

Study shows star-shaped bread popular with children and could encourage more healthy eating

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New research on different colours and shapes of bread, presented at this year's European Congress on Obesity in Vienna, Austria (23-26 May), shows that star-shaped bread is particularly popular with young children and could help them make healthy food choices. The study is by Dr. Marlies Wallner and Bianca Fuchs-Neuhold, Health Perception Lab, Institute of Dietetics and Nutrition, FH JOANNEUM University of Applied Sciences, Bad Gleichenberg, Austria, and colleagues.

Focusing on taste and product attractiveness might help children and their parents make healthier food choices. In children, increased fibre consumption is related to healthier eating and better health outcomes, whereas the opposite is true for high salt consumption. Therefore, in this study, a visually attractive whole-grain bread was developed based on published health recommendations for salt and fibre, and then children evaluated the bread based on its shape, symmetry and [colour](#).

In the study, 38 children, aged 6-10 years, tested different types of the bread which differed in shape, colour, symmetry and taste. Data were generated via eye-tracking (Tobii® X2-60 Eye-Tracker), preference and acceptance testing. With eye-tracking it is possible to gain information on 'gazing' behaviour. Spots with high interest, positively or negatively, will reach more attention compared to other areas. This data from areas of interest are quantitative and can be combined with data from acceptance testing.

The liking was measured on a scale from 1 (best) to 5 (worst) and was significantly higher for the pictures with the star-shaped versions (score 1.5) in contrast to the square-shaped versions (score 2.0). The yellow coloured versions of the bread (produced using turmeric) were chosen less often (18%) compared to usual brown bread (82%), also demonstrated by eye-tracking.

Although 45% of children said they preferred [white bread](#) and 53% don't eat whole-grain bread regularly, the acceptance of the star-shaped bread was high: 76% rated the bread good or very good.

The authors conclude: "Our study showed the children appeared to prefer natural brown bread colours rather than the bread coloured yellow using turmeric. We conclude that based on these results, children like an attractive child-oriented [bread](#) style, in this case a star-shape. Modifying healthy everyday foods in this manner to make them more attractive to children could help children make healthier food choices."

They add: "Our study group's main interest is in [food](#) preferences in children. Colour and shape are important factors in product development. Furthermore, we are collecting data in a pan-European study to find out which kind of texture is liked most among European [children](#) in 6 different countries."

Provided by European Association for the Study of Obesity

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