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Brain cooling could aid stroke recovery

Cooling the brain of patients who have suffered a stroke could dramatically improve their recovery, a group of Scottish doctors has said.

They are joining others from across Europe who believe that inducing hypothermia in some patients can boost survival rates and reduce brain damage.

Similar techniques have already been tried successfully on heart attack patients and those with birth injuries.

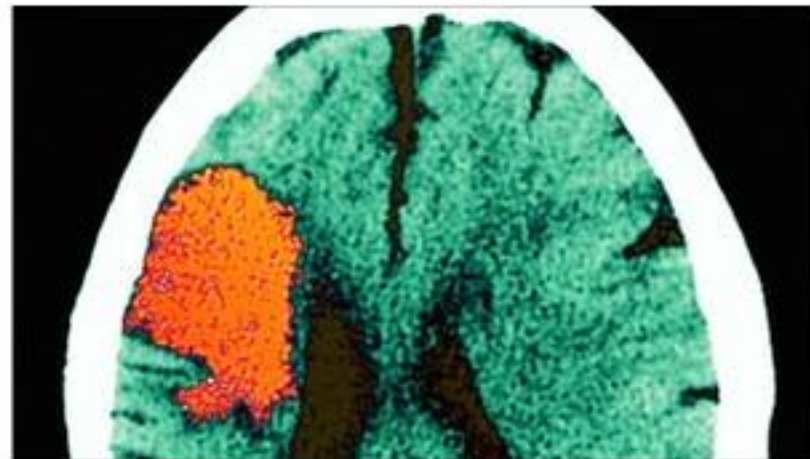
Scientists are in Brussels to discuss a Europe-wide trial of the technique.

To date, studies have involved the body of patients being cooled using ice cold intravenous drips and cooling pads applied to the skin.

This lowers the body temperature to about 35C, just a couple of degrees below its normal level.

The technique puts the body into a state of artificial hibernation, where the brain can survive with less blood supply, giving doctors vital time to treat blocked or burst blood vessels.

Dr Malcolm Macleod, head of experimental neuroscience at the Centre for Clinical Brain Sciences at the University of Edinburgh, said: "Every day 1,000 Europeans die from stroke - that's one every 90 seconds - and about twice that number survive but are disabled.



The bodies of stroke patients are cooled using ice cold intravenous drips

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"Our estimates are that hypothermia might improve the outcome for more than 40,000 Europeans every year."

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Dr Macleod and his Scottish team are joining a consortium of clinicians from across Europe to seek funding for a trial involving 1,500 stroke patients.

Speaking for European Stroke Research Network for Hypothermia (EuroHYP), a group of European researchers from more than 20 countries, Dr Macleod added: "The preliminary evidence is all there - now it is time for Europe to act."

The European research project, which will also include hospitals in Germany, Italy and France, is being led by Professor Dr Stefan Schwab.

Dr Schwab said: "We know the financial situation is difficult, but based on current evidence, the personal and economic benefits of avoiding stroke related death and disability means that the trial would pay for itself in less than a year.

"As the population ages, this trial will become even more important, and a benefit of cooling demonstrated in the proposed study will set the stage for future studies with hypothermia, extending the eligibility of the treatment to even greater number of patients."

The progress of the clinicians is also reportedly being watched by those from the European Space Agency because of its possible application for the future of long distance space travel.

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