



### Artificial sweeteners

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**Abstract:** Low-calorie sweeteners are authorised food additives in the European Union (EU). The safety of these sweeteners has been evaluated in accordance with internationally agreed principles for the safety evaluation of food additives. So food industry uses various artificial sweeteners which are low in calorie content instead of high calorie sugar. U.S. Food and Drug Administration has approved aspartame, acesulfamek, neotame, cyclamate and alitame for use as per acceptable daily intake (ADI) value. The ADI is the amount of the food additive, expressed on a milligram per kilogram of body weight (bw) basis, that can be ingested daily over a lifetime without any appreciable health risk. The main reasons to use substitutes for sucrose are: to help weight loss (the majority of the sweeteners are virtually calorie free); to diminish the risk of dental disorders, namely cavities; to provide palatable food for some patients such as diabetics; to produce less expensive food items (artificial sweeteners are often cheaper than sucrose and are employed in minute quantities due to their potency in providing a sweet taste); and to avoid post-prandial hyperglycaemia in dietary regimens aimed at controlling insulin response (though this effect is debatable).

**Key words:** Artificial sweeteners, Low calorie sweetener, Acceptable daily intake (ADI), Metabolism.

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