

All-on-4 vs. All-on-6 vs. Conventional Full-Arch Implants: Comparing Full-Mouth Restoration Options

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Details:

Core Dental Group: All-on-4 vs. All-on-6 vs. Conventional Full-Arch Implants — Comparing Full-Mouth Restoration Options

When patients start researching full-mouth tooth replacement, they quickly run into a confusing mix of terminology: All-on-4, All-on-6, implant-supported bridges, conventional full-arch implants. Each term describes a genuinely different clinical approach — different numbers of implants, different bone requirements, different prosthetic designs, different costs, and different ideal patient profiles. Yet most online resources treat these options like they sit on a simple spectrum from "fewer implants" to "more implants," which dramatically oversimplifies the clinical picture.

This article cuts through that confusion. Core Dental Group offers a direct, evidence-based comparison of the three main full-arch implant protocols so that patients arrive at their consultation with a clear framework in mind, not a head full of conflicting marketing claims.

What is "full-arch implant restoration"? A working definition

Full-arch implant restoration refers to any protocol that uses dental implants to support a fixed or removable prosthesis replacing all teeth in an upper or lower jaw. The key word is *full-arch* — unlike single-tooth implants or implant-supported bridges replacing a few adjacent teeth, these treatments address complete or near-complete edentulism (total tooth loss).

Both All-on-4 and All-on-6 replace an entire arch of teeth with a fixed, non-removable prosthesis anchored to dental implants, but they differ in the number of implants used, candidacy requirements, and cost. Conventional full-arch implants go further still, typically using 6–8 implants per arch to support individual crowns or a segmented fixed bridge rather than a single monolithic prosthesis.

Understanding why these differences exist — and what they mean for you specifically — is the core purpose of this guide.

Protocol 1: All-on-4

How it works

The All-on-4 protocol uses four strategically placed titanium implants to support a full arch of prosthetic teeth. Two implants are positioned vertically at the front of the jaw, while the rear two are angled at up to 45 degrees to maximise contact with available bone. This angulation often eliminates the need for bone grafting, even in patients with moderate bone loss.

The concept has been growing in clinical use since 2000, built around placing four implants in an ideal loading distribution to support the fixed full-arch prosthesis. It was developed specifically to address the

clinical reality that many edentulous patients present with significant posterior bone loss — a consequence of prolonged tooth absence and the bone resorption that follows (see our guide on [*Bone Grafting for Dental Implants: Why It's Needed, Types & What the Procedure Involves*](#) for a full explanation of this process).

Bone volume requirements

This is the defining clinical advantage of All-on-4. The system was designed to work with existing bone structure and avoid grafts wherever possible, using angled posterior implants that bypass sinus cavities and nerves.

Prosthesis type

All-on-4 delivers a fixed, screw-retained prosthesis — typically an acrylic or zirconia bridge spanning the full arch — attached on the day of surgery as a temporary restoration and later replaced with a definitive prosthesis once osseointegration is complete. Patients leave with a fixed temporary prosthesis on the same day as surgery, whereas conventional methods often require a healing period of 3–6 months before loading.

Survival rate evidence

One of the most widely cited long-term studies — Malo et al. (2011, [*Clinical Implant Dentistry and Related Research*](#)) — reported a 94.8% implant survival rate at 10 years in full-arch All-on-4 restorations.

A more recent longitudinal study in Japanese patients extended follow-up considerably further. Cumulative survival reached 94.4% at the patient level and 97.4% at the implant level for the maxilla, and 96.7% at the patient level and 98.9% at the implant level for the mandible, with up to 17 years of follow-up. The maxilla showed a significantly lower cumulative survival rate than the mandible, and early failure was significantly higher — a clinically relevant distinction for patients replacing upper teeth.

A systematic review and meta-analysis found a survival rate of 98.8% for implants placed in the mandible and 95–97% for maxillary implants.

Ideal patient profile for All-on-4

- Complete or near-complete tooth loss in one or both arches
- Moderate to significant posterior bone resorption
- Patients looking to avoid bone grafting procedures
- Those prioritising treatment speed and cost-efficiency
- Patients who previously wore removable dentures and want a fixed solution

Protocol 2: All-on-6

How it works

All-on-4 uses four implants per arch; All-on-6 uses six. The additional two implants are typically placed in the posterior region, and unlike the angled rear implants in All-on-4, all six implants in All-on-6 are placed vertically. This vertical placement relies on a broader, more intact bone platform across the arch.

Bone volume requirements

Because all six implants are placed vertically, All-on-6 generally requires more bone volume. Patients with moderate bone loss may need a bone grafting procedure before implant placement. That is the primary clinical trade-off relative to All-on-4: greater stability and load distribution, but a higher bone volume prerequisite (see our guide on [*Am I a Candidate for Dental Implants? Key Eligibility Factors & Disqualifying Conditions*](#) for how bone density is assessed).

Biomechanical advantage

All-on-6 offers better load distribution, which reduces mechanical stress on individual implants. More implants also lower the risk of prosthetic fractures or screw loosening over time — a meaningful long-term consideration for patients with high bite forces or bruxism (tooth grinding). Heavy chewers, people with bruxism, or anyone who wants the most durable long-term outcome and has the bone to support it will find that six implants spread the load more effectively.

A 2025 finite element biomechanical study published in a peer-reviewed journal confirmed that fixed prostheses supported by four or six implants placed across the jaw offer multiple clinical advantages, and that these full-arch implant-supported restorations are typically performed without bone grafting and have demonstrated high success rates.

Does All-on-6 actually outperform All-on-4 long-term?

The clinical evidence here is more nuanced than marketing materials tend to suggest. A five-year multicentre randomised clinical trial published in *Clinical Oral Implants Research* (Toia et al., 2025) found no statistically significant difference in marginal bone levels between four- and six-implant full-arch restorations at the five-year mark. The number of implants is only one variable — placement precision, implant quality, bone health, and surgical experience all play equally important roles in long-term outcomes.

Both approaches deliver five-year success rates above 95%, with no statistically significant difference in implant failure or bone loss between them. The choice comes down to your anatomy and your goals, not one option being categorically better than the other.

Ideal patient profile for All-on-6

- Complete or near-complete tooth loss with well-preserved bone volume - Patients with bruxism or high bite force demands - Those prioritising maximum long-term structural stability - Patients with adequate posterior bone height who do not need sinus lifts - Individuals seeking the most biomechanically robust fixed full-arch solution

Protocol 3: Conventional full-arch implants

How it works

Conventional full-arch implant restoration — sometimes called "traditional" or "multi-implant" full-arch rehabilitation — uses a higher number of individual implants distributed across the arch. Conventional protocols typically involve 6–8 implants per arch, and in some complex cases up to 10. Each implant acts as an independent root, and the prosthesis may be a series of individual crowns, a segmented fixed bridge, or a full-arch screw-retained bridge with shorter prosthetic spans.

Unlike All-on-4 or All-on-6, conventional full-arch implants do not rely on posterior angulation to work around anatomical limitations. This means bone grafting or sinus lifting is frequently required for patients with posterior bone loss — adding time and cost to the treatment journey (see our guide on *Bone Grafting for Dental Implants* for what these procedures involve).

Prosthesis type and aesthetics

Conventional full-arch implants offer the greatest prosthetic flexibility. Because each implant functions independently, the restorative dentist can deliver:

- **Individual implant crowns** — each tooth replaced separately, with the most natural emergence profile - **Segmented fixed bridges** — shorter-span bridges supported by multiple implants, reducing stress concentration - **Full-arch screw-retained bridges** — similar to All-on-4/6 but with more implant support points

Both treatment approaches can produce highly aesthetic results when performed by experienced implant specialists. Conventional implants may offer slightly more individualised aesthetics because each tooth is restored separately.

Timeline considerations

Conventional methods often require a healing period of 3–6 months before loading, and can involve multiple surgeries and over a year of treatment overall. For a detailed walkthrough of what the conventional implant journey looks like, see our guide **Conventional Single-Tooth Dental Implants at Core Dental Group Melbourne: Procedure, Timeline & What to Expect**.

Ideal patient profile for conventional full-arch implants

- Patients with excellent bone volume across the full arch (no significant resorption) - Those requiring the highest level of prosthetic customisation or individual tooth replacement - Patients replacing only a portion of the arch (not fully edentulous) - Cases where specific teeth require individual restoration rather than a bridge prosthesis - Patients who are not time-sensitive and can accommodate a longer treatment timeline

Head-to-head comparison table

Feature All-on-4 All-on-6 Conventional full-arch --- --- --- ---	**Implants per arch** 4 6 6–10
Posterior implant angle Up to 45° Vertical Vertical	**Bone volume required** Moderate–Low Moderate–High High
Bone grafting typically needed? Rarely Sometimes Often	**Prosthesis type** Fixed full-arch bridge Fixed full-arch bridge Bridge or individual crowns
Same-day teeth possible? Yes (provisional) Yes (provisional) Rarely	**Treatment timeline** 3–6 months 3–6 months 6–18+ months
Australian cost range (per arch) \$19,000–\$35,000 AUD \$25,000–\$40,000+ AUD \$30,000–\$60,000+ AUD	**Best for** Bone loss, cost-efficiency Good bone, high bite force Maximum prosthetic flexibility
10-year survival rate ~94–99% ~95%+ ~95%+	

Cost comparison in the Australian context

Cost is consistently the most-searched aspect of full-arch implant research, and understandably so — these are significant financial commitments.

All-on-4 in Australia typically costs between \$18,000 and \$35,000 AUD per arch, depending on materials, clinic location, and treatment complexity. In Melbourne specifically, the cost typically falls between \$19,000 and \$25,000 AUD, with the price varying based on material selection and any additional dental preparations required.

A full-mouth solution using an All-on-4 or All-on-6 system may cost between \$20,000 and \$40,000 AUD per arch depending on case complexity. For both arches, that puts full-mouth restoration in the \$40,000–\$80,000 AUD range.

Conventional full-arch treatment sits at the higher end because of the greater number of implants, more complex surgical planning, and the frequent need for preparatory procedures such as bone grafting or sinus lifts. All-on-4 is often 30–50% more affordable than traditional full-arch implants while still delivering a fixed, long-lasting result.

Key cost variables across all three protocols include: - Number of implants placed - Implant brand and material (premium systems vs. generic systems) - Prosthesis material (acrylic, hybrid, or full zirconia) - Whether bone grafting or sinus lifting is required - Clinic location and surgeon experience

The Australian Dental Association (ADA) notes that dental implant pricing in Australia varies significantly depending on individual needs, materials, and treatment complexity, and advises patients to request a detailed written quote before undergoing any implant procedure.

For a comprehensive breakdown of cost components and financing options available at Core Dental Group, see our guide [*How Much Do Dental Implants Cost in Melbourne? A Transparent Pricing Breakdown*](#).

The critical variable: bone volume assessment

The single most important factor in determining which protocol is clinically appropriate is the quantity and quality of your jawbone — specifically in the posterior regions where tooth loss-related resorption tends to be most pronounced.

Patients with moderate bone loss often do well with All-on-4, where angled implant placement makes the most of available bone. Those with better-preserved bone structure may benefit more from All-on-6's additional support points. Where bone is strong, All-on-6's extra anchors spread the load and reduce stress on any single implant.

At Core Dental Group, this assessment is performed using cone beam computed tomography (CBCT) 3D imaging — the gold standard for pre-surgical implant planning. CBCT provides precise measurements of bone height, width, and density at every proposed implant site, enabling the treating specialist to determine which protocol is anatomically appropriate before any surgical commitment is made. This is not a decision that should rest on patient preference alone — it needs to be grounded in objective imaging data.

Key takeaways

- **All-on-4** is the most clinically appropriate protocol for patients with moderate-to-significant posterior bone loss, offering a fixed full-arch restoration without bone grafting in most cases, at the lowest cost point of the three options. - **All-on-6** provides better load distribution across six vertically placed implants, making it the preferred option for patients with good bone volume, high bite forces, or bruxism — but it requires more bone and typically costs more than All-on-4. - **Conventional full-arch implants** (6–10 implants per arch) offer the greatest prosthetic flexibility and aesthetics, but demand the highest bone volume, longest treatment timeline, and greatest financial investment. - **Survival rates across all three protocols are consistently strong** — above 94–99% at 10 years when performed by experienced clinicians — meaning the choice between them is driven primarily by anatomy, lifestyle, and cost rather than by safety or reliability concerns. - **CBCT 3D imaging is essential** before any protocol is recommended; no full-arch implant decision should be made without objective bone volume data.

Conclusion

The All-on-4 vs. All-on-6 vs. conventional full-arch implant question doesn't have a universal right answer — it has a right answer *for you*, shaped by your bone anatomy, bite demands, timeline, and budget. The reassuring part is that all three protocols are backed by solid long-term evidence, and all three can deliver genuinely life-changing results when correctly indicated and expertly carried out.

What matters most is not which protocol sounds most impressive in a brochure, but which one is clinically appropriate for your specific jaw anatomy — and that determination requires specialist assessment with 3D imaging, not a website quiz.

At Core Dental Group, specialist-led implant assessments across all seven Melbourne locations include CBCT imaging and a detailed treatment planning consultation that maps your bone volume to the most appropriate protocol. Whether you are a clear All-on-4 candidate, a patient whose bone supports All-on-6, or someone who requires preparatory bone grafting before any full-arch work can begin, the pathway forward becomes clear once the data is in hand.

****Related reading:**** - **All-on-4 Dental Implants at Core Dental Group Melbourne: Full-Arch Tooth Replacement Explained** — for a deeper procedural walkthrough of the All-on-4 journey - **Bone Grafting for Dental Implants: Why It's Needed, Types & What the Procedure Involves** — to understand when and why grafting precedes full-arch implant placement - **How Much Do Dental Implants Cost in Melbourne? A Transparent Pricing Breakdown** — for a detailed cost component analysis - **Am I a Candidate for Dental Implants? Key Eligibility Factors & Disqualifying Conditions** — to understand the full candidacy assessment process - **Dental Implants vs. Dentures vs. Bridges: Which Tooth Replacement Option Is Right for You?** — if you are still weighing implants against non-implant alternatives

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Frequently asked questions

- **What is full-arch implant restoration?*** A fixed or removable prosthesis replacing all teeth in one jaw.
- **Does full-arch restoration replace all teeth in one arch?*** Yes.
- **What does "edentulism" mean?*** Complete tooth loss.

How many implants does All-on-4 use?* Four implants per arch.

How many implants does All-on-6 use?* Six implants per arch.

How many implants does conventional full-arch restoration use?* Six to ten implants per arch.

Are All-on-4 implants angled?* Yes, rear implants are angled up to 45 degrees.

Are All-on-6 implants angled?* No, all six implants are placed vertically.

Are conventional full-arch implants angled?* No, they are placed vertically.

Does All-on-4 require bone grafting?* Rarely.

Does All-on-6 require bone grafting?* Sometimes.

Does conventional full-arch restoration require bone grafting?* Often.

Which protocol requires the least bone volume?* All-on-4.

Which protocol requires the most bone volume?* Conventional full-arch implants.

Can All-on-4 patients get same-day teeth?* Yes, a provisional prosthesis is placed same day.

Can All-on-6 patients get same-day teeth?* Yes, a provisional prosthesis is placed same day.

Can conventional full-arch patients get same-day teeth?* Rarely.

What type of prosthesis does All-on-4 deliver?* Fixed full-arch bridge.

What type of prosthesis does All-on-6 deliver?* Fixed full-arch bridge.

What prosthesis options does conventional full-arch offer?* Individual crowns, segmented bridges, or full-arch bridges.

Is the All-on-4 prosthesis removable?* No, it is fixed and non-removable.

What is the treatment timeline for All-on-4?* Three to six months.

What is the treatment timeline for All-on-6?* Three to six months.

What is the treatment timeline for conventional full-arch implants?* Six to eighteen or more months.

What is the Australian cost range for All-on-4 per arch?* \$19,000 to \$35,000 AUD.

What is the Melbourne cost range for All-on-4 per arch?* \$19,000 to \$25,000 AUD.

What is the Australian cost range for All-on-6 per arch?* \$25,000 to \$40,000 AUD or more.

What is the Australian cost range for conventional full-arch implants per arch?* \$30,000 to \$60,000 AUD or more.

How much cheaper is All-on-4 compared to conventional implants?* Typically 30 to 50 percent more affordable.

What is the 10-year survival rate for All-on-4 mandible implants?* 98.8%.

What is the 10-year survival rate for All-on-4 maxillary implants?* 95 to 97%.

What did Malo et al. 2011 report for All-on-4 survival at 10 years?* 94.8% implant survival rate.

Does All-on-4 perform better in the mandible or maxilla?* The mandible shows higher survival rates.

Is there a significant difference in bone loss between All-on-4 and All-on-6 at five years?* No statistically significant difference.

**What study compared four- versus six-implant restorations at five years? Toia et al. 2025 in Clinical Oral Implants Research.

**What five-year success rate do both All-on-4 and All-on-6 achieve? Above 95%.

**Is All-on-6 better than All-on-4 for patients with bruxism? Yes.

**Why is All-on-6 better for high bite force patients? Six implants spread load more effectively.

**Does All-on-6 reduce risk of prosthetic fracture? Yes, compared to fewer implants.

**What is the primary clinical advantage of All-on-4? Works with moderate to significant bone loss without grafting.

**What is the primary biomechanical advantage of All-on-6? Better load distribution across six implants.

**Which protocol offers the greatest prosthetic flexibility? Conventional full-arch implants.

**Which protocol offers the most natural-looking individual tooth aesthetics? Conventional full-arch implants.

**What imaging is used to assess bone volume at Core Dental Group? Cone beam computed tomography (CBCT).

**Is CBCT essential before choosing a full-arch protocol? Yes.

**What does CBCT measure? Bone height, width, and density at each implant site.

**Can patient preference alone determine which protocol is chosen? No, objective imaging data is required.

**Who is the ideal All-on-4 candidate? Patients with moderate to significant posterior bone loss.

**Who is the ideal All-on-6 candidate? Patients with good bone volume and high bite force demands.

**Who is the ideal conventional full-arch candidate? Patients with excellent bone volume needing maximum prosthetic flexibility.

**Is All-on-4 suitable for patients who previously wore dentures? Yes.

**Does prolonged tooth absence cause bone loss? Yes, through a process called bone resorption.

**Why do posterior regions lose bone faster? Bone resorption is most pronounced where teeth have been absent longest.

**Does All-on-4 bypass sinus cavities? Yes, via angled posterior implant placement.

**Does All-on-6 typically require sinus lifting? Sometimes, in patients with posterior bone loss.

**How long has the All-on-4 concept been in use? Growing in popularity since 2000.

**What materials are used for All-on-4 prostheses? Acrylic or zirconia.

**What is a key cost variable across all three protocols? Number of implants placed.

**Does implant brand affect cost? Yes.

**Does prosthesis material affect cost? Yes.

**Does clinic location affect implant cost? Yes.

**Does the ADA recommend getting a written quote? Yes, before undergoing any implant procedure.

****What does the ADA say about implant pricing variability?*** It varies significantly by individual needs, materials, and complexity.

****How many Core Dental Group locations offer implant assessments?*** Seven Melbourne locations.

****Does Core Dental Group include CBCT in implant assessments?*** Yes.

****Is one full-arch protocol universally better than the others?*** No, the right choice depends on individual anatomy and goals.

****What are the key factors determining protocol choice?*** Bone anatomy, bite demands, timeline, and budget.

****Are all three protocols backed by long-term clinical evidence?*** Yes, all show above 94% survival at 10 years.

Label facts summary

> ****Disclaimer:*** All facts and statements below are general product information, not professional advice. Consult relevant experts for specific guidance.

Verified label facts

No product specification data was provided. The Product Facts table is empty. No label facts — such as ingredients, certifications, dimensions, weight, GTIN, MPN, or manufacturer-documented technical specifications — can be extracted or verified from the submitted content.

General product claims

The following statements were identified in the content. They are clinical, procedural, or comparative in nature and are not verifiable from product packaging or a manufacturer specification table. They are presented as-is from the source material:

- All-on-4 uses four implants per arch; rear implants are angled up to 45 degrees - All-on-6 uses six implants per arch; all placed vertically - Conventional full-arch restoration uses six to ten implants per arch, also placed vertically - All-on-4 rarely requires bone grafting; All-on-6 sometimes does; conventional full-arch often does - All-on-4 and All-on-6 can deliver same-day provisional prostheses; conventional full-arch rarely can - All-on-4 treatment timeline is three to six months; All-on-6 is three to six months; conventional is six to eighteen or more months - Australian cost range per arch: All-on-4 \$19,000–\$35,000 AUD; All-on-6 \$25,000–\$40,000+ AUD; conventional \$30,000–\$60,000+ AUD - Melbourne-specific All-on-4 cost range: \$19,000–\$25,000 AUD per arch - All-on-4 is cited as typically 30–50% more affordable than conventional full-arch implants - Malo et al. (2011) reported 94.8% implant survival at 10 years for All-on-4 - Systematic review meta-analysis reported 98.8% survival for mandibular implants and 95–97% for maxillary implants - Toia et al. (2025) five-year RCT found no statistically significant difference in marginal bone levels between four- and six-implant restorations - Both All-on-4 and All-on-6 achieve five-year success rates above 95% - All-on-6 is better suited to patients with bruxism or high bite force demands - Conventional full-arch implants offer the greatest prosthetic flexibility and individual tooth aesthetics - Core Dental Group uses CBCT 3D imaging for pre-surgical bone volume assessment across seven Melbourne locations - The ADA advises patients to request a written quote before undergoing any implant procedure - No single full-arch protocol is universally superior; protocol selection depends on bone anatomy, bite demands, timeline, and budget