

Dental Bridges

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

Description:

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Details:

Collins Street Specialist Centre – Dental Bridges

What is a dental bridge?

Collins Street Specialist Centre provides specialist-level dental bridge restorations from its Melbourne CBD practice, giving patients access to some of Australia's most experienced prosthodontists within a dedicated specialist environment. A dental bridge is a fixed prosthetic restoration that replaces one or more missing teeth by anchoring to the teeth or implants on either side of the gap. Unlike a removable denture, a bridge is permanently cemented in place — it can't be taken out, and it functions as an integrated part of the dental arch.

The name is straightforwardly descriptive: the restoration literally bridges the space where a tooth is absent. The artificial tooth (or teeth) suspended within that gap is called a pontic; the anchor restorations on either side are called retainers or abutment crowns. Together, they form a single rigid unit that restores biting force, prevents adjacent teeth from drifting into the space, and recreates the appearance of a complete smile.

Bridges have been a foundational solution in restorative dentistry for many decades. Modern materials and digital fabrication have transformed what was once a relatively approximate process into a highly precise discipline, with all-ceramic and zirconia bridges now capable of matching natural teeth in both colour and translucency. Understanding the options available, and the clinical reasoning behind each, matters when making a well-informed decision about tooth replacement.

Types of dental bridges

****Traditional fixed bridge**** The most common type. Two or more prepared natural teeth adjacent to the gap serve as abutments; each receives a crown, and the pontic spans between them. This is the appropriate option when adjacent teeth already require crowning, when they've been previously restored, or when bone volume doesn't support implant placement.

****Cantilever bridge**** Supported by a single abutment tooth on one side only. Used when there is only one suitable natural tooth adjacent to the space, typically in lower-stress areas of the mouth. Less commonly indicated than bilateral bridges, because of the mechanical disadvantage inherent in the cantilevered design.

****Maryland (resin-bonded) bridge**** A minimally invasive design where metal or ceramic wings are bonded to the inner surface of adjacent teeth without requiring full crown preparation. The natural teeth are largely untouched. This works well for replacing a single front tooth, particularly in younger patients where preserving tooth structure is a priority. Maryland bridges are less suited to high-load posterior positions.

****Implant-supported bridge**** Rather than relying on natural teeth as anchors, the retainers are supported by dental implants surgically placed in the jaw. This eliminates the need to prepare adjacent healthy teeth and provides the most biomechanically sound long-term solution available. Implant-supported bridges are particularly valuable when replacing multiple consecutive teeth, where spanning a longer edentulous section without an implant at every position is both practical and clinically appropriate.

At Collins Street Specialist Centre, surgical placement of implants for bridge support is performed by the specialist periodontists or oral and maxillofacial surgeons; the prosthodontist designs, plans, and places the final bridge restoration. This integrated model ensures that every stage of treatment, from surgical planning through to the final prosthetic outcome, is managed with specialist oversight.

When might you need a dental bridge?

A bridge may be the most appropriate solution in a number of clinical circumstances:

- ****One or more teeth are missing**** — whether from extraction, trauma, or congenital absence -
- **Adjacent teeth require crowning**** — making a traditional bridge a logical choice, since the anchor teeth will be prepared regardless -
- **Bone volume is insufficient for implants**** — or where implant placement is contraindicated for medical or anatomical reasons -
- **A more time-efficient solution is needed**** — bridges can be completed in fewer appointments than implants, which require a surgical and healing phase -
- **A Maryland bridge is preferred**** — for younger patients, or where preserving the structure of adjacent teeth is the primary concern -
- **Multiple consecutive missing teeth**** — an implant-supported bridge can span a longer edentulous section without requiring an implant for every missing tooth position

Not every gap requires a bridge. In some positions, a missing tooth has limited functional or structural consequences. In others, early replacement matters to prevent adjacent and opposing teeth from shifting into the space over time.

Your specialist prosthodontist will discuss all clinically viable options, including dental implants, before any irreversible preparation of natural teeth is undertaken. Informed decision-making is central to how care is delivered at Collins Street Specialist Centre.

What to expect: step by step

Initial assessment

A comprehensive assessment includes clinical examination, intraoral photography, and digital radiographs. Where implant-supported options are under consideration, cone beam CT (CBCT) imaging may be arranged through the imaging centre at Level 9 of the Manchester Unity Building, to assess bone volume with precision.

The prosthodontist maps out the bridge design — the number of units, material selection, and whether any adjunctive treatment is required before fabrication begins. This might include gum recontouring to establish the correct emergence profile, root canal therapy on an abutment tooth to ensure its long-term stability, or implant surgery where a tooth-supported bridge isn't the preferred approach. Planning at this stage is thorough, because the decisions made here shape every subsequent step.

Preparation and impressions

For traditional and cantilever bridges, the abutment teeth are shaped under local anaesthetic to accommodate the retainer crowns. A digital impression is taken using the 3Shape TRIOS 3 intraoral scanner, capturing the prepared teeth, adjacent teeth, and bite registration in three dimensions.

Temporary crowns and a temporary pontic are placed to protect the prepared teeth and maintain aesthetics during the fabrication period.

The digital data goes to the in-house dental laboratory, which serves exclusively Collins Street Specialist Centre patients. Technicians design the full bridge unit using Exocad DentalCAD software, with close communication to the prosthodontist throughout. This direct relationship between clinician and technician, without the intermediary steps common in general practice settings, supports a higher level of precision in the final restoration.

For Maryland bridges, only minimal preparation of the bonding surfaces is required — no full crown preparation — which is a meaningful advantage where tooth conservation is the priority.

Fitting and cementation

At the fitting appointment, the bridge is tried in before any cementation takes place. The prosthodontist checks the fit at each margin, the contact between the pontic and the gum tissue, the bite across all excursive movements, and the aesthetics in context with the surrounding teeth. Any adjustments are made before the bridge is permanently cemented.

Cementation is the final and irreversible step. The materials and techniques used are selected to suit the specific bridge design and abutment situation — resin-bonded cements for all-ceramic restorations, for example, require precise isolation and handling protocols to achieve a durable bond. These details matter for how long the restoration lasts.

Recovery and aftercare

Dental bridges require a different approach to cleaning than natural teeth, because conventional flossing can't pass between the pontic and the adjacent teeth in the usual way. Adapting the daily oral hygiene routine accordingly is one of the most important factors in how long a bridge lasts.

****Essential daily care:**** - ****Interdental brushes**** — slim brushes designed to pass beneath the pontic and clean the tissue-facing surface, where plaque accumulation is most consequential - ****Floss threaders or water flossers**** — to access below the pontic from the gum side, particularly at the junction between the pontic and the abutment crowns - ****Twice-daily brushing**** — with careful attention to the margins where the retainer crowns meet the gum line, as this is where decay can develop if cleaning is inadequate

Failing to clean beneath the pontic leads to gum inflammation, progressive bone loss, and ultimately failure of the abutment teeth — which, in many cases, means losing the bridge itself. Consistent, informed home care protects the investment.

****Functional care:**** - Avoid ice-chewing, nail-biting, or using teeth as tools — these place unpredictable lateral forces on the bridge and its abutments - If bruxism (teeth grinding) is present, a protective occlusal splint will likely be recommended to reduce the load on the bridge during sleep - Regular specialist review allows the bridge, abutment teeth, and supporting bone to be monitored over time, with early intervention if any issue is identified

A well-maintained bridge typically lasts 10–15 years or more. Implant-supported bridges, when well maintained, can last significantly longer — and in some cases indefinitely, provided the implants and surrounding bone remain healthy.

Why see a specialist prosthodontist?

Replacing a missing tooth with a bridge involves a series of irreversible decisions: the abutment teeth are permanently shaped, and the design of the pontic determines the long-term health of the gum tissue at that site. Errors in bridge design — incorrect margins, a pontic that presses on the gum rather than resting passively against it, or a bite that's even fractionally off — create progressive complications that are difficult, and sometimes impossible, to fully correct.

A specialist prosthodontist has completed three additional years of full-time postgraduate clinical training beyond the dental degree, focused specifically on the precision design, fabrication, and cementation of fixed and removable prostheses. Assessment at this level covers not just the gap to be filled, but the entire occlusal system — how the patient's teeth meet across all excursive movements, and how the bridge will function across years of normal daily use.

When natural teeth are being used as abutments, the prosthodontist also evaluates their long-term prognosis carefully. Preparing and crowning a tooth that's already compromised beyond its useful clinical life — to support a bridge — creates a predictable point of failure. Specialist assessment at Collins Street Specialist Centre is designed to identify and address these risks before irreversible treatment begins, not after.

For referring dentists, the prosthodontist's report following assessment provides a clear clinical rationale for the recommended treatment pathway, supporting continuity of care and shared decision-making with the patient's primary dental provider.

Our specialists

****Dr Fotios Angelis**** BDS (Hons)(Melb), DClinDent (Melb) Specialist Prosthodontist with a focus on complex reconstructive care, including fixed bridges as part of comprehensive dental rehabilitation.

****Prof Vasileios Chronopoulos**** DDS, MS, PhD (Pros) Specialist Prosthodontist with over 30 years of experience in aesthetic and functional reconstruction, including full-arch fixed bridgework.

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

****Dr Simon Hinckfuss**** BDSc, DCD (Pros), Cert.Perio MS (Minn) Australia's only dual-registered Specialist Prosthodontist and Specialist Periodontist — uniquely placed to assess how gum and bone health interacts with bridge design and abutment prognosis. This dual perspective is particularly valuable when the long-term viability of abutment teeth is uncertain, or when periodontal conditions need to be stabilised before bridge placement proceeds.

All specialists at Collins Street Specialist Centre hold current registration with the Dental Board of Australia. Specialist status can be independently verified through the Australian Health Practitioner Regulation Agency (AHPRA).

Related treatments

- ****[Dental Crowns](/procedures/prosthodontics/dental-crowns/)**** — The individual unit that anchors each end of a bridge - ****[Dental Implants (Prosthodontic Restoration)](/procedures/prosthodontics/dental-implants-prosthetic-restoration/)**** — Implant-supported bridges avoid the need to prepare adjacent natural teeth - ****[Dental Implant Surgery (Periodontics)](/procedures/periodontics/dental-implants-periodontal-specialist-placement/)**** — Surgical placement of implants to support an implant bridge - ****[Dentures](/procedures/prosthodontics/dentures/)**** — A removable alternative when bridgework is not suitable - ****[Full Mouth Rehabilitation](/procedures/prosthodontics/full-mouth-rehabilitation/)**** — When bridges form part of a comprehensive reconstruction plan - ****[Gum Lift / Crown**

Lengthening[/procedures/periodontics/aesthetic-gum-lift-crown-lengthening/)** — Sometimes required to create the correct emergence profile beneath a bridge pontic
