

## Does Chewing Gum have any Effect on Health?

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A typical person should take a very long list of steps in a 24-hour period to maintain the health of himself and his family such as: brushing the teeth, managing blood sugar levels by adjusting the intake of substances into the digestive system, consuming specific chemicals to aid in digestion, utilizing mouthwashes to improve oral odour, taking medications like Probiotic supplements and vitamins, increasing physical activity and maintaining a healthy body weight, strengthening muscles to prevent joint and bone disorders, regulating sleep patterns through the consumption of beverages like coffee, reducing stress and inducing relaxation through the use of certain medications, etc.

Health system designers often fail to consider the overwhelming nature of the tasks they assign to the average individual in modern society. This exhaustion leads individuals to disregard health and treatment advice and lack the willingness to carry out these actions.

It is necessary to execute many of these acts using various and pleasurable approaches. Enjoyment and reinforcement play a crucial role in driving motivation, facilitating learning, experiencing emotions, and maintaining physiological balance (allostasis) [1]. As an alternative, individuals are encouraged to engage in enjoyable physical activities, such as swimming, rather than engaging in monotonous and tedious repetitive movements.

Meanwhile, one approach to administering certain compounds to the digestive system involves the consumption of appetising foods or specialised chewing gums.

Here are some items that can be made using chewing gum: A chewing gum that includes vitamin B6 and ginger is designed to prevent car sickness and aeroplane sickness. Another option is mint chewing gum, which has basic properties that help avoid bloating or refluxing. Edibles or saffron gums can be used to energise, while herbal gums with therapeutic effects, such as those containing turmeric, can help reduce joint inflammation. So, based on the advantages of using chewing gum as an innovative method of delivering drugs, such as its ability to simultaneously provide local and systemic delivery, protect against acids and enzymes, have low first pass metabolism, enhance alertness and cognitive function, and maintain good stability, it can be inferred that chewing gum will become

increasingly popular among patients and in the market in the coming years. Some examples are: remedies for motion sickness, pain, smoking, dental caries, tooth decay, various mouth diseases, otitis media, gastrointestinal problems, oral fungi, and inflammatory issues [2, 3].

Chewing gum is an effective oral delivery system that offers increased effectiveness, the ability to remove gum at any time, reduced risk of overdosing, and no water requirement. It provides protection against chemical or enzymatic attacks in the gastrointestinal tract, making it popular among children and teenagers. Chewing gum has a low first-pass effect. It is suitable for rapid delivery and has fewer side effects. It also has good stability against light, oxygen, and moisture. Chewing gum can help alleviate xerostomia, improve work performance, and reduce pain and swallowing difficulties after tonsillectomy. It also stimulates alertness and reduces food cravings [2, 4, 5].

Chewing sugar-free gum (SFG) decreases the amount of *Streptococcus mutans* bacteria in the mouth compared to individuals who do not chew gum. Given the extent of variation in the impact and the moderate quality of the trials analysed, further study is necessary to investigate the potential of sugar-free gum as a preventive intervention for reducing the presence of cariogenic oral bacteria [6].

Paying attention to subtle details, such as suggesting that industrial drugs and supplement producers create different types of chewing gum and various foods, is a seemingly straightforward approach that can enhance the efficacy of health recommendations and facilitate the delivery of specific substances. The technology required to introduce chewing gum as a viable substitute for various types of tablets in the healthcare system is not yet developed and comprehensively understood. This is due to the need for further exploration and acquisition of information and knowledge on the manufacturing of chewing gums.

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