

AQA Physics A Level

10.3 Biological Measurement

Flashcards

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What are the 2 chambers on each side of the heart called?



What are the 2 chambers on each side of the heart called?

The atria and the ventricles.



Where are the electrical signals that cause the heart to contract produced?



Where are the electrical signals that cause the heart to contract produced?

Sino-atrial node (SAN) located at the top of the right atrium, the atria contract when it releases a wave of excitation.



Where does the wave of excitation go after it is released from the SAN?



Where does the wave of excitation go after it is released from the SAN?

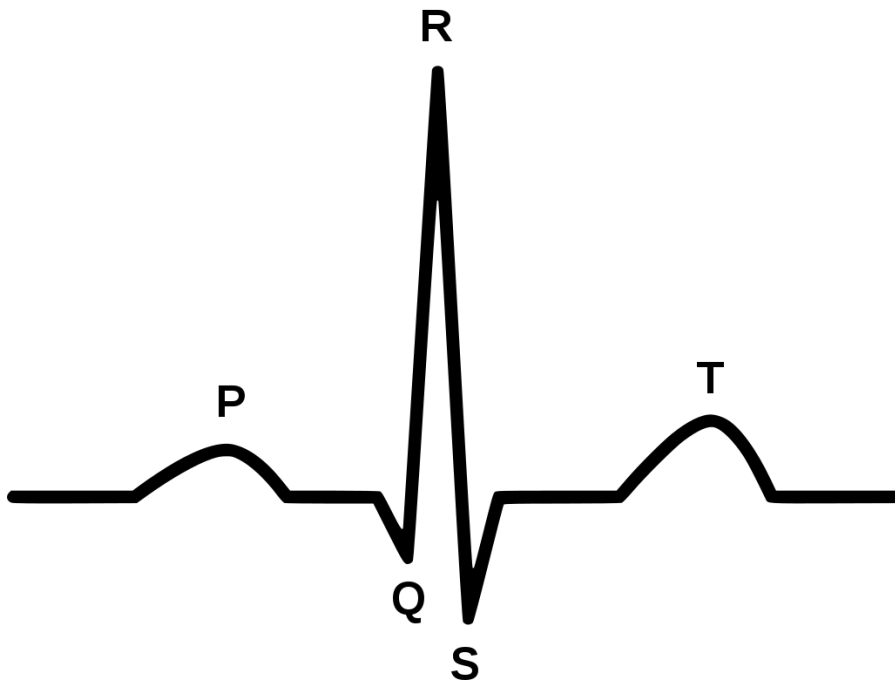
To the atrioventricular node (AVN) where it is delayed to allow the atria to finish contracting, when it is released the ventricles contract.



Draw a typical ECG trace, labelling P, Q, R, S and T



Draw a typical ECG trace, labelling P, Q, R, S and T



P.d at electrodes/mV
on y axis.

Time/s on x axis.

https://commons.wikimedia.org/wiki/File:SinusRhythmLabels.svg#/media/File:SinusRhythm_withoutLabels.svg



Which part of a heartbeat does each part of the wave correspond to?



Which part of a heartbeat does each part of the wave correspond to?

P: Contraction of the atria

QRS: Contraction of the ventricles

T: relaxation of the ventricles



How is the attenuated (weakened) ECG trace amplified?



How is the attenuated (weakened) ECG trace amplified?

A high impedance amplifier.



How are the electrodes placed on the body to reduce electrical resistance?



How are the electrodes placed on the body to reduce electrical resistance?

They're placed on the chest (close to heart), dead skin cells and hairs are removed, conductive gel is used and the leads are shielded from sources that could interfere.

