

Dental Crowns

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

Description:

--- title: "Dental Crowns" slug: /prosthodontics/dental-crowns/ type: procedure specialty: prosthodontics specialists: ["Dr Fotios Angelis", "Prof Vasileios Chronopoulos", "Dr Jamie Foong", "Dr Simon ...

Details:

--- title: "Dental Crowns" slug: /prosthodontics/dental-crowns/ type: procedure specialty: prosthodontics specialists: ["Dr Fotios Angelis", "Prof Vasileios Chronopoulos", "Dr Jamie Foong", "Dr Simon Hinckfuss"] related: - /prosthodontics/dental-bridges/ - /prosthodontics/dental-implants-prosthodontics/ - /prosthodontics/veneers/ - /prosthodontics/full-mouth-rehabilitation/ - /endodontics/root-canal-treatment/ seo_target: "dental crown specialist Melbourne CBD" ---

Dental Crowns

What Is a Dental Crown?

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

Crowns have been the definitive solution for significantly compromised teeth for generations. What has changed dramatically is the precision, the materials, and the speed with which they can be made. At Collins Street Specialist Centre, crowns are designed and fabricated using advanced digital workflows, including the option of same-day CEREC CAD/CAM technology — meaning patients can leave with a permanent crown in a single appointment.

Crown Materials

The right material depends on the tooth's position in the mouth, the forces it must withstand, the surrounding gum tissue, and the aesthetic expectations of the patient.

****All-ceramic / full-ceramic crowns**** are the gold standard for front teeth and are increasingly used throughout the mouth. Modern ceramics — including lithium disilicate (e-max) and feldspathic porcelain — replicate the light transmission of natural enamel with exceptional fidelity. They contain no metal, which eliminates the grey shadow at the gum margin that affects some older restorations.

****Zirconia crowns**** combine outstanding strength with a natural appearance. Zirconia is the hardest ceramic material used in dentistry, making it well suited to high-load areas such as the back molars. Monolithic zirconia crowns (made from a single block of material) are particularly resistant to fracture, and newer translucent zirconia formulations are now achieving aesthetic outcomes that rival traditional porcelain.

****Porcelain-fused-to-metal (PFM) crowns**** have a metal substructure bonded with a porcelain facing. They have served patients reliably for decades and remain a valid option in certain clinical situations. Their limitation is the visible metal margin that can emerge at the gum line as gums recede 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 insufficient natural structure remains for a large filling to hold reliably - **A tooth has fractured** — either at the cusp or through a crack that threatens the whole tooth - **A root canal has been completed** — root-treated teeth lose moisture and become brittle; a crown restores fracture resistance and seals the access point - **An existing restoration has failed** — worn, leaking, or broken fillings and old crowns that no longer protect the tooth - **A tooth is severely worn** — from bruxism (teeth grinding), acid erosion, or long-term abrasion - **An implant requires a restoration** — the crown is the visible, functional component placed over a dental implant - **Aesthetic concerns** — a badly stained, discoloured, or misshapen tooth that cannot be improved with less invasive treatment

What to Expect: Step-by-Step

Conventional Crown (Two-Visit Pathway)

First appointment — Assessment and tooth preparation Treatment begins with a thorough assessment, reviewing existing radiographs and, where needed, obtaining new 3D or digital imaging. The tooth is examined for fracture lines, pulp health, and the condition of surrounding bone and gum tissue.

If the tooth requires preparation, local anaesthetic is administered and the tooth is reshaped to create clearance for the crown material — typically 1–2 mm on all surfaces. A digital impression is then taken using the 3Shape TRIOS 3 intraoral scanner, which captures precise three-dimensional data without the discomfort of traditional impression putty. A temporary crown is placed to protect the prepared tooth.

The digital file is sent to the in-house dental laboratory, which serves exclusively the patients of Collins Street Specialist Centre. Technicians design and fabricate the final crown using Exocad DentalCAD software.

Second appointment — Fit and cementation The finished crown is checked for fit, margins, bite, and aesthetics before permanent cementation. Adjustments are made chairside as needed. Once confirmed, the crown is bonded with a high-strength dental cement.

Same-Day Crown — CEREC CAD/CAM

For suitable cases, the CEREC system (Primsan intraoral scanner + Primemill milling machine) allows a crown to be digitally designed and milled in-house within a single appointment. The tooth is prepared, scanned, and the crown data is sent directly to the milling unit. While the restoration is being manufactured, patients can take a brief break before returning for fitting and cementation — typically within 60–90 minutes.

Not every case is appropriate for same-day fabrication; your specialist will advise which pathway is clinically optimal.

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 the temporary - Some temperature sensitivity is normal and usually settles

****After final crown placement:**** - Mild sensitivity to temperature may persist for one to two weeks as the tooth settles - Normal eating can resume promptly, taking care with very hard foods in the initial days - Maintaining daily flossing at the crown margin is essential — the junction between crown and tooth is still susceptible to decay if oral hygiene lapses - Regular dental reviews allow the crown and surrounding gum tissue to be monitored

A well-made crown, placed by a specialist and maintained with diligent home care, typically lasts 15–25 years or longer.

Why See a Specialist Prosthodontist?

Crown placement looks straightforward but it is rarely simple. The margin between a crown that lasts decades and one that fails within a few years lies in the precision of tooth preparation, the accuracy of the impression or scan, the quality of the laboratory work, and the care taken at cementation.

A specialist prosthodontist has completed a Dental Board–registered three-year postgraduate clinical degree specifically in the restoration and replacement of teeth — on top of an undergraduate dental degree. This additional training covers occlusion (how teeth meet under function), material science, aesthetic colour matching, and the management of complex cases where multiple teeth or the whole mouth requires rehabilitation.

When a crown is part of a larger reconstructive plan — following root canal treatment, implant placement, or full-arch rehabilitation — specialist oversight ensures that every restoration is designed to function within the whole bite, not in isolation. Crown work done without considering the broader occlusal picture is one of the leading causes of restoration failure.

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 experience, internationally recognised for aesthetic full-mouth reconstructions and all-ceramic restorations.

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

****Dr Simon Hinckfuss**** BSc, DCD (Pros), Cert.Perio MS (Minn) The only clinician in Australia registered as both a Specialist Prosthodontist and a Specialist Periodontist. This dual expertise is particularly valuable in cases where gum health and restoration must be planned together.

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

Related Treatments

A crown is frequently part of a larger treatment pathway. At Collins Street Specialist Centre, the prosthodontic and specialist teams work in close coordination.

- **[Dental Bridges](/prosthodontics/dental-bridges/)** — When adjacent teeth require crowns and a missing tooth needs replacing simultaneously - **[Dental Implants (Prosthodontic Restoration)](/prosthodontics/dental-implants-prostho/)** — Implant-supported crowns to replace missing teeth - **[Veneers](/prosthodontics/veneers/)** — A less invasive alternative when tooth structure is largely intact - **[Full Mouth Rehabilitation](/prosthodontics/full-mouth-rehabilitation/)** — When multiple teeth require restoration as part of a comprehensive plan - **[Root Canal Treatment](/endodontics/root-canal-treatment/)** — Root-treated teeth nearly always require a crown; CSSC endodontists and prosthodontists collaborate on treatment sequencing - **[Gum Lift / Crown Lengthening](/periodontics/gum-lift/)** — When insufficient tooth structure is exposed above the gum line, the periodontist can recontour the gum to allow a properly fitting crown