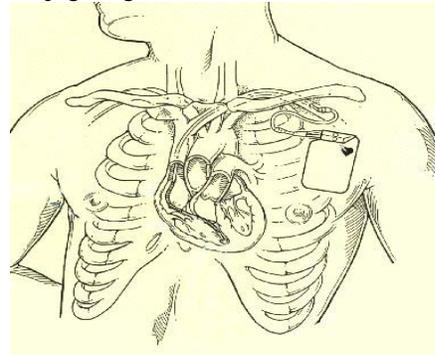


# **25. Automatic Implantable Cardioverter-Defibrillator (AICD)**

## Device:

- 1) Implanting AICD's are better than just drugs (like sotalol and amiodarone) in preventing arrhythmic deaths and total mortality. (MADIT, Wever, SCD-HeFT)
- 2) If arrhythmia is detected, it will try pacing at a faster rate to terminate the tachycardia.
- 3) If rapid pacing fails, it will charge for cardioversion or defibrillation by giving a "shock".
- 4) Newer devices now have dual chamber pacing and sensing ability so that the arrhythmias can be more reliably detected. Most Biventricular pacing are AICD.



## General Guidelines:

- 1) Treat AICD patients like any other patient.
- 2) If AICD discharges while you are touching the patient, you may feel a slight sensation. It will not harm you.
- 3) Do not wait for the device to fire in the presence of VT or VF. Begin CPR and defibrillate with external paddles as necessary. This will not harm the device.
- 4) Most patients with AICD's will carry a wallet card or Medic-Alert bracelet with cut off information.
- 5) AICD will deliver the first shock after recognizing arrhythmia within 10-30 seconds. Subsequent shocks will be delivered every 10-30 seconds.
- 6) AICD will generally shock only 4-5 times, (depending on the model) and requires 35 seconds of non-VT/VF rhythm, including asystole, to reset itself.

## Deactivating an AICD:

1. To deactivate AICD, place donut magnet over device. Usually application of magnet to generator box will temporarily disable tachycardia sensing thus preventing shock. To activate AICD, remove magnet.
2. Most AICD can just be temporarily program to ignore the ventricular arrhythmia therapy during surgery.

## Class I Indications

- Cardiac arrest due to VF or VT without reversible cause
- Spontaneous sustained VT with structural heart disease
- Syncope with VT or VF on EP study

## Class IIA Indications

- EF < 35% 40 days post MI or 3 month post CABG
- EF < 30% with ischemic heart disease (non ischemic?)