

Cerebral Perfusion

SmartMan displays your influence on blood flow to the brain. When you enter an activity, click on the "Cerebral" Button to turn on this display. This graph is produced on a per second basis and is in direct response to how well you perform CPR with the emphasis on the quality of the chest compressions.



REAL TIME RESPONSE TO YOUR PERFORMANCE

Research that shows that blood flow stops very quickly when you stop compressions but that it takes 10-18 high quality compressions to re-establish cerebral perfusion. The per second graph shows you whether the quality of your compressions is producing cerebral perfusion.

Colors	<p>During CPR maximum blood flow is 20% of normal</p> <p>Bright Red = no or almost no blood flow</p> <p>Dark Red = poor movement but up to 49% blood flow (of 20%)</p> <p>Dark Green = movement improving and above 50% blood flow (of 20%)</p> <p>Bright Green = good perfusion and closer to 100% blood flow (of 20%)</p>
2 Second Pause	All blood pressure within the circulatory system becomes zero and in essence the learner is starting again from zero.
10-18 Quality Compression	Before Their Full Effect on Blood Flow is felt. If you perform several perfect compressions and then perform several bad compressions, you will lose much of the benefit of the good compressions. It is putting together high quality compressions consecutively that establishes strong cerebral perfusion.
Displayed Per Second	Blood Flow is Shown Per Second, Not Per Compression. Values are averaged across previous compressions since the pause.

Quality of Compressions Matters

Compliant compressions and consecutive compliant compressions produce the maximum blood flow. Blood flow is reduced due to non-releases, compressions that are too fast or too slow and are not deep enough or are too deep. The degree of error and the number of non-compliant compressions in a row also makes it worse.