



Everyone wants that whiter, brighter smile and why not have it for the festive season! In this cosmetic dentistry article we shall be looking at the process of whitening our teeth. The public are becoming increasingly aware of the importance of a beautiful smile due to the media fascination with beauty. This in turn has led to whitening procedures becoming more and more popular!

Origins

Teeth whitening has been practised since the late 1800's with a variety of medications being used. In the late 1960s, an orthodontist who had prescribed an antiseptic mouthwash containing 10% carbamide peroxide, noticed that it produced a lightening of the patient's teeth. It wasn't until 1989 that teeth whitening as we know it today evolved. Haywood and Haymann introduced the nightguard method of whitening teeth. They introduced the idea of using carbamide peroxide in custom-fitted trays to whiten vital teeth. Today we have many methods that can be used to whiten teeth but most of them use the same active whitening ingredient - Carbamide Peroxide!

There are many factors which cause tooth discolouration, including:

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

How Does Whitening Work?

Our whitening agent (carbamide peroxide) is applied to the teeth. This then slowly releases hydrogen peroxide which is absorbed into the teeth. The peroxide that penetrates the teeth then gets to work at breaking down the stain molecules that are held within the teeth to provide the desired end result of whitening the teeth!

Is Everyone Suitable for Teeth Whitening?

The appearance of a smile is of concern to a large number of people seeking dental treatment and the colour of the teeth is of particular cosmetic importance. 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.





Dreaming of a Whiter Brighter Christmas!

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



How Does Your Cosmetic Dentist Assess Suitability for Whitening?

Your dentist should treat every case using a full patient care approach. He will begin with a full clinical exam and take any necessary x-rays and photographs. He will also diagnose the type of discolouration and the suitability for a whitening procedure.

Any routine work should be carried out before whitening procedures are started. Cavities should be treated and the patient's gums should be healthy to prevent any possible problems during treatment.

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!

There are several different ways to whiten teeth depending on the aetiology as discussed. I am going to focus on the two most popular methods provided by cosmetic dentists namely 'at home whitening' and 'in surgery/power whitening.' Both these methods are best and most commonly utilised for the removal of staining from the internal structure of the teeth. This staining is usually from the ingestion of dark coloured foods, drinks and tobacco.





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At Home Whitening

After your initial assessment and the completion of any routine work your dentist will make a mould of your teeth which is then cast in stone. From this a customised tray is fabricated which will snugly fit the individual patient's teeth.

The dentist will then make sure the trays are comfortable and go through the instructions with the patient. The patient can either bleach while they are asleep or for one to four hours during the day. The patient should receive the instructions both verbally and in written form. The patient should understand how to load the tray and place it in the mouth correctly.

If there is any inflammation of the gums (reddening, ulceration or swelling) the whitening process should be stopped immediately and the dentist should be consulted. Occasionally some sensitivity is also possible. If this is the case then the dentist should be consulted again and they will recommend whether to continue bleaching or give advice on the use of desensitising agents.

It is prudent to see the patient in seven days to check the whitening process and any possible reactions that may occur. The dentist should see the patient regularly until the desirable result is achieved.

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. Common examples are the Zoom Advanced Power (as seen on Sky TV's 'Extreme Makeover' or Channel Four's 'Ten Years Younger'), Britesmile or Enlighten.

As with the 'at home whitening' all routine treatment should be completed before whitening is commenced.

The dentist will initially place lip/cheek retractors and a tongue shield. He then proceeds to isolate the teeth and protect the gums using either a liquid plastic type material that sets hard or a specially adapted rubber sheet. The teeth may be cleaned next with a pumice type material.

The whitening gel is now applied to the teeth and activated using one of the above devices, for example a whitening lamp. After 10-30 minutes the gel is removed and fresh gel is reapplied. The length of time and the number of applications is dependent on the system that is being used.

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.

Is one more beneficial over the other?

Both the 'at home' and 'in surgery' whitening processes work well. The main advantage of the power whitening is the time factor. The results of the power whitening are instant where the 'at home' whitening can take anything from 1-6 weeks or even longer in some cases. The major drawback of the power whitening is the cost, it will nearly always be more expensive.

Both types require maintenance with trays. Usually you can expect to have to wear night trays for a few nights every 6 months to maintain the colour. If this is not done then you can expect to get approximately two years before the need for re-treatment.

Expectations?

Most bleaching procedures will whiten the teeth considerably but it is very dependent on the individual patient and the susceptibility of their teeth to the whitening agent.

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

Whitening procedures work well as long as a correct diagnosis is made and whitening is a suitable treatment option. After this it is up to the individual how they wish to have it carried out, either

'at home' or 'in surgery'. They have to weigh up the drawbacks of cost against time! In my surgery we use the 'Zoom Advanced Power' whitening which is one of the most recent power whitening procedures available. It gives us fantastic results in about an hour of whitening! We currently are providing Christmas gift vouchers for this fantastic technology. Christmas whitening gift vouchers can be purchased over the telephone and will include your initial whitening consultation free of charge (normally £45).



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. His practice regularly receives referrals from other dental professionals for complex implant and cosmetic dental treatments. The practice is currently short-listed as The Best Practice in Northern Ireland at the Dentistry Awards. Bangor West Dental & Implant Clinic is based near Belfast in Northern Ireland. Please contact the practice for a complimentary brochure.

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