Online brain game reduces meat consumption

June 19 2019

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If you want to live a healthier life and help save the planet then the science points to eating less meat. To help make this change, psychologists at the University of Exeter have developed an online game

and phone App that helps people reduce their meat intake by an average of 22 percent after just four days training. This is great news for the one third of UK adults who say they are trying to eat less meat.

Natalia Lawrence, a neuroscientist and Associate Professor at the University of Exeter, says: "The findings are the first to suggest that a short, simple digital tool can change people's meat intake. The results build on previous work showing similar effects on unhealthy snack intake and suggest that this approach can help people stick to diets that are both healthier and more sustainable."

The UK government recently committed to cut greenhouse gas emissions to almost zero by 2050 in the face of growing public concern about climate change and the impact on human life and health. The highly respected UK Committee on Climate Change advises that people can cut their diet-related emissions by 35 percent by switching from a high-meat diet to a low-meat one. Meat production is a major contributor to climate change and avoiding meat and dairy products is now one of the single biggest ways to reduce your environmental impact on the planet.

In terms of personal health, there is also increasing evidence that a high intake of red meat, such as beef, pork and lamb, is linked to a higher risk of type 2 diabetes, cardiovascular disease, certain types of cancers, and premature death. Reducing red meat intake while eating more whole grains, vegetables, or other protein foods such as poultry without skin, eggs and fish, can improve longevity for both men and women.

Meat Free Mondays and Veganuary have become increasingly popular and from the vegan sausage roll to the rising number of flexitarians, people are being influenced to change what they eat. Around a third of UK adults now say they are trying reduce their meat intake but many still find meat hard to forgo due to taste or convenience.

The University of Exeter research suggests that 'brain [training](link)' techniques that have helped people reduce their intake of unhealthy snacks and lose weight, can also be helpful in resisting meat. The researchers, led by Dr. Natalia Lawrence, have developed a simple online computer game that trains people to resist meat. The game requires people to repeatedly avoid pressing on pictures of certain images (e.g. beefburger), whilst responding to other images (e.g. fruit), and therefore trains people to associate meat with 'stopping'. The new study, published in the journal *Appetite*, has found that 43 adults who completed four 10-minute sessions of the training online showed a bigger drop in meat intake than 32 adults who completed a non-meat version of the training. The training also reduced how much meat and [unhealthy foods](link) were liked.

Natalia Lawrence at the University of Exeter, says: "Many people are aware of the need to cut down their meat intake but find it difficult. Our training is one tool that individuals can use to make it easier to avoid meat, with some of our participants saying they just did not feel like eating meat as much after completing it."

"There are other strategies that would help people to eat less meat, such as increasing the availability of non-meat alternatives and reducing portion sizes of meat products but these changes are less within individuals' control. It is still early days in the research and at this stage the effects are modest so larger, registered trials with longer-term measures now need to be conducted. However, our findings suggest that this cognitive training approach is worth pursuing. It is free, easy to do and 79 percent of our participants said they would or might recommend it to a friend."

The University of Exeter research team has developed a smartphone app version of the food 'stop' training called FoodT, which is available for free on Google and Apple stores. App users can choose which foods they

want to train themselves to resist, e.g. meat, fast food or cake. The App has over 85,000 downloads and for weight loss previously featured on Channel 4's "how to lose weight well" and BBC One's "The Truth About Obesity".

Download the App for [Android](#) or [iOS](#).

Eighty-one adults from the university and wider community aged 18-65 who ate meat and had some desire to reduce their meat intake were involved in the study. Participants conducted the study entirely online. They provided ratings of how frequently they ate meat and how much they liked meat (and other foods) before, and four weeks after the training, which they completed online at home or work. They were randomly allocated to receive the active (meat-related) or control training intervention. Results showed that participants in the active group consumed less meat and reported lower 'liking' of foods—including meat—than the control group.

The research team are also looking at the role emotional responses to meat could play in people's meat consumption and how these responses may change over time. You can take part in the research through a 30-minute online survey: [Meat Consumption Survey](#)

Provided by University of Exeter