

[National](#) | [World](#) | [Lifestyle](#) | [Travel](#) | [Entertainment](#) | [Technology](#) | [Finance](#) | [Sport](#)science ► **human body**

## New method to manipulate our tongues into experiencing whatever flavour we choose discovered

**NEW** technology means we will soon be able to enjoy the delicious taste of junk food, without worrying about stacking on the kilos.

MATTHEW DUNN

MAY 26, 2015 6:34PM



advertisement

The tongue is the easiest place to simulate taste.

WE will soon be able to enjoy the delicious taste of junk food, without worrying about those pesky calories.

Dr Nimesha Ranasinghe, an engineer at the National University of Singapore, has pioneered a new method to manipulate our tongues into experiencing whatever flavour we choose.

MORE IN SCIENCE ^



**New glue  
heals wounds  
in 60 secs**



**Model's  
tattoo goes  
horribly  
wrong**



**Revealed:  
The songs  
psychopaths  
love**



**Rare skin  
condition  
gives teen  
scales**

channels of taste receptors by embedding electrical diodes into food.

This allows for the opportunity to provide an electrical charge which alters the taste of food, depending on the frequency and amplitude of the shock.

Mr Ranasinghe said he can replicate a sour taste to an 80 per cent of accuracy by adding a current of 180 micro amps, but admits other flavours are more difficult to achieve because they are harder to differentiate.

“The same ion channel is responsible for identifying bitter and sweet sensations on the tongue,” he said.



You might soon be able to enjoy this burger, without the guilt. *Source: News Corp Australia*

While the technology is impressive, it will need some work before becoming commercially viable.

Tests showed 99 per cent of the subjects were able to feel the electrical charge and only 80 to 90 per cent could identify the simulated taste.

Mr Ranasinghe also admits that flavour is a complex sensation that has more elements than taste.

“It’s made up of smell, taste, vision, the texture of the food, and previous experience.”

Regardless of the obstacles standing in his way, Mr Ranasinghe is confident the technology will change the way we eat.

“With Taste+, you could plug in, download the taste of grandma’s curry, or mushrooms and then taste the same thing.

“You could just eat plain yoghurt, which doesn’t have any chemical for simulation of other flavours, but digitally simulate strawberry.

“Drinking wine, you could capture the taste and send it to your girlfriend. These are the new interactions we can come up with if we can simulate flavour.”

## TRENDING IN TECHNOLOGY



165 READERS

**Galaxy Note 8 review  
Australia: The \$1500  
phone you deserve**

advertisement