

Human spatial memory prioritizes high calorie foods

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Humans more accurately recall the locations of high calorie than low

calorie foods, according to a study in *Scientific Reports*. The findings suggest that human spatial memory, which allows people to remember where objects are in relation to each another, has evolved to prioritize the location of high calorie foods.

Rachelle de Vries and colleagues measured [food](#) location memory by instructing 512 participants to follow a fixed route around a room containing either eight food samples or eight food-scented cotton pads placed in different locations. When participants reached a sample, they either tasted the food or smelled the cotton pad and rated how much they liked the sample. Food and odour samples included apple, potato chip, cucumber and chocolate brownie. Participants were then asked to indicate the location of each food or food odour sample on a map of the room.

Participants presented with food samples were 27% more accurate and those presented with food odour samples were 28% more accurate at mapping high than low calorie foods to the correct location. Spatial memory was not affected by whether foods were sweet or savoury or how much participants liked each sample. Overall mapping of foods was 243% more accurate when participants were presented with [food samples](#) rather than food-scented cotton pads.

The findings indicate that human spatial memory is biased towards locating high calorie foods. This bias could have helped [human](#) ancestors to survive in environments with fluctuating [food availability](#) by enabling them to efficiently locate calorie-dense foods through foraging, according to the authors.

More information: Human spatial memory implicitly prioritizes high-calorie foods, *Scientific Reports* (2020). [DOI: 10.1038/s41598-020-72570-x](#) , www.nature.com/articles/s41598-020-72570-x

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