

Excess Fat And Sugar Can Lead To Cognitive Decline

By **Tim Sandle** - Jun 24, 2015



A diet high in fats and sugars can lead to cognitive decline. This finding, **Medical News Today reports**, is based on experiments carried out using mice; however, scientists are concerned that the same effect might be seen in humans.

The reason is attributed to a change in the types of microorganisms found in the intestines (the so-called **gut microbiome**). Previous research has established that variations in diet influence the bacteria of the gut, and that this is related to a greater chance of obesity with some people. Furthermore, **a recent study** showed that gut bacteria can influence the production of serotonin, a neurotransmitter responsible for maintaining feelings of happiness and sadness.

With the new research, mice were divided into two groups. One group was fed a normal diet and the other group eat a diet rich in fats and sugars. Over time, different cognitive tests were conducted, such as mazes. It was found that the ability of the mice, fed the very rich diet, to navigate the maze declined relative to the control group. The difference in performance was noticeable around the four week mark.

According to Kathy Magnusson, a professor in the OSU College of Veterinary Medicine, the reasons are: “Bacteria can release compounds that act as neurotransmitters, stimulate sensory nerves or the immune system, and affect a wide range of biological functions.”

The scientist also added: “We’re not sure just what messages are being sent, but we are tracking down the pathways and the effects.”

According to the **British Nutrition Foundation**, the types of food that are high in fat include:

- Margarine and butter,
- Cooking oils and oil-based salad dressings,
- Mayonnaise,
- Cream,
- Fried foods including fried chips,
- Chocolate, some crisps and biscuits (check the nutrition labels),
- Pastries, cakes, puddings and ice-cream.

And the types of foods that are high in sugar include:

- Soft drinks,
- Sweets,
- Jam,
- Sugar, honey,
- Cakes, puddings, biscuits, pastries and ice-cream.

It is important to point out that the studies have only been undertaken on animals. The effects may not necessarily translate to people and further study will be required.

The research was conducted at Oregon State University. The findings have been **reported to** the journal *Neuroscience*, in a study headed “Relationships between diet-related changes in the gut microbiome and cognitive flexibility.”

Tim Sandle

<http://www.pharmamicroresources.com/>

Dr. Tim Sandle is a chartered biologist and holds a first class honours degree in Applied Biology; a Masters degree in education; and has a doctorate from Keele University.
