



KEEP SMILING!

In our fourth article in our series on cosmetic dentistry and smile rejuvenation I am going to cover several aspects of cosmetic dentistry. These range from simple procedures to the more advanced but all of which have a dramatic effect on the confidence and wellbeing of the patient.

by Dr. David Nelson BDS, MSc. (Imp. Dent.)

Teeth Whitening

Teeth whitening is one of the least invasive cosmetic procedures yet it can provide dramatic results giving everyone the possibility of having that whiter, brighter smile!

Is Everyone Suitable for Teeth Whitening?

There has been a phenomenal increase in the number of patients seeking to whiten their teeth. As a result there has also been a huge increase in the products available. Some of these products are sold as 'over the counter' products, some provided by beauticians and some provided by dentists.

There are many factors which cause tooth discolouration, including:

- Staining (coffee, red wine, tobacco, etc);
- Ageing;
- Genetic abnormalities;
- Hereditary conditions;
- Systemic syndromes;
- Drug administration; and
- Other pathological processes.

The correct diagnosis for the cause of discolouration is vital, as teeth whitening will only be effective in treating some of the aforementioned factors. A dentist understands all of the causes of tooth discolouration and is therefore able to make a correct diagnosis in order to provide the appropriate treatment - this may not be whitening!

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Methods for Teeth Whitening

The two most common methods provided by your cosmetic dentist to whiten teeth are 'at home whitening' and 'in surgery/ power whitening'

At Home Whitening

After all routine work is completed your dentist will make a mould of your teeth and from this customised trays are fabricated which will snugly fit the individual patient's teeth. The dentist will then go through the instructions both verbally and in a written format. The patient then carries out the whitening at home. The whole process takes approximately six weeks to have the desired result.

In Surgery/Power Whitening

Power whitening is done in-surgery and uses a device to speed up the whitening process. This can be in the form of a

whitening lamp, laser or another method. The system we use in my practice is the 'Zoom Advanced Power' as seen on Sky TV's 'Extreme Makeover' or Channel Four's 'Ten Years Younger'. As with the 'at home whitening' all routine treatment should be completed before whitening is commenced. The whitening process takes between 1-2 hours in surgery. After the whitening process the dentist may provide trays and some stabilisation gel to prevent rebound of the colour. These trays can also be used to continue with 'at home' whitening or in the future to maintain the colour.

Cost

The cost for the procedures again varies on the type of process used, but one can expect to pay between €500 - €1000.

Cosmetic Bonding / Veneers

These have differing levels of complexity and are generally used to disguise gaps, or treat discolouration, chipping or overcrowding.

COSMETIC BONDING

Cosmetic bonding is a non-invasive way of improving the appearance of spaces between teeth or fractured teeth. In basic terms it is the cosmetic positioning and shaping of a white filling material to improve the appearance of the teeth. It generally requires minimal if any preparation of the teeth and can quite often be reversed if required. Its drawbacks are that the material that is used does take up staining faster than the tooth surface and may need to be replaced at approximate four yearly intervals. Although non-invasive, the cosmetic dentist before proceeding with direct bonding should always discuss more conservative options such as orthodontics (braces) with the patient.

Cost

Between €100 - €500 per tooth

VENEERS

Essentially dental veneers are thin pieces of white glass/porcelain that are bonded to the front of your teeth to improve your smile. They can be used on single teeth that have been damaged accidentally, decayed or discoloured. They can also be used on multiple teeth for the same reasons or to help create that perfect smile whether it is the Hollywood look or a simply natural beautiful appearance. With veneers the choice can be yours. With multiple veneers we can close spaces, straighten crooked teeth, disguise severe staining, repair chipped/worn teeth or just revamp that ageing smile. Veneers can also be used to cover teeth that have been so severely stained that whitening/bleaching cannot completely remove. In some instances it can whiten teeth more effectively than bleaching. If it is only whiter teeth that you desire then I would recommend whitening rather than veneers. Veneers are a permanent procedure and there always needs to be some tooth preparation although the amount of preparation depends on the position of teeth and the desired result.

The three most common types of veneer are the pressable ceramic, feldspathic porcelain and computer aided design/

milling [CAD/CAM]. These can then be given product or company names. Some of the more common names that the consumers may be aware of are Lumineers, Cerec, Davinci or Fortress. The different types of veneer have some slight advantages/disadvantages over each other but generally all do exactly the same job. It is usually marketing that attracts the consumer to a certain type of veneer. Each dentist will have his preferred type of veneer and it is the interaction between the dentist and the laboratory which is very important. The dentist will assess suitability for veneers by carrying out a full smile analysis and then provide the clinical treatment necessary to craft a patient's smile. The role of the technician/ceramicist is equally important and it is their artistic flare that captures that perfect smile. It is therefore vital that your dentist is using a very high quality cosmetic ceramicist. The other option is that the cosmetic dentist is using one of the CAD/CAM systems such as Cerec and is able to mill the veneer for you straight away! This is a major advantage of Cerec but the aesthetic results may not be as good as that achieved by the ceramicist in the lab. The Cerec veneers have subtle variations in colour applied after milling

and this is very dependent on the skill of the person applying these final touches! If this is not done they can appear very monochromatic and lifeless! The decision to go ahead with dental veneers should not be taken lightly. This is a permanent procedure and veneers do not last for ever. On average you can expect to get between 8-10 years from a set of veneers. Veneers can also occasionally come away or fracture. If teeth need to be heavily prepped to obtain the correct aesthetic result then root canal treatment is also a possibility if a nerve in a tooth starts to die. It is also not a "fit and forget" procedure. It is important to maintain your veneers with regular reviews with your dentist and three monthly visits to the dental hygienist. All of this should be explained to a patient before an informed decision on treatment can be taken. Even with this doom and gloom a lot of my patients who have had veneer treatment when asked would they do it all again often state that it has been a life changing procedure!

Cost

Between €300 - €1300 per veneer



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Dental Implants

There are many available treatment options for restoring the consequences of partial or complete tooth loss of a patient's natural teeth. The established long-term efficacy of dental implants means that they have a potential role to play. Endosseous implants are the most common type of implants in use today and there are many systems (e.g. Straumann, 3i, Nobel Biocare and Osteo-Ti) currently providing excellent results. Most studies now show a greater than 95% success rate for dental implants and some studies even show a greater than 97.5% success rate which is a phenomenal achievement!

Implants can be used in the following clinical situations:

- Single tooth replacement
- Multiple tooth replacement
- Edentulous cases - no teeth
- To stabilise dentures
- Orthodontic anchorage
- Extra-oral reconstruction

Their most common use in general dental practice today is either for single or multiple tooth replacement.

The level of predictability is a major factor in considering implants as the treatment of choice for most cases of tooth loss. Dental implants are specially designed screws which are implanted into the jaw and act like natural tooth roots. Replacement teeth can then be attached, even dentures can be made to feel more comfortable and secure. With routine care dental implants have a high level of success, so you can smile, eat and laugh again with confidence!

Modern techniques have made it possible for nearly everyone who is missing teeth to qualify as a candidate for implant treatment. The determining factors are a sufficient amount of quality bone, good oral hygiene and generally good health. Age is not a limitation for implant treatment provided the individual is healthy. The healing process may take longer with advancing biological age and this is pertinent with respect to the patient's mental well being and physical fitness.

Prior to implant treatment, the remaining teeth and gums need to be healthy and, as already discussed, regular hygiene and check-up appointments are important for long-term success.

In patients who have already lost significant amounts of bone then simple and predictable bone grafting procedures are available to replace this. These procedures may involve the use of an artificial bone graft or the use of the patient's own bone. This is dependent on the size, type and position of the bone loss (bone defect). Your implantologist will advise you if these procedures are required and the type of procedure that will be performed.

It is important to choose someone with experience in this field. For example, consider additional qualifications in dental implantology, oral surgery or periodontology. These are just some factors that you can use to identify the competence of the implantologist.

Cost

To give an indication of costs a single implant restored with a crown can range from between €2500 - €4000 (excluding any grafting that may be required). When inquiring about cost make sure that you ascertain if the cost includes the crown or restoration as some implantologist quote these fees separately.

Gum Recontouring / Gum Lifts



Often a patient's main focus of concern is the appearance of their teeth and the position of the gums is overlooked. If the gums are not in the correct position then this can distort the aesthetics of a perfectly crafted smile! Gum surgery should always be performed before any other restorations (crowns/veneers) are prepared.

A high lip line is also a concern for a lot of patients. This is when a patient shows a lot of gum at full smile. There are several ways that this can be treated. The least invasive is the use of botulinum toxin to effectively paralyse the muscles that lift the lips a full smile. It is important that the clinician administering the botulinum toxin understands which muscles they wish to target to get the correct result.

The more invasive techniques are either lip repositioning surgery where a piece of the lip is removed to lower the lip line or a full gum lift where bone and gum is removed to raise the level of the gums. Gum lifts have to be carried out in conjunction with veneers or crowns. These are invasive techniques and the patient should understand the procedures before progressing with treatment.

The most invasive solution for the very extreme cases is the maxillary osteotomy where the full upper jaw bone is effectively moved up and back. This type of procedure is very invasive and should not be taken lightly!

Cost

This is very dependent on the type of procedure and how much surgery is required and would need to be quoted on a case to case basis. To give an approximate guide a full gum lift could cost between €500 - €3000. This depends on whether only gum or bone and gum needs to be removed also how much needs to be removed.



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Dr. David Nelson is the principal dentist at Bangor West Dental & Implant Clinic. He holds a Masters Degree in Dental Implantology from The University of Warwick and has a special interest in dental implants and cosmetic treatments. Dr. Nelson is a tutor on the Masters Degree Course in Implant Dentistry at The University of Warwick and delivers lectures to groups of international and local dentists relating to dental implants. He is the Northern Ireland Facilitator for the British Society of Oral Implantology through which he runs regular study groups for other dentists. His practice regularly receives referrals from other dental professionals for complex implant and cosmetic dental treatments. He is a member of the British Society of Oral Implantology (BSOI), Association of Dental Implantology (ADI), International Team for Implantology (ITI), The British Academy of Cosmetic Dentistry (BACD), The Society for the Advancement of Anaesthesia in Dentistry (SAAD) and The British Dental Association (BDA).