

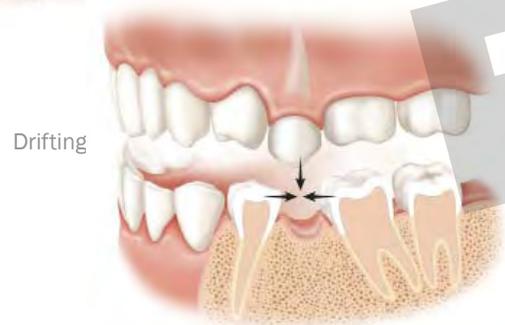
What Causes Tooth Loss?

Reasons for replacing a missing tooth (or teeth) vary and should be weighed against the risks of leaving the space, as well as resultant changes that may take place in the rest of your dentition.

Bone Loss

When teeth are removed from the jaw, the bone that supports the teeth tends to shrink over time. This process is called **resorption** and is a natural consequence of the loss of stimulation to the bone from the forces placed on the teeth. Resorption of the alveolar bone (bone that supports the teeth) begins almost as soon as the tooth is removed and proceeds over time. The bone will lose both height and width from resorption.

When multiple teeth are lost, with or without a prosthesis to replace them, significant loss of jaw bone can take place. This sometimes leads to difficulty wearing a removable denture due to lack of an adequate "ridge" upon which the denture can obtain stability. In the so-called "esthetic zone" of the mouth, where loss of ridge volume can be visibly apparent to the naked eye, this can lead to a cosmetic defect. As the bone resorbs, the gum which covers it also shrinks away, creating a concavity (depression in height and width) that can be unsightly as well as possibly promote food impaction under adjacent teeth.



Drifting

Loss of one or two teeth in a segment of your mouth can lead to **drifting** of neighboring teeth, whereby the adjacent teeth lean over into the vacant space where the teeth have been lost. Similarly, loss of a tooth or teeth can lead to shifting of opposing teeth as they drift down into the open space (super-erupt).

In general, our teeth have a constant tendency to move both towards the front of our mouths and towards the opposing jaw, unless they are stopped by something in their way, usually the adjacent or opposing teeth. Loss of teeth allows this to proceed in a pathologic way. As teeth drift, they create discrepancies in the height and contours of the gum tissue that predispose adjacent teeth to periodontal disease progression and/or dental decay from accumulation of food and plaque and difficulty in cleaning these areas from "piled-up" gum tissue. Drifting teeth can also adversely affect the occlusion (bite), as well as the cosmetics of your face and smile.



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Patient Care

What causes tooth loss?

If you have lost one or more teeth, dental implants are an excellent treatment option.

Tooth loss can occur for a variety of reasons - congenital absence, trauma, dental disease (e.g. caries or periodontal disease), as well as mechanical failure.

Congenital Absence

It is not uncommon for a tooth or teeth to be congenitally absent. Most commonly, the primary (baby) tooth is present but there is no successor (permanent tooth) to replace it. Frequently, this will be apparent when the baby tooth exfoliates, or falls out (usually during adolescence). Often however, the baby tooth will remain in place and will function until it fails due to the loss of root support or other dental disease. At this point, it will need to be removed.

Before placing an implant in the site of a congenitally absent tooth, it is important that your doctor verify that there is not a tooth bud (a cyst-like structure) in the jawbone in that area. The most commonly missing teeth are maxillary (upper jaw) lateral incisors and premolars.

For more information, visit our website at www.osseo.org

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Trauma

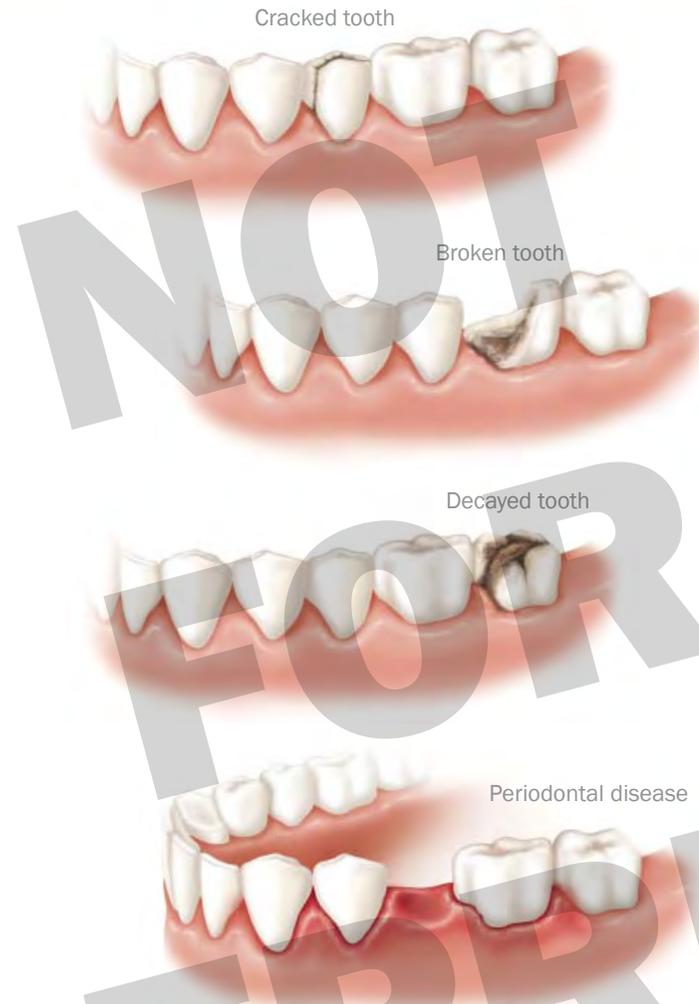
Trauma can cause loss of teeth in a variety of ways. Teeth can be “knocked out” from trauma, such as a child falling off her bicycle and onto her face. Frequently however, trauma can affect the teeth in ways that do not manifest until months or years later. Root fracture may not be apparent until some time later when infection develops. Sometimes, after teeth have been traumatized, they can be treated and appear to be doing well until many years later when root resorption becomes apparent. This occurs when the body turns against itself and causes cells to eat away at the root surface, often allowing bone to grow into the defect that has been created.

Trauma of a more pernicious order can also affect the dentition. Significant defects of the jaw bone, in addition to teeth, can occur as a result of trauma. This may be following surgery to remove a tumor from the mouth and/or jaws, or secondary to external trauma such as an automobile accident, other forms of blunt trauma or ballistic wounds. These types of trauma can often be compounded by significant loss of jaw bone volume, or even continuity, and could require other forms of surgery to reconstruct the jaw anatomy as well as provide for prosthetic tooth replacement.

Dental Disease

The most common reason for tooth loss is periodontal (gum) disease. This is essentially a localized infection in the gums and supporting structures of the teeth leading to loss of bone. This can progress to the point that teeth fall out on their own or are deemed beyond repair or are too compromised to be useful and must be extracted. Dental caries (decay) can also progress to the extent that teeth are beyond the ability to be restored to function. Decay can also lead to significant infection in the bone around the ends of the root(s) leading to necessary tooth extraction to prevent further infectious complications.

Lastly, teeth may crack or fracture in such a way that they cannot be maintained and must be removed. This can happen as the result of clenching and grinding habits (bruxing), or for mechanical reasons related to the lack of sufficient support from other teeth. This can cause extreme stress to the teeth that remain in function.



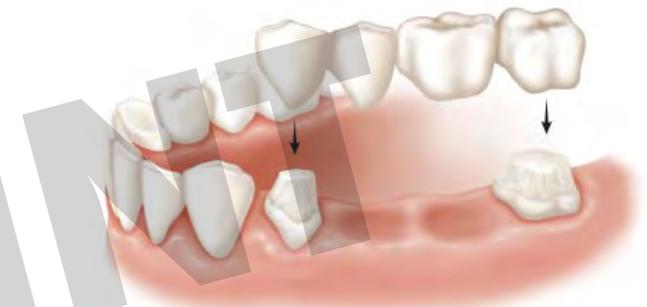
Missing teeth can be replaced in a variety of ways

You may be a candidate for any one or all of them, depending on the circumstances. **Implants** are becoming the treatment of choice for a number of reasons. Most significantly among these is the expected longevity, strength and stability offered by current implant treatment, as well as the predictability of implant treatment with current technologies. The following are other common treatment options for missing teeth.

Fixed Bridge

Teeth can also be replaced with a fixed bridge if there are teeth in the area that are adequate in number and sufficiently healthy and strong to support the artificial teeth. In order to fabricate a bridge, the adjacent teeth are prepared by reducing their size (cut down) to remove all the enamel, making room for the prosthetic tooth restoration. A prosthetic tooth (or teeth) can be suspended between adjacent teeth in this way to provide a functional and cosmetic replacement for the missing tooth.

The limitation of this form of treatment has to do with the irreversible preparation of the adjacent (abutment) teeth for support. This exposes them to the risk of trauma to their nerves, raising the risk of requiring root canal treatment. Long-term, fixed bridges between natural teeth have an average life expectancy of ten(10) to twelve(12) years before requiring replacement. Replacement of fixed bridges often entails further treatment as the abutment or supporting teeth have been further compromised over time by advancing dental disease (such as cavities or periodontal bone loss).



Fixed partial denture (fixed bridge)

Dentures

Removable partial or full dentures can replace a single missing tooth, several teeth, or all of the teeth in your upper and/or lower jaw. Dentures rely on support by the other teeth in that jaw (for partial dentures) and from mechanical support by the remaining ridge of gum and underlying bone. Maxillary (upper jaw) full dentures also may be helped by suction between the denture and the underlying gum of your palate (roof of mouth).