

Understanding the Full Arch or “All-on-4” Dental Implant Procedure: A Complete Guide

For individuals suffering from chronic dental disease, extensive tooth loss, and severe bone loss, or those seeking an alternative to traditional dentures, the **Full Arch Implants, All-on-4 dental implant** procedure has emerged as a revolutionary and life-changing solution.

This technique aims to provide patients with a permanent solution to a chronic issue. Traditionally, patients who have suffered from chronic dental disease and are at a point where, 1. Teeth are no longer restorable, 2. Missing majority or all of their dentition, 3. The cost and number of procedures required to restore their complete dentition would be a financial and time/commitment strain.

This technique offers fewer one surgery, fewer visits, and a full upper and lower arch restoration. It is the preferred method for restoring function, aesthetics, and confidence in a single day procedure

What Is the All-on-4 Procedure?

The All-on-4 is a dental implant procedure is more recently referred to as full arch implants, or “all-on-x.” This change came about to not limit the amount of implants placed, and left it open for the surgeon to place as many implants required to maximize stability.

The Full Arch implant procedure involves removing all remaining dentition due to unrestorable dental disease, and placing at least 4 implants in the upper and lower jaws. The implants are placed strategically to maximize the spread and stability of the implants. A full arch dental prosthesis is then fixated to the dental implants -function and aesthetics are restored. The procedure was first designed by Dr. Paulo Malo in the later 1990s, and the concept minimizes the need for additional bone grafting, fewer surgeries, less downtime, and immediate function

Benefits of the All-on-4 Procedure

- **Immediate Results:** A temporary prosthesis is placed on the same day as the implant surgery. This temporary prosthesis allows for immediate function, additionally allowing for a trial period to establish the ideal color, shape, and design that is unique to each patient
- **Bone Preservation:** Implants stimulate the jawbone, preventing further bone loss.

- **Cost-Effective:** Fewer implants, fewer surgeries reduce the overall cost compared to traditional individual implants and implant crown/bridges
- **Improved Stability:** Fixed dental prosthetics are the closest thing to the stability of your natural teeth. No denture adhesive is required,
- **Comfort:** The full arch fixed prosthesis allows your teeth to be stable, and your palate to be exposed. The exposed palate will inhibit any triggering of the gag reflex. while improving speech, taste, and comfort.
- **Aesthetics:** A full arch zirconia prosthesis allows strength and aesthetics. Patients should be involved in the cosmetic process. Every person is unique, and so should your teeth and smile.

Step-by-Step Overview of the Procedure

1. Initial Consultation & Evaluation

A thorough facial and dental examination, including 3D imaging and digital scans, is performed to assess bone availability, density, and your overall health. Your dentist will create a customized treatment plan unique to you

2. Dental extractions and Implant Placement Surgery

Under general anesthesia, your surgeon will remove all remaining teeth, remove all chronic infection, smoothen the bone and place a minimum of four titanium implants into the upper jawbone and the lower jawbone. The back implants are typically placed at an angle maximize implant spread and support while avoiding the sinuses and/or nerves.

3. Immediate Prosthesis Placement

A temporary fixed prosthetic arch is attached to the implants on the same day, allowing the patient to leave the office with a functional and aesthetic smile.

4. Healing and Osseointegration (3–6 months)

The implants fuse and integrate with the bone during this period. Patients will follow a very soft diet and maintain checkups for adjustments to accommodate speech, function, and cosmetics

5. Final Restoration

Once the implants are fully integrated, a custom-designed final prosthesis made from zirconia replaces the temporary one for long-term durability and aesthetics.

Recovery and Aftercare

- Mild to moderate swelling and discomfort for a few days to weeks post-surgery
- Adherence to post-op instructions is crucial (antibiotics, soft diet, no smoking)
- Excellent oral hygiene and routine follow up visits to ensure adequate healing, adjusting and longevity

Longevity and Success Rate

The Full Arch, All-on-4 procedure boasts a **95–98% success rate** over ten years or more. With proper care, the implants and prosthesis can be predictable and long lasting

Cost Considerations

In general, while prices vary by location and materials used, the average cost in the U.S. ranges from **\$20,000 to \$30,000 per arch**. Despite the upfront expense, All-on-4 is considered a long-term investment in oral + overall health and a significant improvement in quality of life.

Conclusion

The All-on-4 dental implant procedure has transformed the lives of countless patients by removing dental disease, providing a predictable, stable, beautiful, and functional alternative to dentures. If you're seeking a permanent solution for missing teeth, consult with a qualified prosthodontist and oral & maxillofacial surgeon to explore whether Full Arch/All-on-4 is right for you.