

Gene study could help heart patients cut craving for salt

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Scientists have shed light on why some people crave salty food, even when they know it can seriously damage their health.

The study helps researchers understand how the brain controls our appetite for salt, and how it impacts on [blood pressure levels](#).

The findings suggest it could soon be possible to offer [heart disease](#) patients a medicine that helps them manage their salt intake and curb the [adverse effects](#) of [high blood pressure](#).

Scientists modified mice to remove a gene in a small number of cells in

the mouse brain. This gene is known to be linked with high blood pressure in humans but the way this is controlled is unclear.

Removing the gene caused the mice to develop a strong appetite for salt - when offered a choice of normal drinking water or saltwater, they consumed three times more saltwater than unmodified mice.

The trial also showed that the modified mice went on to experience high blood pressure for as long as they drank saltwater. When the saltwater was removed their blood pressure returned to normal.

The findings suggest that the gene plays an important role in controlling both the appetite for salt, and its effect in raising [blood pressure](#), scientists say.

The team will now research whether an affordable drug - already used to treat heart disease in some countries - can help to bring [salt intake](#) under control in patients with heart failure.

The results have been published in the journal *Circulation*.

Dr Matthew Bailey, who led the study at the University of Edinburgh/BHF Centre for Cardiovascular Science, said: "In the UK we routinely eat much more salt than our bodies need. For most people this is bad for our heart, blood vessels and kidneys. Our study shows that we have a genetic drive to consume salty food. Understanding how this process works may help us reduce the amount of salt we eat and make it easier for people to follow low-salt diets."

More information: Louise C. Evans et al. Conditional Deletion of in the Brain Causes Salt Appetite and Hypertension , *Circulation* (2016). [DOI: 10.1161/CIRCULATIONAHA.115.019341](https://doi.org/10.1161/CIRCULATIONAHA.115.019341)

Provided by University of Edinburgh

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