

## Consent to Professional Tooth Whitening ("Home Bleaching")

### What is professional tooth whitening?

Professional whitening is the single biggest dental procedure that provides the most magnificent lift in the appearance of the smile and facial aesthetics and thus has become a routine cosmetic dentistry procedure.

Teeth darken with age and frequent ingestion of pigmented foods, such as saffron in curries, tannins such as in berries from wines, and the pulp of fruits such as in mango and of course pigments within tea and coffee.



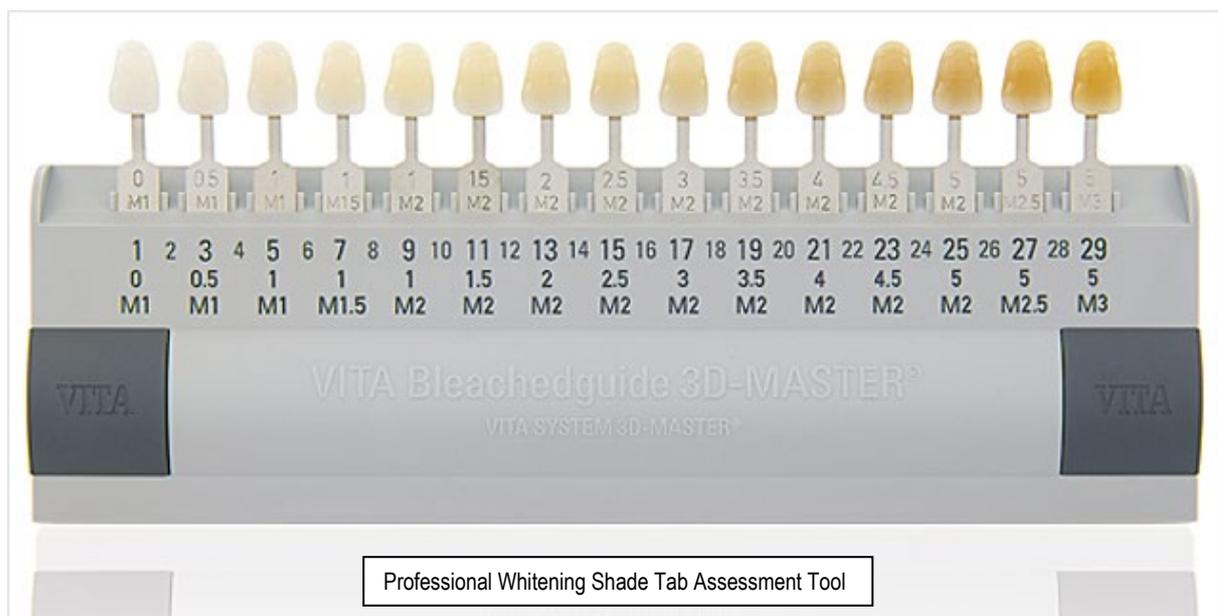
These dietary pigments can be removed by prolonged and intimate contact with a peroxide-based tooth whitening gel held in a clear tray (called a 'reservoir tray') that has been moulded from an impression of your teeth by your dentist. Although the procedure can be straightforward a professional dentist will understand the risks, benefits and limitations of the home bleaching technique in your case. Legally, this procedure can only be in the hands of a licenced dental surgeon who uses regulated products with peroxide concentrations within recommended limits and used in a manner that is evidence based. There is currently a restriction on the provision of professional whitening for under 18 years olds unless this was "wholly for the purpose of treating or preventing disease".

Your dentist will take moulds of your teeth and fabricate a thin flexible tray, which is a reservoir for the professional tooth whitening gels to be placed. These are placed in the mouth every day for the specified number of hours to achieve the tooth whitening effect.

Your dentist will provide instructions on correct placement and dosing of these gels for each application. Some dentists will also recommend the use of a pre-operative desensitising gel to minimise the amount of post-operative sensitivity that you may experience as a result of use of the professional tooth whitening gels.

### How is professional tooth whitening performed?

Before you start professional tooth whitening your dentist will review the current mix of shades across your teeth and demonstrate your own shade 'tab' (or shade tab range) to you so that you can compare the post-operative result with how you started. Some dentists will take a photograph of the current and desired shade tab against your teeth before any bleaching is started. This is a good way to review the success of professional tooth whitening.



The gels used are carefully dosed to match the following (or very similar) peroxide concentrations:

- 10% carbamide peroxide
- 16% carbamide peroxide
- 6% hydrogen peroxide

When placed within a reservoir tray in a warm mouth, the peroxide-based products undergo thermal break-down and peroxide free radicals are released and become absorbed within tooth structure. They start the process of neutralising coloured molecules by oxidising them and rendering them colourless. Carbamide peroxide breaks down into its free radicals over a slightly longer period of time than does hydrogen peroxide.

Carbamide peroxide is typically used overnight and hydrogen peroxide is typically used across an evening. Your dentist will decide if your teeth are better suited to a night-time bleaching technique or an evening bleaching technique.

### How to manage hypersensitivity

The biggest cause of failure of professional whitening is cessation due to too much sensitivity. Should this occur then it is better to slow down the use of the peroxide gels. It is quite acceptable to use the gels every other night. In between the peroxide application you should use Tooth Mouse™ or MI Paste™ within the trays to calm and sooth the teeth. This is a milky formulation of tricalcium phosphate/amorphous calcium phosphate.



## Professional whitening while receiving treatment of gum disease

If you are in the middle of gum treatment with the hygienist or periodontist, it is still possible to undertake professional whitening. Peroxide based gels deliver oxygen free radicals to the tissues and these do kill many of the bacteria implicated in periodontal disease. Indeed, in the past we used peroxide formulations to assist management of periodontal disease. Your dentist will advise you on if it is advisable to wait until the end of your gum treatments before commencing professional tooth whitening.

## Internal/external bleaching

From time to time individuals present with a single very dark tooth which is a completely different colour to the adjacent teeth. This is either “non-vital” (the nerve of the tooth is dead), or the tooth has received root canal treatment in the past and the root filling components have coloured the tooth. In this scenario your surgeon may recommend:

- Internal bleaching of ONLY the affected tooth
- an internal/external bleaching technique, often called the “walking technique”. In this technique the surgeon will drill a hole in the back of the darkened tooth and if necessary, perform a root canal treatment if not already completed. Sometimes your surgeon will deem the old root filling unsatisfactory and will recommend repeat root canal work. If an old root canal is deemed satisfactory, then this will simply be sealed with an adhesive filling. It is very important that the root canal is well sealed before undertaking the inside/outside walking bleach technique.
- Your surgeon will seal the root filled tooth from within the tooth but leave a wide hole on inside of your tooth to be able to inject some of the bleaching gel directly inside the tooth.

You will then perform professional tooth whitening with a reservoir tray but be instructed to place additional gel within the hole on the back of the tooth.

## How long does it take?

There are different bleaching products, concentrations and price plans for different outcomes. A typical course of treatment will last 2-3 weeks, and you will use 6-8 tubes of professional tooth whitening gels and typically effect a 3-tab shade change. Some patients will require a more prolonged course of treatment for a more bespoke outcome and several rounds of gels will need to be supplied. This treatment will continue for 6-10 weeks. For some individuals with tetracycline staining, this can also be improved but with a course of treatment which may last up to 6 months.

## What are the risks of professional whitening?

One of the common side effects of professional tooth whitening is mild to severe hypersensitivity. This is common and is the main cause of failure to continue with the bleaching programme. For this reason, we recommend the use of a pre-operative desensitising tooth paste such as:

- Sensodyne Repair and Protect™ with Novamin
- Sensodyne Rapid Relief™ with Potassium Nitrate.
- MI paste™ with additional Amorphous Calcium Phosphate/Tricalcium Phosphate

Rarely a dead tooth has missed diagnosis as there are no signs or symptoms. A rare complication of professional whitening is internal/external resorption, where the tooth itself starts to dissolve. If a tooth nerve is dead and there is a connection to the peroxide fluid by means of a crack or a dentinal tubule/lateral canal (small tubes in dentine) where leakage of peroxide occurs into the tooth, this can initiate the process of internal resorption of the tooth. This will eventually result in breakdown and loss of the tooth, particularly if the tooth is already infected and inflamed. Our scientific literature has thus far reported this rarely and mainly in conjunction with heated bleaching techniques. We cannot however exclude the possibility of an adverse event occurring with a cold bleaching technique but will reassure you that this is very rare indeed.



This complication highlights the need for a thorough dental exam and not seeking professional whitening from unregistered and unlicensed practitioners particularly within beauty salons.

### **How long does professional tooth whitening last?**

Professional tooth whitening can be considered to be permanent, but only under the following circumstances:

- Tooth whitening should be considered to be a long-term maintenance regime in the same way that you would look after your hair, eyes and skin
- Your diet will always contain some pigments which will discolour your teeth
- You should retain some peroxide based gel and store this in the fridge. You will need to 'top-up' the colour of your teeth by using your professional whitening gels for 1-2 nights every 6 months.
- Once you have undertaken a 'supervised' course of treatment you are able to purchase the gel from our Front of House as long as another examination of your teeth is not due.
- Additional supervised course of treatments will attract additional charges

### **Age restriction on professional tooth whitening**

There is an age restriction on professional tooth whitening. The GDC have limited professional tooth whitening to persons who are 18+. We are only permitted to provide professional whitening in under 18 year old in exceptional circumstances.

As professional tooth whitening is an elective procedure, for 'Gillick' competent children under the age of 18 who cannot provide parent/guardian consent at the initial consultation, professional tooth whitening will not be provided.

## What are the limitations of professional whitening?

The results of professional tooth whitening are often superb with a profound improvement in the appearance of the smile. The bleaching gel however is only effective against enamel and dentine and so you must bear the following limitations in mind:

- The professional whitening gels may make teeth with amalgam fillings or old discoloured composite fillings stand out and look darker. The only way to correct this is to replace those restorations with cosmetic filling materials. This will incur further charges.
- The professional whitening gels do not lighten the colour of crowns. You may find your natural teeth raising to a lighter colour than adjacent crowned teeth. The only way this can be corrected is by replacing those darker crowns. This will incur further charges.
- Sometimes there are intense white spots on the teeth called hypocalcification (reduced mineral content). These intensely hypo-mineralised areas can sometimes pick up stain or look slightly yellow. As such these areas can look more obvious after tooth whitening. These areas of discoloured demineralisation can only be removed by further procedures, namely enamel microabrasion or use of a cosmetic filling material (described below).
- Some individuals have banding on their teeth due to the effect of tetracycline. This is within the tooth structure itself and is difficult to remove. A prolonged course of professional whitening over 6 months can improve this with a tighter 3 monthly 'top-up' protocol. Please be aware that although no clear evidence exists the prolonged professional whitening needed to manage tetracycline staining may increase the possibility of initiating internal/external root resorption.
- There are certain tooth colours, namely the "C" shades on a VITA Classic shade tab tool where a professional whitening effect is ill perceived. Your dentist will advise you if it is worth pursuing professional whitening.
- If you start off with very white teeth, the perception of colour change is reduced, and you may not notice a whitening effect.



## Additional Procedures and surcharges

- **Scaling & Sand-blasting.** The bleaching procedure does not remove intense tobacco stains in the presence of calculus. Ideally a scaling and sand-blasting procedure must be completed prior to commencement of the bleaching procedure.
- **Enamel microabrasion.** This procedure may become necessary if you possess some yellow islands of 'hypomineralisation'. In this procedure the discoloured area is carefully abraded with a course alumina-impregnated brush after placement of acidified pumice on your teeth. The hypomineralised area is gently polished out of the tooth as long as this is superficial.
- **Resin Infiltration ('ICON').** Occasionally teeth present with intense white spot lesions. This is mainly due to demineralisation of teeth where oral hygiene is poor, or there has been a brace in situ. The icon resin infiltration technique can mask most intense white spot lesions.
- **Cosmetic fillings.** Occasionally, removal of an intense dark or yellow stain proves difficult by the bleaching procedure itself or the above procedures. In this instance the

island of discoloration either needs to be accepted or drilled out and restored with a cosmetic filling procedure.

The additional procedures have not been costed into your professional whitening programme and so have been or will be costed for separately.

I confirm that I have read and understood the information contained within this guide, and I have had the opportunity to ask questions. I feel that I understand the risks, benefits and limitations of the procedures described, and I understand that no promises or guarantees of the proposed outcome can be made. By signing this form I am providing my explicit consent to render treatment to assist my dental condition.

Name of Patient \_\_\_\_\_

Date of Birth \_\_\_\_\_

Patient signature \_\_\_\_\_ Dated \_\_\_\_\_

Parent/Guardian/  
Legal Representative \_\_\_\_\_ Dated \_\_\_\_\_