Reducing Brain Injury After Cardiopulmonary Resuscitation

What happens to the brain after cardiac arrest?

Brain injury related to cardiac arrest is recognized as a major cause of death and disability.1 When a person experiences cardiac arrest (sudden stopping of the heart), blood and oxygen stop flowing to the brain. The lack of oxygen and blood damages the brain. The longer the heart goes without beating, the greater the chance for permanent brain injury or death.

What does the evidence show for improving brain function in coma patients after cardiac arrest resuscitation?

Patients who are in a coma (complete unresponsiveness) after successful CPR from cardiac arrest require complex medical care in a critical care unit. There is strong evidence* that for patients who are treated with electric shocks to the heart after out-of-hospital cardiac arrest and are in a coma, the control of temperature with body cooling is effective in improving their chance of recovering brain function.

The experts recommend keeping the body cooled down to 32°C–34°C or 36°C to help reduce brain injury after cardiac arrest. These temperatures have shown the same results.

Families may consider asking their treating clinician if a loved one qualifies for body cooling.

Reference


This guideline was endorsed by the Neurocritical Care Society.