38 South Last Chance Gulch Helena, MT 59601 (406) 443-6160 <u>frontdesk@helenafamdentistry.com</u>

How to Prevent Cavities

Tooth decay is the most common chronic disease in both children and adults today, but is actually 100% preventable. Described below are three different categories for prevention:

- 1) Diet/nutrition
- 2) Things you can do at home
- 3) Strategies at the dental office
- 1) Diet is the biggest factor in preventing dental caries (cavities). With adequate nutrition allowing for a favorable oral environment, the teeth are extremely resistant to decay. When it comes to ensuring a healthy diet, it is important to consider both what foods to eat and what foods to avoid. Listed below are a few of the most important nutrients for dental health:

Nutrient	Function	Where found	% of Americans with Inadequate Intake
Calcium	A major component of tooth structure	3-4 glasses of milk a day is needed to meet the recommended daily amount. Also found in yogurt and cheese	44%
Vitamin A	Tooth development, saliva production, proper tooth spacing	liver, eggs, milk	45%

Vitamin D	Important for calcium absorption	can get it from the sun May-September, but may require supplementation	95%
Vitamin K2	Helps calcium enter the teeth	liver, eggs, meat, cheese	97%
Magnesium	Essential for vitamin D and calcium utilization	found in some nuts, seeds, legumes, and seafood, but is difficult to get through diet and may require supplementation	52%

Although it is best to try and get all necessary nutrients through food, it can be difficult in the modern American diet, and supplementation may be necessary. Desiccated liver contains many bioavailable nutrients that aren't found in many other foods and can be considered nature's multivitamin. It can be purchased here:

https://shop.heartandsoil.co/products/beef-organs

For dental health it is also important to limit or avoid ultra processed foods. They often contain refined sugars and grains which can lead to tooth decay. Besides the more obvious offenders of soda, energy drinks, candy, cookies, and cake, sometimes people don't realize foods like bread, crackers, and chips can be just as bad or even worse for the teeth. A good rule of thumb is to as much as possible avoid eating out, avoid anything that comes in a package, and avoid anything with many ingredients, especially if you don't know what they are.

And lastly with diet, the time and frequency of eating matters. Every time you eat, the acidity of your mouth increases and the teeth lose minerals. Over time your saliva will neutralize the acidity and the teeth will remineralize. If you are snacking often you will never allow the teeth to mineralize and they will be more likely to decay. Eating and drinking only at mealtimes and limiting snacking is better for dental health. Using a straw with acidic drinks and rinsing with water after eating or drinking anything can be helpful as well.

- 2) Besides diet, there are other strategies to help prevent cavities that can be done at home:
- Brush your teeth at least twice per day with fluoride toothpaste. After spitting, do not rinse (even with water), so that the fluoride stays on the teeth for as long as possible. Supervised brushing is recommended for children until around age 8.
- <u>Hydroxyapatite toothpaste</u> is a good option for toothpaste for those who prefer fluoride-free. Boka and RiseWell are good brands.
- <u>Floss</u> at least once per day. This helps clean the plaque and food between the teeth.
- Xylitol is a natural sugar that helps prevent cavities. It can be bought in the form of gum, mints, sugar, or candy. A small amount (~2g in 12oz) can be added to a water bottle and sipped throughout the day. It can be bought at the Real Food Market in Helena, amazon, or many other locations
- <u>Baking soda rinses</u> neutralize acid in the mouth and can change the types of bacteria in the mouth over time to be less damaging to the teeth. Add hot water to baking soda in a cup and stir to dissolve and saturate the water. Sip and rinse with it for 30 seconds, then spit. Continue rinses twice per day.
- <u>BasicBites candy</u> protect the teeth and are very similar in taste to Tootsie Rolls or caramels. Eat two per day. Available at <u>www.basicbites.com</u>
- 3) And finally, there are options for cavity prevention available at the dental office, such as:
- <u>Dental sealants</u> flowable filling material to seal and protect the anatomical pits and grooves in the teeth that are more susceptible to decay

Prescription fluoride toothpaste - extra strength toothpaste for increased cavity prevention

MI Paste - remineralizing toothpaste. Multiple versions available with and without fluoride

<u>Fluoride varnish</u> - protective varnish that incorporates into the teeth and adds increased resistance to cavities even months after application

Silver diamine fluoride - liquid that will stop or slow down active cavities instantly

Protective travs - custom trays in which prescription toothpaste can be added to wear at night

Finally, regular dental visits are recommended to evaluate and maintain oral health. Many other factors such as gastric reflux, dry mouth, mouth breathing, decreased coordination, and medications can all affect the risk of cavities and can be addressed at dental appointments.

 $\frac{\text{https://www.nidcr.nih.gov/research/data-statistics/dental-caries\#:} \sim :\text{text=Dental\%20caries\%20(tooth\%20decay)\%20remains,remain\%20among\%20some\%20population\%20groups.}$

https://www.jscimedcentral.com/journal-article-info/Journal-of-Human-Nutrition-and-Food-Science/The-Prevalence-of-Vitamin--K-Deficiency-or-Insufficiency%2C--and-Recommendations-for--Increased-Intake-8450

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^{1 -}Dental caries -

^{2 -} Nutrient Inadequacies - https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7352522/

^{3 -} Vitamin K2 deficiency -

^{4 -} Vitamin K2 - https://chrismasterjohnphd.com/blog/2016/12/09/the-ultimate-vitamin-k2-resource/#database

^{5 -} Oral manifestations of nutrient deficiencies -