# Dental Professional

## Implant Aesthetics: How your personal biology



Dr. Christoph Michel

### Dear Doctor,

I am about to have a front tooth replaced. My dentist indicated that it would be challenging, especially since I smile widely. Why is it difficult for implants in this area of the mouth to do well? What can be done to ensure success?

### Dear Lisa,

Thanks for bringing up this issue, which is important to all dentists who are trying to make implant crowns look as natural as possible, especially where they show in what dentists acknowledge as the "Smile or Aesthetic Zone".

In the front of the mouth, especially for upper teeth, and in a case like yours where the gum line shows at "full smile", it is indeed more challenging to make the implant and crown connected to it look lifelike. Here are a few

Firstly, in order to place an implant successfully (the root replacement for a tooth), there has to be enough bone to "anchor" it, somewhat like having enough of a cone in which to place the ice cream. Like ice cream, bone tends to melt away when a natural tooth root is removed. In addition there needs to be sufficient bone attached to the adjacent teeth, because it is the bone levels on the adjacent teeth that support the "papillae", the little triangles of gum tissue that fill the spaces between the teeth. If that bone is loose on the adjacent teeth, there is no guarantee that the papillae will regenerate, or simply put, come back. It becomes even more difficult if two adjacent teeth are missing and need to be replaced, in which case another alternative to

### influences implant aesthetics



implants, such as bridgework may be better option.

The position of the implants and how the crown emerges from the gum tissue is another factor, which needs to be considered carefully. Thicker gum tissue types are also easier to work with than thinner types, as they are more forgiving and hide more.

Very often, provisional crowns are fitted before a final crown is made, so that different crown shapes can be tried that look. feel, and function correctly. The degree to which the implants are submerged beneath the gum is also important to allow this effect.

More recently the design of the head or top of the implants have been changed to both maximize and help further stabilize the bone gum tissues around them for aesthetic reasons (Figure 1). The technical term for this is "platform switching" which changes the biological orientation of the tissue from vertical to horizontal. This is not to blind you with the science, but more to let you know that the profession is making every endeavor to make tooth replacement with implants as successful and predictable for the long term use as possible (Figure 2).

As with your most issues in dentistry, careful assessment of your individual situation is critical to planning and management guaranteeing as good a result as possible. It is also important to know that people are biological systems, not machines, so although it's possible to replace parts like teeth with implants, we rely on healing to do the rest, which means that end results are not always as predictable as we would like. Before any procedure, you are strongly advised to review with your dentist all the risks, benefits, and alternatives available to you.

Sincerely, Christoph Michel, DMD Figure 1: (left) An example of a "gold abutment" that takes advantage of modern implant technology (hidden beneath the gum), which stabilizes the result for maximum "smile" benefit.

beautiful cosmetic result where the implant crown is as beautiful as the



crowns on the natural teeth.

Dr. Christoph Michel received his dental degree from the University of Pennsylvania. He completed a general practice residency at Muhlenberg Hospital in Bethlehem, PA, which was followed by a three-year associate position in a family practice in Hammonton, NJ.

Being a dedicated father of two, Dr. Michel is also a former president of the Atlantic-Cape May Dental Society and he is also about to receive his fellowship into the Academy of General Dentistry. Dr. Michel continues to give back to the community by donating his time every year during National Dental Health Week to the area primary schools to educate children on the importance of their oral hygiene.

Dr. Michel has been managing his own practice since 2000. By the Sea Dentistry is located at 235 Shore Road Somers Point, NJ 08244 (609) 927-9300 • Visit us at www.bythseadentistry.com

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### PATIENT-TESTIMONIAL ...

Dr. Michel,

Your card has been sitting on my desk for weeks now but this is my first chance to actually take time to thank you for the fantastic job you did on my teeth. A little background about my teeth: I had braces twice, the first time when I was in about 7th grade and the second time while I was in graduate school in New York City in 1995. Unfortunately my teeth kept spreading apart due to the large gap between my teeth. Finally in about 1997 I had my two front teeth bonded by another dentist. Well, that lasted a strong two years until I chipped the bonding while biting into a late night frozen Snickers bar after a big night at the clubs. For more than eight years I walked around with a chip in my bonding. Others couldn't tell it was chipped because it looked like the line between my two front teeth, but I knew it, and it bothered me on a daily basis. When I moved back to South Jersey in 2003, I had decided that I was going to get my teeth fixed when I had enough money, and I found a dentist that I trusted.

Thanks to a woman in my office, I found you and now I have the best teeth in the world. I am not kidding you when I say that I get compliments on my teeth on a daily basis. I actually have friends that tell me that they cannot stop staring at my teeth! Every morning I wake up and smile in the mirror to admire the wonderful job you did on my teeth.

Thank you so much and I will keep referring my friends and colleagues to you.

> Regards, John H.



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