Dr. Gorman's corner

Twin Cities cosmetic dentist **Steve Gorman DDS** answers your questions about dental concerns.

Q I have been thinking about restoring my teeth and I am wondering about implants. I have some missing teeth in the back and one in the front where I also have a bridge I'm not happy with. My dentist tells me I should think about implants, but I'm concerned about the process involved and about the implants not working because of rejection. What would you advise?

A Of course, every case is different and with limited information it is difficult to advise on your particular situation, but I can comment on your question in a general sense.

Dental implants are a wonderful option for replacing and restoring missing teeth. They can be used in a variety of ways to replace teeth – from a single tooth to a full-mouth rehabilitation. When there is a missing tooth in a case we are planning, a dental implant is the first thing I think of and is the treatment of choice in most cases. If there are no medical contraindications and there is enough bone available (or can be made available by grafting), implants should always be considered.

There are many myths about the process of having implants placed and also about the rejection factor. Dental implants were developed in Europe and have been placed and restored there since the 1950s under strict protocol with very high success rates. When the FDA finally allowed dental implants in the US in the 1970s, several implant manufacturers sprang up and not all of the products were satisfactory. There were also some early problems with ascepsis in the manufacturing, packaging and delivery of some of the products. At the same time, some of the implants were being placed by dentists, oral surgeons and periodontists who had very little experience in doing so. Placing dental restorations on implants was also a new adventure for restorative dentists. As a result, there were some failure issues early on and these occurred at a higher rate than had been experienced in Europe for over 20 years. At this point, in 2006, those problems are well in the past. The market has worked to eliminate the manufacturers with poor products and lack of sterile control in manufacturing. The number of well-trained and experienced implantology practitioners in dentistry is very high and growing yearly. I'm seeing success rates in the literature in the area of 97 to 98 percent for integration of the implant into the bone.

Once the implants have healed and are ready to be restored, it is important that the restorative dentist keeps the success rate going. It is ultimately important that the bite forces be placed properly on the teeth supported by implants to maintain that healthy relationship with the bone acquired during healing. This requires proper engineering of crowns, bridges or other prostheses attached to the implant fixtures.

The other myth about implants is that it is a painful process. Currently I rely on excellent periodontists and oral surgeons to place implants for my patients to help restore their mouths. The patients do not report discomfort during treatment or postoperatively. They are often amazed at this and tell me repeatedly that it was 'no big deal'. Most implants can be placed with local anesthetic with or without sedation, or with general anesthesia. In most cases you will have a choice.

Take your dentist's advice and consider dental implants. Make sure your treatment is planned in a comprehensive way and the restorative dentist is the quarterback in the process because the ultimate result will lie in their hands. **cbm**

pain in the jaw and not happy with your smile?

Twin Cities cosmetic dentist **Steve Gorman DDS** explains that aesthetic dentistry not only creates a beautiful smile – it can restore dental health and function as well.

Do you often have pain in your jaw? Do the muscles in your face feel sore or tired or 'full' all the time? When you get up in the morning does your face feel 'tight' or feel like you have been grinding your teeth or squeezing your bite closed all night long? Does it take a while to loosen it up for the day? Do you often have headaches in the temporal area in front of and above your ears? How about the back of your neck? Have other health professionals had trouble isolating the source of your headaches? On top of that, do you have issues with the appearance of your smile? If any of this sounds familiar, read on.

Aesthetic dentistry can do amazing things for many people to improve their self-image, self-esteem and how they present themselves to the world. We all know people who purposely do not smile much or, if they do, restrain their lips to cover what they feel are unsightly teeth. In the dental profession we call it 'smile suppression'.

While the goal of aesthetic dentistry is a beautiful and natural smile, we have emphasized over and over the importance of treatment planning based on comprehensive evaluations of overall dental and medical health for patients. Many of the outward visual problems our clients see with their smiles have causative effects based on bad bites, gum disease issues, failing existing dentistry, heredity, staining, and a host of other things. One of the factors cosmetic dentists evaluate is the relationship between the jaw joint and how the teeth fit together. This can be an issue for a large number of people with various degrees of severity in response to a less than an ideal fit. In short, in an ideal world when both of our jaw joints are in perfect position and we close our teeth together, all teeth would touch at the same time with equal intensity. When one or both of our jaw joints move in any direction, our back teeth would immediately come apart and our front teeth would guide our jaw movement when any teeth are touching until the jaw joints are all the way back to full closure. This natural 'bio-engineering' provides the most stable, harmonious environment for the jaw joints, the teeth, the muscles, ligaments, gum tissues, and bone.

'One of the factors to evaluate is the relationship between the jaw joint and how the teeth fit together'

When this system is operating in an uncoordinated fashion, we find that human beings have a variety of abilities to adapt. Some of the manifestations commonly seen are wear on teeth, loose teeth, broken teeth, cracked teeth, gum tissue recession, bone loss around teeth, sore muscles in the face, temples and neck, headaches, stretched ligaments in the joints, and other degenerative effects. This group of maladies is termed TMD, or Temporomandibular Dysfunction, named for the TMJ or temporomandibular joint. Many patients know they have this problem and say, 'I have TMJ'. The importance of this is that it is an underlying problem that should be treated, especially if you are considering aesthetic restorative dentistry and want a stable result. **cbm**

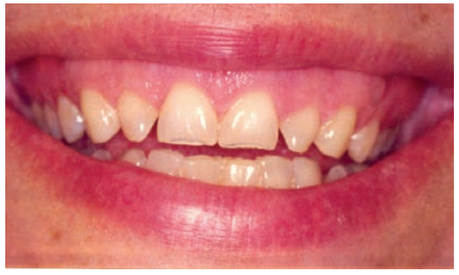
case study

This female patient, in her forties, had some concerns about the appearance of her teeth. Many of her concerns were obvious in that she had very small teeth, short teeth, and worn teeth. There were spaces in the upper front teeth due to some rotation on two teeth. She did not like the 'yellow' color and the thin edges of her upper front teeth. She also had crowding in the lower front teeth and presented an excess display of gum tissue upon smiling, or 'gummy smile'. In addition, she had several dark, older metal-mercury fillings in her back teeth that she wanted to have removed as part of the process of restoring her mouth.

Upon examination and questioning, it was apparent that there were uncoordinated bite problems underlying many of her concerns aesthetically. There was facial muscle pain, pain in the joint areas, and severe wear on the teeth. The bite in the teeth were preventing the jaw joints from going into their ideal position on closing, causing muscle splinting and leading to chronic muscle tiredness and pain. Upon movement and function, the teeth that were supposed to touch and guide the movement had been worn and were not providing proper guidance. This led to more tooth wear and muscle pain. She also reported headaches in the temporal area and morning tightness. Another observation was that, due to the wear on the teeth, her lower face looked 'over-closed' when the teeth were together. This can give an appearance of premature aging.

BEFORE

AFTER cosmetic dentistry by Dr. Gorman



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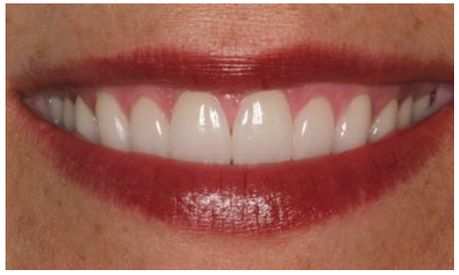

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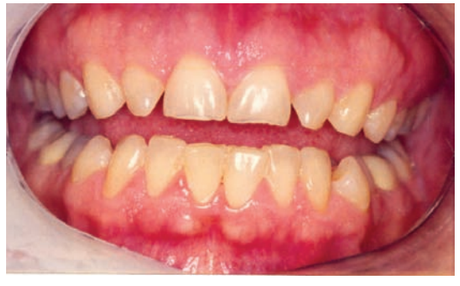

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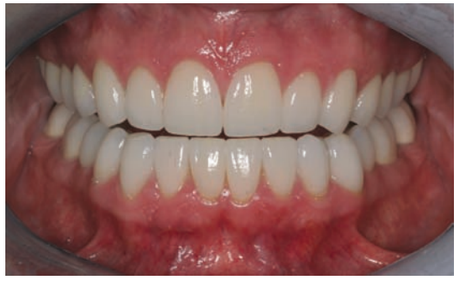

AFTER cosmetic dentistry by Dr. Gorman

The vast majority of patients with the symptoms listed above can be helped by conservative bite therapy or 'occluso-muscular therapy'. This proved to be true in this case. There are generally two phases to this treatment. The first is to relieve the symptoms and to establish the proper jaw position needed for stability. The second is to position the teeth and the bite to support this position. In this case, the first phase was accomplished by providing an appliance called a 'bite splint' that fits somewhat like a retainer and provides a 'perfect' bite to support this ideal jaw position. It essentially 'tricks' the muscles into proper coordination of function. Once muscle relaxation occurs, the muscle pain symptoms subside, and the patient can generally expect stable results in a few weeks to a few months. In this case, it was two and a half months. During this treatment time we were able to accomplish some other things to help set the stage for phase two of the treatment plan. Namely, to address the 'gummy smile' and have some of the excess gum display 'lifted' by an aesthetic periodontist. This allowed us to show less gum in her final smile and the room to have more natural-sized teeth in length and width in the final restorations. The healing required for this was occurring at the same time we were using the splint on the bite issues.

Now it was time to create the smile she wanted. We started by visualizing the result before we began the treatment. A digital photo of the current smile was taken and manipulated to the desired look for computer review. Also, 3D models of the teeth, set up exactly as the splint had them related in the mouth, were mocked up in wax to reflect the changes in the teeth and final goal for the smile. Indexes were made of these mock-ups to make provisional (temporary) restorations for the patient to wear while the ceramics were being fabricated. This time also allowed us to test the patient's new bite position with the bite on the provisional teeth and not just on the splint, and also any adjustments made to maintain the patient's newfound comfort. The final restorations were crafted on models of the teeth also set to this bite position. Once placed in the mouth, the final bite was tested and adjusted again to make sure of maximum comfort and function. In our illustration case we additionally fitted her with a night guard splint to wear while sleeping as additional insurance to protect her investment in the porcelain restorations. Her new smile is very attractive and she is extremely happy with the results

I would like to acknowledge the assistance in this case from Dr. Patrick Gaspard, the periodontist; Mr. Edgar Jimenez, the ceramist and lab technician; and my capable staff.