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## Blowing cold air to treat acute brain injuries

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## **Blowing cold air to treat acute brain injuries**

Acute brain injuries from stroke and head traumas pose a substantial health burden. These injuries can lead to long-term disabilities. Small animal experiments have shown that brain cooling after these acute injuries can prevent secondary injuries and reduce disabilities, but clinical trials have failed to demonstrate an effect. We postulated that this is because cooling is not individualized, and we haven't developed a method to maximize benefit and minimize harm. Our brain consumes 20% of the body's oxygen supply, and the brain blood flow must be precisely controlled to ensure oxygen is delivered to where and when it is needed. When our brain is injured, this control is disturbed and brain cells without oxygen may die. My research investigates whether we can use brain blood flow to guide brain cooling for each individual. In the future, we hope that personalized brain cooling plans could improve patient outcomes.