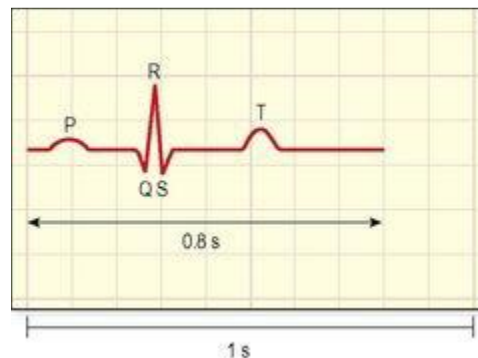


Electrocardiogram (ECG).

The apparatus used is an *electrocardiograph* and the tracing is an *electrocardiogram* (ECG). The normal ECG tracing shows five waves which, by convention, have been named P, Q, R, S and T.



Electrocardiogram of one cardiac cycle.

1. The P wave arises when the impulse from the SA node sweeps over the atria (atrial depolarisation).
2. The QRS complex represents the very rapid spread of the impulse from the AV node through the AV bundle and the Purkinje fibres and the electrical activity of the ventricular muscle (ventricular depolarisation).
3. The T wave represents the relaxation of the ventricular muscle (ventricular repolarisation). Atrial repolarisation occurs during ventricular contraction, and so is not seen because of the larger QRS complex.

The ECG described above originates from the SA node and is known as *sinus rhythm*. The rate of sinus rhythm is 60 to 100 beats per minute. A faster heart rate is called *tachycardia* and a slower heart rate, *bradycardia*.

By examining the pattern of waves and the time interval between cycles and parts of cycles, information about the state of the myocardium and the cardiac conduction system is obtained.