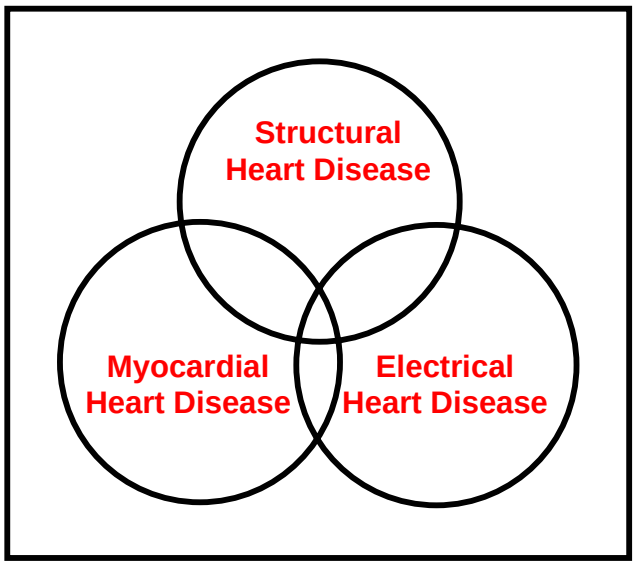
ECG make easy

Effective pumping of blood by the heart requires it to have ordered, forceful contraction that is free of physical obstruction. To study the order of heart chamber contraction is the aim to study ECG. To study the force of contraction is to study all kind of myocardial disease, may it be ischaemic or non-ischaemic in origin. On the other hand, to study structural heart disease is to study all the congenital or acquired physical obstruction of the heart. Therefore, there are three main areas in cardiology:

1. Electrical heart disease
2. Myocardial heart disease: ischaemic and non-ischaemic
3. Structural heart disease: congenital and acquired

Of course, they are inter-related:



In other words, electrical heart disease will cause secondary changes on the structure/myocardium of the heart e.g. tachycardia-induced cardiomyopathy. Equally common is various kinds of structural/myocardial heart diseases have its signature ECG e.g. myocardial infarction. Pure electrical heart disease is not rare e.g. the Wolff-Parkinson-White syndrome.

In order to have an ordered study of the order of heart electricity, the topics to be discussed are in the following order:

1. Where are the leads come from?
2. Cardiac compass
3. Milk the QRS
4. Cherchez le P
5. How to talk to a pacemaker and AICD