

UNITED KINGDOM

Our diet a boost for brain

HUMAN BRAINPOWER and happiness are intimately linked to what we eat – with some foods providing an instant boost to our mental acuity and mood, scientists have found.

Some, such as blueberries and cocoa, are so powerful they can raise attention levels for up to five hours after consumption.

Others, such as dark green vegetables, eaten over days and weeks, can help to ward off low moods and depression.

At the heart of the research is the emerging idea that everyday brain function is closely linked to the levels of “micronutrients” in food.

Micronutrients, such as vitamins and trace minerals, occur in tiny amounts, often measured in hundredths or thousandths of a gram a day.

It has long been known they are vital for long-term physical health but their rapid impact on mood and brainpower is only just emerging.

Emma Williams, a scientist at the British Nutrition Foundation, a charity that publicises and researches the links between food and health, said there was strong emerging evidence linking mood and cognition with recent diet.

“The emerging thinking is that certain micronutrients have a powerful influence on the way the brain works; so cognition and emotions are affected by what you eat, sometimes over a period of hours as well as days and weeks,” Williams said.

Some of the strongest effects have been found for foods such as blueberries and cocoa, which contain compounds called flavonoids, also found in green tea, red wine and grapes.



Blueberries: Flavonoid source.

Jeremy Spencer, a nutrition scientist at Reading University, has found that eating blueberries can boost brain function for up to five hours.

In tests, volunteers who drank a blueberry smoothie in the morning did much better at mental tasks in the mid-afternoon than people who had an alternative drink.

Spencer, who studies the link between diet and brain disorders, recently found cocoa has similar effects, raising attention levels and memory in healthy older people for up to two



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hours. Flavonoids in cocoa may reduce blood pressure and inflammation.

One idea is that flavonoids activate an enzyme called eNOS that increases blood flow to the brain, bringing it more oxygen and nutrients.

For scientists the challenge is to understand the biochemistry underlying these biomedical perceptions. One idea is that diets that change mood or cognition may work by boosting certain neurotransmitters. Micronutrient levels also have a powerful long-term impact on mental wellbeing, potentially protecting against age-related memory loss.

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