ARCADIA PERIO

PERIODONTAL MEDICINE • IMPLANTS • LASER REGENERATION

Dr. Andrew Peterson DMD MS DABP DABOI/ID DICOI FAAID

301 W Huntington Dr. Suite 507
Arcadia, CA 91007
(626) 447-0945

info@arcadiaperio.com
www.arcadiaperio.com

Table of Contents

What Is Periodontal (Gum) Disease?

Gum disease (periodontal disease) is an infection and inflammation of the gums and the bone that supports your teeth. It usually develops slowly in stages:

Healthy gums

- Pink and firm
- Don't bleed when brushing or flossing
- Plaque (bacteria) is removed daily with brushing and flossing

Gingivitis (early gum disease – reversible)

- Plaque builds up along the gumline and irritates gums
- Gums become red, swollen, and bleed easily
- Bone is still healthy; with good cleaning at home and by a dentist, this stage can usually be fully reversed

Early–moderate periodontitis

- Plaque hardens into tartar and extends below the gumline
- Gums pull away from teeth, forming "pockets" that trap bacteria
- Damage is not fully reversible, but treatment can stop or slow it

Severe periodontitis (advanced gum disease)

- Deep pockets and major bone loss
- Gums recede; teeth may loosen, shift, or feel sore when chewing
- Damage is permanent, but treatment can reduce infection and try to save teeth

Treatment and prevention

- Professional cleanings; for deeper disease, "deep cleaning" (scaling and root planing) and sometimes surgery
- **LANAP (Laser-Assisted New Attachment Procedure):** a laser-based treatment some periodontists use instead of traditional cut-and-stitch gum surgery to remove infected tissue and bacteria and help the gums reattach to the teeth
- Brush twice daily, clean between teeth daily, avoid smoking, and see your dentist regularly

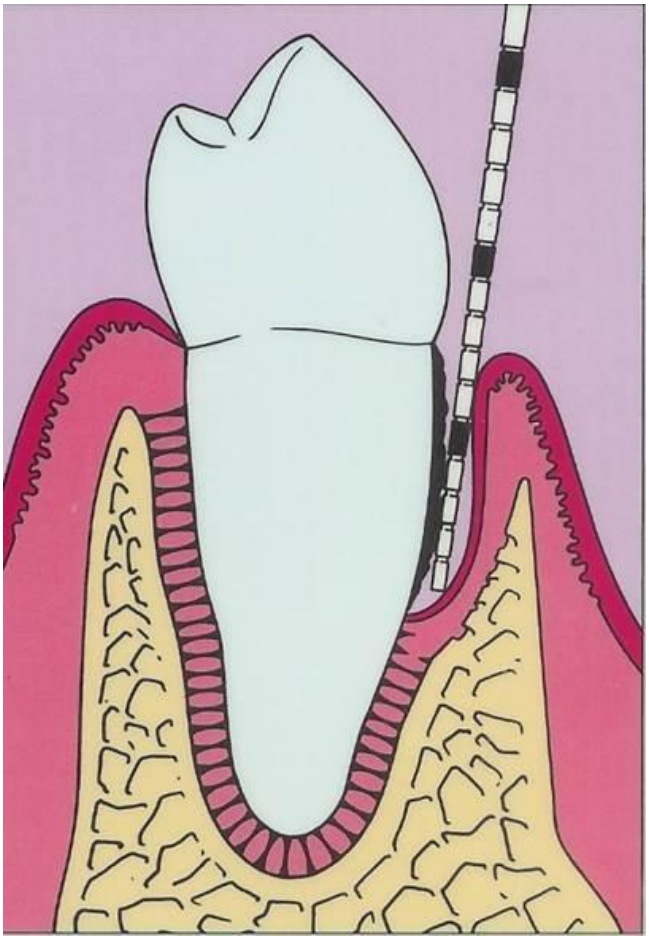
Risk Factors

You may be at higher risk if you have:

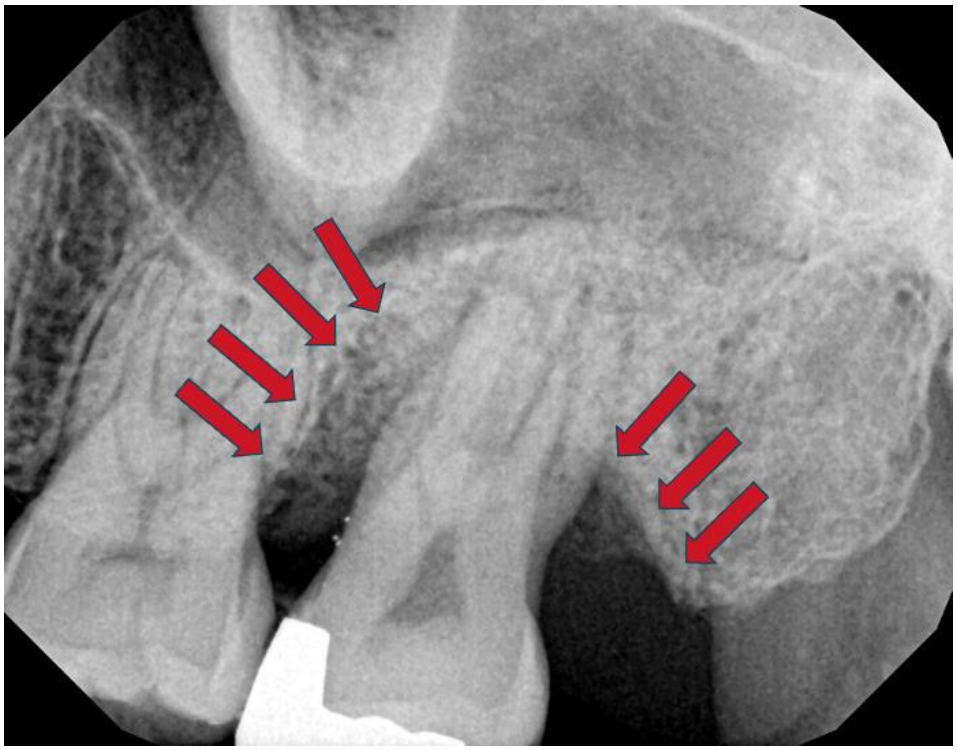
- Smoking or tobacco use
- Poor oral hygiene
- Family history of gum disease
- Certain medications
- Conditions such as diabetes

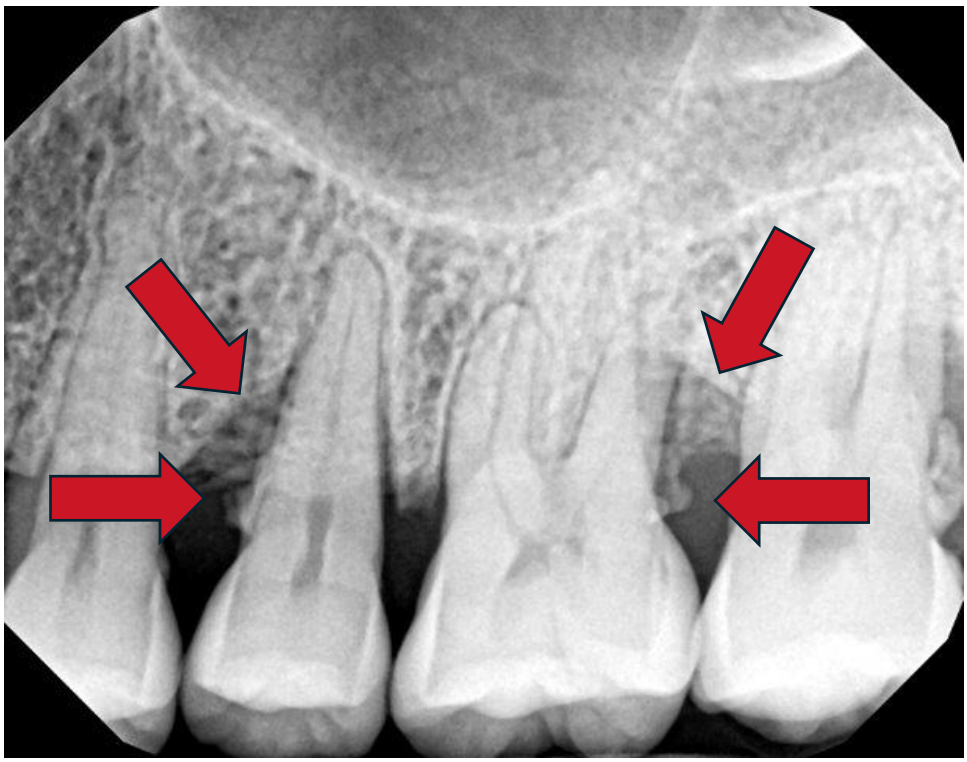
Prevention & Management

- Brush and floss daily
- Have regular dental and periodontal checkups
- Early diagnosis and treatment are key to protecting both your smile and your overall health



What Does Bone Loss Look Like on an X-ray?





LANAP: A Modern, Gentle Option for Treating Gum Disease

LANAP (Laser-Assisted New Attachment Procedure) is a minimally invasive, FDA-cleared laser treatment for periodontal (gum) disease. It's a modern alternative to traditional gum surgery that uses a specialized laser to remove infected tissue and bacteria while preserving healthy tissue.

How LANAP Works

Precision Laser Technology

- A laser with a specific wavelength targets only diseased tissue and bacteria, leaving healthy gum tissue largely untouched. This precision improves accuracy and typically leads to less swelling and bleeding.

Minimally Invasive, No Cutting or Stitches

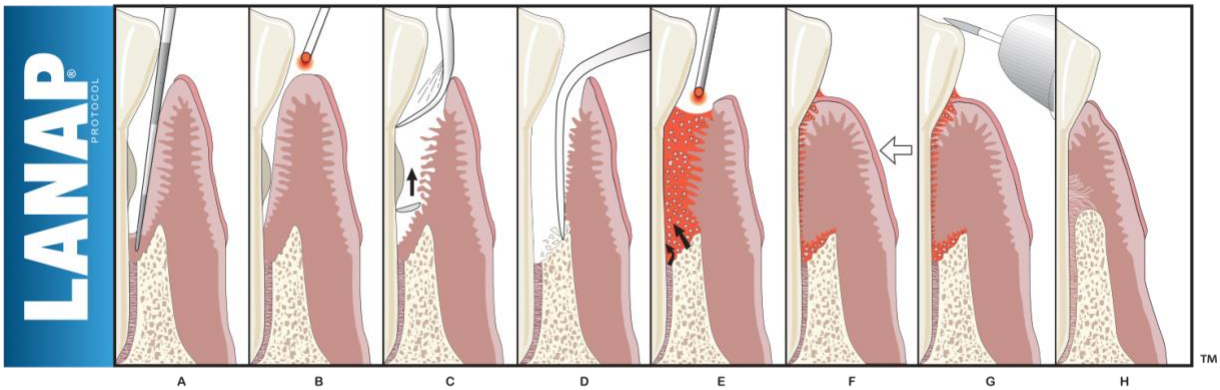
- LANAP does not require scalpels or sutures. Because there is no cutting or stitching of the gums, patients usually experience less discomfort and a faster recovery—many return to normal activities within a day or two.

Promotes Natural Healing & Regeneration

- The laser helps disinfect the area and stimulates the body's natural healing response. This can encourage regeneration of both gum tissue and supporting bone, leading to healthier, firmer gums and improved support around the teeth.

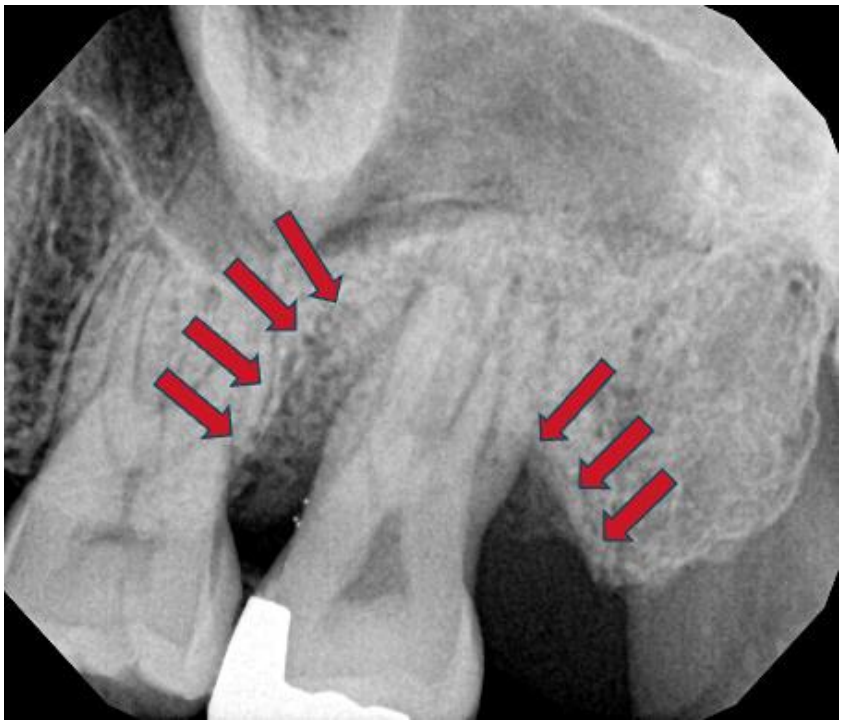
Proven Clinical Results

- Studies show that most patients treated with LANAP have a significant reduction in pocket depths within about six months.



LANAP Clinical Cases:

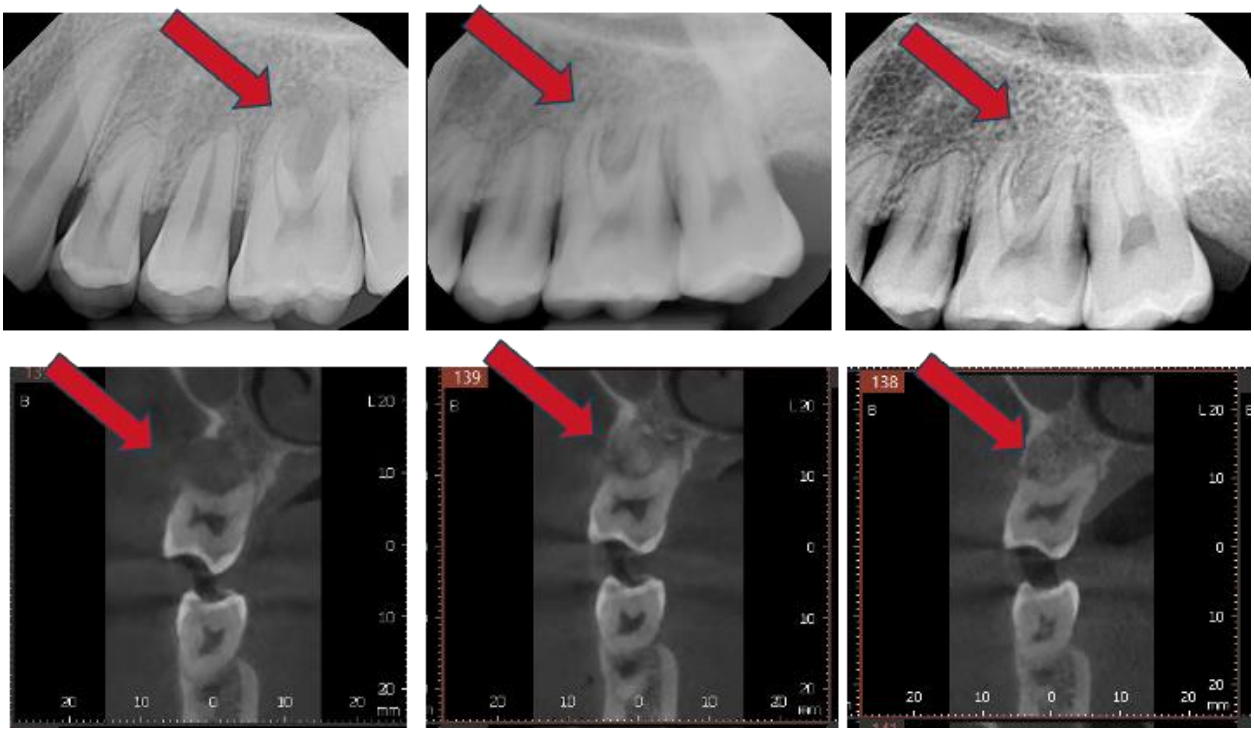
Before and After



Clinical Case 2:

Clinical Case 3:

Before, 6 months, 12 months Post LANAP Treatment



What Is Peri-Implantitis?

Peri-implantitis is a gum and bone infection around a dental implant, similar to advanced gum disease around natural teeth.

Healthy implant

- Gums are pink and firm, no bleeding
- Implant feels solid and comfortable

Peri-implant mucositis (early, reversible)

- Plaque (bacteria) builds up around the implant
- Gums become red, swollen, and bleed when brushing or flossing
- Bone is still healthy; professional cleaning and better home care can usually reverse this

Peri-implantitis (gum and bone disease)

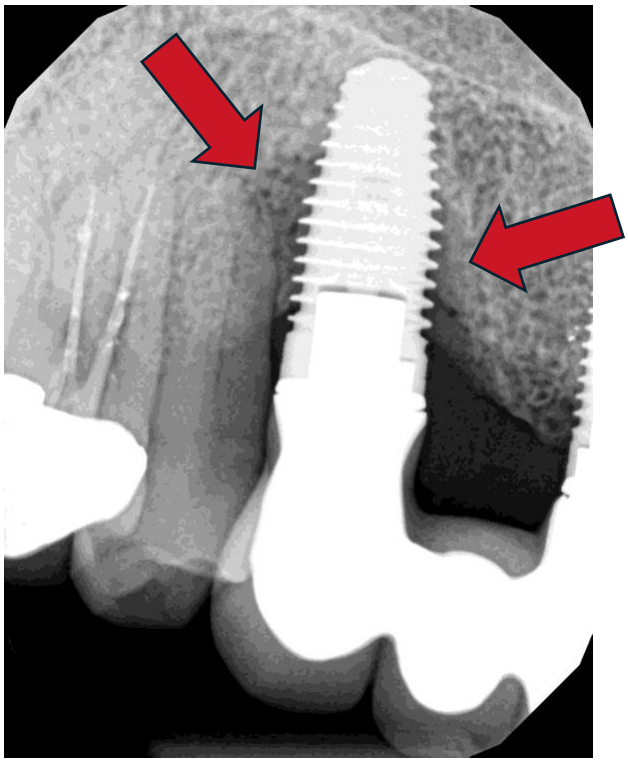
- Inflammation spreads deeper, causing bone loss around the implant
- “Pockets” form between the gum and implant that trap more bacteria
- Metal threads of the implant may become exposed

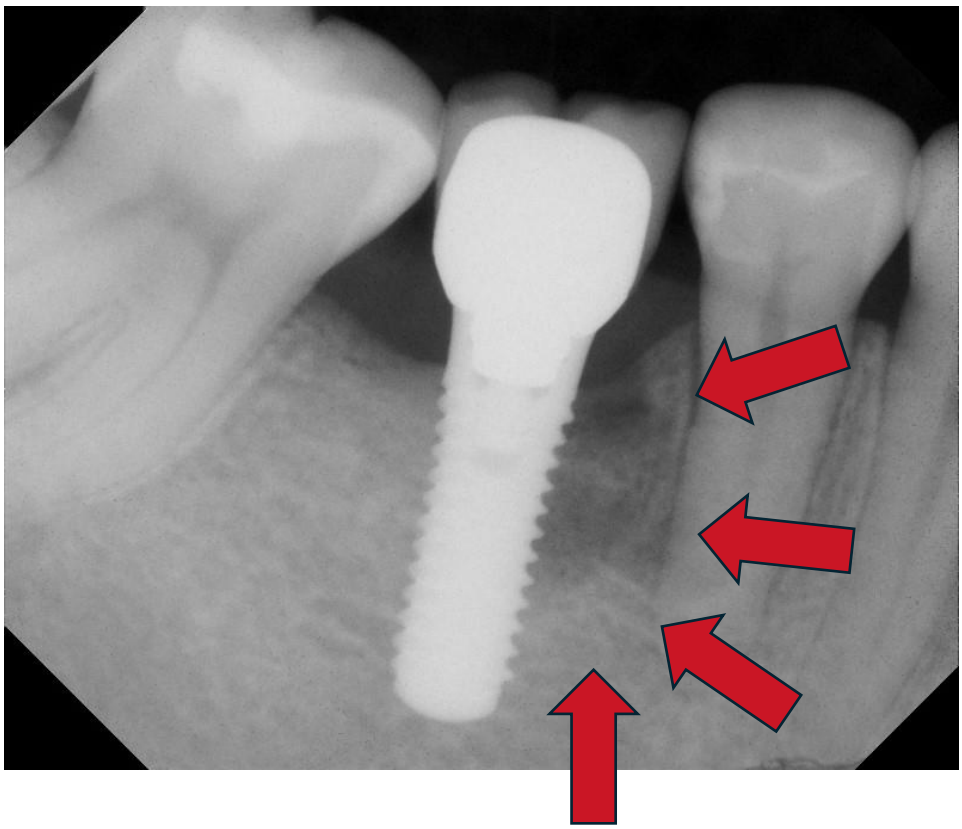
Signs and symptoms

- Red, swollen, or receding gums around the implant
- Bleeding, bad breath, or pus
- Pain or discomfort when chewing

Risk factors

- Not cleaning well around the implant
- Smoking or vaping nicotine
- Past gum disease, poorly controlled diabetes





LAPIP-Laser Assisted Peri-Implantitis Protocol

LAPIP (Laser Assisted Peri-Implantitis Procedure) is a minimally invasive, laser-based treatment specifically designed to manage and treat peri-implantitis—an inflammatory condition that affects the gum and bone around dental implants.

How LAPIP Works

During LAPIP, a thin laser fiber is gently inserted between the gum and the implant. The laser energy is used to:

- Target and destroy harmful bacteria
- Remove infected and inflamed tissue
- Clean and decontaminate the implant surface and surrounding pocket

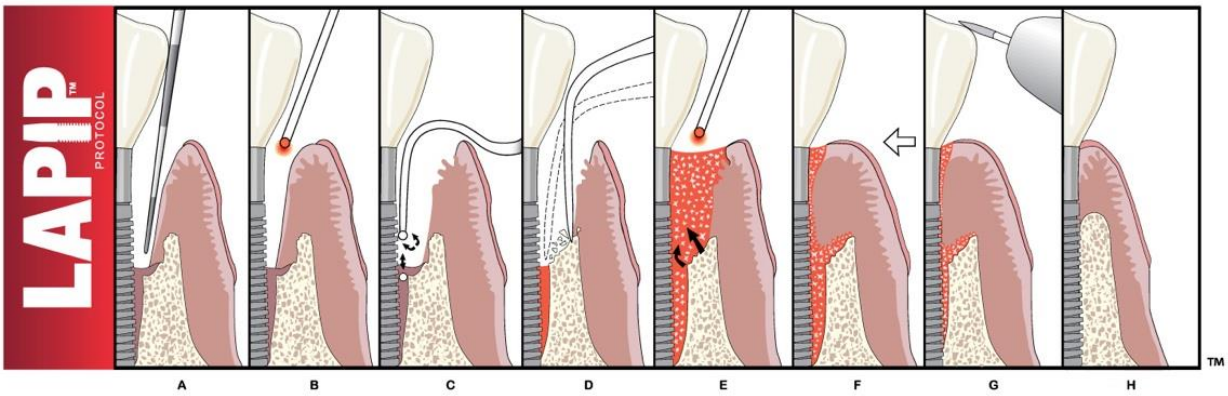
Unlike traditional surgery, LAPIP:

- Does **not** typically require incisions or sutures
- Selectively removes **only diseased tissue**, helping preserve healthy gum and bone
- Supports the body's natural ability to regenerate healthy supporting tissues

Benefits of LAPIP

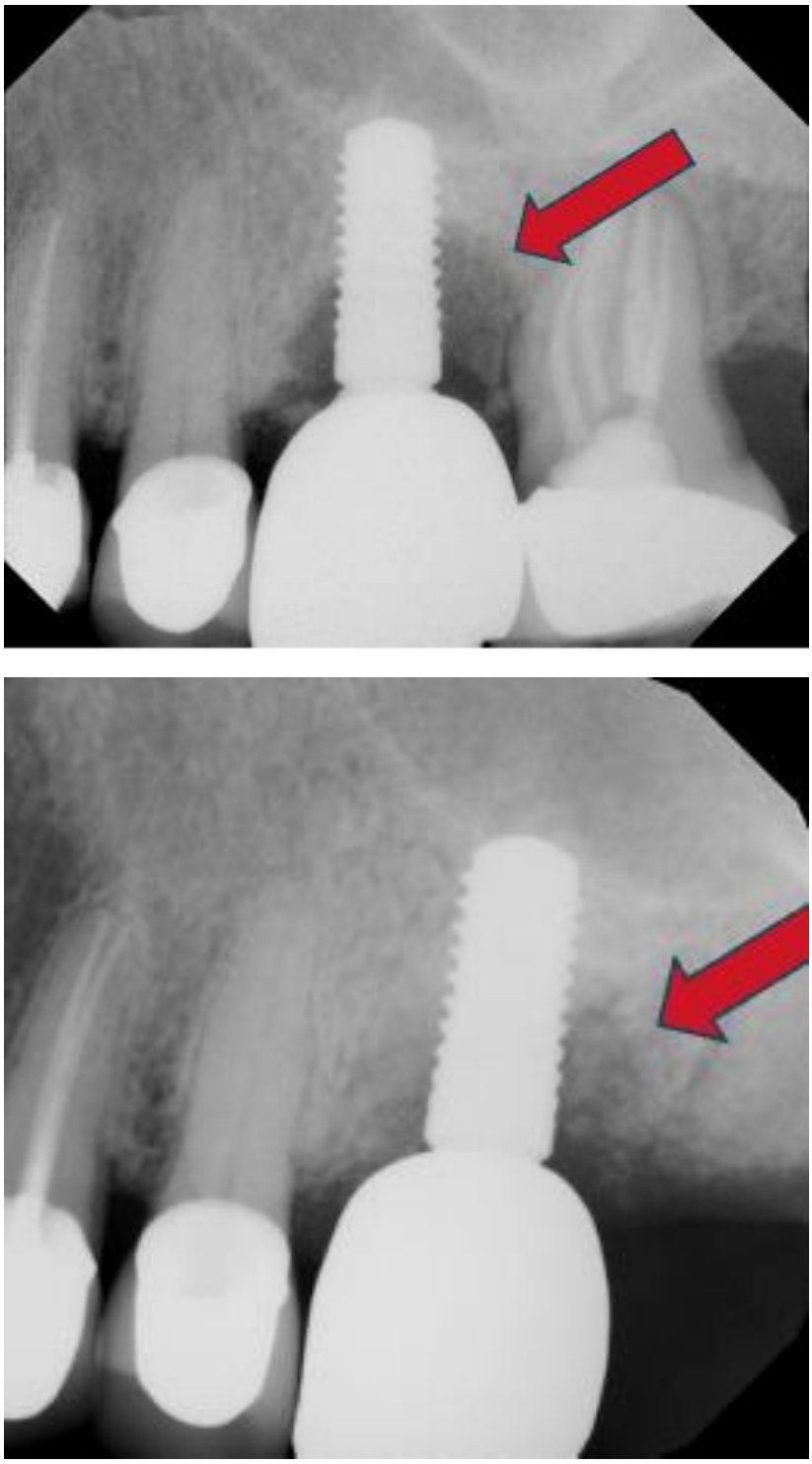
- **Minimally invasive:** No cutting or stitching in most cases
- **Efficient treatment:** Often completed in a single appointment
- **Quick recovery:** Many patients can resume normal activities soon after treatment

By halting the progression of peri-implantitis and encouraging healing, LAPIP can help protect your existing implants and support long-term oral health.



LAPIP Clinical Case:

Before and After



Gum Grafting: Treating Receding Gums

Gum grafting is a procedure used to treat gum recession by adding new tissue—either donor tissue or tissue taken from the roof of your mouth—to areas where the gums have pulled back. This helps:

- Cover and protect exposed tooth roots
- Reduce sensitivity and risk of decay and future bone loss
- Improve the appearance of your smile

Treatment Options for Gum Recession

Gum Grafting

- Transplants healthy gum tissue to cover exposed roots and thicken thin gum tissue.

Soft Tissue Grafts (Including Donor Tissue)

- Similar to traditional grafting, but may use carefully processed donor tissue, avoiding the need to take tissue from the roof of your mouth.

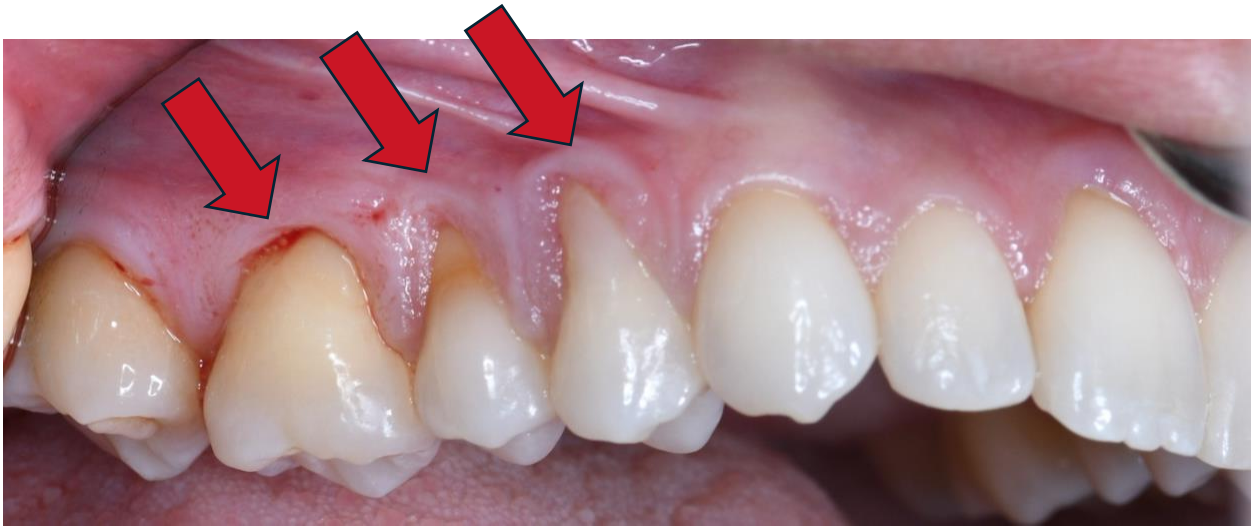
Benefits of Using Donor Tissue:

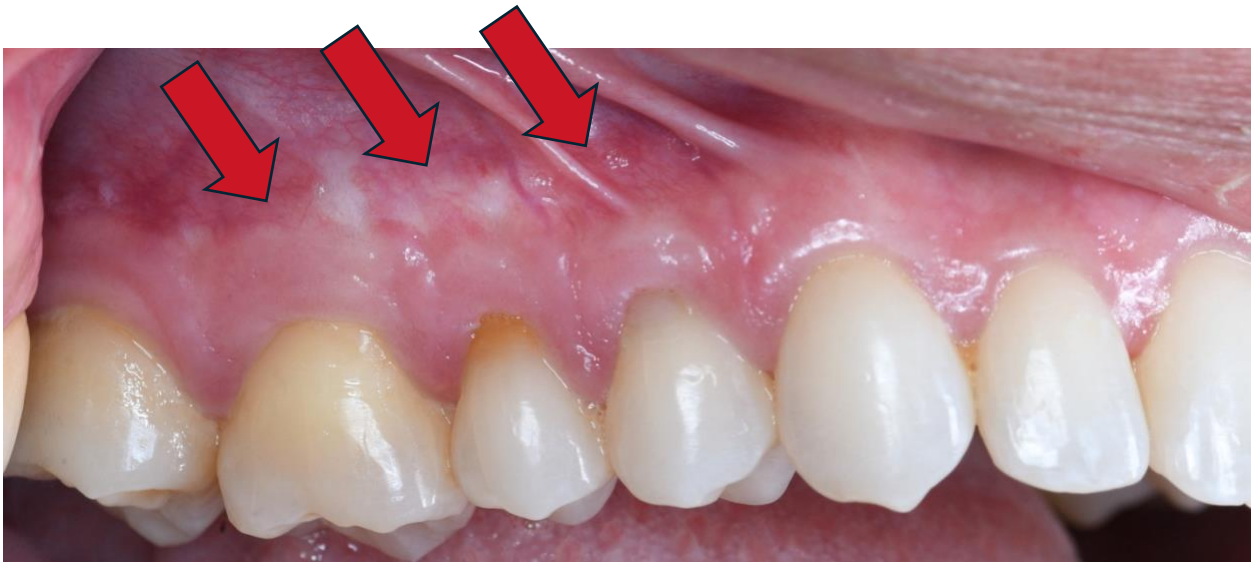
- **Reduced Surgical Sites**: Using donor tissue, especially allografts, eliminates the need for a second surgical site in the mouth. This can lead to a less invasive procedure, reduced pain, and faster recovery.

Gum Grafting: Before and After Cases

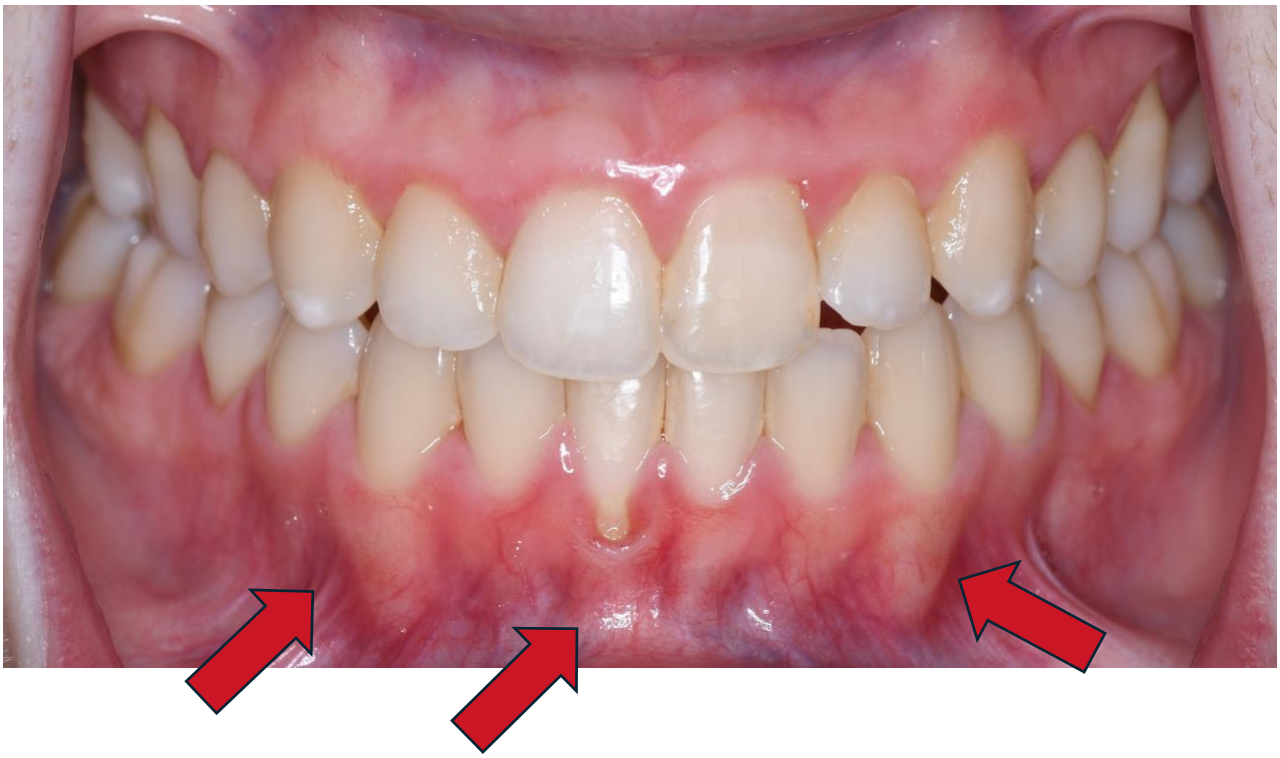
Clinical Case 1: Microderm

Clinical Case 2: Microderm





Clinical Case 3: Microderm



Oral Surgery

Extractions

A **tooth extraction** is a routine dental procedure in which a tooth is carefully removed from its socket in the jawbone. Dentists may recommend an extraction if a tooth is badly decayed, infected, broken beyond repair, or causing crowding or other dental problems.

Why Might You Need a Tooth Extraction?

- **Severe Decay or Infection**: When a tooth is too damaged to restore with a filling or crown.
- **Trauma**: A tooth that is fractured or broken may need to be removed.
- **Gum Disease**: Advanced periodontal disease can loosen teeth and require extraction

Wisdom Tooth Extractions

Dr. Peterson removes problematic wisdom teeth, including impacted or partially erupted ones.

Key Benefits of Laser Extractions at Arcadia Perio

- **Minimal Bleeding**: Lasers seal blood vessels as they cut, resulting in less bleeding and a cleaner surgical site.
- **Efficient Blood Clot Formation**: Rapid clotting protects the healing area, speeds up recovery, and lowers infection risk.
- **Reduced Pain & Swelling**: Laser precision minimizes trauma to surrounding tissue, resulting in less discomfort and swelling after surgery.
- **Faster Healing**: Patients experience quicker recovery times thanks to reduced tissue damage and enhanced clot stability.
- **Lower Risk of Infection**: Lasers sterilize the area during surgery, further protecting you from complications.

Temporary Anchorage Device (TAD)

A **Temporary Anchorage Device (TAD)** is a very small titanium screw that your orthodontist gently places in the gum and bone to act like a **stable anchor** during treatment.
Think of it as a tiny "handle" for your braces or clear aligners to push or pull against.

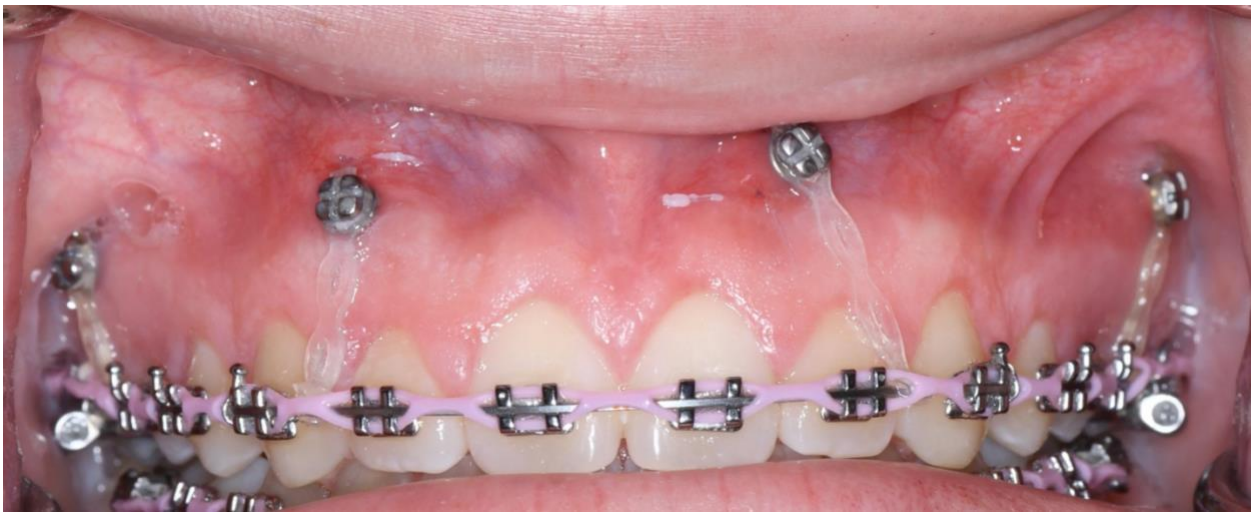
- Made of **biocompatible titanium** (the same material often used for implants)
- Placed under **local anesthetic** (numbing) in just a few minutes
- **Temporary** – removed once it has done its job

Why are TADs used?

In orthodontics, teeth usually move by pushing against other teeth. In some situations, this can be limiting or cause unwanted movement. A TAD provides a **fixed, non-moving base**, so your orthodontist can move certain teeth more precisely.

TADs can help when:

- Traditional braces or aligners alone **can't get the ideal movement**
- There is **missing teeth or weak anchorage** (not enough stable teeth to use as anchors)
- More **complex tooth movements** are needed



TAD Case Before and After

Canine Exposures

A canine exposure procedure is a minor oral surgery designed to help an impacted canine tooth erupt into its correct position. When an adult canine gets “stuck” under the gum or bone and can’t come in naturally, this teamwork between a periodontist and orthodontist helps guide the tooth where it needs to go for a healthy, confident smile.

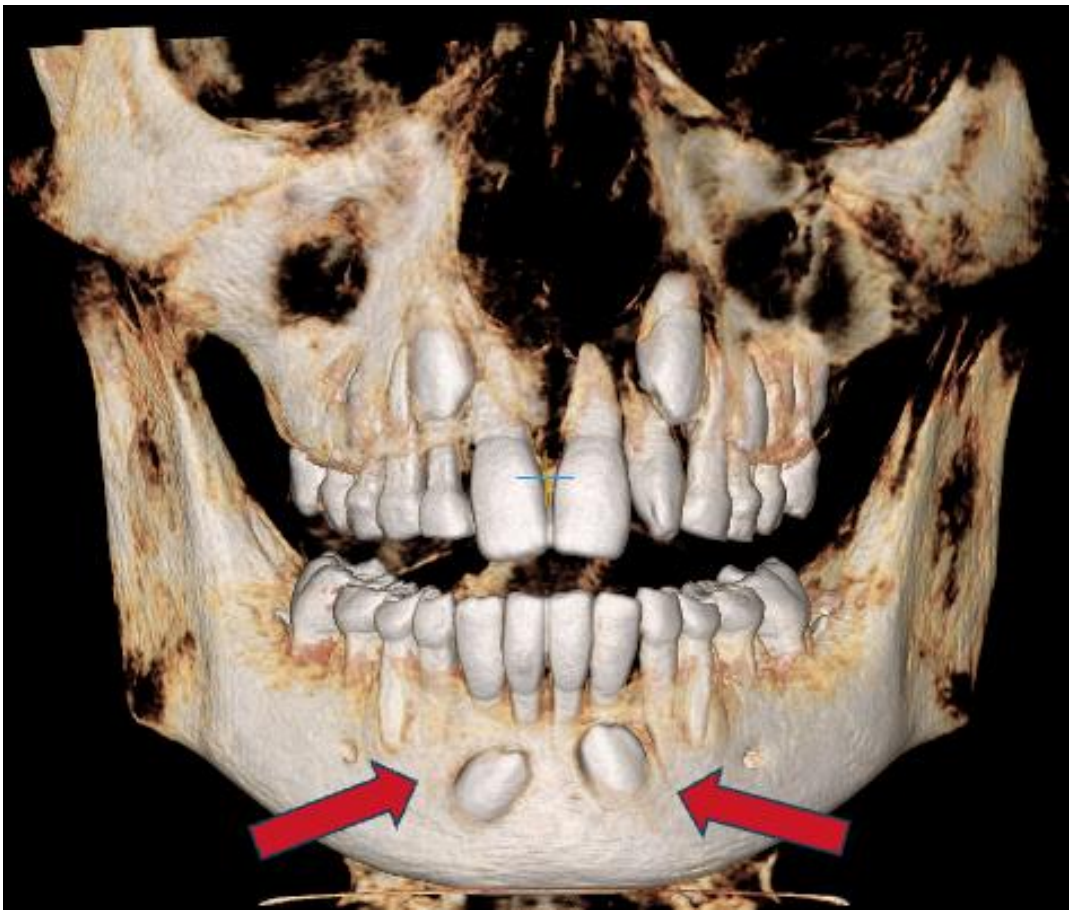
How Does the Procedure Work?

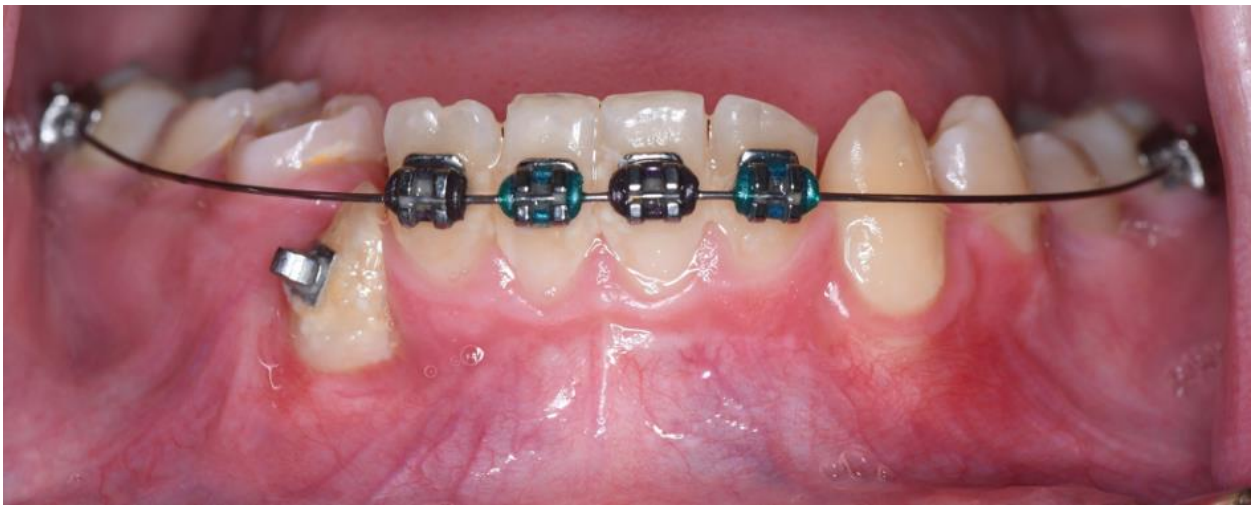
- **Gum Access:** The periodontist gently lifts or makes a small cut in the gum above the impacted canine to uncover the hidden tooth.
- **Bracket & Chain:** A tiny orthodontic bracket is bonded to the exposed tooth, with a delicate gold chain attached.
- **Gum Closure:** The gum is sutured back, usually leaving only the small chain visible through the gum. This chain will be used by your orthodontist to gently guide the tooth into place with braces over time.

What Happens After?

- **Healing:** Mild soreness and swelling are normal for a few days. Most patients return to normal routines within a day or two.
- **Orthodontic Movement:** Your orthodontist will gradually “pull” the tooth into its correct spot using the chain connected to your braces, a process that takes several months.
- **Follow-Up:** Regular visits ensure everything heals well and the tooth moves as planned.

Canine Exposures: Before and After





Sedation Options

1. Nitrous Oxide (“Laughing Gas”)
This gentle sedation is inhaled through a small mask over your nose. Nitrous oxide quickly helps you feel relaxed and calm—yet you remain fully awake and able to respond. The effects wear off within minutes once the mask is removed, so you can resume normal activities soon after your appointment.

2. Oral Conscious Sedation
With oral conscious sedation, you take a prescribed medication (usually in pill form) before your visit. This helps you feel very relaxed—some patients even drift into a light sleep, but you’ll still be responsive and can be easily awakened. You might not remember much of the procedure, and you’ll need someone to drive you home afterwards.

3. IV Moderate Conscious Sedation
IV sedation is delivered directly into your bloodstream through a small catheter, allowing precise control over your level of relaxation. You’ll remain conscious and able to follow instructions, but you’ll feel deeply calm—most people have little or no memory of the procedure. This option is ideal for those with higher anxiety or for longer, more complex treatments. Vital signs are carefully monitored throughout for your safety, and a companion should accompany you for the trip home.

Bone Grafting

Bone grafting is a common dental procedure used to replace or regenerate lost bone in your jaw, providing a sturdy foundation for dental implants or other restorative treatments. Here's what you need to know about this procedure:

What is Bone Grafting?

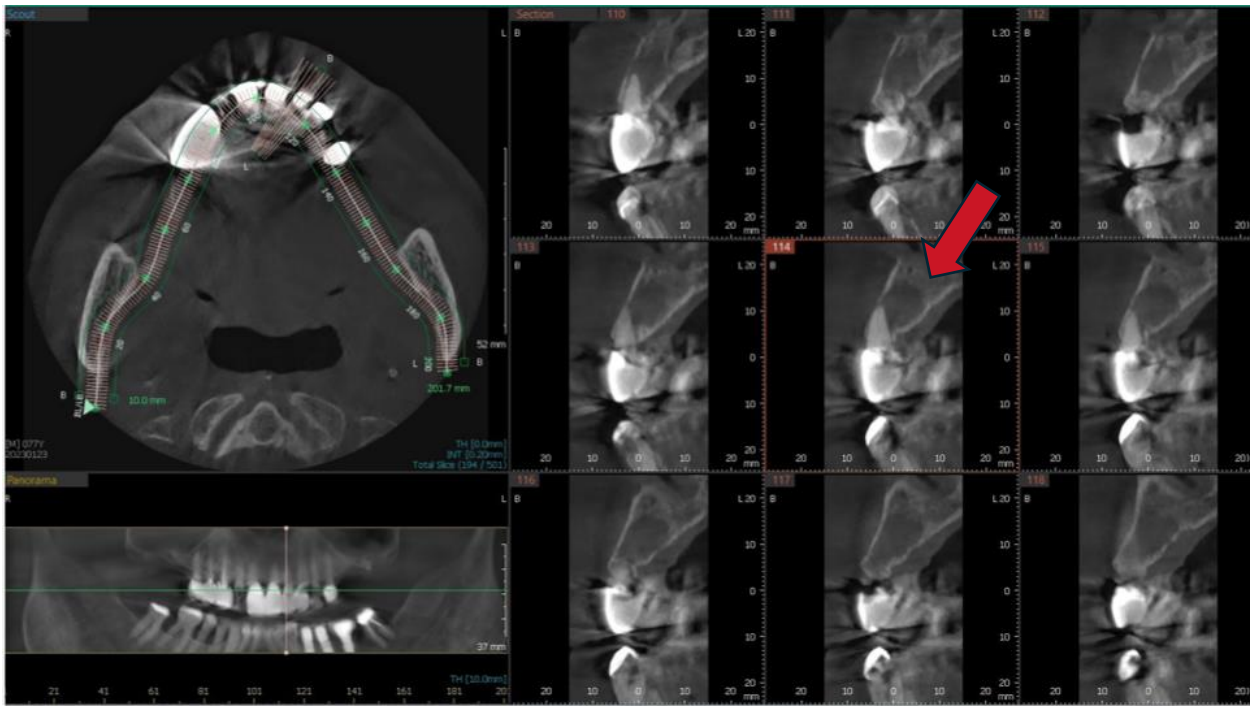
Bone grafting involves transplanting bone tissue to areas where jawbone has deteriorated or is insufficient. This procedure helps to rebuild the bone structure and make it possible to support dental implants or restore facial aesthetics.

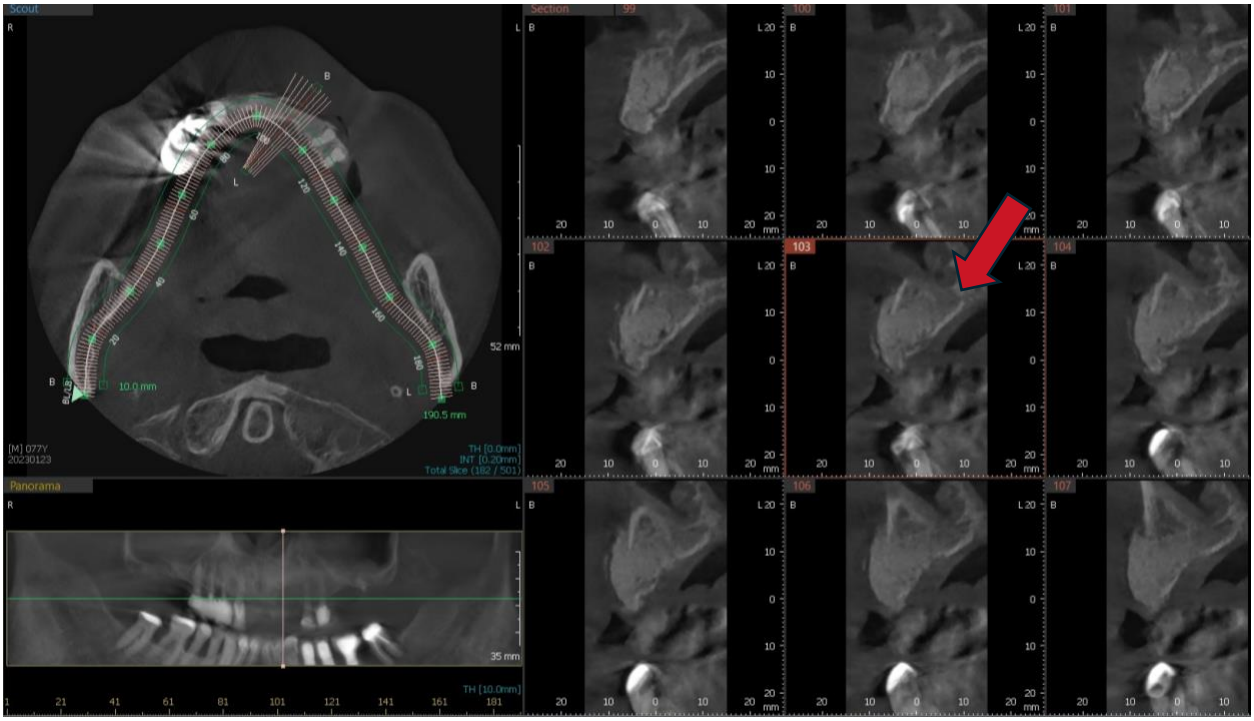
When Is Bone Grafting Recommended?

Bone grafting is used when there isn’t enough healthy jawbone to safely support teeth, implants, or other treatments. Common clinical indications include:

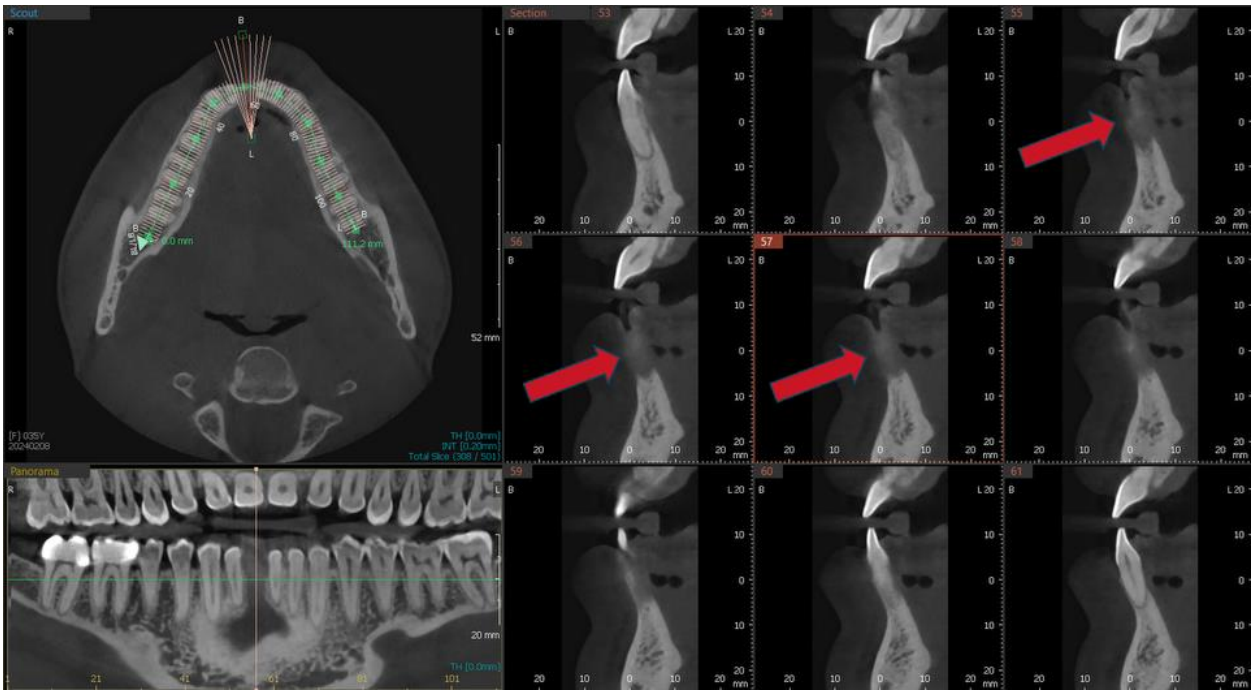
Bone Grafting: Before and After Cases

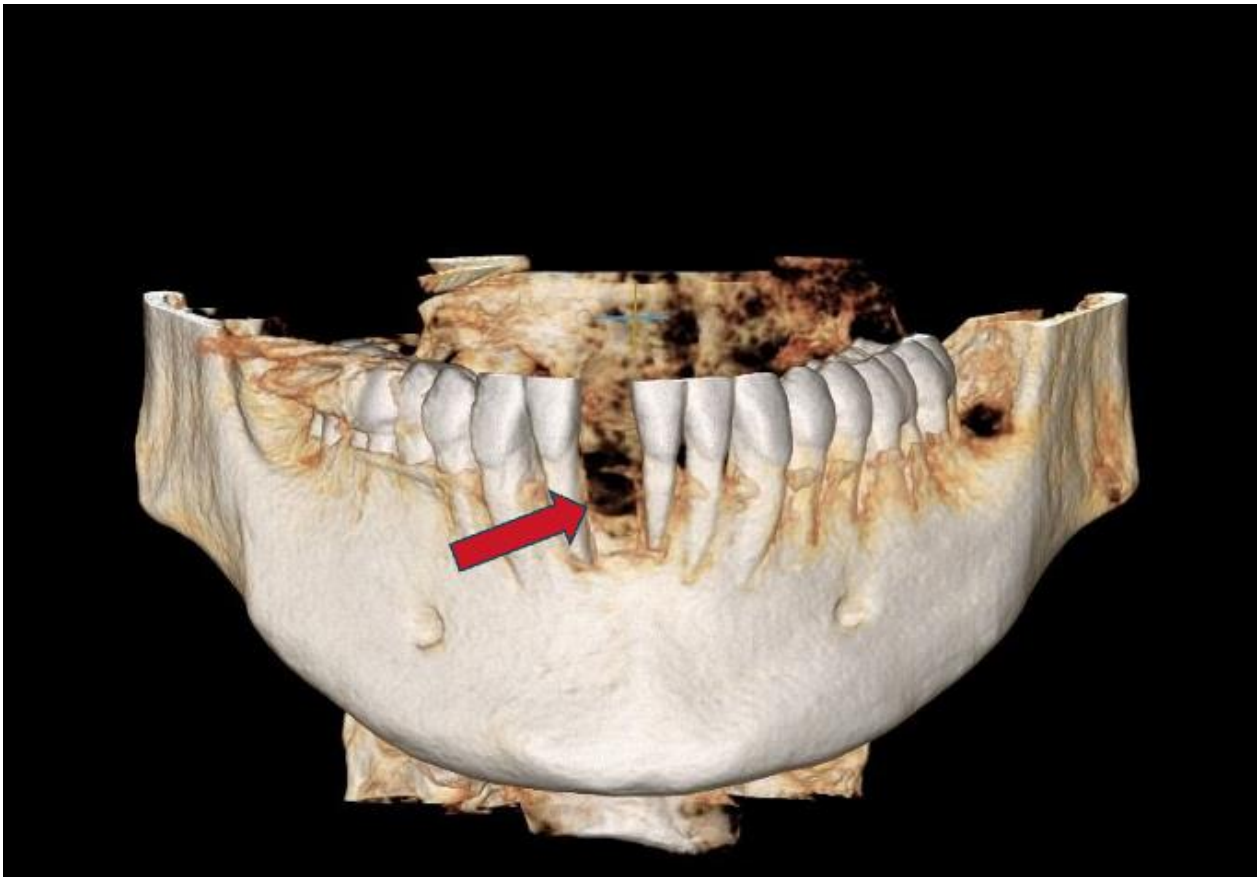
Clinical Case 1: Bone Grafting at the time of Extraction

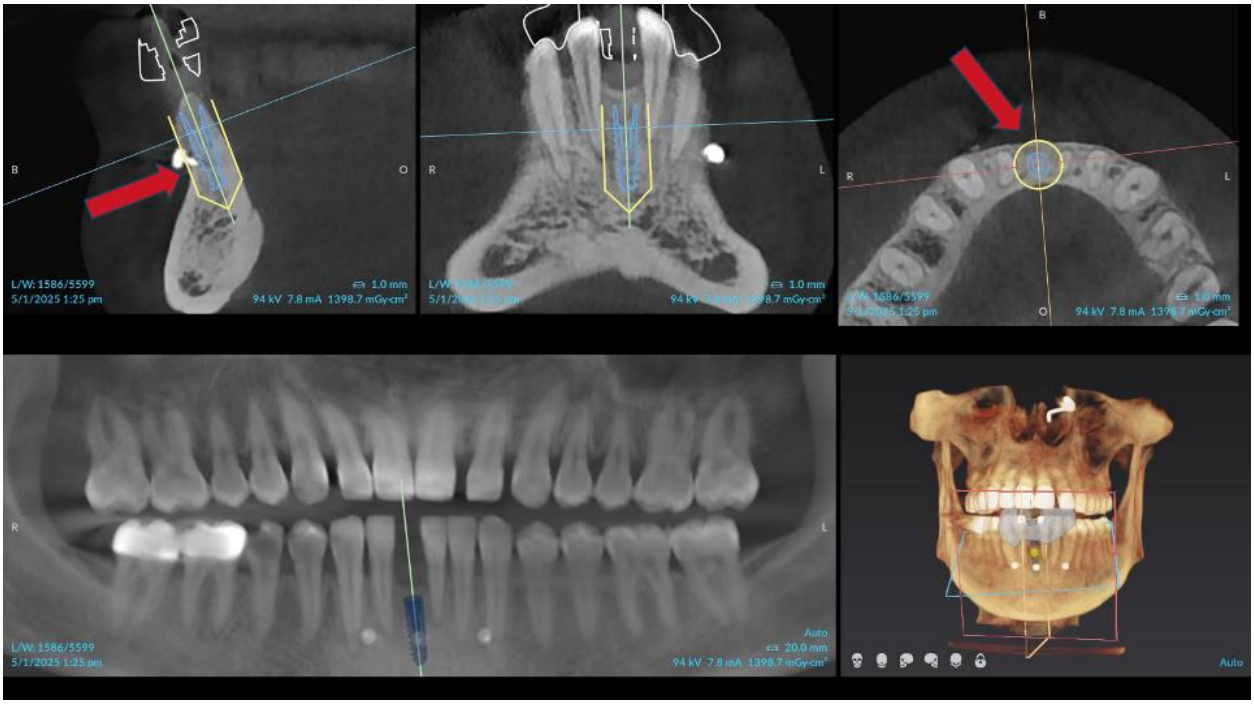

Scout
Section
Panorama
52 mm
10.0 mm
201.7 mm
37 mm

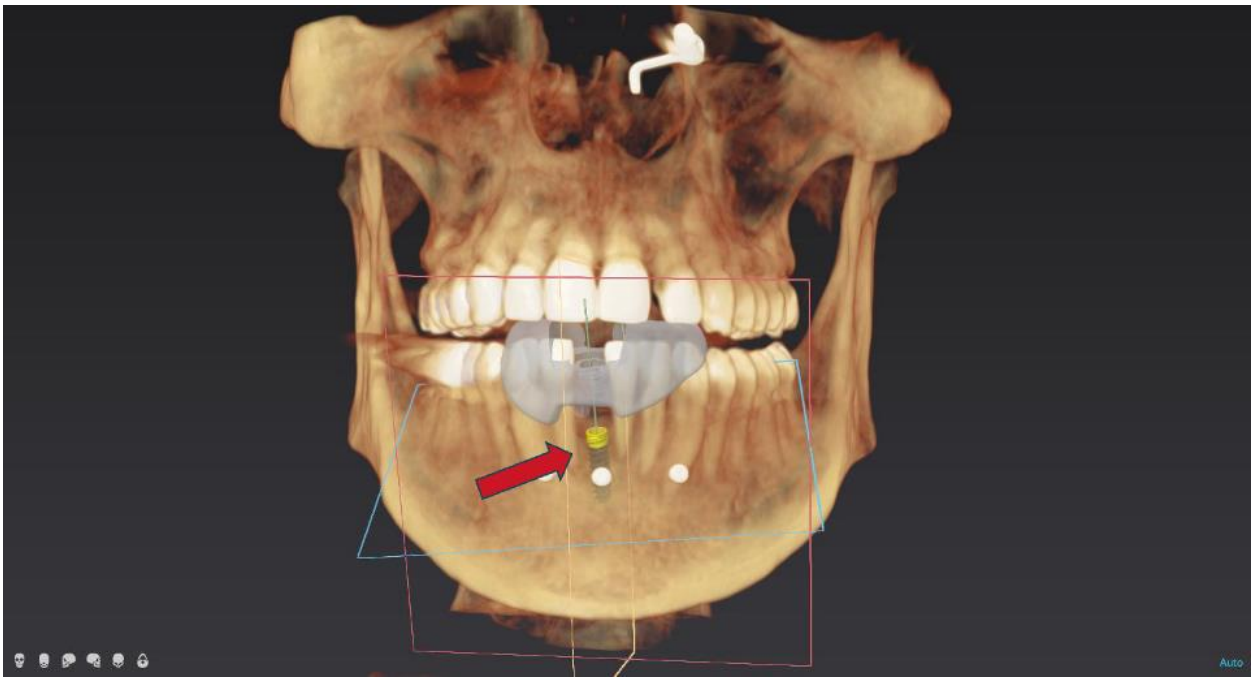

Scout
Section
Panorama
52 mm
10.0 mm
190.5 mm
35 mm

Clinical Case 2: Bone Grafting for a Missing Tooth

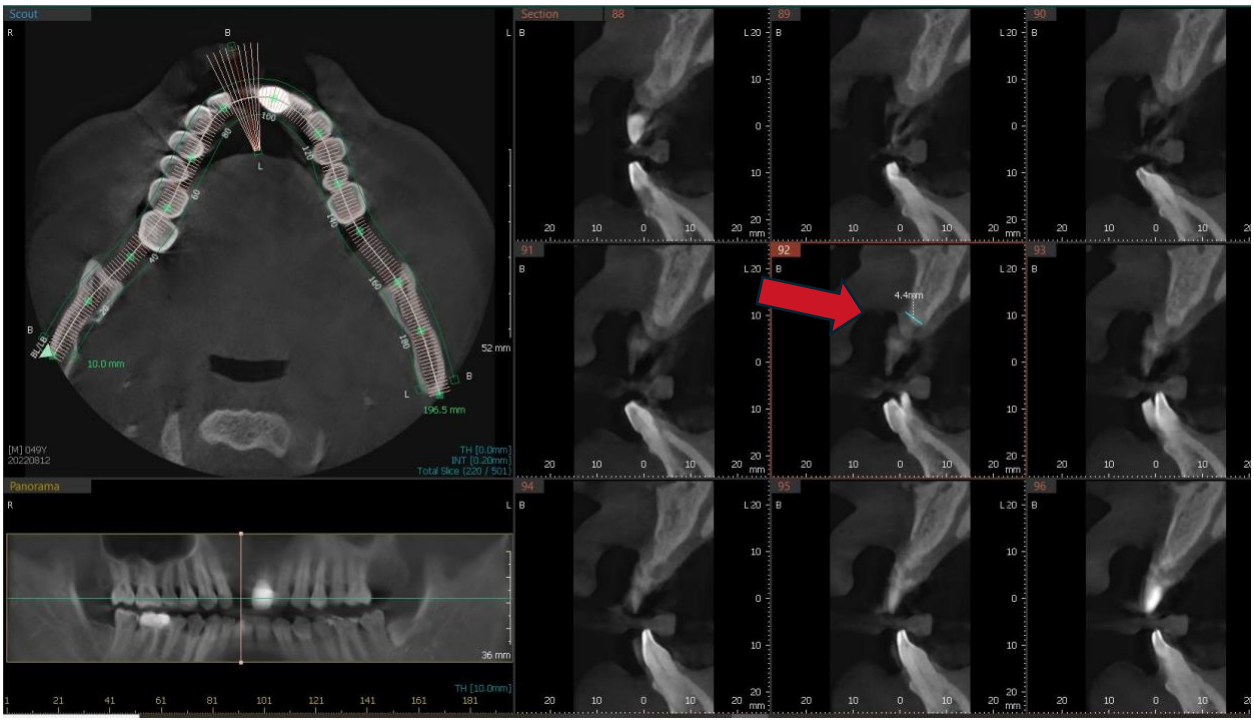


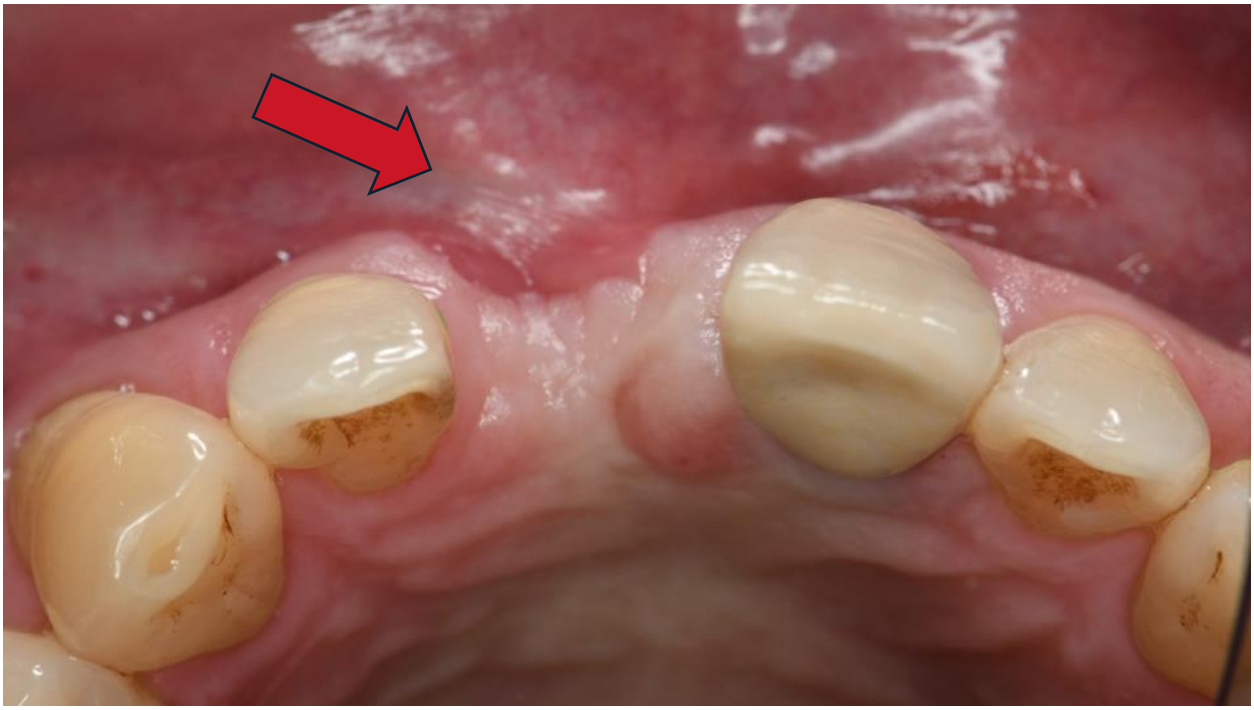


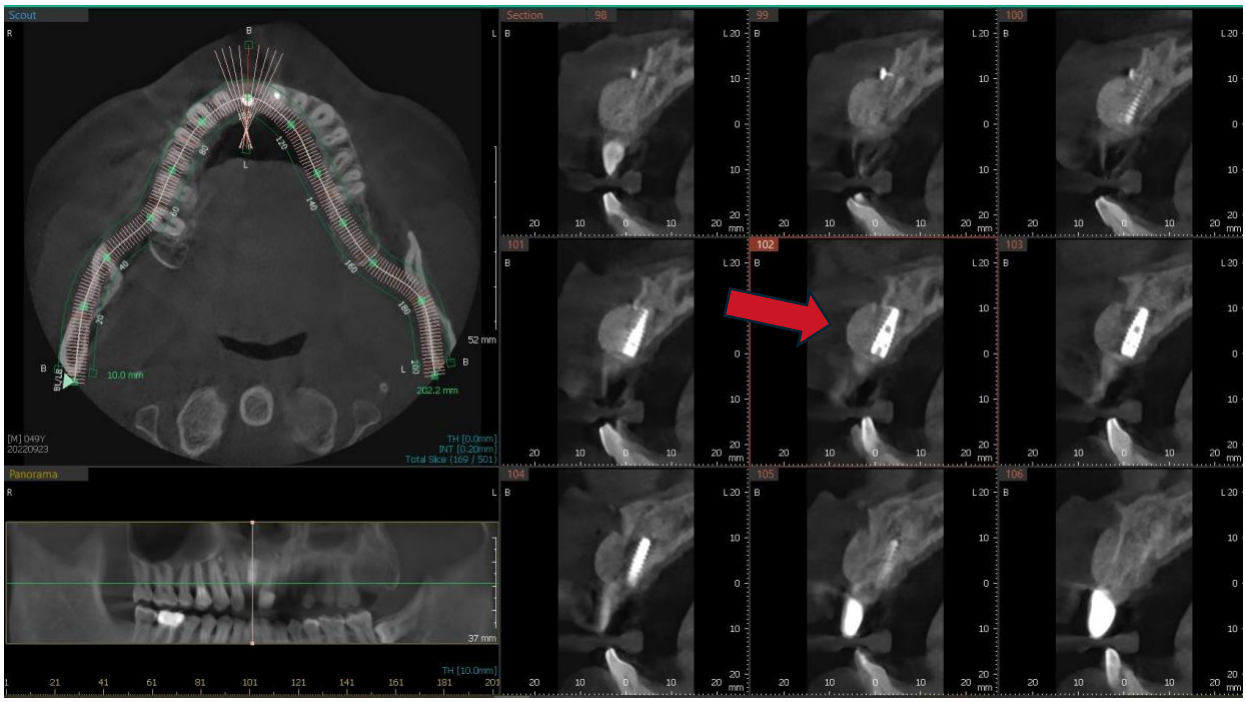

L/W: 1586/5599
5/1/2025 1:25 pm
1.0 mm
94 kV 7.8 mA 1398.7 mGy-cm²
L/W: 1586/5599
5/1/2025 1:25 pm
20.0 mm
94 kV 7.8 mA 1398.7 mGy-cm²
Auto
Auto

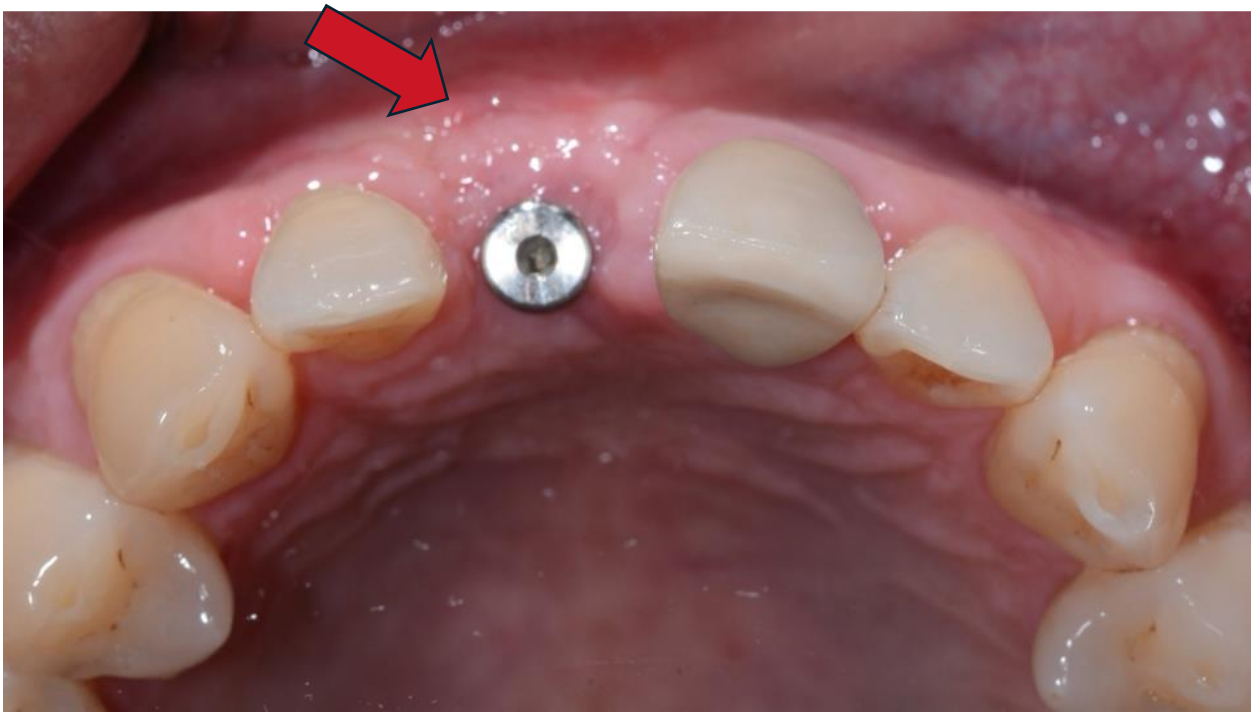

Auto

Clinical Case 3: Bone Grafting and Implant Placement

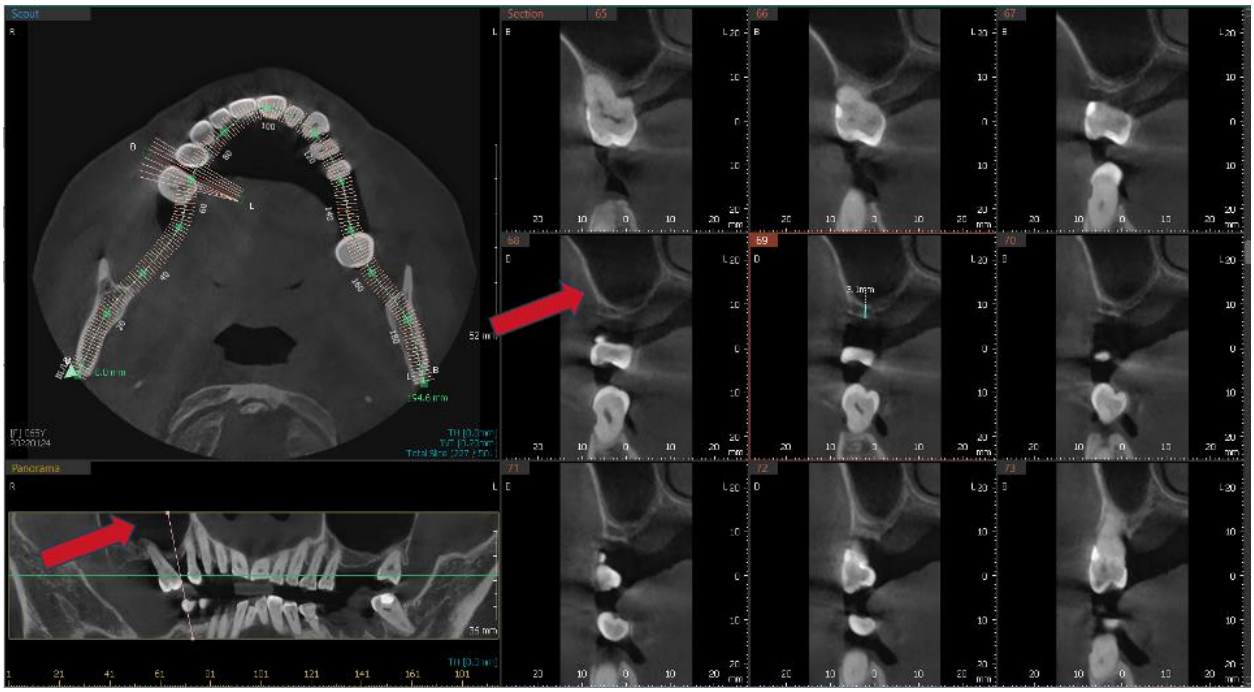


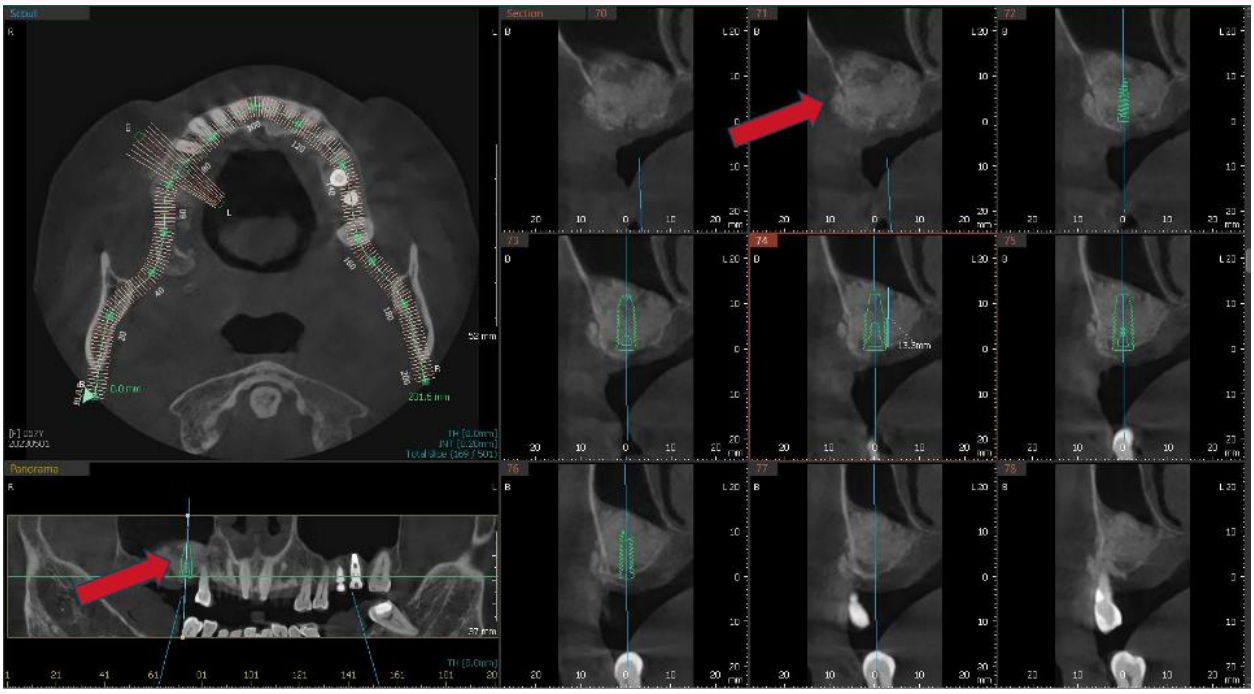



Scout
Section
Panorama
52 mm
10.0 mm
202.2 mm
37 mm

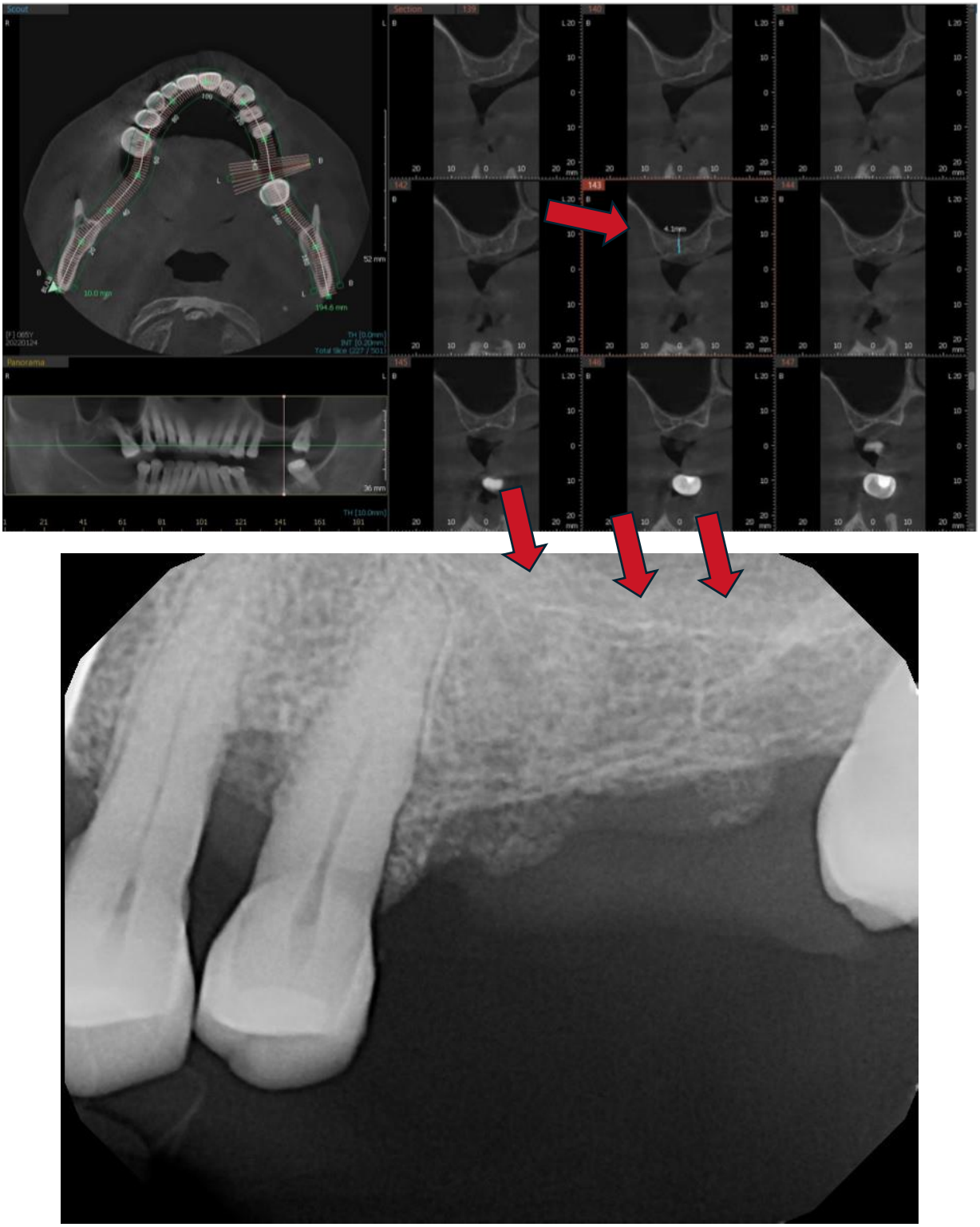


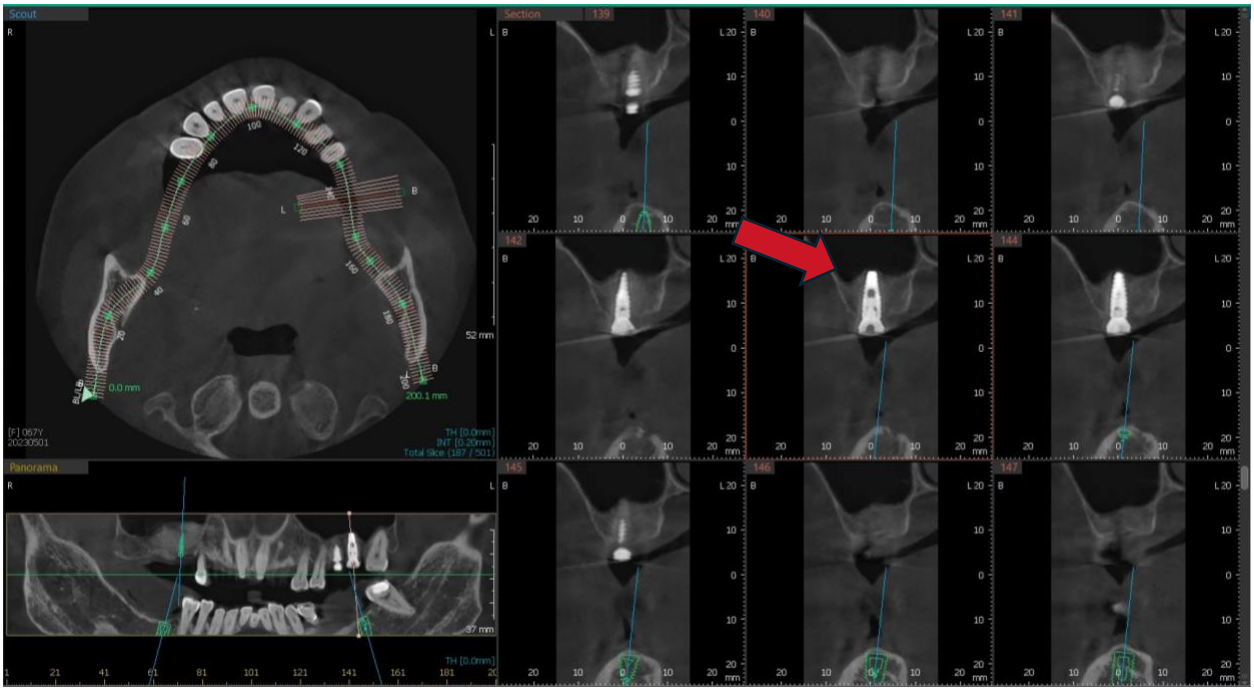
Clinical Case 4: Sinus Grafting Prior to Implant Placement

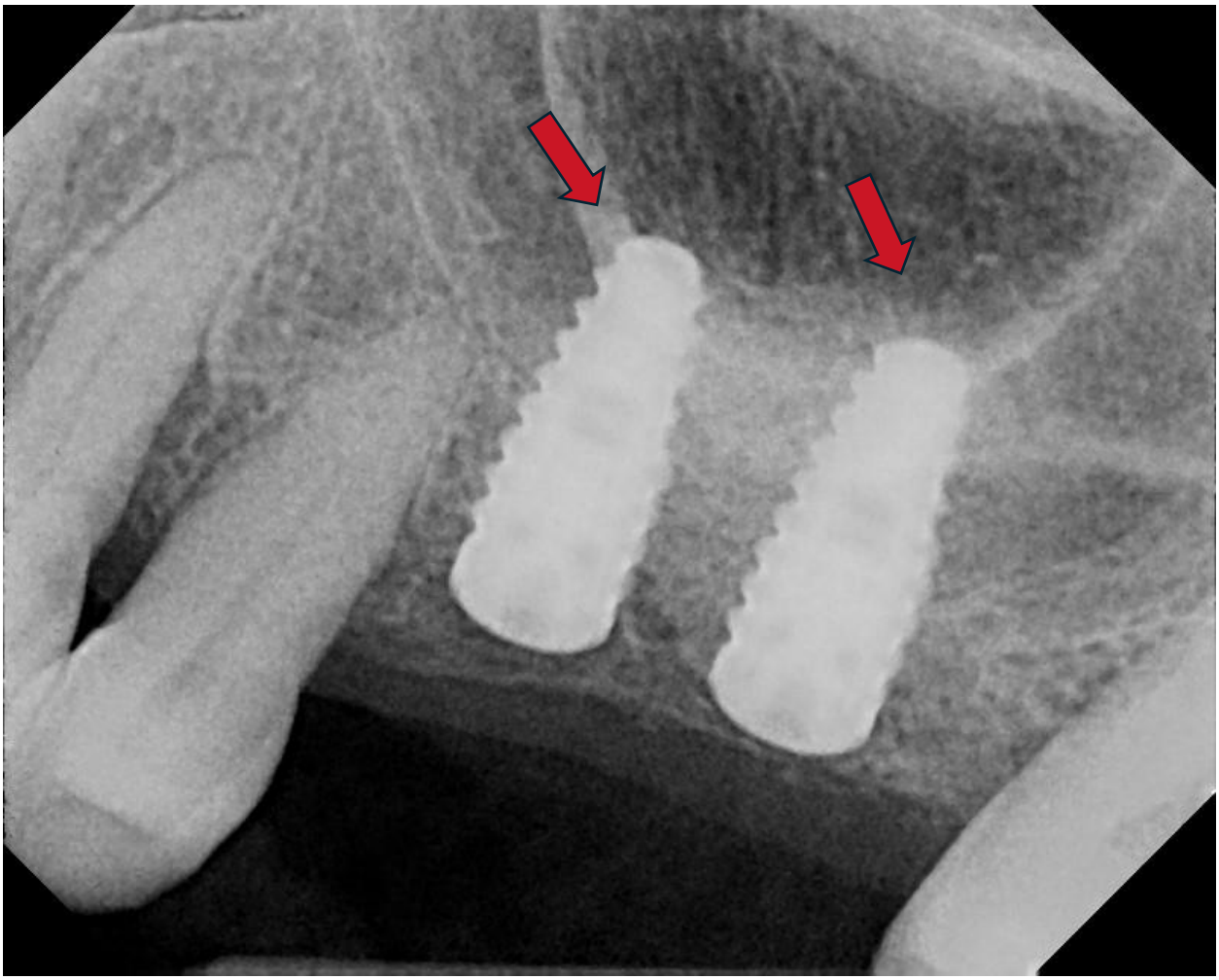




Clinical Case 5: Sinus Grafting with Implant Placement




Scout
Section
Panorama
52 mm
0.0 mm
200.1 mm
37 mm



Dental Implants

Discovering Dental Implants

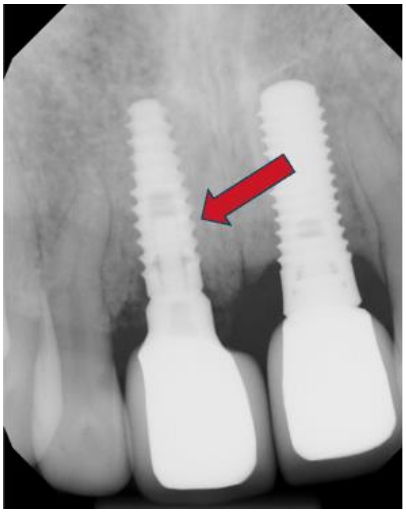
Dental implants are a revolutionary solution for replacing missing teeth, offering a durable and natural-looking alternative to dentures or bridges. They consist of small titanium posts surgically placed into the jawbone, providing a strong foundation for artificial teeth.

Benefits of Dental Implants

- **Natural Appearance**: Implants are designed to look, feel, and function like your natural teeth, enhancing your smile and confidence.
- **Durability**: With proper care, dental implants can last a lifetime, making them a cost-effective long-term solution.
- **Bone Health**: Implants help maintain jawbone density, preventing bone loss that often accompanies missing teeth.

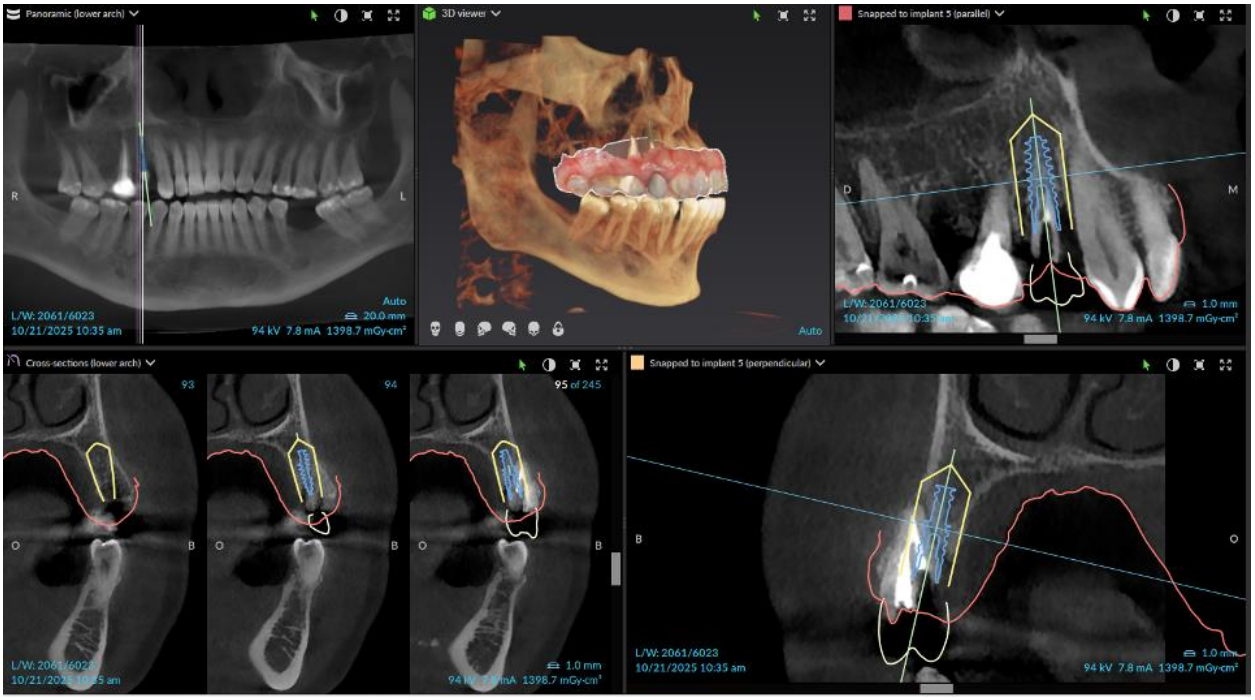
The Implant Process

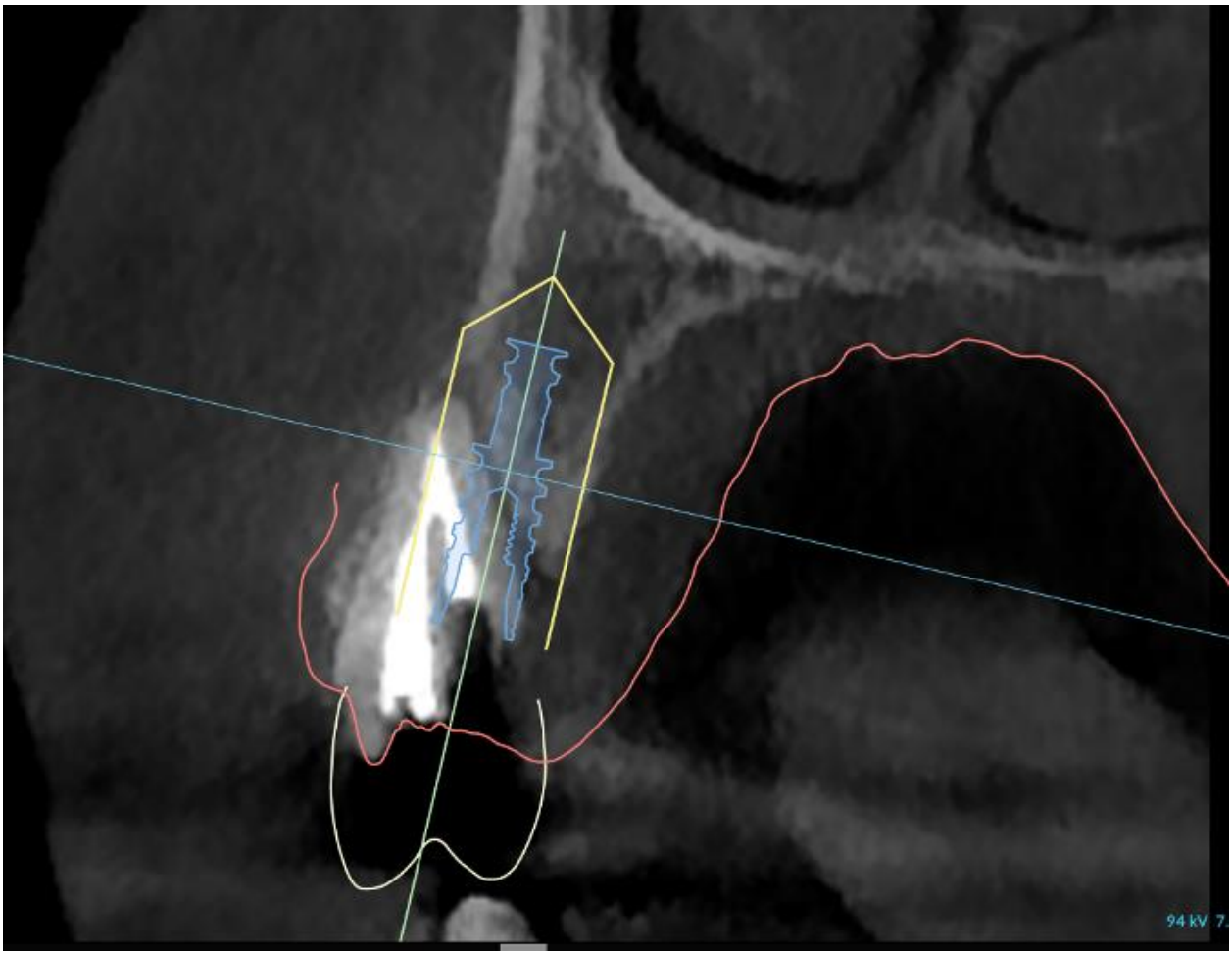
- **Consultation and Planning**: Your dentist will assess your oral health and develop a personalized treatment plan.
- **Placement**: The titanium post is surgically inserted into the jawbone, where it will fuse with the bone over time.
- **Abutment and Crown**: Once the implant integrates with the bone, an abutment and crown are attached, completing the restoration.

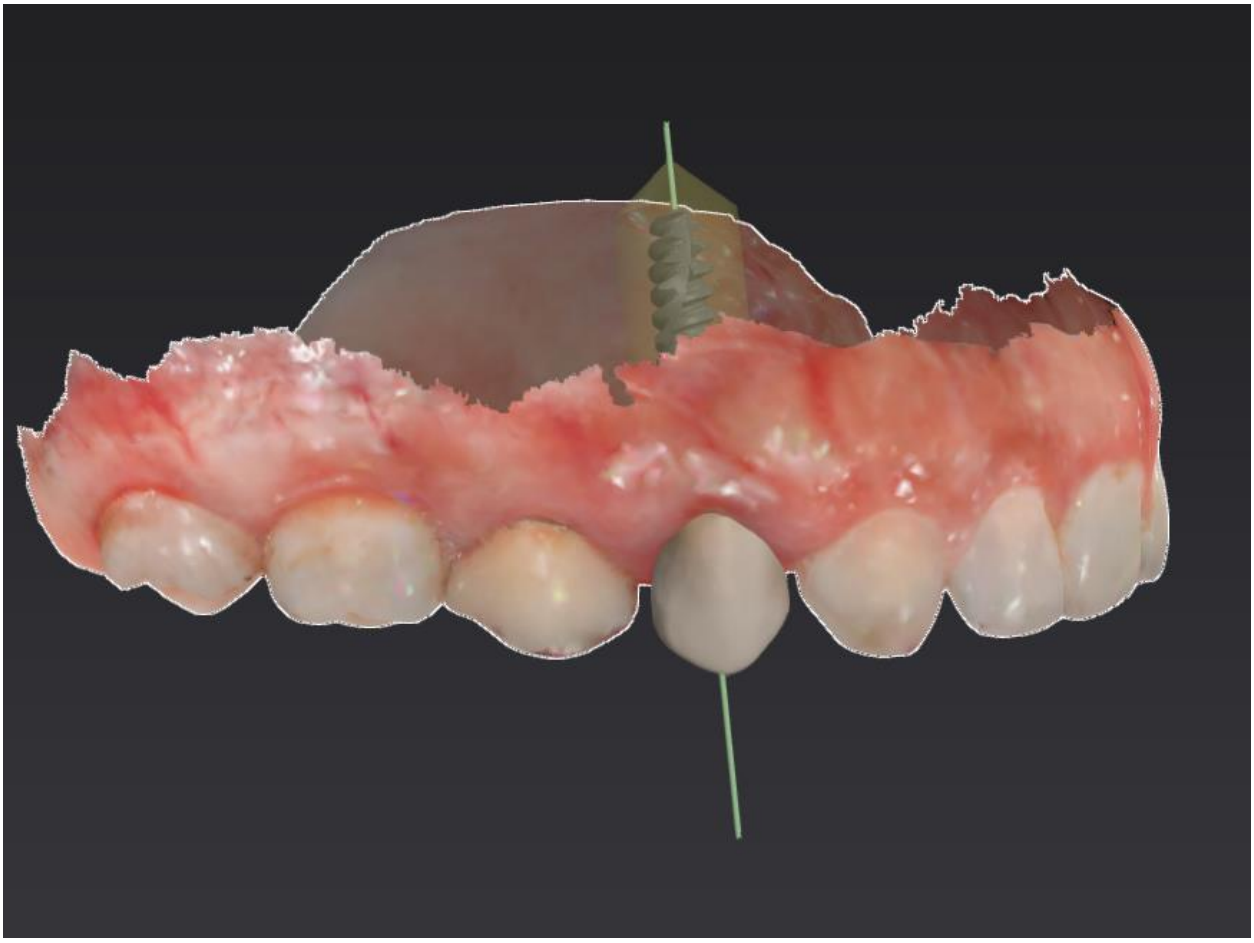


Digital Integrated Workflow

At Arcadia Perio, the dental implant treatment planning process begins with advanced diagnostics to ensure optimal outcomes and long-term success. The first step is a comprehensive consultation, during which Dr. Peterson reviews your medical history, performs an oral examination, and utilizes a **3D radiograph (cone-beam CT scan)** to precisely assess the bone quality and quantity at the intended implant site. This detailed imaging allows for accurate visualization of your unique oral anatomy, identification of vital structures, and evaluation of whether sufficient bone is available to support the implant.


Panoramic (lower arch)
3D viewer
Snapped to implant 5 (parallel)
Cross-sections (lower arch)
Snapped to implant 5 (perpendicular)
L/W: 2061/6023
10/21/2025 10:35 am
94 kV 7.8 mA 1398.7 mGy-cm²


94 kV



All on X

Understanding the All-on-X Dental Implant Procedure

The All-on-4 dental implant procedure is an innovative solution designed for individuals who have lost most or all of their teeth. This method uses four to six strategically placed implants to support a full arch of replacement teeth, offering a stable and secure alternative to traditional dentures.

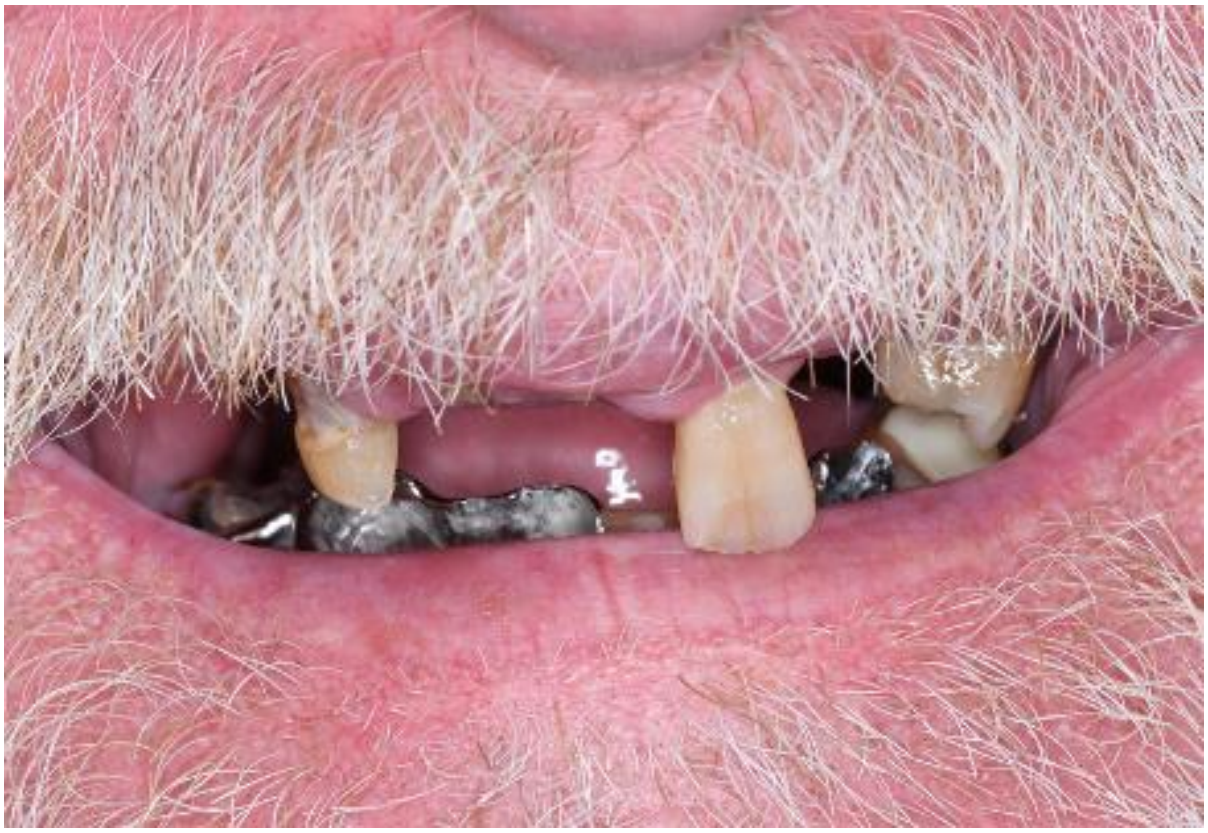
How the All-on-X Procedure Works

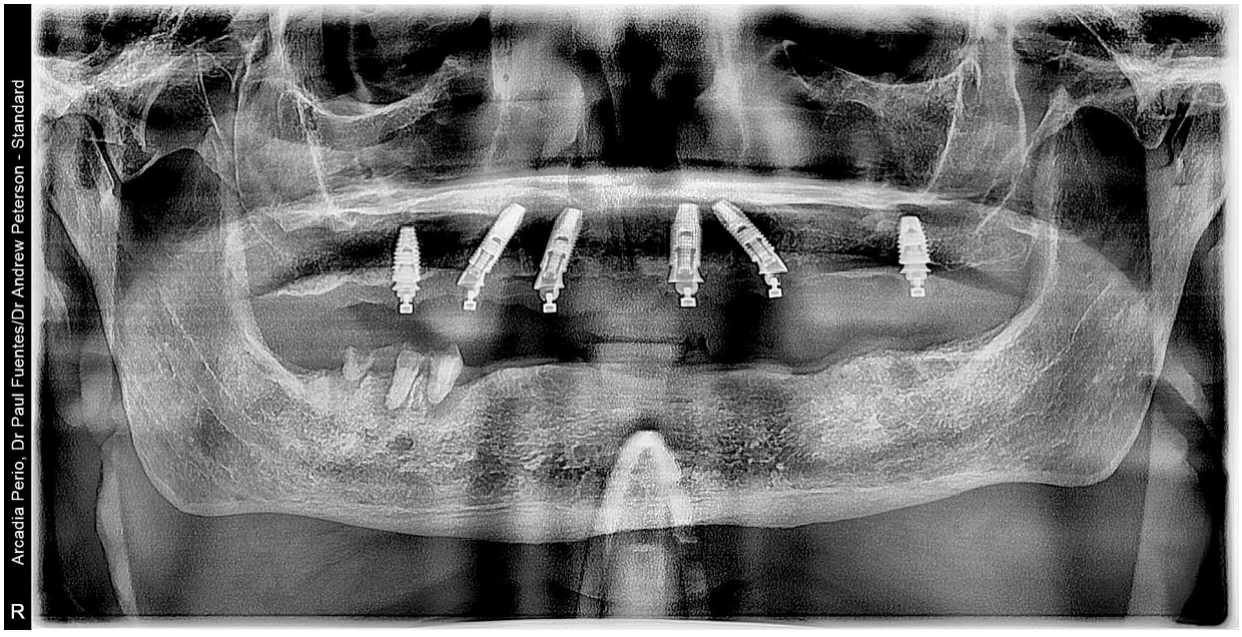
- **Implant Placement**: Four to six titanium implants are inserted into the jawbone. The posterior implants are tilted to maximize bone use, eliminating the need for bone grafting in most cases.
- **Immediate Loading**: A temporary set of teeth is attached to the implants on the same day, so you walk out with a new smile.
- **Final Restoration**: After the healing period, your temporary teeth are replaced with a permanent, custom-designed set.

Benefits of All-on-X

- **Immediate Results**: You leave with a full set of teeth on the same day as the surgery.
- **Cost-Effective**: Fewer implants mean reduced costs compared to traditional methods.
- **Enhanced Comfort and Function**: Offers a more natural feel and function compared to traditional dentures, allowing for easier eating and speaking.

Clinical All-On-X Case: Before and After



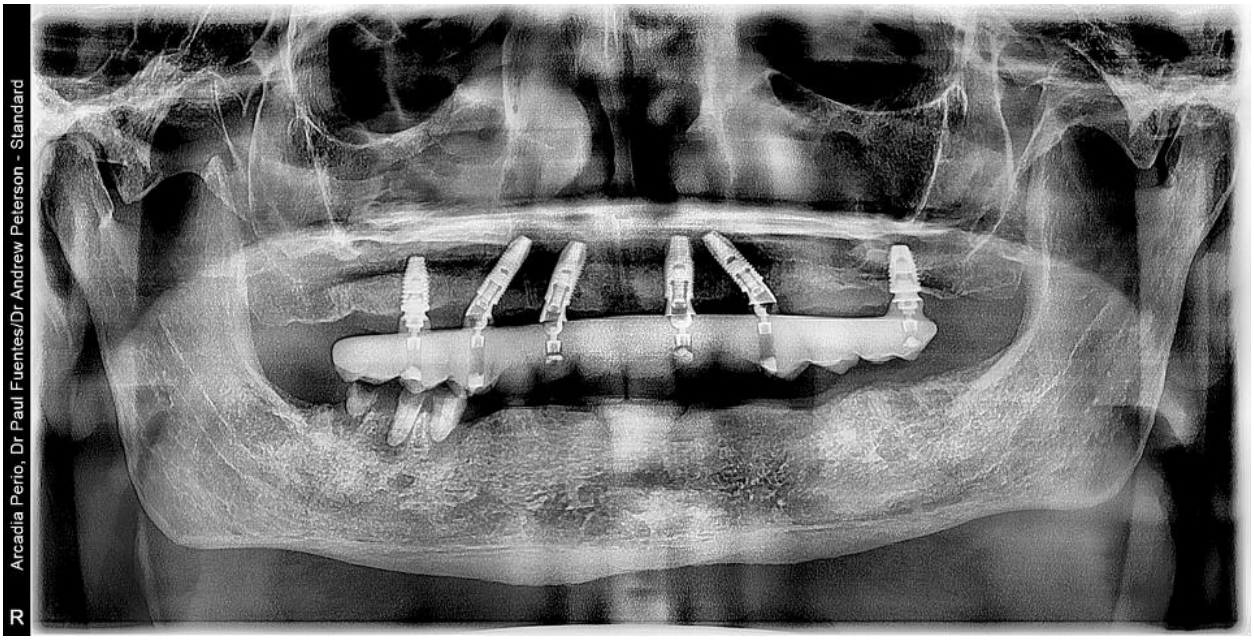


Teeth in a Day

Experience Rapid Smile Transformation with Dr. Peterson

Dr. Peterson is dedicated to providing you with a seamless and efficient dental experience, ensuring you receive your temporary teeth within just hours of your procedure. Here's how he makes that happen:

1. **Advanced Planning and Imaging**: Prior to your procedure, Dr. Peterson uses state-of-the-art imaging technology to capture detailed images of your oral structure, allowing for precise planning of your temporary teeth.
2. **In-House 3D Printing**: Utilizing cutting-edge 3D printing technology right in the office, Dr. Peterson can quickly create your temporary teeth. This innovation not only speeds up the process but also ensures a high level of customization and accuracy.
3. **Immediate Placement**: Once your implants are placed, the 3D-printed temporary teeth are fitted immediately, allowing you to leave the office with a complete and confident smile.


Arcadia Perio, Dr Paul Fuentes/Dr Andrew Peterson - Standard
R

Surgically Facilitated Orthodontic Treatment (SFOT)

How SFOT Works

SFOT involves a minor surgical procedure that temporarily alters the bone and soft tissue surrounding the teeth. This creates an environment that allows teeth to move more swiftly and effectively with orthodontic appliances like braces or aligners.

- **Bone Modification**: The surgery involves making small cuts in the bone around the teeth. This is called corticotomy, and it enhances the bone's metabolic activity, facilitating faster tooth movement.
- **Soft Tissue Management**: Depending on the case, soft tissue grafts may be used to ensure gum health and prevent recession during the orthodontic process.

Benefits of SFOT

- **Faster Treatment Time**: SFOT can significantly reduce the time required to achieve the desired orthodontic results.
- **Improved Outcomes**: By addressing bone density issues, SFOT can lead to more stable and aesthetically pleasing results.
- **Versatility**: It is suitable for complex cases where traditional orthodontics might fall short.

SFOT: Before and After

Crown Lengthening

Understanding Esthetic and Functional Crown Lengthening

Crown lengthening is a versatile dental procedure that can be performed for both esthetic and functional reasons. It involves reshaping the gum tissue, and sometimes the underlying bone, to expose more of a tooth's surface. This procedure is beneficial for enhancing the appearance of your smile or preparing a tooth for restorative work.

Esthetic Crown Lengthening

- **Purpose**: Often sought by individuals who feel their smile shows excessive gum tissue, known as a "gummy smile." This procedure helps create a more balanced and appealing smile by revealing more of the teeth.
- **Outcome**: The result is a more harmonious smile with teeth that appear longer and more proportional to your facial features.

Functional Crown Lengthening

- **Purpose**: Sometimes necessary when a tooth needs a new crown or other restoration, but not enough tooth structure is visible above the gum line to support the work.
- **Outcome**: By exposing more of the tooth, this procedure allows for the proper fitting of restorations, preventing issues like decay or damage to the supporting structures.

Esthetic Crown Lengthening: Before and After

Functional Crown Lengthening: Before and After

Gingivectomy

A **gingivectomy** is a minor surgical procedure where your dentist removes excess or diseased gum tissue to create a healthier, more attractive gumline. This treatment is commonly recommended if you have gum disease that hasn't responded to other therapies, or if you want to reshape your gums for a more balanced smile.

Gingivectomy: Before and After

Frenectomy

Understanding Frenectomy

A frenectomy is a straightforward and common dental procedure that involves the removal or modification of a frenum—a small fold of tissue that connects parts of your mouth. This procedure can be performed to address issues caused by an overly restrictive frenum, which might affect speech, dental alignment, or oral function.

Frenectomy: Before and After

Technology At Arcadia Perio

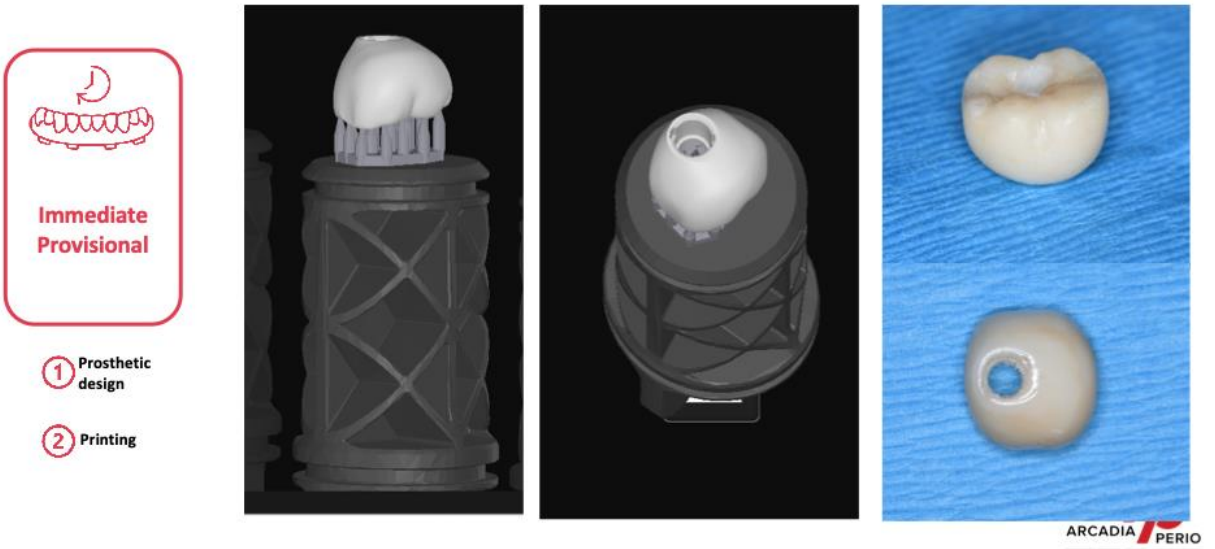
3D Printing Digital Dentistry

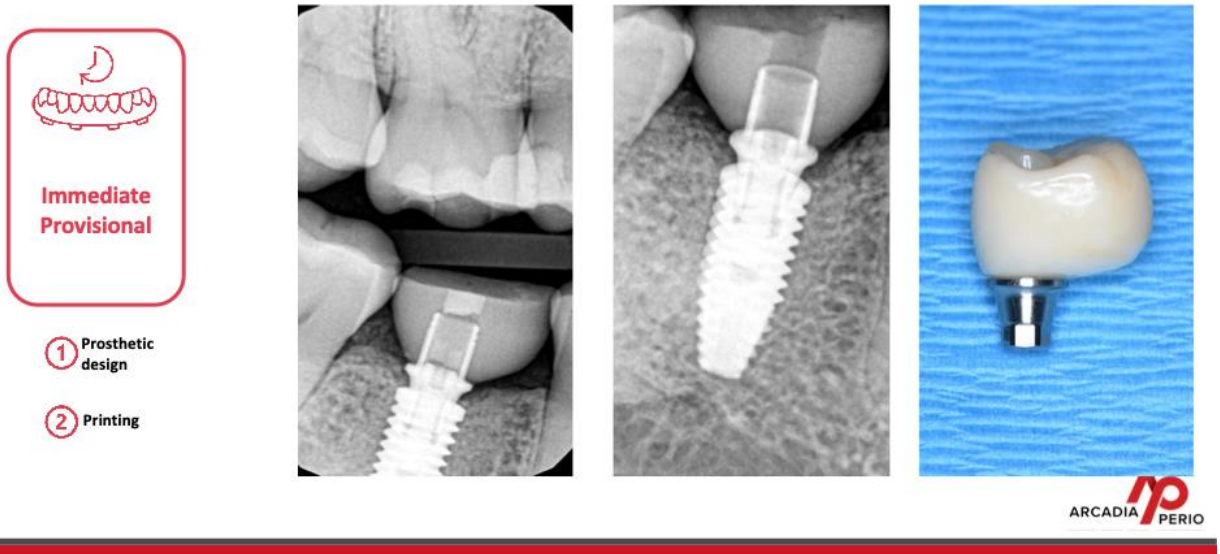
Benefits of Dr. Peterson's 3D Printing Technology:

- **Customized Solutions**: 3D printing allows for the creation of highly personalized dental appliances, such as crowns, bridges, implant crowns, and aligners, ensuring a perfect fit and optimal comfort.
- **Faster Turnaround**: With 3D printing on-site, there's no need to wait for external labs to produce dental devices. This means faster treatment times and fewer visits, getting you back to your daily routine sooner.
- **Enhanced Precision**: The accuracy of 3D printing leads to better-fitting dental restorations, reducing the need for adjustments and enhancing the overall success of treatments.

The Use of 3D Printed Temporary Teeth

Advances in digital dentistry now allow many restorations to be **designed on a computer and created with 3D printing**. In a periodontal office, this technology helps us plan and perform your treatment with greater accuracy, comfort, and efficiency.





Surgical Guides

Benefits of Surgical Guides for Dental Implant Placement

Surgical guides are advanced tools that help dentists and oral surgeons place dental implants with exceptional accuracy and safety.

Key Benefits of Surgical Guides

- **Precise Implant Placement:** Surgical guides ensure the implant is positioned at the ideal angle and depth, minimizing the risk of complications like nerve damage or misalignment. This precision leads to better long-term outcomes and more natural-looking results.
- **Shorter Surgery Time:** With the surgical path already planned, the dentist works faster and more efficiently. This means less time in the chair and under anesthesia for you.
- **Minimally Invasive:** Guided surgery often reduces the need to cut open the gums or disturb healthy tissue, resulting in less swelling, pain, and bleeding—and a much smoother recovery.

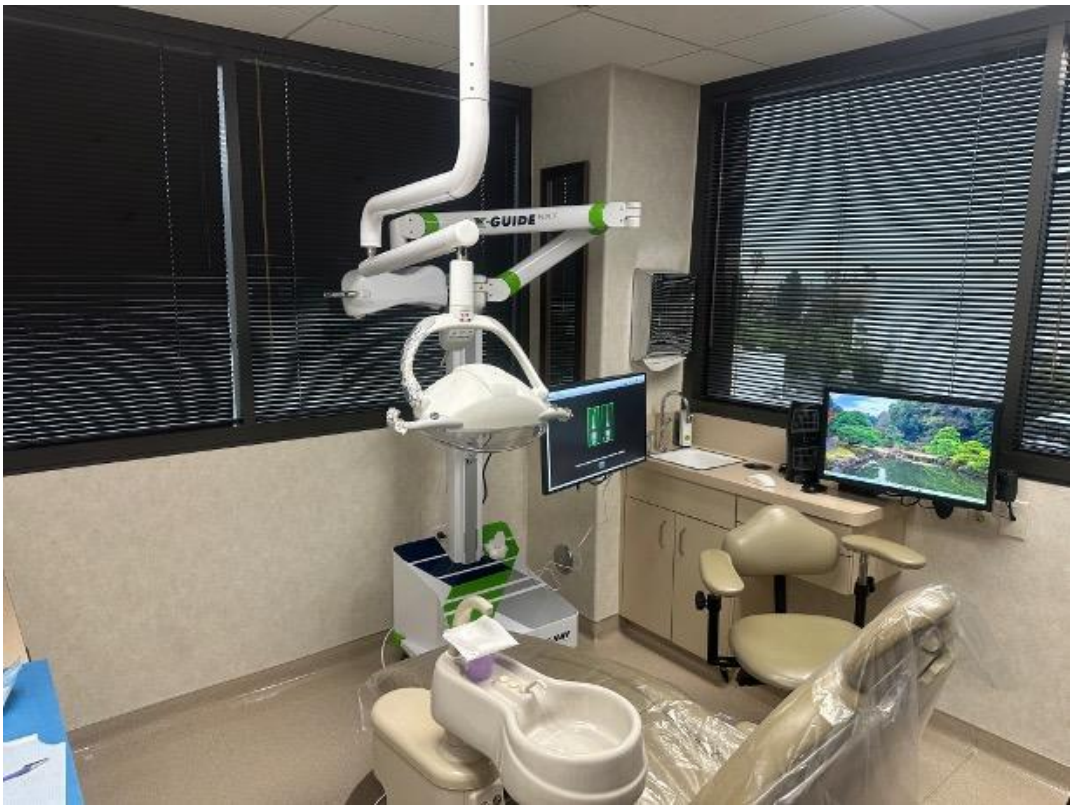
X-Navigation Guided Implant Surgery

What is X-Guide Navigation?

X-Guide Navigation is a dynamic 3D navigation system that provides real-time guidance during dental implant surgeries. Much like a GPS, it offers visual cues and feedback, ensuring that implants are placed with utmost precision according to the pre-planned digital treatment.

Benefits of X-Guide Navigation:

- **Enhanced Precision**: Implants are placed more accurately, reducing the risk of complications and ensuring better integration with surrounding bone and tissue.
- **Shorter Surgery Time**: With clear guidance, procedures are often quicker, reducing time under anesthesia and improving patient comfort.
- **Optimal Results**: Leads to better-fitting restorations and more predictable outcomes, enhancing both function and aesthetics.



Photogrammerty

What is Photogrammetry?

Photogrammetry involves taking precise measurements from photographs, allowing dentists to create highly accurate 3D models of your dental structures. This technology provides a detailed map of your mouth, which is crucial for planning and placing dental implants with precision.

Benefits of Photogrammetry for Dental Implants:

- **High Precision**: Captures detailed and accurate measurements, leading to better-fitting implants and restorations. This precision minimizes errors and enhances the overall success of implant procedures.
- **Efficient Workflow**: Speeds up the process from planning to placement, reducing the number of appointments and time spent in the dental chair. This efficiency means you can enjoy your new smile sooner.
- **Better Outcomes**: Leads to more predictable results, reducing the likelihood of complications and ensuring a natural-looking, functional outcome.