

What to do about failing teeth?

If you have teeth affected by extensive dental decay or severe gum disease and you are worried about the prospect of losing your natural teeth, then this article should provide you with some hope that you could have a perfectly functional set of teeth and good appearance for the future.

Extensive tooth decay

There are still a large number of patients who for all sorts of reasons reach a stage where their teeth are no longer providing them with the ability to chew effectively or whose teeth have become so extensively damaged by decay that they provide a poor appearance.

Severe and extensive gum disease

Some people may have teeth that are largely undamaged by decay but they have suffered from such severe gum disease that the teeth have very little bone supporting them and therefore they have become loose. They may also suffer from recurrent infections and abscesses or the teeth may be painful and cannot effectively chew food. If you are one of those patients there are treatment options to help you.

The difficult decision to lose natural teeth

Accepting that the teeth need to be finally removed is hard to face for many people. However, knowing that an attractive and functional solution is available that will once again allow you to eat in public without embarrassment and smile with an attractive set of teeth may help you face this treatment and provide you with hope for the future.

Memories of elderly relatives and dentures

Many people have trouble accepting complete tooth loss because they still have memories of their parents or grandparents with large plastic dentures sitting in a glass of water at the bedside. However, modern treatment provides a very different set of treatment options ranging widely in technological complexity.

There are a few options open to you

There is a solution for you, and this leaflet aims to briefly outline all your options. The most attractive of these options for an increasing number of people is an advanced approach that more and more patients are choosing, to improve their quality of life, confidence and self-esteem. The various options are outlined below for comparison.

Conventional dentures, the simplest and cheapest option

Replacement of all the natural teeth can still be achieved using conventional acrylic dentures but the use of modern materials and high quality teeth provide people with a far more natural appearance and better denture experience than was the case some years ago. Modern concepts on the way the upper and lower teeth should meet and the positioning of the teeth allows modern dentures to function far better than they did in the past. However, Dr Priestland understands that many people have no wish to wear conventional dentures and want better alternatives using modern technology.

Implant-retained lower denture

There is an intermediate option that accepts the use of a conventional upper complete denture due to the high degree of success and predictability of the upper complete denture. In the lower jaw, a conventional complete denture is rarely successful due to the moving soft tissues around it. In the lower jaw it is best to use implants to retain the lower denture to improve its comfort and performance. This lower denture is referred to as a lower Complete Overdenture. *There is a separate practice article and patient leaflet that addresses this option in greater detail for those people who choose this compromise solution.*

The principle benefit of this compromise solution is reduced cost but it does accept that the upper denture will remain conventional and will rely on a peripheral seal around the edges of the upper denture to retain the denture in place. Upper dentures are generally acceptable and work well but the lower complete denture with mobile cheek tissues, an active tongue and constantly moving lips during function leads to a tendency for the lower denture to move around the mouth.

For this reason, the lower denture is attached to either two or, ideally three individual implants in the lower jaw with separate precision attachments on each and the opposing part of each attachment is located within the fitting surface of the denture allowing the denture to clip on to the implants. This offers good denture retention and functions well.

Implant-borne Fixed-Removable Bridge/Hybrid Denture

The most advanced treatment option for a patient with no natural teeth is to place a number of dental Titanium implants in the jaws and use these to support precision made metal bars. These bars can be used in a number of ways to retain a precision prosthesis that is known as a fixed-removable bridge or a hybrid denture.

At NQ Surgical Dentistry, Dr Colin Priestland favours the use of two precision bars, one fitting over the other. This is called a *Telescopic Bar or a Two-part Bar* with built-in clips to retain the teeth and prosthetic natural looking soft tissue replacement material.

These prostheses are usually referred to as Fixed-Removable Prostheses, rather than Dentures though some dentists still refer to them as Hybrid Dentures. However, they are so technologically advanced and involve a great deal of precision laboratory work that we refer to them as Fixed-Removable Bridges.

Fixed Bridge

It is common for patients on their first visit to request that their teeth be removed and replaced with a fixed bridge on implants. They frequently refer to this treatment as “*screwed-in teeth*”. However the biggest problem with a permanently fixed set of teeth is that patients find it very difficult to clean effectively underneath the teeth where they meet the gums. This area gathers plaque and the plaque becomes calcified and forms tartar. This leads to:

- infection of the soft tissues
- inflammation around the implants (*peri-implant mucositis*)
- ulceration of gum under the fixed bridge
- destruction of the bone supporting the implants (*peri-implantitis*)

- failure of the implants and the fixed teeth

These prostheses may look and feel fantastic on the day they are fitted, but it can take a remarkably short time for inflammation to develop and then for infection to become established leading to loss of the bone supporting the implants.

I have been faced with having to remove such devices from the implants due to the development of infection around the implants. Once the bridgework has been removed it is then necessary to debride the bridgework removing plaque and tartar, clean the implants beneath the gum margins, and then arrange for a dental laboratory to reshape the porcelain or metal base to create space between the gum and the porcelain or metal to allow access for superfloss, X-Floss, Pikster brushes, sonic brushes and dental tape making cleaning easier.

In the lower jaw this extra space under the bridgework achieves an acceptable situation but in the upper jaw the creation of a space over the top of the fixed bridge at the front of the mouth can provide an unacceptable appearance especially if the patient has a short upper lip showing teeth and gum when smiling. Such a space can also allow the escape of air when speaking and a lisp can develop. This change in speech is rarely acceptable to the patient and it can be very difficult to reach an acceptable compromise for the patient to clean well and speak well.

In view of the poor access for cleaning beneath fixed implant bridges, Dr Colin Priestland holds the firm opinion that these fixed solutions are likely to provide his patients with more problems than he solves. It is now his practice to fully discuss these problems with his patients and advise that Fixed-Removable Bridgework is provided instead, if the patient demands a fixed option.

Fixed-Removable Bridge – the most popular option

Dr Priestland has noticed that patients find the Fixed-Removable option that enables them to remove the prosthesis from the retaining bar beneath, find the cleaning of this highly polished metal bar substructure far easier to achieve to a high standard. The teeth and prosthetic soft tissues can then be replaced by the patient after cleaning.

Fixed-Removable Bridges do not have to be left out at night like conventional dentures. They can be replaced on the bar and worn at all times other than when cleaning.

Patient cleaning determines success or failure

It is almost entirely the standard of cleaning performed by the patient around the prosthetic devices (*bridges and dentures built on implants*) that dictates the long-term success or failure of the prostheses.

If plaque removal is made easy, people can keep the prostheses clean. If cleaning is more difficult, then people find it is too challenging and eventually they give up and the prostheses become coated in a thick biofilm of sticky plaque containing many millions of bacteria. The end result is infection and failure.

Repeated success



Dr Priestland has been involved in this area of dentistry now for some year and has seen the amazing transformation of patients who go through the confronting experience of losing all their natural teeth to receiving one of these advanced and natural feeling appliances. It is probably the most satisfying and pleasing treatment we provide as it has such a great positive impact on patients' lives.

Laboratory excellence and teamwork

This type of work is extremely demanding of both the clinical dentist and the highly skilled laboratory technicians who together plan the work carefully and who then must work with a high degree of accuracy in a close team.

As a consequence, Dr Priestland provides this work in conjunction with *Gold and Ceramics Dental Laboratory, Brisbane* and *Neil Simons Dental Laboratory, Townsville*. Such work involves technologies including computer-aided design, computer-aided manufacture (CAD/CAM) and computer-aided milling of various materials including monolithic Zirconia, Titanium and Cobalt-Chromium alloy. Their work is exacting and of the highest possible standard. This ensures a perfect fit of any prosthesis they make based on the accurate work and impressions of the dental surgeon with whom they work in close co-operation.

The results speak, and smile for themselves!

If any of these options interest you, feel free to call NQ Surgical Dentistry for a consultation with Dr Priestland.