

Dental Implants — Prosthetic Restoration

Canonical: <https://directory.collinsstreetspecialistcentre.com.au/procedures/prosthodontics/dental-implants-prosthetic-restoration/>

Description:

--- title: "Dental Implants — Prosthetic Restoration" slug: /prosthodontics/dental-implants-prostho/ type: procedure specialty: prosthodontics specialists: ["Dr Fotios Angelis", "Prof Vasileios Chrono...]

Details:

--- title: "Dental Implants — Prosthetic Restoration" slug: /prosthodontics/dental-implants-prostho/ type: procedure specialty: prosthodontics specialists: ["Dr Fotios Angelis", "Prof Vasileios Chronopoulos", "Dr Jamie Foong", "Dr Simon Hinckfuss"] related: - /periodontics/dental-implants-perio/ - /oral-maxillofacial-surgery/dental-implants-oms/ - /prosthodontics/dental-crowns/ - /prosthodontics/dental-bridges/ - /prosthodontics/all-on-4/ - /prosthodontics/full-mouth-rehabilitation/ - /periodontics/bone-grafting-perio/ seo_target: "implant crown restoration specialist prosthodontist Melbourne" ---

Dental Implants — Prosthetic Restoration

The Prosthodontist's Role in Implant Treatment

A dental implant has two distinct components, managed by two distinct areas of specialist expertise. The implant fixture — a titanium post that is surgically placed into the jawbone — is the domain of the specialist periodontist or oral and maxillofacial surgeon. The prosthetic restoration that attaches to that fixture — the crown, bridge, or denture that the patient actually sees and uses — is the domain of the specialist prosthodontist.

This page addresses the prosthetic side of implant treatment: the design, fabrication, and placement of the tooth or teeth that restore function and aesthetics above the gum line. For information about the surgical placement of implants, see the [Periodontics Implant Surgery](/periodontics/dental-implants-perio/) or [OMS Implant Surgery](/oral-maxillofacial-surgery/dental-implants-oms/) pages.

At Collins Street Specialist Centre, the prosthodontist and the surgical specialist are part of the same team — consulting on cases together, sharing digital records, and coordinating treatment across appointments. This integrated model is one of the fundamental advantages of a multidisciplinary specialist centre: the person designing the final tooth works alongside the person placing the implant, from the beginning.

What Is an Implant Restoration?

When a dental implant integrates successfully with the jawbone, it provides a fixed, stable foundation analogous to a natural tooth root. The prosthodontist then connects a prosthetic tooth to this foundation through a component called an abutment.

The abutment sits at the level of the gum and connects the implant below to the crown above. Abutments may be prefabricated (stock) or custom-made — the prosthodontist's preference for custom abutments in aesthetic zones reflects the superior control over gum contour and crown emergence that a bespoke design provides.

The crown, bridge, or overdenture is then fabricated in the in-house dental laboratory and seated onto the abutment. Depending on the design, the restoration is either cemented or screw-retained:

- **Cement-retained** restorations are fixed in the same manner as a conventional crown, using dental cement at the abutment-crown interface
- **Screw-retained** restorations attach through a small channel in the crown that provides access to a retaining screw; this allows the prosthodontist to remove the crown in future for maintenance or modification without damaging it

The prosthodontist selects the most appropriate retention method based on the implant position, the aesthetic zone involved, and the access requirements of long-term maintenance.

Types of Implant Prosthetic Restorations

Single Implant Crown

The most common implant restoration. A single implant supports a single crown, replacing one missing tooth. The result is a free-standing tooth that does not require adjacent teeth to be prepared or modified — a key advantage over a conventional dental bridge.

The crown is fabricated in all-ceramic or zirconia materials matched to the surrounding teeth in shade and translucency. The emergence profile — the contour of the crown as it rises from the gum — is carefully designed to produce a natural-looking gum collar.

Implant-Supported Bridge

Multiple missing teeth in sequence can be restored with a fixed bridge supported by two or more implants rather than natural abutment teeth. An implant bridge spans the gap with a pontic (artificial tooth) between implant-supported retainers. This avoids the need to prepare natural teeth as anchors and places the support directly in the jaw.

Full-Arch Implant Bridge (All-on-4 / All-on-6)

When all teeth in an arch are missing or to be removed, a full-arch fixed bridge can be supported by four or more strategically placed implants. See the [\[All-on-4 page\]\(/prosthodontics/all-on-4/\)](#) for a detailed description of this pathway.

Implant-Retained Over-Denture

A removable denture that clips or locks onto implants, offering substantially improved stability compared with a conventional suction-held denture. Two to four implants in the lower jaw typically suffice to anchor a lower over-denture. The denture is removed for nightly cleaning.

When Might You Need Implant Prosthetic Restoration?

You will be at the prosthetic restoration stage when:

- **A dental implant has been placed by a surgeon and has successfully integrated** — typically three to six months post-surgery
- **An implant requires a new or replacement crown** — due to fracture of a previous restoration, aesthetic change, or failure of an earlier restoration
- **A treatment plan has been established with your surgical specialist** and the prosthetic phase is now being coordinated

In some cases — particularly where teeth are extracted and implants placed simultaneously — provisional restorations may be placed on the day of surgery (immediate loading). The prosthodontist designs these provisional restorations before surgery, coordinating precisely with the surgical team on timing.

What to Expect: Step-by-Step

Pre-Surgical Prosthetic Planning

Implant restoration begins before the implant is placed. The prosthodontist reviews the gap to be restored, the space available, the bite, adjacent teeth, and the patient's aesthetic expectations. In straightforward single-tooth cases this may be brief; in complex multiple-implant cases it involves detailed diagnostic records including:

- Digital scans using the 3Shape TRIOS 3 intraoral scanner
- Diagnostic wax-up or digital design of the planned restoration
- Communication to the surgeon on ideal implant position, angulation, and depth — which determines where the abutment-crown junction will sit relative to the gum

Impression and Abutment Design (Post-Integration)

Once the surgical specialist confirms implant integration, the prosthodontist takes an implant-level impression or — increasingly — a digital scan using the intraoral scanner directly at the implant level. This captures the position, depth, and angulation of the implant in three-dimensional space.

Custom abutments (where indicated) are designed digitally using Exocad DentalCAD software and sent to the in-house laboratory for fabrication. The laboratory produces the final crown to the prosthodontist's specifications.

Soft Tissue Conditioning (Where Required)

In the aesthetic zone — the front teeth visible when smiling — the shape of the gum around an implant crown is as important as the colour of the porcelain. A healing abutment or provisional crown of a specific contour may be used for several weeks to gently train the gum tissue into the ideal shape before the final restoration is placed. This is a detail that makes a substantial difference in the natural appearance of the finished implant.

Crown Fitting

The final crown is evaluated for fit on the abutment, contact with adjacent teeth, shade, shape, and bite. When all criteria are confirmed, the restoration is cemented or screw-retained. Access channels in screw-retained cases are sealed with composite resin.

Ongoing Maintenance

The prosthodontist and the patient's regular dental professional work together on long-term maintenance, including professional cleaning around the implant and monitoring of bone levels on annual radiographs.

Recovery and Aftercare

The prosthetic stage itself involves no surgery and has minimal recovery requirements. The placement of an implant crown is not painful in the conventional sense, as it involves no cutting or injection — though there may be some gum sensitivity when impressions are taken at the implant level.

Following crown placement:

- Allow the bite to settle for 24–48 hours before introducing harder foods
- Clean the crown using floss, interdental brushes, or a water flosser — particularly at the gum margin

Attend regular reviews as scheduled by the prosthodontist and your regular dental professional - Report any change in how the bite feels, any looseness, or any discomfort to the specialist promptly

A screw-retained crown can be removed by the prosthodontist for maintenance without damage; this is a practical advantage over cemented restorations in long-term implant management.

Why See a Specialist Prosthodontist?

Placing an implant crown appears to be a straightforward final step in a longer process. In practice, it is where many implant cases succeed or fail from an aesthetic and functional perspective.

The prosthodontist brings specialist knowledge in: - **Occlusal design** — how the implant crown will function under the full range of biting and chewing forces, including lateral excursions. An implant crown bearing forces it was not designed to handle is prone to screw loosening, fracture, or implant overload - **Aesthetic zone management** — controlling the soft tissue profile around the crown and matching shade and translucency to natural adjacent teeth - **Material selection** — choosing the right ceramic system for strength, aesthetics, and the available space - **Abutment design** — custom abutments require specific knowledge to design correctly; an abutment that doesn't support the gum tissue adequately results in a crown that looks artificial or collects food

In complex cases — particularly multiple adjacent implants, full-arch rehabilitation, or cases where the implant position is not ideal — specialist prosthodontic oversight is the difference between a reliable long-term outcome and a result that begins to fail within a few years.

Our Specialists

Dr Fotios Angelis BDS (Hons)(Melb), DClinDent (Melb) Specialist Prosthodontist with expertise in the full range of implant prosthetic restoration, from single crowns to complex multi-unit reconstructions.

Prof Vasileios Chronopoulos DDS, MS, PhD (Pros) Specialist Prosthodontist with over 30 years of experience in implant prosthetics, full-arch rehabilitation, and aesthetic reconstruction.

Dr Jamie Foong BDS (Melb), DClinDent (Melb) Specialist Prosthodontist with experience in implant crown and bridge restoration as part of comprehensive occlusal rehabilitation.

Dr Simon Hinckfuss BDS, DCD (Pros), Cert.Perio MS (Minn) Dual-registered Specialist Prosthodontist and Specialist Periodontist — uniquely qualified to both place implants surgically and design the prosthetic restoration, allowing seamless treatment within a single specialist.

All specialists hold current registration with the Dental Board of Australia. Specialist registration can be verified independently through AHPRA.

Related Treatments

Surgical Phase (Implant Placement): - **[Dental Implant Surgery (Periodontics)](/periodontics/dental-implants-perio/)** — Implant placement by the specialist periodontist - **[Dental Implant Surgery (OMS)](/oral-maxillofacial-surgery/dental-implants-oms/)** — Implant placement in complex cases by the oral and maxillofacial surgeon - **[Bone Grafting (Periodontics)](/periodontics/bone-grafting-perio/)** — Where bone volume needs rebuilding before implant placement

Prosthetic Options: - **[Dental Crowns](/prosthodontics/dental-crowns/)** — The technology and materials used for implant crowns are shared with conventional crowns - **[Dental**

Bridges](/prosthodontics/dental-bridges/)** — Implant-supported bridges when multiple adjacent teeth are missing - **[All-on-4 Full Arch Rehabilitation](/prosthodontics/all-on-4/)** — Full-arch fixed prosthetic on four implants - **[Dentures](/prosthodontics/dentures/)** — Including implant-retained over-dentures as a removable alternative - **[Full Mouth Rehabilitation](/prosthodontics/full-mouth-rehabilitation/)** — When implant restoration is part of a comprehensive treatment plan