

RESEARCH

Rats reveal risks of 'junk food' during pregnancy

A STUDY at the Royal Veterinary College (RVC) has demonstrated the potential risks to human health of a junk food diet during pregnancy and breastfeeding.

Dr Stéphanie Bayol, Samantha Farrington and Professor Neil Stickland from the Department of Veterinary Basic Sciences at the RVC in Camden, London, conducted a study to determine the relationship between the diets of rats during pregnancy and lactation and their subsequent offspring's diets.

They found that rats fed a diet of processed junk food during pregnancy and lactation gave birth to offspring with a preference for similar foods containing a lot of fat, sugar and salt. They also had a predisposition to overeating. The offspring of rats given regular feed during the experiment were not adversely affected.

The researchers believe the findings have implications for humans, and suggest that pregnant women should avoid fatty, sugary or salty foods or risk

causing a preference in their children towards such foods. Dr Bayol thinks this might help explain why some people find it difficult to control their junk food intake even when given access to healthier foods.

'Our study has shown that eating large quantities of junk food when pregnant and breastfeeding could impair the normal control of appetite and promote an exacerbated taste for junk food in offspring,' she said. 'This could send offspring on the road to obesity and make the task of teaching healthy eating habits in children even more challenging.'

Professor Stickland pointed out that the crossover between human and animal research was quite common, and the RVC did a lot of biomedical research.

'We have some real expertise in the biomedical arena,' he said. 'My own personal research interest is in the area of fetal programming and we use animal models to look at this process, but the story could be applicable across all the species, including man.'

He said most of the previous work in this area had been on undernutrition, making the RVC study groundbreaking.

The World Health Organization lists obesity as a major cause of cardiovascular disease, diabetes, musculoskeletal disorders and some cancers. A 2005 report said that approximately 1.6 billion adults and at least 20 million children under five were overweight, and at least 400 million adults were obese.

The report from the researchers at the RVC, which is currently available online, will be published in the October edition of the *British Journal of Nutrition*.

● Bayol, S. A., Farrington, S. J. & Stickland, N. C. (2007) A maternal 'junk food' diet in pregnancy and lactation promotes an exacerbated taste for 'junk food' and a greater propensity for obesity in rat offspring. *British Journal of Nutrition*. doi: 10.1017/S0007114507812037.