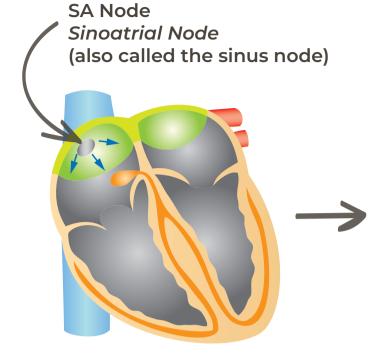
## The Cardiac Cycle and Its Corresponding Electrocardiogram (ECG) Findings

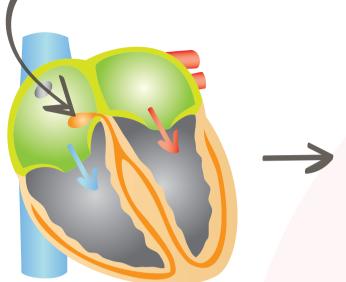


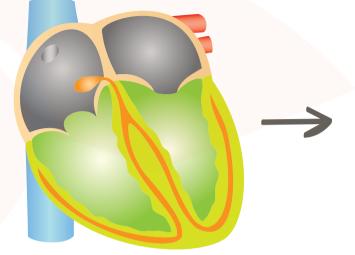


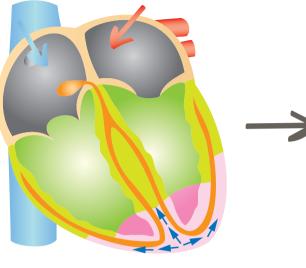


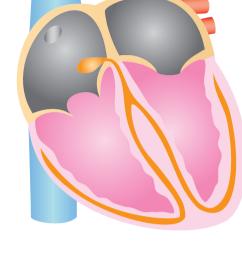
AV Node

Atrioventricular Node









1

The heartbeat starts in the SA node, the heart's natural "spark plug."

This spark spreads across the atria, making them squeeze and push blood down into the ventricles.

The electrical signal reaches the AV node, which acts like a short traffic light.

It slows the signal down for a moment so the ventricles have time to fill completely with blood. The signal now rushes down special pathways into the ventricles.

They contract forcefully to pump blood out to the lungs and the body.

The ventricles finish squeezing.

Blood is now pushed through the arteries, and the heart begins relaxing again.

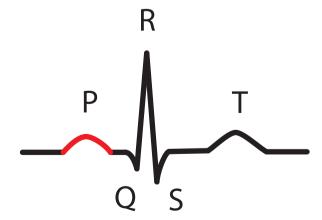
The ventricles start to reset to get ready for the next heartbeat.

5

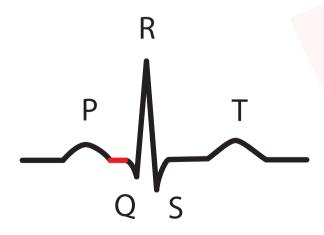
They relax and prepare to fill with blood again.

The reset is finished.

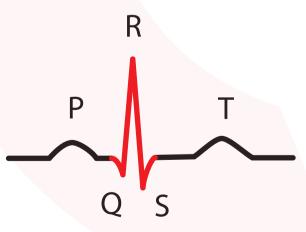
The whole heart is now calm and ready for the next spark from the SA node.



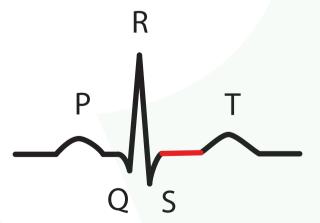
This electrical spark moving through the atria creates the P wave - a small bump before the big spike.



This pause shows up as the PR segment - a flat line after the P wave.

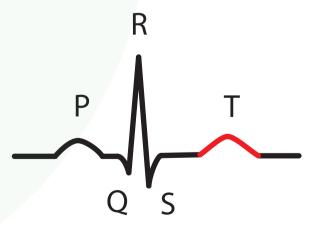


This strong electrical activity creates the QRS complex, the tall spike on the ECG. It is the biggest signal because the ventricles are the strongest muscles.

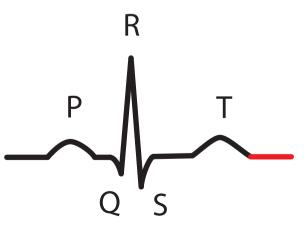


This stage is the ST segment, a flat line after the QRS spike.

It means the ventricles are still working but not firing new electricity yet.



This electrical "reset" creates the start of the T wave.



The T wave ends, returning to the baseline.
The heart is electrically quiet - until the next cycle begins.