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WHO Recommendation on Artificial Sweeteners

Why in news?

The World Health Organization (WHO) has recommended against using artificial sweeteners to achieve weight loss and prevent lifestyle diseases.

What are artificial sweeteners?

- **Artificial sweeteners** -They are sugar substitutes that are used to sweeten foods and beverages with very little to no calories.
- They are also called as non-nutritive sweeteners (NNS), non-sugar sweeteners (NSS), low calorie sweeteners and intense sweeteners.
- **Common NSS** - Acesulfame K (Ace-K), aspartame, advantame, cyclamates, neotame, saccharin, sucralose, stevia, and stevia derivatives

| Artificial Sweetener | Brand Name | Sweetness compared to sugar | ADI | Products used in | Pros | Cons |
|----------------------|-------------------|-------------------------------|--------------------------|---|---|---|
| Aspartame | Equal, Nutrasweet | 200 times sweeter | 50 mg/kg of body wt./day | Tabletop sweetener or in prepared foods | Very small amounts needed for sweetening so caloric intake is negligible. | Cannot be used by people with PKU. Other concerns range from cancer to increased hunger |
| Acesulfame-K | Sunett, Sweet One | 200 times sweeter | 15 mg/kg of body wt/day | Soft drinks, baked goods, candy | Flavor-enhancer and preserves sweetness of food | Concerns of improper testing & lack of long-term studies. |
| Neotame | No brand names | 7,000 to 13,000 times sweeter | 18 mg/kg of body wt/day | Beverages, dairy products, gum, desserts | Related to Aspartame without the phenylalanine danger | Concerns of long-term health implications. Contains methylene chloride |
| Saccharin | Sweet' N Low | 300 times sweeter | 5 mg/kg of body wt/day | Soft drinks, gum, canned fruit, baked goods | Most researched sweetener | May cause allergic reaction if allergic to sulfa drugs |
| Sucralose | Splenda | 600 times sweeter | 5 mg/kg of body wt/day | Soft drinks, candy, juices, desserts | Not fully absorbed. Can be used for cooking | Contains chlorine but is not supposed to separate in the body |

What are the recommendations by WHO?

- **Lacks long term benefits** - Artificial sweeteners do not provide any long term benefits in reducing body fat in adults or children.
- **Diseases caused** - The use of sugar alternatives has been found to increase the risk of type 2 diabetes, depression, cardiovascular diseases, and causes digestive issues.
- It also causes bladder cancer and **preterm births** when consumed by pregnant women.
- **Weight loss** - Even though there could be weight loss in short term, in long term it leads to weight gain.
- The WHO has made these recommendations for everyone other than those who are already diabetic.

In India, the Food Safety and Standards Authority of India (FSSAI) prescribes the maximum limit of artificial sweetener.

What are the recommendations by health experts?

- **Natural Alternatives** - Health experts recommend considering natural alternatives such as fruits, dates, carrots, etc. to artificial sweeteners.
- **Limiting Intake** - Emphasize the need to be conscious of limiting the intake of artificial sweeteners.
- **Well balanced diet** - Including high quality natural foods, while avoiding high calorie drinks and snacks.
- **Diet colas** - Diet colas may not be as healthy as they seem. They may lead to weight gain and other health problems.

What is the way forward?

- More research is needed so that it could help to clarify the risks and benefits of artificial sweeteners, and it could also lead to the development of new, safer artificial sweeteners.
- Artificial sweeteners could be regulated more strictly.
- Consumers could be educated about the potential risks and benefits of artificial sweeteners.

References

1. [The Indian Express | Artificial Sweeteners](#)
2. [The Hindustan Times | Harmful Effects Of Artificial Sweeteners](#)



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