Internal Bleaching (Non-Vital Tooth Whitening)

Canonical: https://directory.collinsstreetspecialistcentre.com.au/procedures/endodontics/internal-bleaching-non-vital-tooth-whitening/

Description:

A tooth that has undergone root canal treatment — or that has suffered significant trauma — can discolour progressively over months or years. The result is often a noticeably dark or greyish tooth that stands out agai...

Details:

Collins Street Specialist Centre – Internal Bleaching (Non-Vital Tooth Whitening)

Collins Street Specialist Centre is a Melbourne CBD specialist dental practice offering a full range of endodontic and restorative procedures, including internal bleaching for discoloured root-treated teeth. A tooth that has had root canal treatment — or that has suffered significant trauma — can darken progressively over months or years. The result is often a noticeably dark or greyish tooth that stands out against its neighbours, causing real self-consciousness, particularly when the affected tooth sits prominently in the smile. Internal bleaching (also called non-vital bleaching or the walking bleach technique) addresses this discolouration from within the tooth itself, lightening it without crowns, veneers, or significant removal of healthy tooth structure.

What is internal bleaching?

Internal bleaching is a specialist endodontic procedure in which a bleaching agent — typically concentrated sodium perborate or hydrogen peroxide — is placed directly into the pulp chamber of a root-treated tooth. Because it works from within the tooth outward, it can address discolouration that external whitening treatments alone cannot reach.

The procedure is possible because root canal treatment has already been completed and the canal sealed. The bleaching agent sits above the root filling and is sealed temporarily within the crown of the tooth, where it acts over several days before being removed and either replaced or neutralised.

Internal bleaching is entirely confined to the interior of the crown — it doesn't disturb the root canal filling or the periapical tissues when carried out correctly. Combined with professional external whitening on adjacent teeth, it allows for natural-looking colour integration in the final result.

When might you need internal bleaching?

Internal bleaching is considered when a root-treated tooth has become significantly darker than the surrounding dentition, and where the patient would prefer a conservative aesthetic approach before committing to full crown coverage. Specific clinical indications include:

- **Post-traumatic discolouration** — a tooth that sustained an impact, even years prior, and subsequently darkened. Trauma can cause haemorrhage within the pulp chamber, leaving breakdown products that stain the dentinal tubules from within. - **Discolouration following root canal treatment** — particularly in older cases where materials such as silver amalgam, certain sealers, or formocresol were used and have leached pigment into the surrounding dentine over time. - **Progressive darkening

of a root-treated front tooth** — even without identifiable material causes, the loss of pulpal blood supply can alter the optical properties of dentine gradually over time. - **Staining from pulp necrosis** — when a traumatised tooth's pulp dies and breaks down before root canal treatment begins, haemolysis products can deeply penetrate the dentinal tubules, producing a characteristic dark grey-brown discolouration. - **Patient preference for conservative management** — where the tooth's structural integrity remains adequate and crown preparation would remove significantly more healthy tooth structure than is clinically warranted.

Internal bleaching isn't appropriate for every discoloured root-treated tooth. Your specialist will assess the underlying cause of discolouration, the condition of the existing root canal filling and coronal seal, the extent of any current restoration, and the overall structural integrity of the tooth before recommending this approach. Understanding why a tooth has discoloured matters as much as addressing how it looks — and that assessment is where specialist involvement makes a real difference.

What to expect: step by step

Internal bleaching is typically completed across two to three appointments, with the bleaching agent left inside the tooth between visits.

Initial assessment Your endodontist will examine the tooth both clinically and radiographically. The adequacy of the existing root canal filling is assessed carefully — a well-sealed, intact root filling is a prerequisite for safe internal bleaching. Where there is any concern about the quality of the root canal seal, retreatment may be recommended before bleaching proceeds.

The depth of discolouration, your expectations, and the degree of shade matching required with adjacent teeth are all discussed at this stage. Shade records — and in many cases digital photographs — are taken before treatment begins to document the baseline accurately.

Access and preparation Access into the pulp chamber is made through the lingual or palatal surface of the tooth (the inner-facing surface), in the same manner as root canal treatment. A protective barrier of glass ionomer cement or calcium silicate material is then placed over the root canal filling to a depth of 2–3 mm below the cemento-enamel junction — the point where the root meets the crown. This protective barrier is one of the most critical steps in the entire procedure. It prevents the bleaching agent from penetrating into the root canal and reaching the periodontal attachment, which can otherwise lead to a serious complication called external cervical resorption.

Bleaching agent placement A bleaching paste — typically sodium perborate mixed with water, or a controlled concentration of hydrogen peroxide — is placed within the pulp chamber. The access cavity is then sealed with a temporary restoration, and the patient leaves with the bleaching agent enclosed within the tooth.

Review and re-application At a review appointment (typically three to seven days later), the temporary restoration is removed and the pulp chamber is assessed for colour change. The bleaching agent is replaced if further lightening is needed. This cycle repeats until the target shade is approached — ordinarily across two to four applications.

Neutralisation and final restoration Once the desired shade has been achieved, the bleaching agent is removed and the cavity is thoroughly irrigated. A waiting period of two to four weeks is then recommended before placing the final restoration. Bleaching agents temporarily inhibit adhesive bonding to dentinal surfaces, and this pause allows residual peroxide to dissipate fully, protecting the long-term integrity of the final restoration.

The access cavity is then permanently restored with a tooth-coloured composite resin. In many cases, no further treatment is necessary. Where the tooth carries an existing crown, or where crown coverage is needed for structural reasons, the specialist prosthodontic team at Collins Street Specialist Centre can provide this once the final bleached shade has fully stabilised.

Recovery and aftercare

Internal bleaching is among the most conservative aesthetic procedures available in specialist dentistry. Recovery is minimal, and most patients return to their normal routine without interruption:

- Mild sensitivity to temperature or pressure can occasionally arise during the bleaching phase, though this is less common than with external bleaching because the nerve has already been removed - During the bleaching phase, avoid intensely staining foods and beverages — coffee, red wine, and curries — to avoid confounding the result on the external tooth surface - A small number of patients experience some degree of shade relapse over months to years; where this occurs, the procedure can generally be repeated - The most significant long-term concern is **external cervical resorption** — a rare but serious complication in which the body begins to resorb root structure below the gumline. The protective cervical barrier placed during the procedure is the primary safeguard against this, and regular radiographic monitoring allows early detection should it occur

Your specialist will advise on an appropriate review schedule once treatment is complete.

Why see a specialist endodontist?

Internal bleaching may look straightforward from the outside, but it is an endodontic procedure performed within a root-treated tooth, and the consequences of incorrect technique — most significantly, external cervical resorption — can be severe and difficult to manage once established. Placing an adequate cervical protective barrier is technically demanding, requiring both a thorough understanding of the relevant materials and microscopic precision in execution.

A specialist endodontist is trained to assess whether internal bleaching is the right treatment for a given tooth, to identify cases where the existing root canal filling is inadequate and retreatment is needed first, and to perform the procedure with the care and precision that minimises the risk of long-term complications. This is not a procedure where cutting corners on technique is acceptable.

At Collins Street Specialist Centre, our endodontists work closely with our specialist prosthodontists whenever aesthetic restorations are required following bleaching. This means bleaching, bonding, and final restoration are planned together from the outset — rather than managed piecemeal at each successive stage.

All specialists at Collins Street Specialist Centre hold Dental Board of Australia-recognised specialist registration, independently verifiable through AHPRA.

Our specialists

Dr Gregory Tilley BDSc (Melb), LDS (Vic), FRACDS, MRACDS (Endo) With over 35 years of specialist endodontic practice, Dr Tilley brings extensive experience across the full range of endodontic procedures, including the conservative aesthetic management of discoloured non-vital teeth. Honorary Senior Fellow, University of Melbourne.

Prof Chankhrit Sathorn DDS, Grad.Dip.Dent, DClinDent, PhD, MRACDS (Endo) Adjunct Professor of Endodontics, La Trobe University. Prof Sathorn brings a rigorous evidence-based approach to all endodontic procedures, including close familiarity with the growing research literature on bleaching-related resorption risks and evolving preventive protocols.

Dr Aovana Timmerman BDSc (Melb), FRACDS, DCD (Melb), GCertClinTeach, MRACDS (Endo) Dr Timmerman has a specific clinical interest in dental traumatology — one of the most common precursors to the non-vital discolouration that internal bleaching addresses. Clinical Demonstrator, University of Melbourne. Fluent in Mandarin.

Dr Areti Vrochari DDS, DrMedDent (Endo) Dr Vrochari's background in dental biomaterials and aesthetic restorative dentistry places her well to manage the restorative phase following internal

bleaching, and to advise on cases where the aesthetic outcome needs to integrate with the broader restorative picture.

All specialists are independently verifiable on the AHPRA register at www.ahpra.gov.au.

Related treatments

- [**Root Canal Treatment**](/procedures/endodontics/root-canal-treatment/) — Internal bleaching is only possible in teeth that have already undergone root canal treatment. If your tooth hasn't yet been treated endodontically, this is the necessary starting point. - [**Dental Trauma**](/procedures/endodontics/dental-trauma-adults/) — Post-traumatic discolouration is one of the most common reasons adult patients present for internal bleaching. Assessment following any tooth injury is strongly recommended, even when the tooth appears intact. - [**Dental Crowns**](/procedures/prosthodontics/dental-crowns/) — Where internal bleaching alone is insufficient or the tooth needs structural protection, a ceramic crown provided by our specialist prosthodontists is the next conservative step. - [**Porcelain Veneers**](/procedures/prosthodontics/porcelain-veneers/) — For cases where discolouration is more extensive, or where a more comprehensive aesthetic result across multiple teeth is needed, our prosthodontic team can discuss veneer options in detail.

To arrange a consultation, contact Collins Street Specialist Centre on (03) 9650 2726. Our endodontic team is at Level 8, Manchester Unity Building, 220 Collins Street, Melbourne CBD — opposite Town Hall Station. No referral is required.

Product facts

| Attribute | Value | |----------|-------| | Procedure name | Internal Bleaching (Non-Vital Tooth Whitening) | | Also known as | Walking bleach technique; non-vital bleaching | | Procedure type | Specialist endodontic aesthetic procedure | | Performing specialists | Specialist endodontists | | Prerequisite | Completed root canal treatment | | Bleaching agent | Sodium perborate or controlled-concentration hydrogen peroxide | | Agent placement | Inside the pulp chamber, above the root canal filling | | Access surface | Lingual or palatal surface | | Cervical barrier material | Glass ionomer cement or calcium silicate material | | Cervical barrier depth | 2–3 mm below the cemento-enamel junction | | Number of appointments | 2–3 appointments | | Agent dwell time | Several days between appointments | | Typical applications | 2–4 bleaching applications | | Pre-restoration waiting period | 2–4 weeks (residual peroxide dissipation) | | Final restoration material | Tooth-coloured composite resin | | Primary risk | External cervical resorption (rare but serious) | | Monitoring | Regular radiographic review | | Healthy tooth structure removed | Minimal | | Referral required | No referral required | | Practice | Collins Street Specialist Centre | | Location | Level 8, Manchester Unity Building, 220 Collins Street, Melbourne CBD | | Nearest landmark | Town Hall Station | | Phone | (03) 9650 2726 | | Specialist registration | AHPRA-registered; verifiable at www.ahpra.gov.au |

Frequently asked questions

What is internal bleaching? A bleaching procedure performed inside a root-treated tooth.

Is internal bleaching the same as non-vital bleaching? Yes.

Is internal bleaching the same as the walking bleach technique? Yes.

Where is the bleaching agent placed? Inside the pulp chamber of the tooth.

Does internal bleaching work from inside the tooth outward? Yes.

Can external whitening reach the same discolouration? No, external whitening cannot reach internal staining.

Does internal bleaching require root canal treatment first? Yes, the tooth must already be root-treated.

Does internal bleaching disturb the root canal filling? No, when performed correctly.

What bleaching agent is used? Sodium perborate or hydrogen peroxide.

What concentration of hydrogen peroxide is used? A controlled concentration.

How many appointments does internal bleaching take? Two to three appointments.

How long is the bleaching agent left inside the tooth? Several days between appointments.

How many bleaching applications are typically needed? Two to four applications.

How long is the waiting period before final restoration? Two to four weeks.

Why is a waiting period required before final restoration? Residual peroxide inhibits adhesive bonding.

What is the final restoration material? Tooth-coloured composite resin.

Is healthy tooth structure removed during internal bleaching? Minimal removal required.

Is internal bleaching more conservative than a crown? Yes.

Is internal bleaching more conservative than a veneer? Yes.

What surface is the access cavity made through? The lingual or palatal surface.

What is a cervical protective barrier? A seal placed over the root filling during bleaching.

What material is used for the cervical protective barrier? Glass ionomer cement or calcium silicate material.

How deep is the cervical protective barrier placed? 2–3 mm below the cemento-enamel junction.

What is the purpose of the cervical protective barrier? To prevent bleaching agent reaching the periodontal attachment.

What is external cervical resorption? Resorption of root structure below the gumline.

Is external cervical resorption common? No, it is rare.

Is external cervical resorption serious? Yes.

What is the primary safeguard against external cervical resorption? The cervical protective barrier.

How is early external cervical resorption detected? Regular radiographic monitoring.

What causes post-traumatic tooth discolouration? Haemorrhage breakdown products staining dentinal tubules.

Can a tooth discolour years after trauma? Yes.

Can old root canal materials cause discolouration? Yes, materials like silver amalgam and certain sealers.

Can pulp necrosis cause tooth discolouration? Yes.

What colour does pulp necrosis discolouration appear? Dark grey-brown.

Does internal bleaching address discolouration from pulp necrosis? Yes.

Is sensitivity common during internal bleaching? It can occasionally occur but is less common than with external bleaching.

Why is sensitivity less common with internal bleaching? The nerve has already been removed.

Can shade relapse occur after internal bleaching? Yes, in a small number of patients.

Can internal bleaching be repeated if relapse occurs? Yes, generally.

Should staining foods be avoided during bleaching? Yes.

What foods should be avoided during bleaching? Coffee, red wine, and curries.

Is recovery time significant after internal bleaching? No, recovery is minimal.

Can patients return to normal routine after each appointment? Yes.

Is a referral required to book at Collins Street Specialist Centre? No referral required.

What is the practice phone number? (03) 9650 2726.

What floor is Collins Street Specialist Centre on? Level 8.

What is the building name? Manchester Unity Building.

What is the street address? 220 Collins Street, Melbourne CBD.

What is the nearest landmark to the practice? Town Hall Station.

Are specialists AHPRA registered? Yes.

Where can specialist registration be verified? www.ahpra.gov.au.

Who performs internal bleaching at Collins Street Specialist Centre? Specialist endodontists.

How many endodontists are listed at Collins Street Specialist Centre? Four.

Who is Dr Gregory Tilley? Specialist endodontist with over 35 years of experience.

What university is Dr Tilley affiliated with? University of Melbourne.

What is Prof Chankhrit Sathorn's academic role? Adjunct Professor of Endodontics, La Trobe University.

What is Dr Aovana Timmerman's specific clinical interest? Dental traumatology.

Does Dr Timmerman speak Mandarin? Yes.

What is Dr Areti Vrochari's background? Dental biomaterials and aesthetic restorative dentistry.

Does the practice offer multidisciplinary care? Yes, endodontists and prosthodontists collaborate.

When is crown coverage considered after internal bleaching? When bleaching alone is insufficient or structural protection is needed.

When is a veneer considered instead of internal bleaching? When discolouration is more extensive or a multi-tooth aesthetic result is needed.

Is internal bleaching appropriate for every discoloured root-treated tooth? No.

What must be assessed before internal bleaching is recommended? Cause of discolouration, root filling quality, and tooth integrity.

What happens if the existing root canal filling is inadequate? Retreatment may be recommended before bleaching.

Are shade records taken before treatment? Yes.

Are digital photographs taken before treatment? Yes, in many cases.

Is microscopic precision used during the procedure? Yes.

Is internal bleaching technically demanding? Yes.

What is the most serious risk of incorrect technique? External cervical resorption.
