IMMEDIATE MOLARS PREDICTABLE?

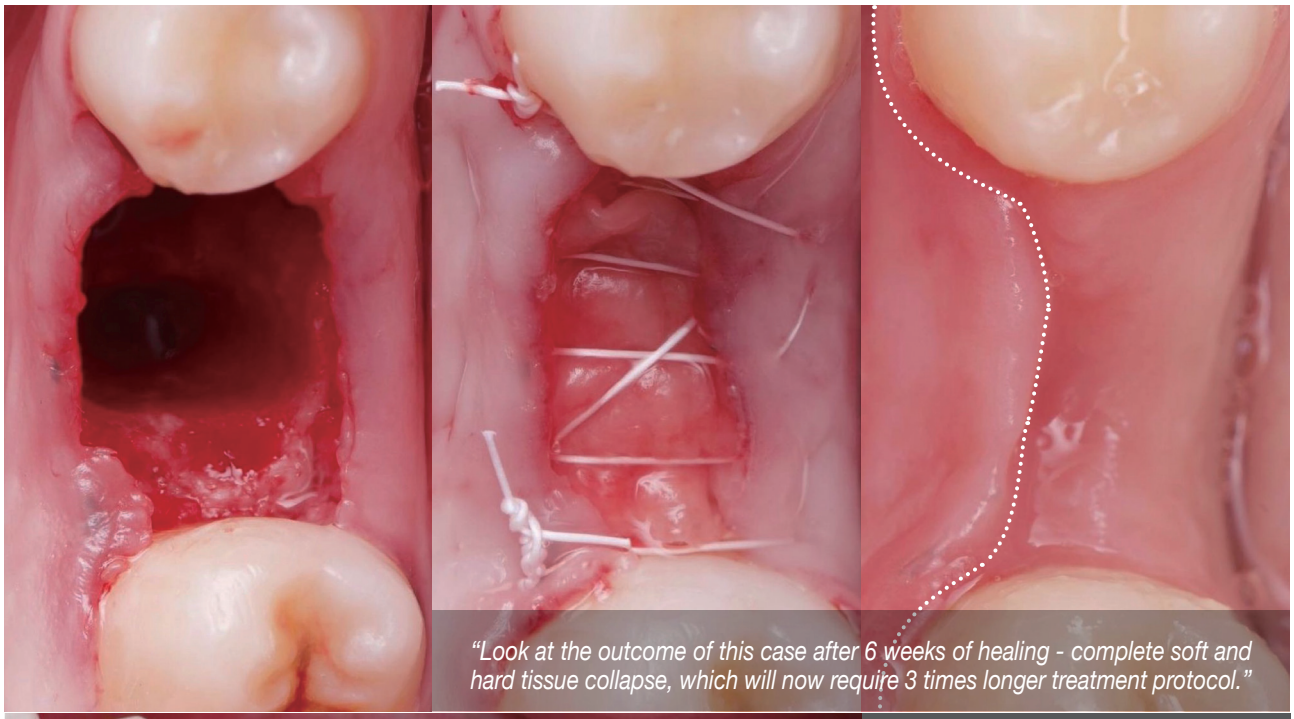
Making it easier!

MEGAGEN
For Lifetime Smiles

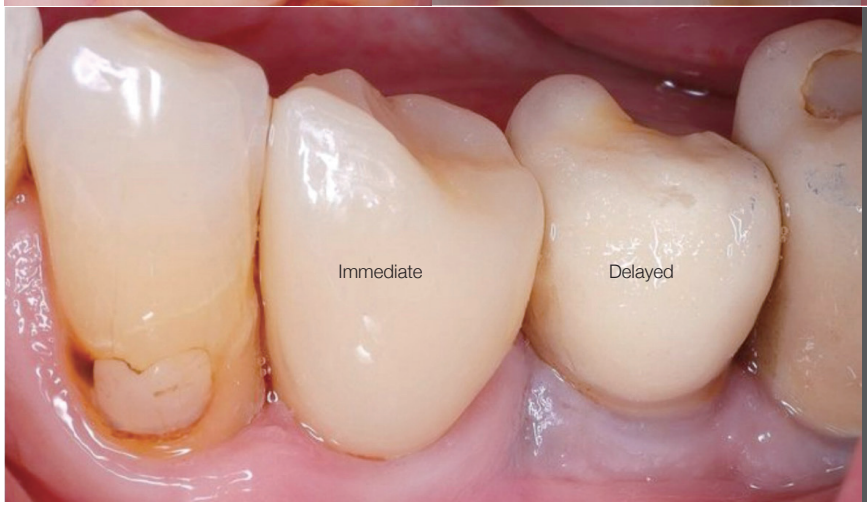
Why do immediate?

Prosthetically driven immediate leverage the results :

- Outcomes are as predictable, using this technique, as with delayed implant placement
- Preserves bone volume
- Preserves soft tissue from collapse
- Treatment is more cost-effective for the patient
- Treatment is financially beneficial for the dentist
- Increases patient satisfaction thanks to shorter treatment and healing time
  And faster function and aesthetics
- Replicates the anatomical emergence profiles of natural teeth
- Saves inter proximal papilla & prevents food impaction
- Minimizes risk of peri-implantitis



"Look at the outcome of this case after 6 weeks of healing - complete soft and hard tissue collapse, which will now require 3 times longer treatment protocol."



Immediate Vs Delayed.
"Look at that soft tissue!
The keratinized gingiva of the immediate protocol is much better maintained."

Courtesy of Dr. Gianfranco Reinoso
@immediate_implantology

Classification of extraction sockets

To achieve initial stability in the extraction socket, we first need to determine the shape of the socket. Dr. Tarnow DDS, in a study published in 2013, classified extraction sockets into the following three categories.

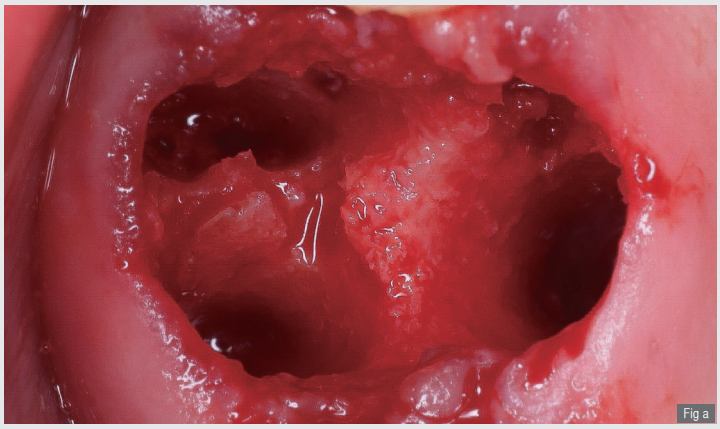


Fig a. Type A socket

A type A socket has adequate septal bone to circumferentially contain the coronal portion of the implant within the bone completely

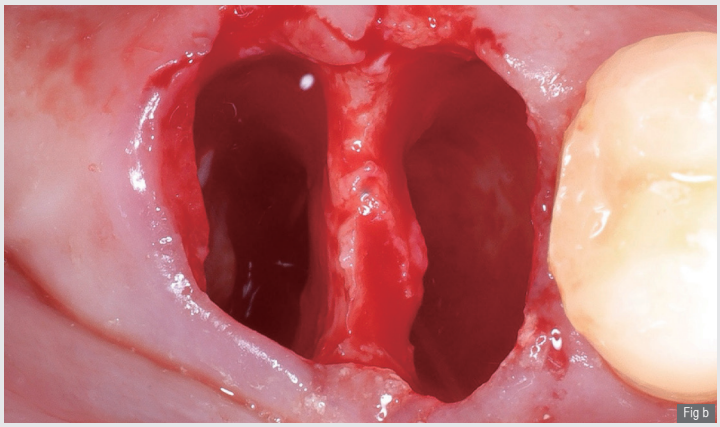


Fig b. Type B socket

A type B socket has enough septal bone to stabilize the implant but not fully contain it.

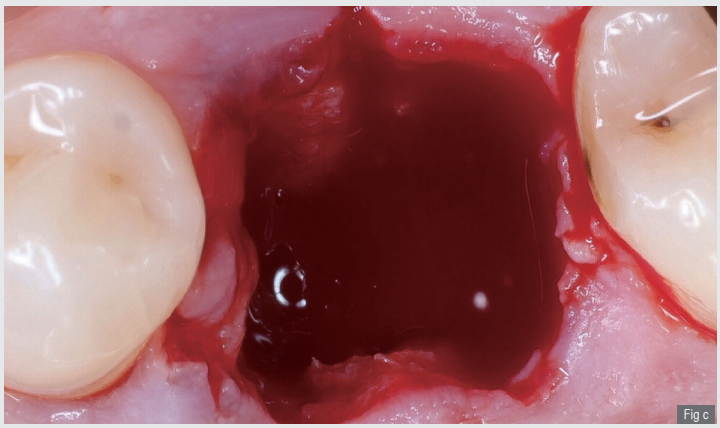


Fig c. Type C socket

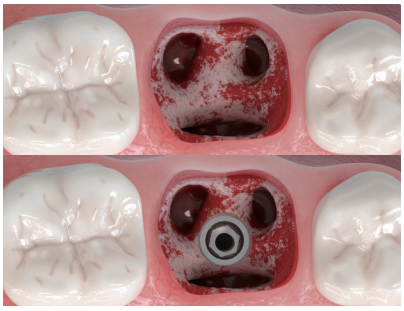
A type C socket does not have enough bone within the socket to stabilize the implant without engaging the outer walls of the socket.

Int J Oral Maxillofac Implants. 2013 May-Jun;28(3):911-6.doi: 10.11607/jomi.2627 Richard B. Smilth, DDS/ Dennis P. Tarnow, DDS

*Recent research shows that **90% of extraction sockets** that could benefit from immediate implant placement are in the molar region*

J Periodontal Implant Sci. 2021 Apr;51(2):100-113/ https://doi.org/10.5051/jpis.2005120256/pISSN 2093-2278·eISSN 2093-2286 / Jung-Ju Kim, Heithem Ben Amara, Ki-Tae Koo

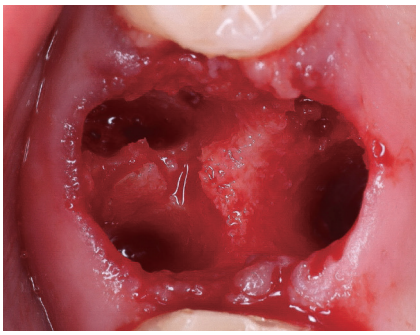
Socket type A is considered the optimal situation for immediate implant placement. The coronal portion of the implant is completely contained within the septal bone in Type A extraction sites with intact buccal bone walls and a stable socket.



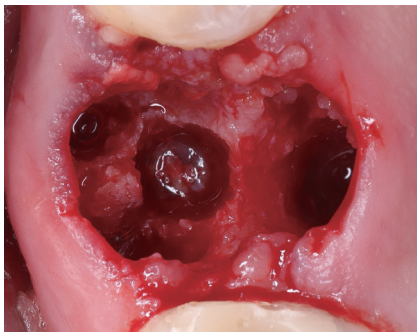
Courtesy of Dr. Gianfranco Reinoso
@immediate_implantology

The vertical fracture of #16 can be observed.

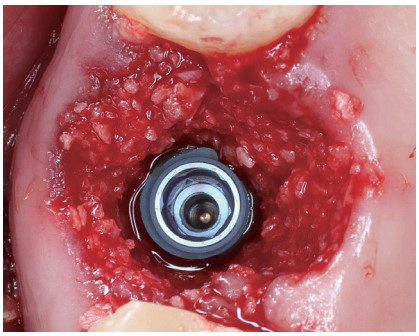
Diagnostic xray



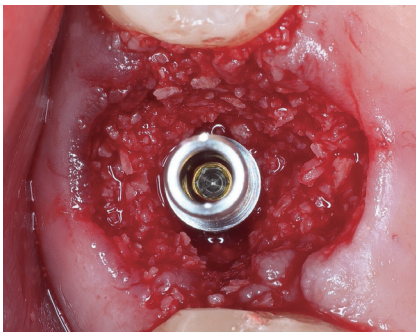
Socket type A after the atraumatic extraction



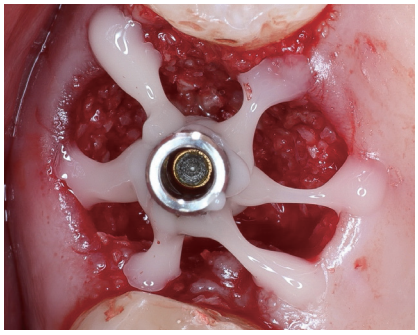
Osteotomy. Schneiderian membrane can be observed



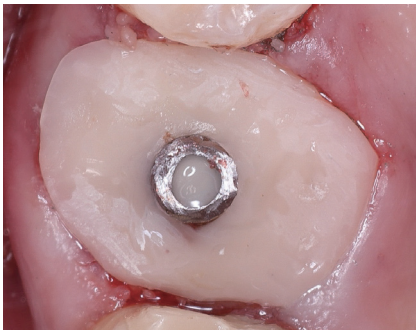
Placing the implant with graft to maintain the maximal bundle bone of the socket



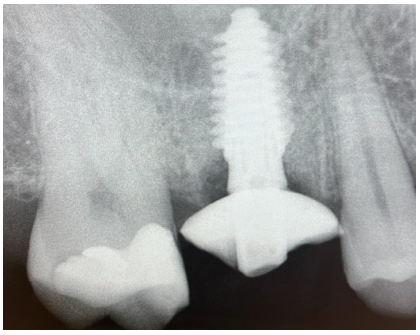
Placing of the temporary abutment



Making of individual healing abutment



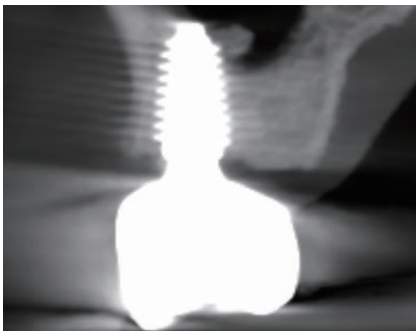
After finishing the Individual healing abutment. Notice how big is the emergence profile



Final xray after placing of the individual healing abutment

Emergence profile after 4 months

Final Restoration



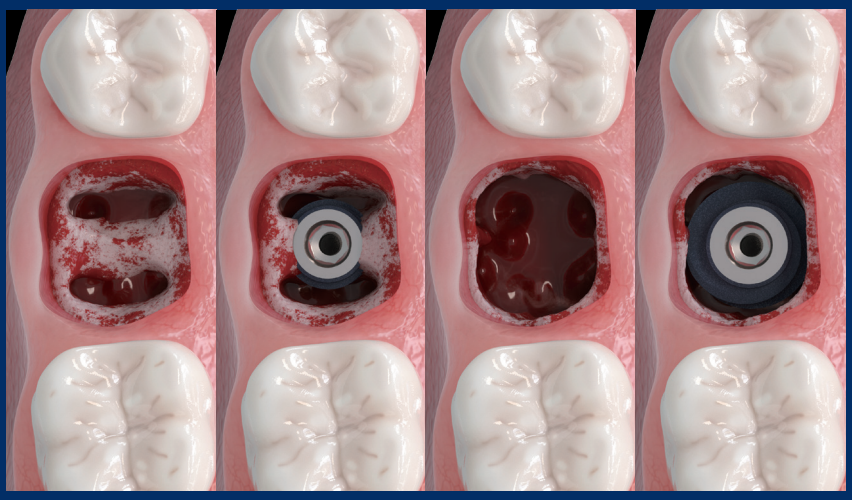
Final xray after 1 year

When does immediate implant placement become challenging in molar sockets?

Exploring factors influencing immediate placement after molar extraction and contemplating predictable procedures and optimal solutions, all known biological facts should be considered in order to make informed decisions

In the case of Type B & C sockets,
the primary concern with immediate implant placement is the difficulty faced in achieving initial implant stability due to the presence of a wide extraction socket.

Many implant manufacturers have introduced wide-diameter implants for immediate placement in the molar area. It remains unclear however, whether a broad diameter alone can effectively address all issues associated with extraction sockets.

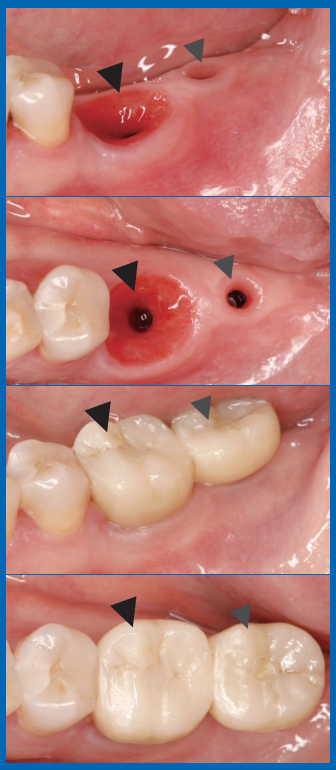


Tips & solutions

Try installing a customized healing abutment that is actually the correct shape for the natural gingiva around a Molar tooth!

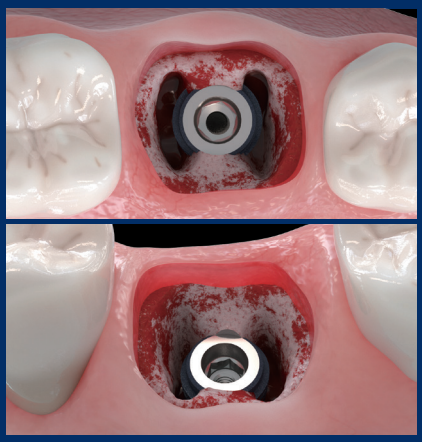
Q. Which emergence profile would a prosthodontist prefer to receive ?

A. *"Of course you want the same result as #6!*
A different approach leads to a totally different emergence profile and result!
Not only aesthetically but from a biological point of view, the proximal space is similar to natural teeth, resulting in a much lower incidence of food impaction"

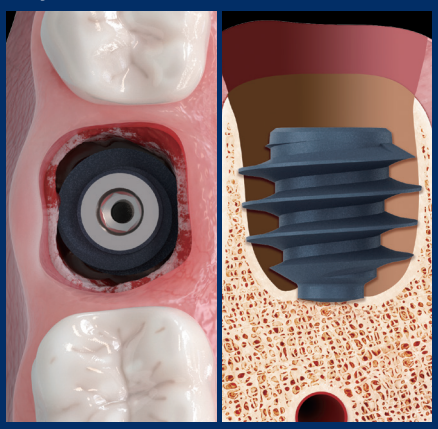


Solution based implantology **makes it easier!**

Type B socket

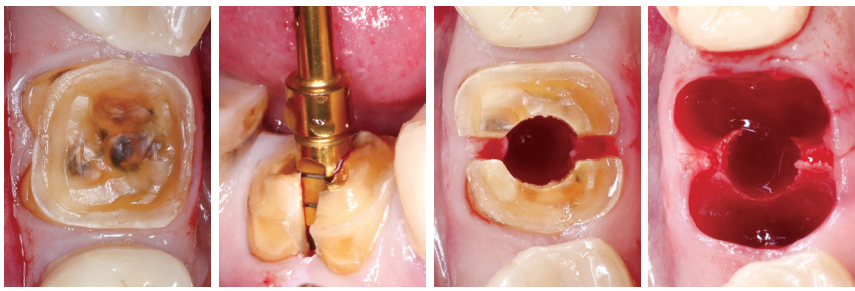


Type C socket

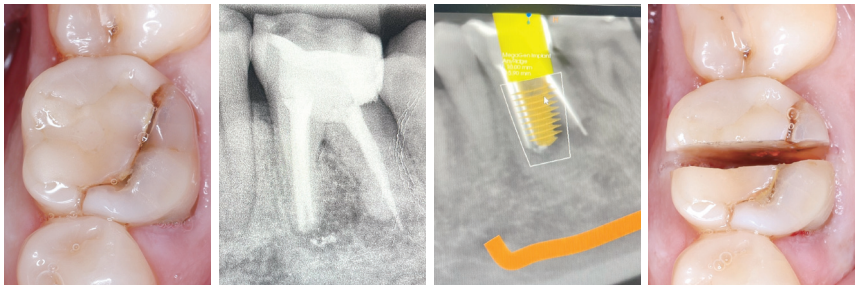


Type B &C sockets

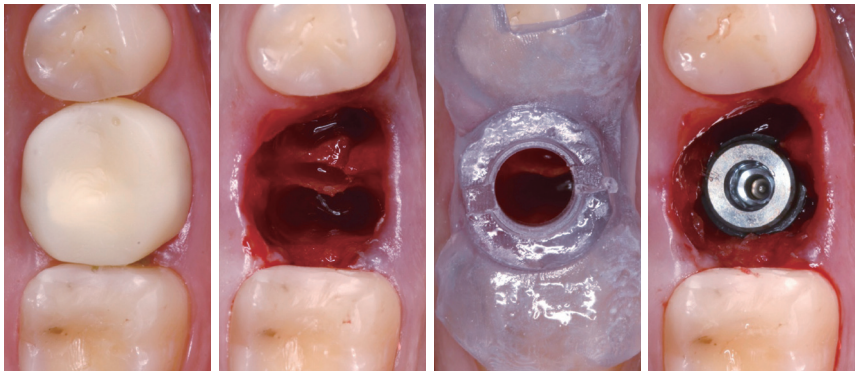
Case 1.



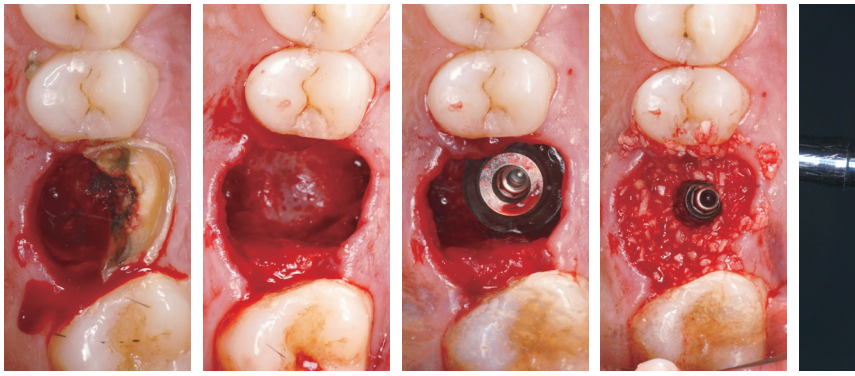
Case 2.



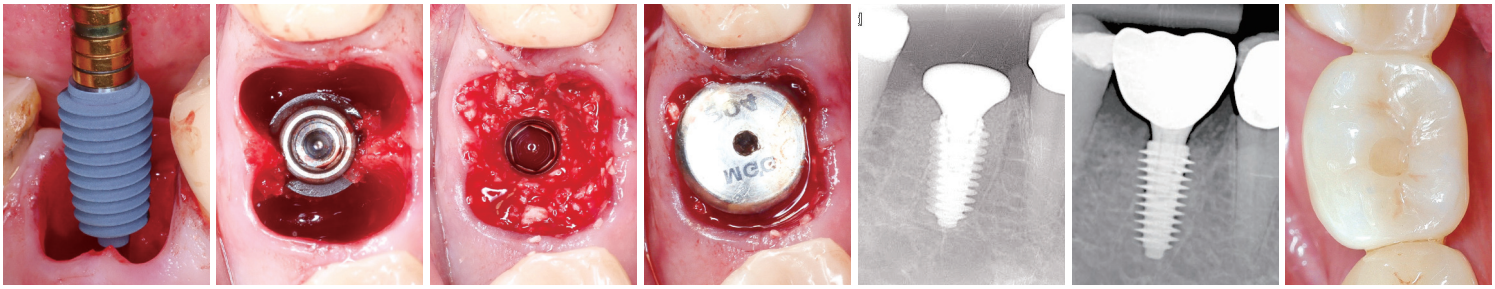
Case 3.

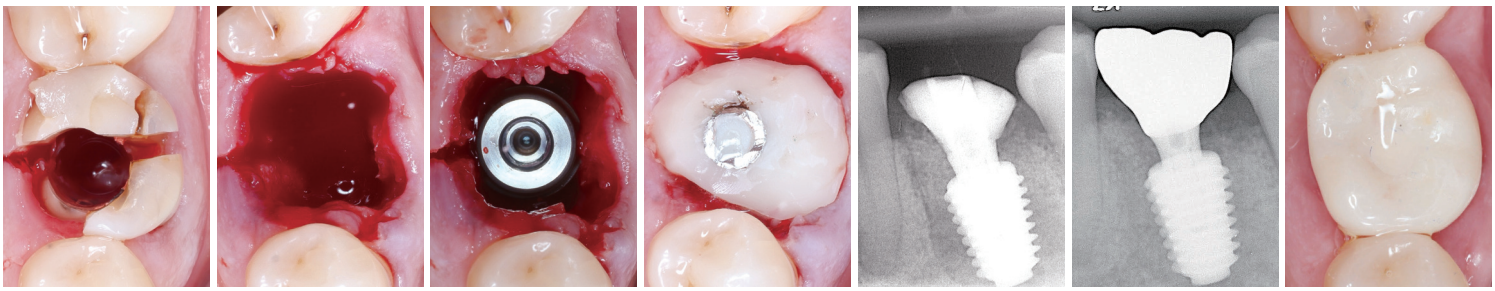


Case 4.

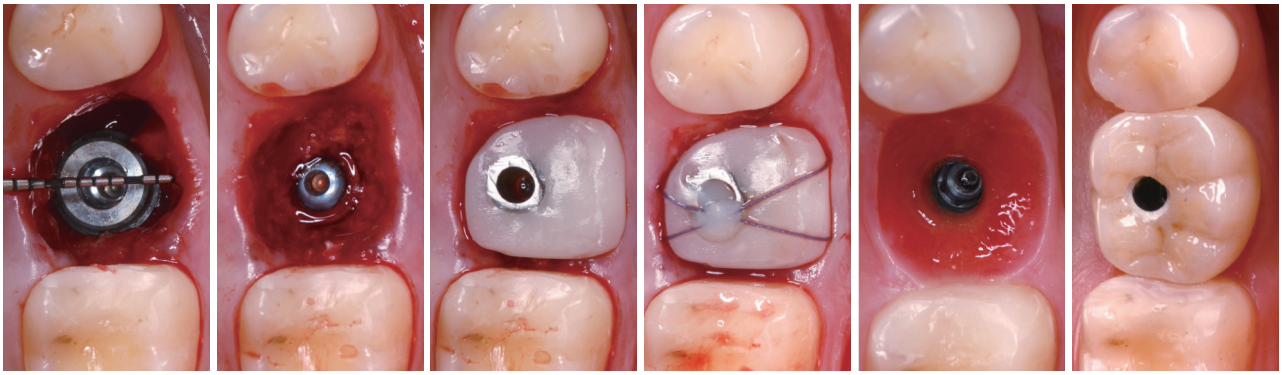


Courtesy of Dr. Gianfranco Reinoso
@immediate_implantology

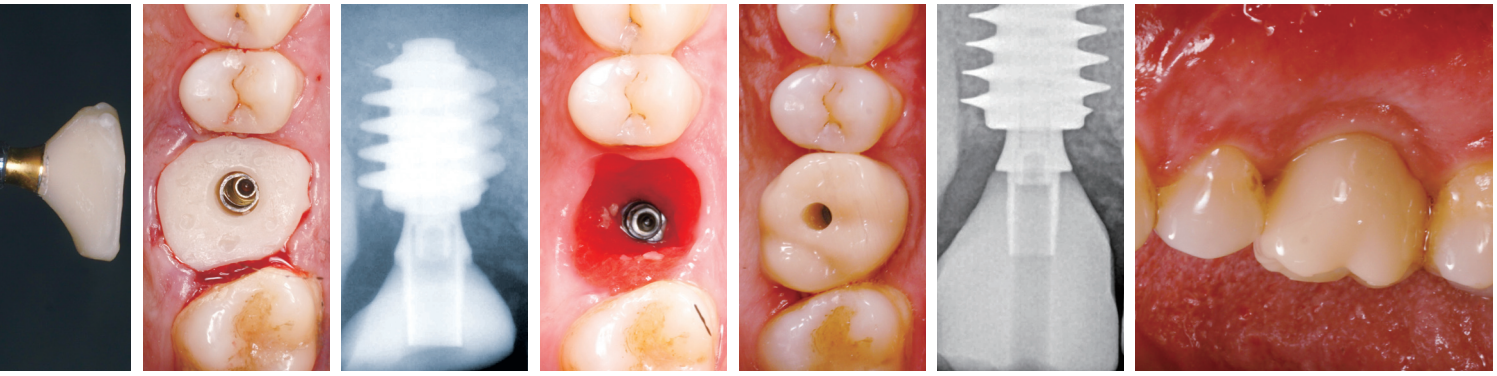




Courtesy of Dr. Dimitris Kolovos



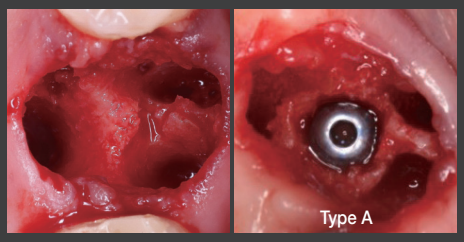
Courtesy of Dr. Justo Martines Belaguer



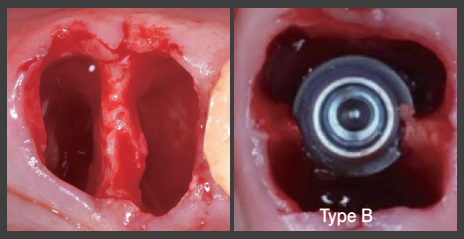
Features to consider before prosthetically driven molar immediate

#01 Implant design: shape of body, collar design, thread design for Minimal bone destruction & enhance initial stability

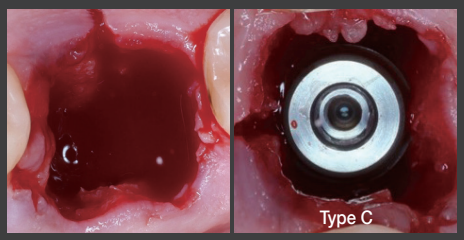
Adequate initial stability can be achieved in various shapes of extraction sockets.
With a narrow core and deep knife thread, implant positioning can be made with minimal bone destruction and a reduced drilling protocol. The wide knife thread engages well with the remaining natural bone, providing sufficient initial stability.



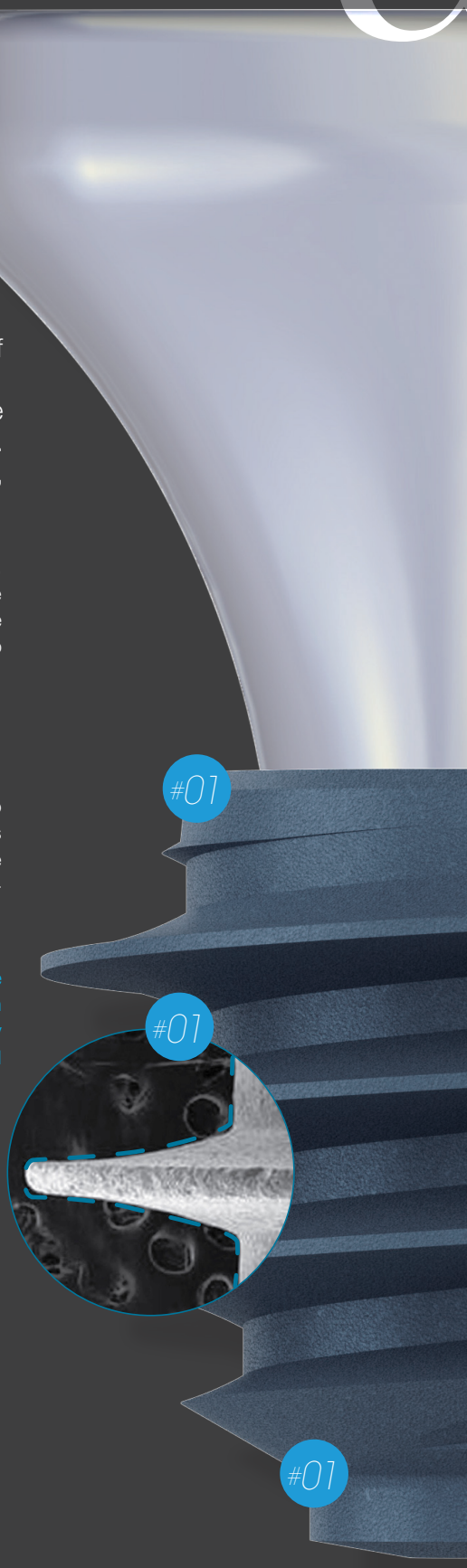
In Type A and B extraction sockets, Minimized drilling is employed to preserve the remaining septal bone, facilitating the Placement of narrow-core implants to achieve maximum initial stability.



In Type C extraction sockets, with no septal bone, achieving initial stability is made possible by engaging the knife thread in the remaining natural bucco-lingual and mesio-distal bone



The widest third thread of AnyRidge implant, which is 2-3mm lower than the implant collar, makes it uniquely advantageous for obtaining mesio-distal stability in Type C extraction sockets



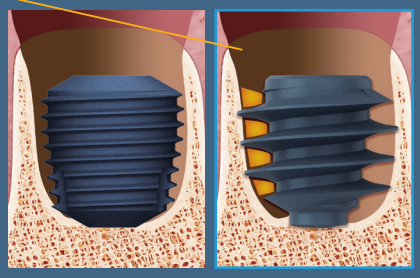
Knife Thread® guarantees sustained implant stability

- Easier, less destructive insertion due to sharp thread shape
- Stable stress dispersion due to buttress thread design
- Increased surface area due to round-faced design

How MegaGen implant systems make it easier.

#02 Preserve the jumping distance for optimal bone remodeling

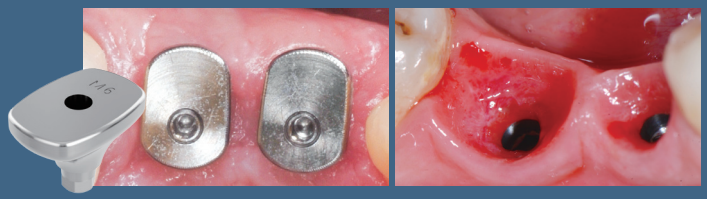
To facilitate effective bone remodeling with a proper blood supply around the implant, it is crucial to ensure adequate space.



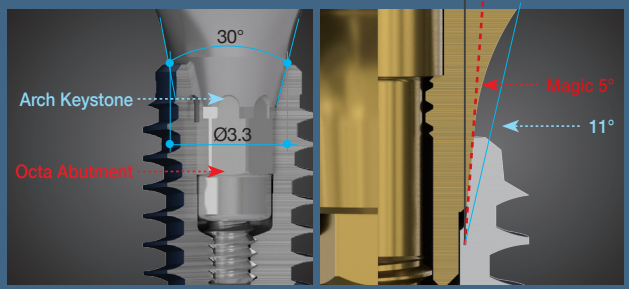
Other wide implants | **MegaGen wide implant**

#03 A thread-less upper section of the fixture & an anatomical S-line prosthetic will promote better peri-implant biotype and a thicker mucosa

preserving an excellent emergence profile for a healthy and aesthetic gingiva



#04 A strong connection is essential to prevent failure due to movement and bacteria



BlueDiamond: unique X-FIT™ gives greater joint stability.

AnyRidge: unique Magic 5° connection gives a perfect hermetic seal.

Company	System	Connection	Mean ± SD(mm)
Dentsply Sirona	Astra Osseospeed	22°	0.53 ± 0.81
Dentsply Sirona	Ankylos	11.4°	0.13 ± 0.26
Nobel Biocare	Brånemark MK III, Nobel Replace, Nobel Speedy	External, 0°, External	0.94 ± 1.05 or >0.41 ± 1.11
	Nobel Active	26°	0.41 ± 1.11
Straumann	SLActive	-	0.57 ± 0.84
	SLA	-	1.26 ± 1.19

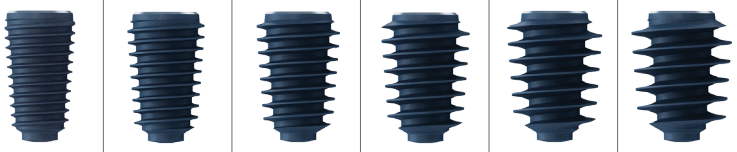
[Marginal bone loss after 1 year of loading for different types of implants]

The less stable the connection, the more marginal bone loss (MBL).

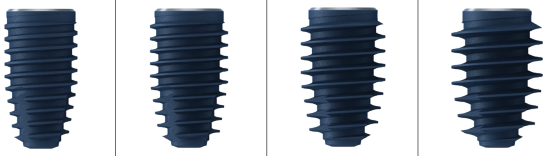
Clinical Oral Implants Research/Volume 28, Issue S14/https://doi.org/10.1111/clr.253_13042

Solution based implantology
makes it easier!

AnyRidge wide options

Tooth position	Core diameter	Fixture diameter						Length(mm)
		∅5.5	∅6.0	∅6.5	∅7.0	∅7.5	∅8.0	
Molar immedate options for type B, C sockets	∅4.8							7.0 / 8.5 / 10 / 11.5 / 13
	Thread depth	0.35	0.6	0.85	1.1	1.35	1.6	

BlueDiamond wide options

Tooth position	Fixture diameter				Length(mm)
	∅5.3	∅5.3	∅5.8	∅6.3	
Molar immedate options for type B, C sockets					7.0 / 7.7 / 9.2 / 10.7 / 12.2 / 14.2 / 17.2
Thread depth	0.55	**Deep** 0.75	**Deep** 1.0	**Deep** 1.25	

Anatomic Healing Abutment

Molar

MD (mm)	6.0	6.0	6.0	7.0	7.0	7.0	8.0	8.0
LB (mm)	7.0	8.0	9.0	8.0	9.0	10.0	9.0	10.0
Position No.	M1	M2	M3	M4	M5	M6	M7	M8

Special paracentric

MD (mm)	4.5	5.0	5.0	6.0	6.0	6.0	7.0	7.0	7.0	8.0	8.0
LB (mm)	6.0	6.5	7.0	7.0	8.0	9.0	8.0	9.0	10.0	9.0	10.0
Position No.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11

For molar

Clinical cases *Courtesy of Dr. Sam Omar*

Case 1.

Case 2.

Surgical Protocols for
more predictable results

1. Advanced Guide
(Custom Healing Abutment + Silicone Disk + Resin)

1. Immediate placement after extraction

After extraction of the posterior tooth, plan appropriate protocol and choose the size of the implant by checking the socket condition.
Afterwards, place the implant with having the implant platform positioned 2mm below from the bone level.

2. Custom Healing Abutment & Silicone connection

Using the membrane punch, make a hole (Ø2.5) for the Silicone Disk or Rubber Dam at an appropriate location, then cut it according to the outer Zenith size of the socket. Connect the custom healing abutment to be located at the bottom of post groove (It can be replaced by leaving 3mm of the post portion of the temporary abutment after milling)

3. Connect abutment after bone grafting

After connecting the cover screw provided with the implant, seal the connection part.
Progress bone grafting up to the bone level. Then remove the cover screw and connect the custom healing abutment.

4. Resin application

After applying flow resin to the silicone disk or rubber dam attached to the custom healing abutment, cure it up to the Zenith size around the extraction socket. Once the custom healing abutment has fully cured, trim it outside the oral cavity and reattach it inside the mouth

2. Flapless Guide
(Wide size Healing abutment + Resin)

1. Immediate placement after extraction

After extraction of the posterior tooth, plan appropriate protocol and choose the size of the implant by checking the socket condition.
Afterwards, place the implant with having the implant platform positioned 2mm below from the bone level.

2. Connect Scan Healing Abutment

(Also wide size healing abutment available) Connect a scan healing abutment with a wide diameter and long cuff to minimize the resin coating amount on the implant.
It is to place 2mm below from the bone level.

3. Bone Graft

Proceed bone grafting up to the bone level

4. Resin application

Apply flow resin up to the Zenith size around the extraction socket and proceed with curing.
After completing curing, trim the Healing Abutment outside the oral cavity and then reattach it inside the oral cavity.

3. Flap Guide
(Anatomic Healing Abutment)

1. When the gingival flap is open

After proceeding with a gingival flap, check the socket in the tooth extraction site. Determine the implant size based on the condition of the socket and appropriate surgical technique.
2mm below from the bone level.

2. Implant placement

The implant should be placed with its platform positioned 2mm below the bone level.

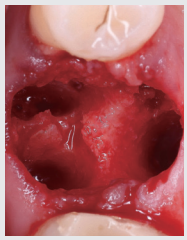
3. Anatomic Healing Abutment connection

Select an Anatomic Healing Abutment according to the tooth form, aligning it in the direction that matches the desired Zenith shape for restoration, and attach it to the implant.

4. Suture

After gingival suturing, proceed with the healing process.

*Socket Type



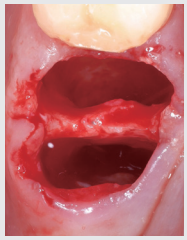
Socket A

Characteristics

Complete implantation within the septum Ensure sufficient initial stability.

Solution

Conventional implant placement protocol.



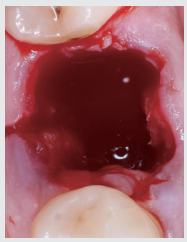
Socket B

Characteristics

Implant will be exposed from the septum, however, sufficient initial stability can be obtained.

Solution

- After Minimal drilling to preserve the remaining septal bone, place narrow-core and deep threaded implants to achieve maximum initial stability
- Osseodensification using Densah Bur : :After expanding the remaining septum, healing solution 1, 2, 3 Guide should be applied



Socket C

Characteristics

With almost no septum, Implant placement using socket outer wall
Requires a wide-size implant.

Solution

Remove the remaining septum, Healing Solution 1, 2, 3 Guide.

Complete your immediate implant protocol with solution-based implantology for the best aesthetic and predictable outcomes

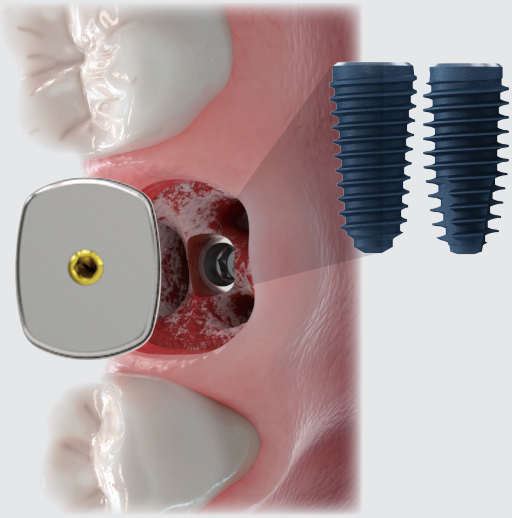
▲ Check objective studies supporting these claims

Challenge the Norm:

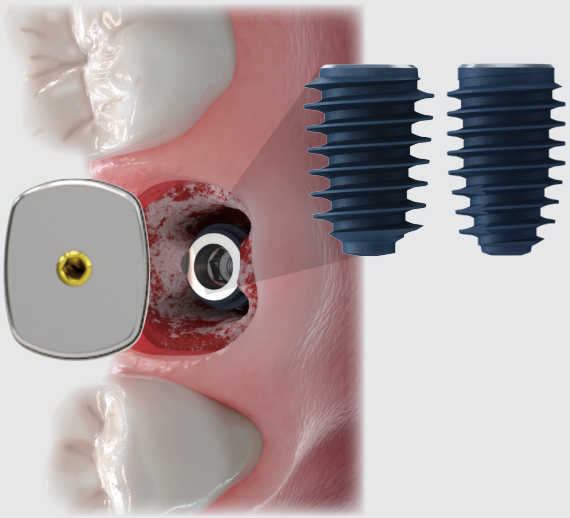
Immediate implants, lasting success.

- **Patient satisfaction**
  Shortened treatment time, lower expenses and fewer operations
- **Complication preventive***
  Significantly lower complication rates than GBR and Sinus Lift techniques
- **Survival and success rates over 95%***

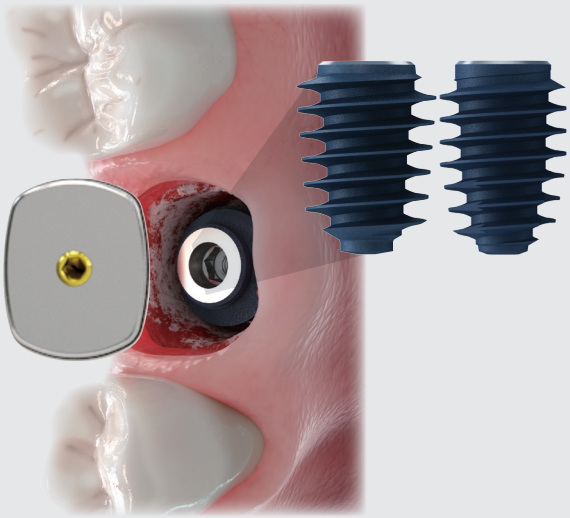
Socket Type A



Socket Type B



Socket Type C



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