What's That Stuff on Paper, and Should We Be Concerned About Touching It?



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Have you ever noticed that many paper products that we handle every day contain colorful images on their surfaces? Of particular interest are unavoidable everyday paper products – like magazines and paper food packaging – that we may handle without even thinking about them.

But what is that colorful material on the surface, and should we be concerned when we handle the product in our daily lives? To put it simply, that colorful material is printing ink.

As <u>reported recently</u> in the scientific journal Environment International, researchers at the University of Toronto analyzed these two types of common paper products to determine the presence of residual chemicals that could be present in printing ink. One of the chemicals they looked for was BPA, which could be used as an antioxidant to help prolong shelf life.

The food packaging was collected from local markets in Toronto and was used to package dry foods such as tea, sugar, staple foods and snacks. The magazines were also collected locally and may represent ones frequently read by the local population.

The researchers measured the presence of a wide range of printing ink related chemicals and also estimated human exposure to the

chemicals from handling the products. This is very important because we need to know the level of exposure to know whether the chemical could be harmful.

The mere presence of a chemical in a product does not, by itself, provide enough information to know if the chemical could cause adverse health effects. Just how much of a chemical are we exposed to from handling a product containing the chemical?

This is where the results of the study and the researcher's conclusion get very interesting. Perhaps not surprisingly, they did find low levels of BPA in many of the food packaging materials and magazines they analyzed, along with low levels of other chemicals.

Importantly, after further analysis of exposure to the chemicals from handling the products, the authors concluded:

"The present study suggests that dermal exposure ... via contact with food packaging materials and magazines is a minor exposure pathway and is exceedingly unlikely to pose adverse health effects."

The authors reached that conclusion by comparison of typical (and worst case) exposures to acceptable daily intakes. For BPA, typical exposure from handling food packaging materials and magazines was more than a million times below the acceptable daily intake, indicating a very large margin of safety.

For BPA, that large margin of safety strongly supports the authors' conclusion that exposure from handling magazines and food packaging materials is exceedingly unlikely to pose adverse health effects. Spending too much time reading magazines may cause other problems, but adverse health effects from chemical exposure is not likely to be a concern.