

Viewpoint: Our binary system of classifying what's 'cancerous' fails. Here's what might replace it

Concern over substances that may cause cancer has led to various classification schemes to recognize carcinogenic threats and provide a basis to manage those threats.

The least useful schemes have a binary choice that declares a substance carcinogenic or not. This overly simplistic approach ignores the complexity of cancer causation by considering neither how the substance causes cancer, nor the potency of that mode of action. Consequently, substances are classified simply as "carcinogenic", compromising the opportunity to properly manage these kinds of substances.

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The application of new tools based on our current knowledge can be used to provide useful guidance to product developers, users, and consumers on the use of chemicals and prevent risk of excess cancer outcomes.

The hazard banding approach to classification that incorporates MOA [mechanism of action] and potency presented here results in three easily understandable categories of potential carcinogenicity.

Use of this scheme would result in placing chemicals into bands that would reflect an appropriate level of concern, which is not the case for Level 1 schemes. Each category leads to different generic advice on the use of the substances, including the currently accepted and stringent risk management measures as appropriate.

[**This is an excerpt. Read the original post here**](#)