

# Tooth Decay Major Causes and Prevention

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Tooth decay or dental caries results in formation of cavities in the teeth and if untreated can spread from the tooth enamel, which is the outer most layer of the tooth into the softer dentin. Tooth decay is one of the most common dental problems in the world; it is particularly common in children and young adults. The reason for formation of dental caries is due to poor oral hygiene along with increase intake of sweets, [drinks](#) and foods rich in sugar.

Tooth decay can be found in all age groups, in babies as rampant or bottle caries, in adults as superficial or deep caries, but it is not common in old people due to calcification of tooth structure and reduced sugar rich diet. A plaque, which is a whitish sticky film of bacteria, forms constantly on the outer surface of the teeth. When we eat or drink foods containing sugars or starches, the bacteria in plaque produce acids that attack tooth enamel. The plaque provides medium for the bacteria on the tooth and hence results in formation of tooth decay.

## Major Causes of Tooth Decay

The tooth decay is caused by sticky deposits called plaque that collects, in particular, around the gum line, the edges of fillings and the grooved surfaces of the teeth.

The most common area where a plaque forms on teeth is around gum lines, in grooves and near the edges of fillings where it comes in contact with the tooth. Plaque is made up of food debris, saliva and the bacteria that are normally present in the mouth, they convert food into acids. If plaque remains on the tooth surface for long time, it will harden into a substance called tartar. Both tartar and plaque contain acids which, if present of long time can dissolve away the protective, hard enamel layer of the tooth, and create cavities.

Most cavities form over a period of months, or even years. They are usually painless, but they grow very large and damage the much softer internal structures of the tooth such as the dentin and the pulp, it can cause severe excruciating pain. And it may result in irreversible tooth decay damage, where the entire tooth pulp or a part of pulp has to be removed for treatment.

## Symptoms of Tooth Decay

In the early stages of dental decay there are no symptoms but a [dentist](#) may be able to detect an early cavity through examination and x-ray. Therefore you should visit your dentist regularly as small cavities are much easier to treat than advanced tooth decay. If the cavity or tooth decay reaches the dentin, sensitivity is felt, particularly with sweet foods and drinks, acidic or hot foods.

As the tooth decay reaches the dental pulp a [toothache](#) is felt by hot or sweet foods, this may last for only a few minutes. As the decay gets closer to the dental pulp the pain may be persistent and you may need to take painkillers, paracetamol or ibuprofen, to control the pain. It is essential to visit your dentist immediately or the tooth will devitalize and you may develop a dental abscess.

Toothache indicates that immediate visit to the dentist should be done to avoid the tooth loss.

### Prevention of Tooth Decay



The best way to keep your teeth healthy and in order to prevent tooth decay is to ensure that you clean them regularly and avoid formation of any plaque. Most dentists recommend that cleaning teeth at least twice a day, using a toothpaste containing fluoride is recommended as it provides the teeth with added protection from the effects of acid.

Dental flossing is also good way to prevent tooth decay as it helps removing food in between the teeth and prevents proximal caries. It's always better to rinse your mouth after eating anything especially sticky foods. It is also important to have a regular dental check up by a dentist, usually once every six months or a year.

### Treatment of Tooth Decay

The treatment of tooth decay involves removal of decayed or infected portion of the tooth using dental drill and then filling the empty part with a permanent dental filling. This may or may not be carried out under a local anesthesia. Different types of fillings can be used to fill a cavity; it depends on the extent of the tooth decay, the location of the cavity and also the budget of the treatment.

If the tooth decay affects the lower part of the dentin or is just few millimeters away from the pulp then a technique known as reversible pulpitis is done. In this method a layer of affected dentin is left and the remaining infected dentin is excavated from the tooth. A calcium hydroxide base which has the tendency to repair the dentin is placed on the cavity and a temporary filling is placed on it. It is left for few days and once the pain subsides, a permanent filling is done in the cavity.

If the cavity is too deep involving the dentin as well as pulp, then the treatment used is root canal treatment.

### Tooth Decay in Children. Baby Bottle Tooth Decay

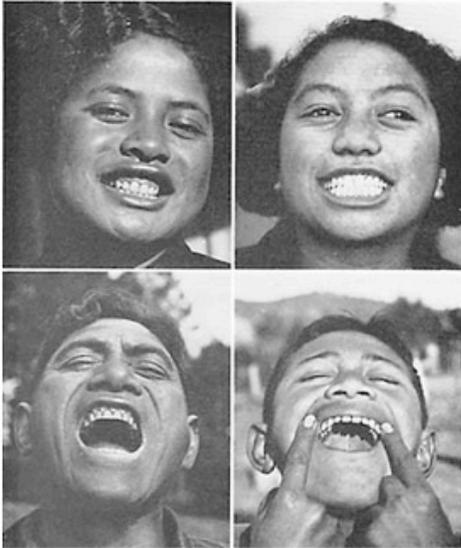
Baby bottle tooth decay is a condition that occurs in children between 18 months and 3 years of age because of prolonged exposure of the teeth to milk or juice. Caries (tooth decay) are formed because the milk or juice in the mouth breaks down to lactic acid and cause caries.

Do not put your infant or small child to bed with a bottle of milk, formula, juice, or other product that contains sugar. Sugar and acids in these liquids can cause tooth decay.

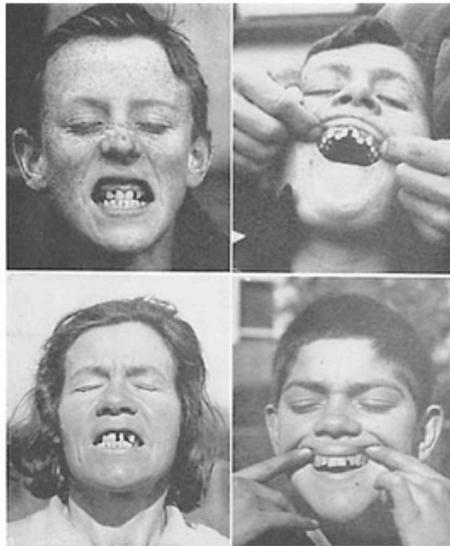
In early days, people used to eat sweets very rare. Meals were high in fat, but fairly low in sugar, and the only sugar contain food they took was something like a slice or two of apple pie. In general, tooth decay wasn't a problem for our ancestry.

### Pictures and Photographs of Tooth Decay

These children were raised on a traditional diet which consisted mainly of fish and shell fish



Compare those children with the white children in New Zealand, eating modern foods like white flour and sugar



*(Image source: Nutrition and Physical Degeneration By Dr. Weston A. Price)*

On the first set of pictures (left), perfectly straight white teeth. Only about one tooth per thousand teeth had been attacked by tooth decay before they came under the influence of the white man.

On the second set of photographs (right), crooked teeth, lots of cavities and tooth decay. Whereas the original primitive Maori had reportedly the finest teeth in the world, the whites now in New Zealand are claimed to have the poorest teeth in the world.