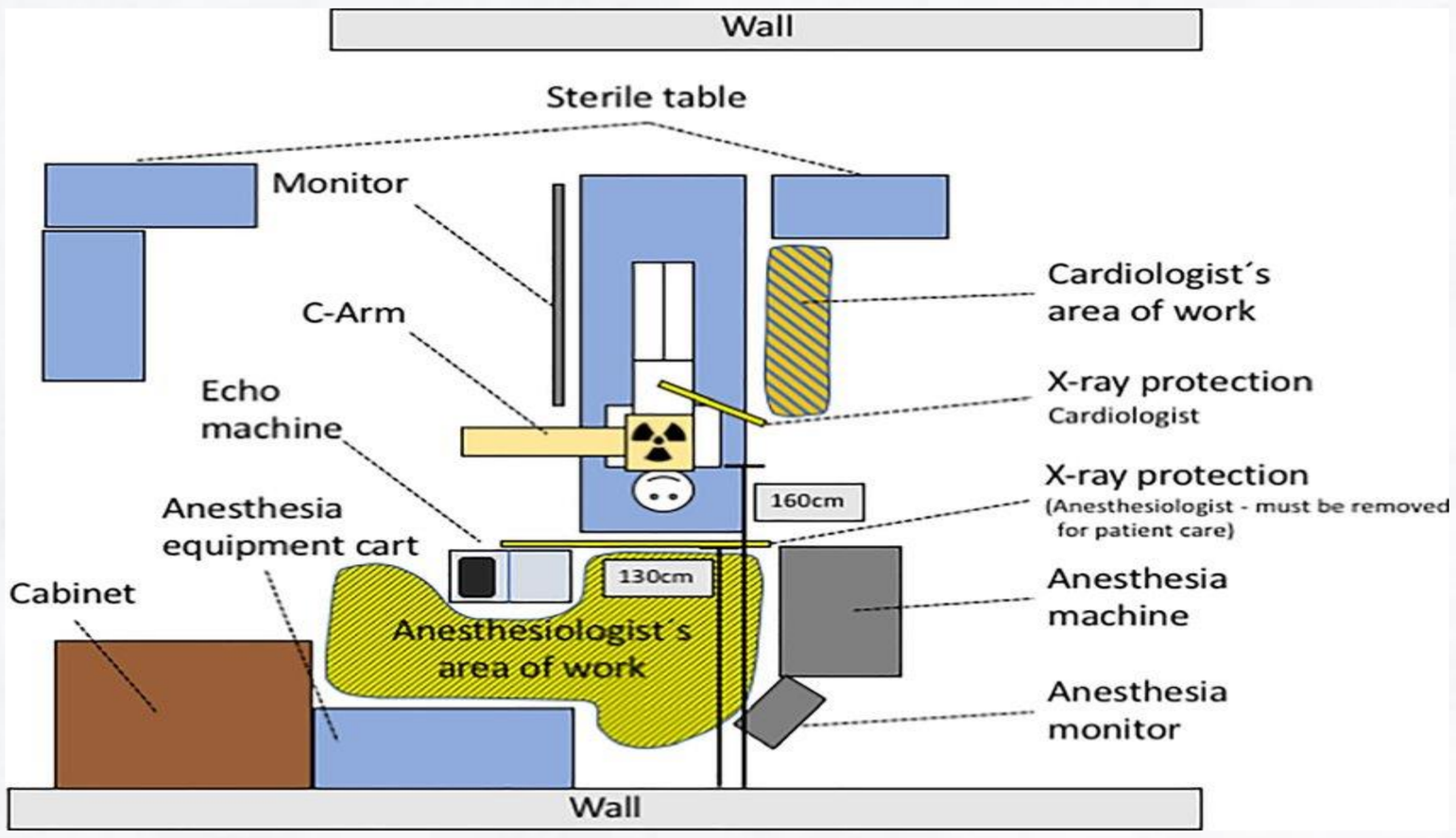
INTRODUCTION :

Cardiac catheterization is the insertion and passage of small plastic tubes (catheters) into arteries and veins to the heart to obtain x-ray pictures (angiography) of coronary arteries and cardiac chambers and to measure pressures in the heart (hemodynamics). The cardiac catheterization laboratory performs angiography to obtain images not only to diagnose coronary artery disease but also to look for diseases of the aorta and pulmonary and peripheral vessels. In addition to providing diagnostic information, the cardiac catheterization laboratory performs catheter-based interventions (e.g., angioplasty and stents, now called percutaneous coronary intervention [PCI]).

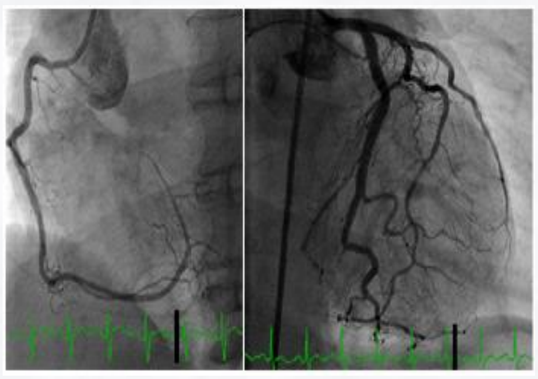
Operation :

In cath lab procedures, doctors use a long, thin tube called a catheter to reach the heart or other structures. The catheter is inserted into a small incision, usually in your upper thigh, arm, or neck, and threaded through blood vessels. Catheterization can often prevent the need for more invasive surgery.



Uses :

- Coronary angiogram.
- Cardiac ablation.
- Right heart catheterization.
- Balloon angioplasty.
- Heart biopsy.
- Repair of congenital heart defects.
- Heart valve replacement.



Components :

- X-ray tube
- C-arm
- Patient couch
- Viewing monitors
- Catheters
- Injector pump
- Defibrillators
- Film or Digital Camera