

Eating junk food whilst pregnant and breastfeeding may lead to obese offspring

Mothers who eat junk food during pregnancy and breastfeeding may be putting their children at risk of overeating and developing obesity, according to a study funded by the Wellcome Trust and carried out at the Royal Veterinary College, London. The research suggests that pregnant and breastfeeding women should not indulge in fatty, sugary and salty foods under the misguided assumption that they are "eating for two".

The study, published today in the *British Journal of Nutrition*, found that rats fed a diet of processed junk food such as doughnuts, muffins, biscuits, crisps and sweets during pregnancy and lactation gave birth to offspring which overate and had a preference for junk foods rich in fat, sugar and salt when compared to the offspring of rats given regular feed. The research team behind the study believe the findings have implications for humans.

Obesity is a major cause of disease, associated with an increased risk of type 2 diabetes, heart disease and cancer. According to a report by the World Health Organization, around 1.6 billion humans were classified as overweight worldwide in 2005 and 400 million were obese. Obesity affects populations increasingly earlier in life with over 20 million children under the age of five being classed as overweight.

"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," says lead author Dr Stéphanie Bayol. "This could send offspring on the road to obesity and make the task of teaching healthy eating habits in children even more challenging."

Controlling appetite is complex, involving hormones which signal to the brain to regulate energy balance, hunger and satiety (feeling of fullness). However, feeding is not only a matter of regulating energy balance; it is also a pleasurable experience that involves "reward centres" in the brain, such that the combination of pleasure with feeding may occasionally override the normal regulation of satiety. Previous research has shown that junk foods rich in fat and sugar inhibit the satiety signals while promoting hunger and stimulating the reward centres.

"Exposure to a maternal junk food diet during their foetal and suckling life might help explain why some individuals might find it harder than others to control their junk food intake even when given access to healthier foods later in life," explains Dr Bayol.

Professor Neil Stickland, a co-author on the study, who heads the research group at the Royal Veterinary College, believes that mothers need to be made aware of the risks associated with a poor diet.

"The government is trying to encourage healthier eating habits in schools, but our research shows that healthy eating habits need to start during the foetal and suckling life of an individual," says Professor Stickland. "Giving children better school dinners is very good, but more needs to be done to raise awareness in pregnant and breastfeeding women as well. Future mothers should be aware that pregnancy and lactation are not the time to over-indulge on fatty-sugary treats on the misguided assumption that they are 'eating for two'."

Source: Wellcome Trust

This document is subject to copyright. Apart from any fair dealing for the purpose of private study, research, no part may be reproduced without the written permission. The content is provided for information purposes only.