

# Having too much sugar could cause Alzheimer's

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Jan van den Elsen and Omar Kassar, of the University of Bath, found a link between excessive sugar in diets to a build-up of abnormal proteins in the brain ANTHONY PROTHERO/PA

Eating too much sugar could trigger dementia, research suggests. Scientists discovered that high blood sugar levels could harm the body's ability to fight a build-up of abnormal proteins in the brain, a key hallmark of Alzheimer's disease.

The researchers, from the University of Bath, said that it could explain why people with diabetes had a higher risk of developing Alzheimer's. They warned that people who eat too much sugar could be at risk regardless of whether they developed diabetes.

As glucose breaks down, it can damage proteins in cells through a reaction called glycation. The team discovered that glycation damages

an enzyme called MIF, which plays a key role in clearing out the build-up of abnormal proteins in the brain.

The researchers, who looked at brain samples from 30 people for the study, said that sugar damage could therefore be “a tipping point that allows Alzheimer’s to develop”.

Omar Kassar, from the University of Bath, said: “Excess sugar is well known to be bad for us when it comes to diabetes and obesity, but this potential link with Alzheimer’s disease is yet another reason that we should be controlling our sugar intake in our diets.”

Jean van den Elsen, also from the University of Bath, said: “Normally MIF would be part of the immune response to the build-up of abnormal proteins in the brain, and we think that because sugar damage reduces some MIF functions and completely inhibits others that this could be a tipping point that allows Alzheimer’s to develop.”

The researchers said that they hoped their work would let them track how the disease progresses in order to develop new treatments or ways to prevent the condition.

Rosa Sancho, head of research at Alzheimer’s Research UK, said: “While this is potentially an important mechanism, the researchers did not look at the blood sugar levels of the individuals who donated their brains to this research nor do we know whether they had diabetes.”

She added: “Further research will need to fully explore this link, and any potential effect of a diet high in sugar.”

The study is published in the journal *Scientific Reports*.