

Pizza boxes under scrutiny



Takeaway pizza may be bad for your health because of the boxes they're delivered in. Boxes made from recycled material could contain toxic inks, glues and dyes. When hot pizza is put in the boxes, temperatures can reach 60-65C, increasing the chances of toxic substances migrating from the packaging to the food.

In a laboratory study carried out at the University of Milan the researchers explored the implications of using **recycled paper** and **cardboard** in the production of pizza boxes. They examined 16 samples of takeaway pizza boxes from 16 different pizzerias in northern Italy in 2006 and found varying levels of disobutyl phthalate (**DIBP**) a chemical substance that food should not be exposed to because it may carry health risks if eaten. The researchers concluded that they used analytical methods to identify the contaminant DIBP in take away boxes. By applying standardized methods in the 'calculation of an exposure index for DIBP in take away boxes' they provide an approach to calculate the potential risk of contamination by this phthalate for a box of a given area.

- In Italy, the use of recycled paper in pizza boxes is banned; however, the authors state that their findings show that many pizza boxes in Italy contain recycled paper, which is contrary to Italian law.

However, until more research is carried out on the effects of DIBP on human health, it is premature to be overly concerned about the effects of exposure in this way. The findings of this study should prompt further research..

What does the NHS Knowledge Service make of this study?

This small laboratory study primarily offers the packaging industry a good method for testing the amount of DIBP emanating from recycled cardboard and paper. There are several important factors that should be considered when interpreting the results:

- Samples of the substance in the gas around the box samples were collected using a fibre exposed for 60 minutes at 60 degrees centigrade. In real life, pizzas are unlikely to be exposed for this long and at such a constant temperature because they begin to cool after some time. What effect this will have on the pizzas' absorption of DIBP is unclear.
- Importantly, the effects of exposure to DIBP and other phthalates on human health are not clear. More research is needed to determine if DIBP has any negative health effects, and if the levels occurring in pizza boxes represent a substantial exposure.

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