

A quick jab could reduce stroke damage

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A Perth treatment could significantly reduce the damage done to brain cells following a stroke.

Diego Milani from the University of Notre Dame Australia has been testing a new compound that has been shown to reduce damage in the brain after a <u>stroke</u>.

The compound is made up of 18 molecules of the amino acid arginine



and reduces the damage by nearly 40 per cent when administered within 60 minutes after the stroke's onset.

"I hope to one day see the treatment carried in every ambulance in the country, as almost 90 per cent of sufferers do not get to a hospital fast enough to receive treatment," says Diego.

A strokes occurs when there is reduced supply of oxygen and nutrients to the brain. This follows after a blockage, rupture, or constriction in <u>blood</u> <u>vessels</u> supplying the brain.

Within minutes that area can be damaged beyond repair, with devastating consequences for sufferers including paralysis, <u>sensory deficit</u>, loss of balance, vertigo, difficulty speaking, chewing and swallowing, <u>vision problems</u>, or even death.

Currently the only available treatment for stroke is a drug called tPA. The drug can be used alone or in combination with a small mesh tube inserted into a blood vessel to open up the flow of blood again. However, this procedure can only be performed in a major hospital, and to be effective it must be performed within four and a half hours of a stroke occurring.





Diego Milani in the lab

Diego's treatment can be administered with a simple injection, making it perfect for use by paramedics or in remote areas far from medical facilities.

The compound works by protecting <u>brain cells</u> from damage and could be life changing for the 60,000 Australians who have a stroke each year.

So far the compound has only been tested in rats, but <u>clinical trials</u> in humans are expected to start soon.

Provided by Freshscience

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