STATEMENT ON ARTIFICIAL SWEETENERS

The term ‘artificial sweetener’ or ‘non-nutritive sweetener’ refers to a number of compounds that are used as additives to food and drinks as a substitute for sugar. They are many times sweeter than table sugar and smaller amounts are needed to create the same level of sweetness, they may be used to control weight and obesity.

GLOBAL VIEW

In the United States and Europe, six low-calorie sweeteners are currently approved for use in foods include stevia, acesulfame-K, aspartame, neotame, saccharin and sucralose, due to their safety profile and if taken in an acceptable daily quantity. According to the U.S. Food and Drug Administration (FDA) these sweeteners are generally recognized as safe (GRAS) when experts have agreed that it is safe for use by the public in appropriate amounts.

However, there are differing opinions amongst professionals, as well as limited and inconsistent evidence of the long-term metabolic effects of the use of artificial sweeteners during gestation, infancy, and childhood. Further research is needed to inform recommendations for the use of these sweeteners in this sensitive population.

IS THERE AN ASSOCIATION BETWEEN ARTIFICIAL SWEETENERS AND CANCER?

There is an ongoing debate over whether artificial sweetener usage poses a health threat.

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The association between artificial sweeteners and cancer in humans is a difficult topic to research as there is such a wide range of both sweetening agents and cancers. Caution must be used when attempting to extrapolate animal data to humans, as carcinogenic mechanisms do differ between humans and experimental animals, such as rats.\(^7\)

A systematic review and meta-analysis of 10 aspartame carcinogenic bioassays in rodents found that aspartame consumption has no significant carcinogenic effect.\(^8\)

A 2015 systematic review published in the \textit{Journal of Clinical Practice}, included saccharin, aspartame, cyclamate and acesulfame K, showing there is limited evidence to suggest that heavy consumption of artificial sweeteners may increase the risk of certain cancers. However, overall the data presented was inconclusive as to any relationship between artificial sweeteners and cancer.\(^9\)

Another systematic review published in 2016, concluded that there was no association between aspartame consumption and risk of hematopoietic cancer. No association was found between the consumption of sugar or other sweeteners, particularly aspartame, and the development of cancer in the digestive and reproductive systems and the consumption of artificial sweeteners was not associated with the development of kidney or bladder cancer in humans.\(^10\)

\textbf{CONCLUSION}

At this time, due to the inconclusive evidence available, \textit{The Cancer Association of South Africa} (CANS) continues to follow the research done on artificial sweeteners, overall health during the lifecycle and the possible link to cancer risk in humans.

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\(^8\) Mallikarjun S, Sieburth RM. Aspartame and risk of cancer: a meta-analytic review. \textit{Arch Environ Occup Health} 2015. 4; 70(3): 133–141.
