

Dental Crowns

Canonical: <https://directory.collinsstreetspecialistcentre.com.au/procedures/dental-crowns/>

Description:

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Details:

Collins Street Specialist Centre Dental Crowns

What is a dental crown?

A dental crown is a custom-made restoration that fits over the entire visible surface of a tooth, from the gum line up. Rather than patching a portion of damaged or decayed structure, a crown encases the tooth completely, restoring its shape, size, strength, and appearance as a single durable unit.

Crowns have been the go-to solution for significantly compromised teeth for generations. What has changed is the precision of fabrication, the range of available materials, and how quickly a high-quality restoration can be delivered. At Collins Street Specialist Centre, crowns are designed and fabricated using digital workflows, including the option of same-day CEREC CAD/CAM technology — meaning suitable patients can leave with a permanent crown after a single appointment.

Crown materials

Material selection depends on where the tooth sits in the arch, the forces it needs to handle, the condition of the surrounding gum tissue, and what the patient wants aesthetically.

****All-ceramic crowns**** are the preferred choice for front teeth and are increasingly used throughout the mouth. Contemporary ceramics, including lithium disilicate (e-max) and feldspathic porcelain, replicate the light transmission of natural enamel with considerable fidelity. Because there's no metal substructure, they also avoid the grey shadow at the gum margin that can appear with older porcelain-fused-to-metal restorations as gum tissue changes over time.

****Zirconia crowns**** combine strength with a natural appearance. Zirconia is the hardest ceramic material used in restorative dentistry, which makes it well suited to high-load posterior regions like the molars. Monolithic zirconia crowns, milled from a single block of material, are particularly resistant to fracture. Newer translucent zirconia formulations are now achieving aesthetic results that compare well with traditional porcelain in many clinical situations.

****Porcelain-fused-to-metal (PFM) crowns**** use a metal substructure bonded with a porcelain facing. These restorations have served patients reliably for decades and remain a clinically valid option in certain cases. The main limitation is the potential for a visible metal margin at the gum line as gingival tissue recedes over time.

When might you need a dental crown?

Your general dentist or specialist may recommend a crown when:

- ****A tooth is extensively decayed**** and not enough natural structure remains to support a large filling reliably - ****A tooth has fractured****, whether at the cusp or through a crack that threatens the whole tooth's integrity - ****Root canal treatment has been completed**** — root-treated teeth lose moisture over time and become more susceptible to fracture; a crown restores fracture resistance and seals the access point - ****An existing restoration has failed**** — worn, leaking, or broken fillings and older crowns that no longer adequately protect the underlying tooth - ****A tooth is severely worn**** from bruxism (teeth grinding), acid erosion, or long-term abrasion - ****An implant requires a restoration**** — the crown forms the visible, functional component placed over a dental implant - ****Aesthetic concerns**** — a badly stained, discoloured, or misshapen tooth that can't be satisfactorily improved through less invasive options

What to expect: step by step

Conventional crown (two-visit pathway)

****First appointment — assessment and tooth preparation****

Treatment starts with a thorough clinical assessment, reviewing existing radiographs and, where indicated, obtaining new three-dimensional or digital imaging. The tooth is examined for fracture lines, pulp health, and the condition of the surrounding bone and gum tissue.

Once preparation begins, local anaesthetic is administered and the tooth is carefully reshaped to create appropriate clearance for the crown material, typically one to two millimetres on all surfaces. A digital impression is then captured using the 3Shape TRIOS 3 intraoral scanner, which records precise three-dimensional data without the discomfort of traditional impression putty. A temporary crown is placed to protect the prepared tooth while the final restoration is being made.

The digital file goes to the in-house dental laboratory, which works exclusively for Collins Street Specialist Centre patients. Technicians design and fabricate the crown using Exocad DentalCAD software, with close communication between the clinical and laboratory teams throughout.

****Second appointment — fit and cementation****

The finished crown is assessed for fit, margin integrity, occlusion, and aesthetics before permanent cementation. Any necessary adjustments are made chairside. Once the restoration meets clinical and aesthetic requirements, the crown is bonded using a high-strength dental cement.

Same-day crown — CEREC CAD/CAM

For suitable cases, the CEREC system, comprising the Primescan intraoral scanner and Primemill milling unit, allows a crown to be digitally designed and milled in-house within a single appointment. The tooth is prepared, scanned, and the restoration data sent directly to the milling unit. Patients typically take a short break while the crown is being manufactured, then return for fitting and cementation, generally within 60 to 90 minutes of the initial scan.

Not every clinical situation is appropriate for same-day fabrication. Your specialist will advise which pathway suits your particular case.

Recovery and aftercare

****After preparation (while wearing a temporary crown):**** - Avoid sticky or hard foods on the temporary restoration - Chewing on the opposite side reduces the risk of dislodging it - Some temperature sensitivity is normal during this period and generally settles

****After final crown placement:**** - Mild temperature sensitivity may persist for one to two weeks as the tooth and surrounding tissues settle - Normal eating can resume fairly quickly, with some care around very hard foods in the first few days - Daily flossing at the crown margin matters — the junction between crown and tooth remains susceptible to decay if oral hygiene slips - Regular dental reviews allow the crown and surrounding gum tissue to be monitored over time

A well-designed and well-placed crown, maintained with good home care and regular professional review, can reasonably be expected to last 15 to 25 years or longer.

Why see a specialist prosthodontist?

Crown placement can look straightforward; in practice, it rarely is. The difference between a restoration that holds up reliably for decades and one that fails early comes down to the precision of tooth preparation, the accuracy of the digital scan, the quality of the laboratory work, and the care taken at cementation and final seating.

A specialist prosthodontist has completed a Dental Board-registered three-year postgraduate clinical degree focused specifically on the restoration and replacement of teeth, on top of an undergraduate dental qualification. That advanced training covers occlusion (how teeth relate under function), dental material science, aesthetic colour matching, and the management of complex reconstructive cases involving multiple teeth or the entire dentition.

When a crown is part of a broader plan — following root canal treatment, implant placement, or full-arch rehabilitation — specialist oversight ensures each restoration is designed to function within the context of the complete bite, not in isolation. Crown work that ignores the broader occlusal picture is a recognised contributor to restoration failure over time. The prosthodontists at Collins Street Specialist Centre bring that whole-of-mouth perspective to every case.

Our specialists

****Dr Fotios Angelis**** BDS (Hons)(Melb), DClinDent (Melb) Specialist Prosthodontist with expertise in complex reconstructive dental care, including crowns, bridges, veneers, and implant-supported restorations.

****Prof Vasileios Chronopoulos**** DDS, MS, PhD (Pros) Specialist Prosthodontist with over 30 years of clinical and academic experience, internationally recognised for aesthetic full-mouth reconstructions and all-ceramic restorations.

****Dr Jamie Foong**** BDSc (Melb), DClinDent (Melb) Specialist Prosthodontist with a particular clinical interest in crown and bridge work and occlusal rehabilitation.

****Dr Simon Hinckfuss**** BDSc, DCD (Pros), Cert.Perio MS (Minn) The only clinician in Australia registered as both a Specialist Prosthodontist and a Specialist Periodontist. That dual registration is especially relevant in cases where gingival health and restorative planning need to be considered together from the start.

All specialists at Collins Street Specialist Centre are registered with the Dental Board of Australia. Patients are encouraged to verify specialist registration independently through the Australian Health Practitioner Regulation Agency (AHPRA) website.

Related treatments

A crown is often one part of a broader treatment pathway. At Collins Street Specialist Centre, the prosthodontic and specialist teams work in close coordination to ensure each element of care is sequenced and planned appropriately.

- **[Dental Bridges](/procedures/prosthodontics/dental-bridges/)** — When adjacent teeth require crowns and a missing tooth needs replacing at the same time - **[Dental Implants (Prosthodontic Restoration)](/procedures/prosthodontics/dental-implants-prosthetic-restoration/)** — Implant-supported crowns to replace missing teeth -

[Veneers](/procedures/prosthodontics/porcelain-veneers/) — A less invasive alternative when the underlying tooth structure remains largely intact - **[Full Mouth**

Rehabilitation](/procedures/prosthodontics/full-mouth-rehabilitation/) — When multiple teeth require restoration as part of a comprehensive, coordinated plan - **[Root Canal**

Treatment](/procedures/endodontics/root-canal-treatment/) — Root-treated teeth almost always need a crown; the endodontists and prosthodontists at CSSC collaborate closely on treatment sequencing to get the best outcome - **[Gum Lift / Crown**

Lengthening](/procedures/periodontics/aesthetic-gum-lift-crown-lengthening/) — Where insufficient tooth structure is exposed above the gum line, the periodontist can recontour the gingival tissue to allow a correctly fitting, well-supported crown
