



A nose for fatty foods

People can smell whether their food contains any fat, and even how fatty it is. This discovery was made by scientists in the Human Nutrition and Health group.

It is said that you taste with your nose. This is because chewing food releases aromas that enter the nasal cavity through the mouth. This is called retronasal smell. The WUR researchers discovered that this is how people distinguish between whole and skimmed milk. They published their findings in *Food Quality and Preference*.

The new insight could help in the battle against overweight

The researchers hope this new insight will help fight overweight in the future. 'Once we understand which substances in fat smell tempting, the food industry can

add these to the fat-free alternatives,' says Matjaz Pirc, lead author of the publication. This would make fat-free products as satisfying as the fatty, high-calorie variety.

Survival

Studies show that test subjects not only smell the difference between whole and skimmed milk but can also distinguish between different fat percentages. Not all the test subjects could do that, however. 'From an evolutionary and biological perspective, this is logical,' Pirc says. 'Fatty, high-calorie products are needed for survival, and their retronasal odour makes these products tastier, ensuring we continue to seek out these products. It is probably more useful to smell the difference between fatty and fat-free foods than that between products containing seven or ten per cent fat.'

The test subjects found it hard to express how they knew which milk contained fat and which did not. Some thought the whole milk smelled creamier, and others described it as 'thicker'. In a follow-up study, nutrition scientists are going to study how the brain responds to the scent of fat. NVTWH