



What's different about The New Mini Implants?

Dr. Idris was commissioned by Osteocare, a UK implant manufacturer to design a new mini implant. As he has extensive experience with dental implants, he was able to do so with several significant design modifications and added new features, which have improved and extended their applications.

The new mini implants are of varying diameter and length to suit different amounts and qualities of bone. They range in size from 2.3 to 4.3 millimetres in width, and 10 to 18mm in length, which offer a far greater range of sizes than previous mini implants. They are made of biocompatible titanium alloy, which has been proven to bond with the bone over time. They also have more surface area and a stronger post to ultimately support the teeth.

The new implants have also been specifically designed to have a built in shoulder, which creates a better margin and shape for the crown to fit to, and allows improved oral hygiene.

What type of surgery is involved compared with traditional techniques?

The primary difference is that the implants are 'self-tapping' and 'self-drilling' which means you do not have to drill the bone to the same extent as traditional implants. Usually a small perforation through the gum and top of the bone, which takes a few seconds, is all that is required.

Another difference is that with the traditional technique, normally the gum is cut and peeled away from the bone, a process known as 'lifting a flap' before the bone is drilled and the implant inserted. Consequently the gum has to be stitched over the implant and there is often associated pain, swelling and bruising. This is not normally the case with the new mini implant which does not involve raising a flap, thereby avoiding the complications of stitches, and minimising the pain and trauma experienced.

I've been told I have thin bone and need Bone Grafting. Does that still apply to the New Mini Implants?

There are some situations where the smaller size and the tapered design of the new implants can avoid the need for bone grafting. In fact, the new design can actually help develop more bone than when you first started!

I am aware of the tremendous forces applied by the jaw when chewing food. How can these small implants stand the pressure?

It is true that what the dental profession calls Occlusal or Biting Forces create dynamic pressures on the human jaw. Our jaws and teeth are marvellously designed to withstand those forces. If therefore a tooth is replaced, the post of the implant must be able to withstand the same pressures. Research has shown that titanium alloy used in the manufacture of the new mini implants is 64% stronger than those constructed from commercially pure titanium.

The new implants are available in a range of sizes to allow more appropriate selection of size in relation to the tooth position and potential force variation. Fractures of titanium alloy implants are rare but can occur, just as with a person's normal teeth under extreme pressure. It is therefore sensible to avoid situations where the implant would be exposed to excessive forces.

What about failures?

It must be recognized that all implant systems as well as natural teeth are subject to potential failure due to a variety of causes, including bone loss, poor oral hygiene, infection, wear and tear attrition, heavy or stressful biting habits and lack of follow up dental maintenance. Mini implants therefore do not carry any actual or implied guarantee as to longevity. However the loss of a mini implant may be a less critical event to the patient since it may be replaced with minimal associated bone or gum deterioration, due to the minimal size.

How can I Improve the Chances of Success?

The most critical period for the healing of the implants is the first few months, and so it is essential to allow the implant to heal within the bone by avoiding undue forces on the implants during this phase. Ideally, you should avoid/minimise chewing directly on the implants and avoid hard and sticky foods during this phase.

Another important aspect is maintaining the teeth supported by implants with appropriate and vigorous cleaning using floss and brushes to remove all plaque. You should also attend for regular professional assessment to ensure that there are no problems developing.

Another sensible measure is to ensure good vitamin and calcium intake in the diet, which may help healing. Smokers should attempt to keep their habit to a minimum,