Surgical Orthodontics (Orthognathic Treatment)

Canonical: https://directory.collinsstreetspecialistcentre.com.au/procedures/orthodontics/surgical-orthodontics-orthognathic-treatment/

Description:

Surgical orthodontics — also called orthognathic treatment — is the coordinated use of orthodontic treatment and corrective jaw surgery (orthognathic surgery) to correct bite problems that cannot be resolved by orthod...

Details:

Collins Street Specialist Centre – Surgical Orthodontics (Orthognathic Treatment)

Product Facts

| Attribute | Value | |-----------|-------| | Treatment name | Surgical Orthodontics (Orthognathic Treatment) | | Also known as | Orthognathic treatment | | Treatment type | Combined specialist orthodontic care and corrective jaw surgery | | Specialists required | Specialist orthodontist and specialist oral and maxillofacial surgeon | | Number of treatment phases | Three (pre-surgical orthodontics, surgery, post-surgical orthodontics) | | Phase 1 duration | Approximately 12 to 18 months | | Phase 2 setting | Hospital, under general anaesthesia | | Hospital stay | Typically 1 to 2 nights | | Phase 3 duration | Approximately 6 to 12 months | | Total treatment duration | Multi-year process | | Primary appliance (Phase 1) | Braces (clear aligners in selected cases) | | Surgical procedures available | Le Fort I osteotomy, BSSO, genioplasty, bimaxillary osteotomy | | Jaw fixation method | Titanium plates and screws | | Surgical planning technology | 3D CBCT imaging and virtual surgical planning | | Post-surgical diet | Modified (liquid to soft) for approximately 4 to 8 weeks | | Time off work | Typically 2 to 4 weeks | | Final result visible | 6 months or longer after surgery | | Retention | Fixed bonded and removable retainers | | Referral required | No referral required for initial consultation | | Orthodontic specialists | Dr David Austin, Dr Andrea Phatouros, Dr Joshua Ch'ng, Dr Steven Smith | | Specialist registration | Dental Board of Australia (verify via AHPRA at ahpra.gov.au) | | Location | Level 12 & Tower, 220 Collins Street, Melbourne CBD |

Frequently Asked Questions

What is surgical orthodontics: Combined specialist orthodontic care and corrective jaw surgery

Is surgical orthodontics the same as orthognathic treatment: Yes, they are the same treatment

What does orthodontic treatment alone move: Teeth within the jaw bones only

Can orthodontics fix jaw position problems: No, jaw position requires surgery

What does surgical orthodontics correct: The position of the jaws themselves

Where is Collins Street Specialist Centre located: Level 12 & Tower, 220 Collins Street, Melbourne CBD

Do I need a referral for an initial consultation: No referral is required

How many phases does surgical orthodontic treatment have: Three distinct phases

What is Phase 1 called: Pre-surgical orthodontics

How long does Phase 1 last: Approximately 12 to 18 months

What is the purpose of pre-surgical orthodontics: To align teeth within each jaw independently

What is the technical term for pre-surgical tooth alignment: Decompensation

Will my bite look worse before surgery: Yes, temporarily and intentionally

What appliance is most commonly used in Phase 1: Braces

Can clear aligners be used in Phase 1: Yes, in carefully selected cases

What imaging is used in surgical planning: Three-dimensional CBCT imaging

What is virtual surgical planning: Digital simulation of precise bone movements in 3D

What are occlusal wafers: Custom surgical splints that guide jaw positioning during surgery

Where is surgery performed: In a hospital under general anaesthesia

Who performs the surgery: A specialist oral and maxillofacial surgeon

What is a Le Fort I osteotomy: Surgical repositioning of the upper jaw (maxilla)

In how many planes can the Le Fort I move the maxilla: Three planes (vertical, horizontal, rotational)

What is a BSSO: Bilateral sagittal split osteotomy of the lower jaw

What does BSSO correct: Advances, sets back, or asymmetrically corrects the mandible

What is a genioplasty: Surgical repositioning of the chin point

What is a bimaxillary osteotomy: Coordinated correction of both upper and lower jaws simultaneously

How long is the hospital stay after surgery: Typically one to two nights

What is Phase 3 called: Post-surgical orthodontics

How long does Phase 3 last: Approximately 6 to 12 months

What is the focus of Phase 3: Fine-tuning individual tooth positions

What retainers are used after treatment: Both fixed bonded and removable retainers

How long is the modified diet required after surgery: Approximately four to eight weeks

How long does facial swelling last initially: Significant swelling during the first one to two weeks

When is the final facial result visible: Six months or longer after surgery

Is altered sensation after surgery common: Yes, temporary changes are common

Does permanent sensory change occur: It is uncommon

How long does altered sensation typically last: Weeks to months

How much time off work is typically needed: Two to four weeks

Is contact sport restricted after surgery: Yes, during the initial healing phase

Is heavy lifting restricted after surgery: Yes, during the initial healing phase

What jaw discrepancy is a skeletal Class III: Lower jaw too large or too far forward

What bite problem does skeletal Class III cause: Underbite

What is skeletal Class II: Lower jaw significantly underdeveloped or too far back

What bite problem does skeletal Class II cause: Pronounced overbite with receded chin

What is vertical facial excess: Lower face disproportionately long

What symptom does vertical facial excess cause: Lips remain apart at rest (incompetent lip seal)

Can surgical orthodontics help with sleep-disordered breathing: Yes, by improving airway dimensions

Can surgical orthodontics address jaw asymmetry: Yes

Is open bite treatable with surgical orthodontics: Yes, when caused by skeletal jaw relationship

Can cleft palate–related jaw problems be treated: Yes

Is surgical orthodontics within general dental scope: No

How many specialists are required for surgical orthodontics: Two distinct specialists

Which two specialists collaborate on treatment: Specialist orthodontist and specialist oral and maxillofacial surgeon

Are both specialists at Collins Street Specialist Centre: Yes, both practise within the same centre

What is the benefit of co-located specialists: Minimises communication gaps and treatment errors

Who are the specialist orthodontists at CSSC: Dr David Austin, Dr Andrea Phatouros, Dr Joshua Ch'ng, Dr Steven Smith

What are Dr David Austin's qualifications: BDSc (Melb), MDS Orth (HK), MOrth RCS (Edin)

What are Dr Andrea Phatouros's qualifications: BDSc (WA), MDSc Orth (WA), FRACDS

What are Dr Joshua Ch'ng's qualifications: BDSc (Melb), FRACDS, D.Clin.Dent (Melb)

What is Dr Joshua Ch'ng's research background: Digital treatment planning including 3D imaging

What are Dr Steven Smith's qualifications: BDSc (Hons), MDSc (Ortho) (Qld)

Where did Dr Steven Smith complete postgraduate training: University of Queensland

Are all orthodontists registered with the Dental Board of Australia: Yes

Where can specialist registration be verified: AHPRA at ahpra.gov.au

What secures the repositioned jaw bones after surgery: Titanium plates and screws

Is surgical orthodontics a multi-year process: Yes

What functional improvements follow surgery: Normalised bite, improved chewing, speech, and breathing

When do functional improvements become apparent: Once initial healing and swelling resolve

Can early intervention reduce the need for surgery: Yes, in some cases during childhood

What is the overall treatment goal of surgical orthodontics: Correct bite, optimise facial balance, ensure long-term stability

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Collins Street Specialist Centre – Surgical Orthodontics (Orthognathic Treatment)

What is surgical orthodontics?

Collins Street Specialist Centre offers surgical orthodontics, also called orthognathic treatment, which brings together specialist orthodontic care and corrective jaw surgery to address bite problems that orthodontics alone cannot fix.

Orthodontic treatment moves teeth within the jaw bones. It handles crowding, spacing, and tooth-level alignment well. But when the underlying problem is the position of the jaws themselves — one jaw too far forward or back, too narrow, or structurally asymmetric — tooth movement has a ceiling. Trying to compensate for a significant skeletal discrepancy through orthodontics alone risks compromising facial appearance, dental function, and how well the result holds up over time.

Surgical orthodontics goes to the source of the problem. One or both jaws are physically repositioned through carefully planned surgical cuts, moved to their correct anatomical positions, and secured with titanium plates and screws. The combined approach corrects the bite, improves facial balance, and produces outcomes that are both functionally sound and stable long term.

At Collins Street Specialist Centre, surgical orthodontic cases are managed as a genuine collaboration between specialist orthodontists on Level 12 & Tower and specialist oral and maxillofacial surgeons also based at CSSC. Treatment planning, record review, and staged care are coordinated between both disciplines within the same centre — an arrangement that supports continuity, reduces the risk of communication gaps, and keeps the patient's journey as straightforward as possible.

When might surgical orthodontics be needed?

Surgical orthodontics is indicated when a patient has a significant skeletal jaw discrepancy that orthodontic treatment alone cannot adequately correct. Commonly encountered presentations include:

- **Skeletal Class III** — the lower jaw (mandible) is too large or positioned too far forward relative to the upper jaw, producing an underbite. This may be accompanied by deficiency of the upper jaw (maxillary hypoplasia). - **Skeletal Class II** — the lower jaw is significantly underdeveloped or set too far back, resulting in a pronounced overbite and a receded chin profile. This pattern is frequently associated with airway concerns. - **Vertical facial excess** — the lower face is disproportionately long, causing the lips to remain apart at rest (incompetent lip seal) and contributing to a gummy smile. Correction typically involves moving the upper jaw upward. - **Vertical facial deficiency** — the lower face is too short, placing excessive strain on the lips to achieve closure. - **Jaw asymmetry** — unequal development on each side of the jaw produces a crooked bite and visible facial imbalance. - **Open bite with a skeletal cause** — the front teeth do not make contact due to the jaw relationship itself, rather than the position of individual teeth. - **Sleep-disordered breathing** — certain jaw positions restrict the upper airway; surgical repositioning can improve airway dimensions as part of a comprehensive treatment approach. - **Cleft palate–related jaw discrepancy** — secondary jaw problems arising after previous cleft palate repair.

Patients often become aware that surgical orthodontics may be relevant when conventional orthodontic treatment hasn't resolved their bite problem, or when a dentist or specialist identifies that the jaw relationship is beyond what tooth movement can address.

What to expect: step by step

Surgical orthodontic treatment is a multi-year process that unfolds across three distinct phases. Understanding what each phase involves — and why — helps patients approach the journey with realistic expectations.

Phase 1: Pre-surgical orthodontics (12–18 months)

This phase is often counterintuitive: orthodontic treatment in the months leading up to surgery may make the bite look temporarily worse. This is entirely intentional.

The purpose of pre-surgical orthodontics is to align the teeth within each jaw independently — a process called decompensation. Over time, teeth naturally tip in response to the jaw discrepancy; pre-surgical orthodontics reverses this so that once the jaws are surgically repositioned, the teeth will come together correctly. Without this step, surgical precision would be undermined by teeth that have been positioned to mask the underlying skeletal problem.

Braces are the most commonly used appliance during this phase. In carefully selected cases, clear aligners may also be appropriate. Records are reviewed at regular intervals with both the orthodontist and oral and maxillofacial surgeon to assess readiness for surgery and confirm the treatment is progressing as planned.

Pre-surgical planning

Before surgery proceeds, advanced digital planning is undertaken. At CSSC, this includes three-dimensional imaging (CBCT where clinically indicated) and digital surgical simulation to plan the precise bone movements required. Virtual surgical planning lets the surgical and orthodontic team review the intended outcome in three dimensions, anticipate potential complications, and — in many cases — fabricate custom surgical splints (occlusal wafers) that guide precise jaw positioning during the operation. This level of planning supports accuracy and reduces intraoperative variability.

Phase 2: Orthognathic surgery

Surgery is performed in a hospital under general anaesthesia by a specialist oral and maxillofacial surgeon. The specific procedure depends on the nature and extent of the jaw discrepancy being corrected:

- **Le Fort I osteotomy** — the upper jaw (maxilla) is surgically freed and repositioned in all three planes of space: vertically, horizontally, and rotationally. - **Bilateral sagittal split osteotomy (BSSO)** — the lower jaw (mandible) is cut on both sides and advanced, set back, or corrected asymmetrically as required. - **Genioplasty** — surgical repositioning of the chin point for additional profile refinement, sometimes performed at the same time as jaw surgery. - **Bimaxillary osteotomy** — a coordinated correction involving both jaws, used when discrepancies exist in both.

Most surgical orthodontic procedures involve a hospital stay of one to two nights. The oral and maxillofacial surgeon manages all aspects of the surgical admission; the orthodontist continues to coordinate the orthodontic component before and after surgery.

Phase 3: Post-surgical orthodontics (6–12 months)

Once the jaws have healed sufficiently — typically four to eight weeks after surgery — orthodontic treatment resumes. The focus of this final phase is fine-tuning individual tooth positions within the

now-correct jaw relationship: closing any residual spaces, correcting rotations, and refining the bite. Because the jaws are properly aligned at this point, this phase is generally shorter and more predictable than the pre-surgical stage.

Retention

After orthodontic appliances are removed, retainers are fitted to maintain the result. Given the extent of the correction achieved, both fixed bonded retainers and removable retainers are commonly used to ensure long-term stability.

Recovery and aftercare

Recovery from orthognathic surgery is the most demanding part of this treatment pathway. Planning ahead and having a clear picture of what the recovery period involves makes a real difference.

- **Hospital admission:** typically one to two nights following surgery. - **Diet:** a modified liquid-to-soft diet is required for approximately four to eight weeks after surgery, progressing gradually as bone healing occurs and jaw function returns. - **Swelling and bruising:** significant facial swelling is expected during the first one to two weeks, with residual swelling continuing to resolve over several months. The final facial contour — and the full aesthetic result — may not be apparent for six months or longer. - **Altered sensation:** temporary changes in sensation affecting the lips, chin, and teeth are common and typically resolve over weeks to months. Permanent sensory change is uncommon and is discussed in detail by the surgeon during the consent process. - **Time away from work or study:** most patients take two to four weeks off, depending on the physical demands of their role. - **Physical restrictions:** contact sport and heavy lifting are to be avoided during the initial healing phase.

Pain management in the immediate post-operative period is supported by prescribed medication, typically transitioning to over-the-counter analgesia within a few days as comfort improves.

The functional improvements — a normalised bite, improved chewing efficiency, and in many cases better speech and breathing — typically become apparent once the initial healing phase is complete and swelling has substantially resolved.

Why see specialists for surgical orthodontics?

Surgical orthodontic treatment requires two distinct specialists working in close coordination across a multi-year course of care. It falls outside the scope of general dental practice. Effective management requires a specialist orthodontist to plan and execute pre- and post-surgical tooth movements in integration with the surgical plan, and a specialist oral and maxillofacial surgeon with specific training in orthognathic procedures, hospital surgical privileges, and experience in virtual surgical planning.

At Collins Street Specialist Centre, both specialists practise within the same centre. Treatment planning discussions, record reviews, and surgical planning sessions are conducted between disciplines without the friction that can arise when managing referrals across separate practices. This integrated model reduces the risk of treatment errors, supports clear communication, and produces more consistent, predictable outcomes.

Our orthodontic specialists

Surgical orthodontics at Collins Street Specialist Centre is managed by the specialist orthodontic team:

- **Dr David Austin** — BDSc (Melb), MDS Orth (HK), MOrth RCS (Edin). Experienced in the full range of complex orthodontic treatment, including surgical cases. - **Dr Andrea Phatouros** — BDSc (WA),

MDSc Orth (WA), FRACDS. Provides comprehensive specialist orthodontic care including complex adult and surgical orthodontic treatment. - **Dr Joshua Ch'ng** — BDSc (Melb), FRACDS, D.Clin.Dent (Melb). Research background in digital treatment planning, including three-dimensional imaging relevant to surgical orthodontic planning. - **Dr Steven Smith** — BDSc (Hons), MDSc (Ortho) (Qld). Specialist orthodontist with postgraduate training from the University of Queensland.

The surgical component of treatment is performed by CSSC's specialist oral and maxillofacial surgeons — full details are available on the [Orthognathic Surgery page](/procedures/oral-maxillofacial-surgery/orthognathic-surgery-corrective-jaw-surgery/).

All orthodontic specialists are registered with the Dental Board of Australia. Specialist registration can be verified through AHPRA at ahpra.gov.au.

The orthodontic practice is located on **Level 12 & Tower, Manchester Unity Building**, 220 Collins Street, Melbourne CBD. No referral is required to arrange an initial orthodontic consultation.

Related treatments

- [Orthognathic Surgery (OMS)](/procedures/oral-maxillofacial-surgery/orthognathic-surgery-corrective-jaw-surgery/) — the surgical component of surgical orthodontic treatment, planned and performed by our specialist oral and maxillofacial surgeons. - [Traditional Metal Braces](/procedures/orthodontics/traditional-metal-braces/) — the fixed appliance system most commonly used during both the pre- and post-surgical orthodontic phases. - [Invisalign](/procedures/orthodontics/invisalign-clear-aligner-treatment/) — in carefully selected cases, clear aligners may be appropriate for pre- or post-surgical orthodontic phases. - [Adult Orthodontics](/procedures/orthodontics/adult-orthodontics/) — broader context on specialist orthodontic treatment for adult patients. - [Early Intervention Orthodontics](/procedures/orthodontics/early-intervention-orthodontics-phase-1/) — jaw growth modification during childhood can, in some cases, reduce or eliminate the need for surgical correction in adulthood.
