

# Missing Teeth

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Fixed bridges and implants are often used to replace missing teeth and to correct some kinds of bite problems.

Crowns and bridges are the most effective procedure for replacing missing teeth or bite problems.

## Bridges

Bridges are natural-looking dental appliances that can replace a section of missing teeth. Because they are custom-made, bridges are barely noticeable and can restore the natural contour of teeth as well as the proper bite relationship between upper and lower teeth.

Bridges are sometimes referred to as fixed partial dentures, because they are semipermanent and are bonded to existing teeth or implants. Some bridges are removable and can be cleaned by the wearer; others need to be removed by a dentist. Porcelain, gold alloys or combinations of materials are usually used to make bridge appliances.

Appliances called implant bridges are attached to an area below the gum tissue, or the bone.

## Implants

The concept of implanting metal or prosthetic roots into the jaws to support teeth is not new. Archeologists have uncovered attempts at dental implants in mummies found in ancient Egypt.

### Early Tooth Replacement from Ancient Mediterranean Civilization

Over the centuries this concept has been attempted in a variety of ways, but has been unsuccessful until recently. **Dr. Per-Ingvar Branemark** is credited with the discovery and development of the technique of **osseointegration**. Osseointegration is defined as a chemical and mechanical bonding of a titanium **implant** (essentially a titanium screw or fixture) to the surrounding bone. These implants act as artificial roots, or anchors, for the replacement of missing teeth. Implants give replacement teeth a more stable base and improve the use one can get out of bridgework and dentures.

Dental implant treatment is performed with a team. The team consists of a restorative dentist who will ultimately fabricate the prosthesis or teeth that are to be replaced; and an experienced surgeon who will place the dental implants in the jaw bone. Careful evaluation of the patient and meticulous planning is essential in providing predictable and satisfactory results.

The treatment consists of 3 phases. The **first phase** of treatment is the placement of the implants by the surgical specialist. The **second phase** of the implant treatment is performed after an appropriate period of healing. Bone heals slowly. A period of approximately 3-6 months is required for the process of osseointegration to be complete. The second phase of treatment consists of the placement of abutments or small metal posts to the implanted fixtures. The **third phase** of treatment consists of the restorative phase. In this phase the new replacement teeth are fabricated and placed on the implants and abutments.

In the case where there is inadequate bone to support a removable denture, or if the length of the gap is too long between the supporting teeth for a bridge, implants are a versatile means to obtain the necessary anchorage for solid tooth replacement.

There is now over 40 years of experience with dental implants. The success rates have been measured worldwide. Over 95% of the implants placed into the jaw have a greater than 5 years success rate. Loss of implants after 5 years is extremely rare.