Fat people have OLDER brains: White matter in overweight people is the equivalent to someone who is a decade older

- Obese people's brains age more rapidly than those of thinner people
- Human brains shrink naturally with age but fat people's shrink faster
- Had white matter levels similar to those 10 years older in leaner people

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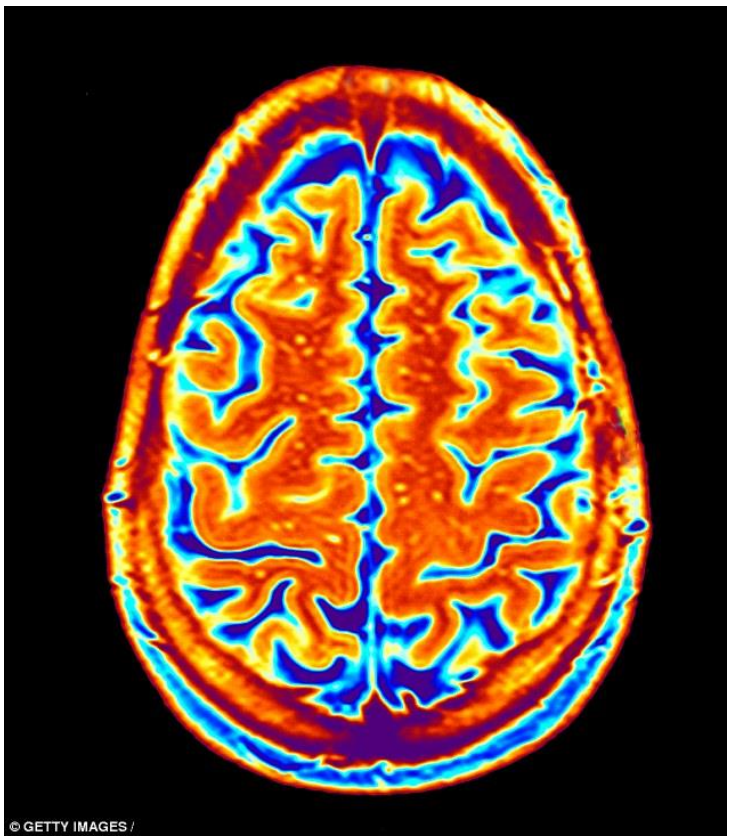
Obese people's brains age more rapidly than those of thinner people, research by the University of Cambridge has found.

The brains of middle aged obese people displayed differences in white matter similar to those in leaner individuals 10 years older.

White matter is the tissue that connects areas of the brain and allows information to be communicated between regions.

Human brains naturally shrink with age, but scientists are increasingly recognising that obesity may also affect the onset and progression of brain ageing.



Obese people's brains age more rapidly than those of thinner people, a study has found They warned it is already linked to conditions such as diabetes, cancer and heart disease.

In a study of 473 people aged between 20 and 87, researchers looked at the impact of obesity on brain structure across the adult lifespan.

Candidates were recruited by the Cambridge Centre for Ageing and Neuroscience and the results are published in the journal Neurobiology of Aging.

The researchers divided the data into two categories: lean and overweight.

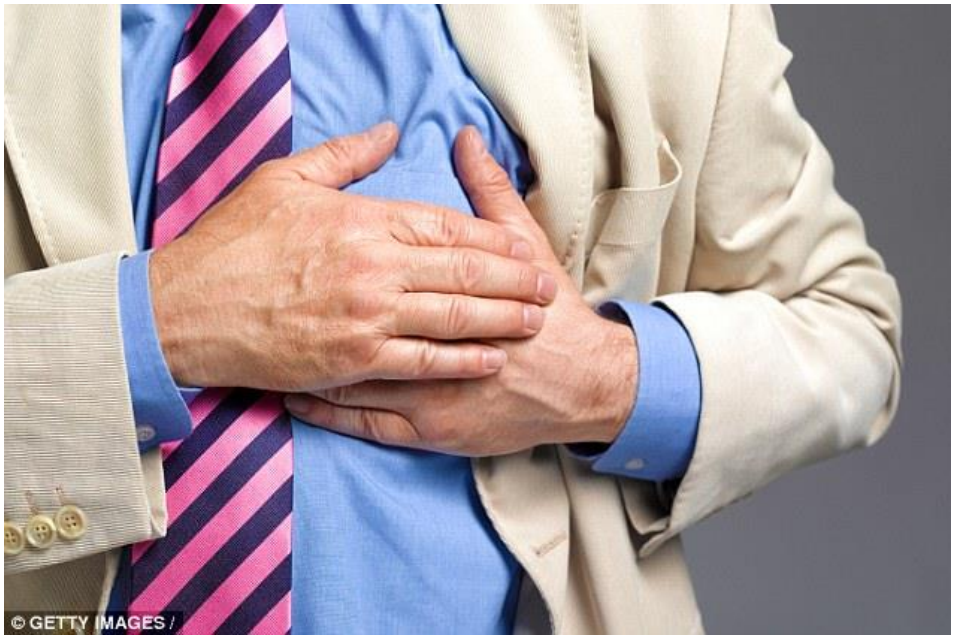
They found striking differences in the volume of white matter. Overweight individuals had a widespread reduction in white matter compared with lean people.

Human brains naturally shrink with age, but scientists are increasingly recognising that obesity may also affect the onset and progression of brain ageing (file photo)

The team then calculated how white matter volume related to age across the two groups.

They discovered that an overweight person at 50 had a comparable white matter volume to a lean person aged 60.

Researchers only observed these differences from middle-age onwards, suggesting that brains may be particularly vulnerable during this period of ageing.



Researchers warned obesity is already linked to conditions such as diabetes, cancer and heart disease (file photo)

'As our brains age, they naturally shrink in size, but it isn't clear why people who are overweight have a greater reduction in the amount of white matter,' said Dr Lisa Ronan from the Department of Psychiatry at the University of Cambridge.

'We can only speculate on whether obesity might in some way cause these changes or whether obesity is a consequence of brain changes.'

Professor Paul Fletcher, from the Department of Psychiatry, said: 'We're living in an ageing population, with increasing levels of obesity, so it's essential that we establish how these two factors might interact, since the consequences for health are potentially serious.

'The fact that we only saw these differences from middle-age onwards raises the possibility that we may be particularly vulnerable at this age.

'It will also be important to find out whether these changes could be reversible with weight loss, which may well be the case.'

The researchers found no connection between being overweight or obese and an individual's cognitive abilities, as measured using a standard test similar to an IQ test.

The report's co-author Professor Sadaf Farooqi, from the Wellcome Trust-Medical Research Council Institute of Metabolic Science at Cambridge, said: 'We don't yet know the implications of these changes in brain structure.

'Clearly, this must be a starting point for us to explore in more depth the effects of weight, diet and exercise on the brain and memory.'

The research was supported by the Bernard Wolfe Health Neuroscience Fund, the Wellcome Trust and the Biotechnology and Biological Sciences Research Council.