



Special implants used in case of excessive bone loss



ZYGOMA



In patients with severe resorbed edentulous maxilla, surgery and prosthetic rehabilitation can be very difficult. As a result of systemic and local factors such as early tooth loss, periodontal diseases, tumor resection, advanced horizontal and vertical bone resorption may occur in the alveolar structure.²





In order to achieve successful rehabilitation of atrophic maxilla at an advanced stage, various treatment approaches such as increasing the bone volume with block or alveolar split grafting, iliac wing graft, interpositional grafting as well as Le Fort I osteotomy, sinus lifting, and a combination of these procedures.¹ However, in some cases, local and systemic factors make it difficult to use these techniques. In 1998, Branemark introduced zygomatic implants as an alternative treatment option for severely resorbed alveolus crests.

Anatomy of Zygoma

Small and quadrangular zygomatic bone has four processes, frontal-sphenoidal, orbital, maxillary and temporal and forms the most important support structure in the midface. It has junctions with the sphenoid bone in lateral, with frontal bones in superior, with maxillary in medial and inferior. It forms zygomatic arch with temporal bone. The areas where the frontal bones and the maxilla are joined, are the thickest and the strongest.³







Basic Surgical Approach

According to Bedrossian maxilla has three regions which are premaxilla, premolar region and molar region. ⁴ Before operation, the physician should decide whether the bone is appropriate for all three regions. Cone-beam computed tomography (CBCT) showing the diameter and length in these regions can be used to determine the amount of bone in the zygomatic arch, both horizontally and vertically.³



According to this approach, the treatment recommendations are given in the table below.³

Sufficient Bone Presence	Surgical Approach
Premaxilla, Premolar Region, Molar Region	Traditional (axial) implants
Premaxilla, Premolar Region	4 regular implants (all on four technique)
Premaxilla	In addition to zygomatic implant, 2 or 4 regular implants
Insufficient Bone	4 Zygomatic implants



ZYGOMA



Advantages of Zygomatic Implants

- Zygomatic implants can be a very fast and reliable solution when traditional implants cannot be applied because there is insufficient maxillary bone.
- Implantation can be performed with a much shorter treatment duration and a higher treatment success rate, without the need for bone grafting procedure with a long process and a relatively low success rate being applied patients with advanced bone resorption.
- It can be applied in patients with wide resections in premaxilla due to reasons as accident, cancer.
- Patients with Zygomatic implants can have prosthesis in a much shorter time compared to conventional dental implant therapies.





Implance Zygomatic Implants and Usage Recommendation

Implance Zygomatic implant offers three different product options according to different operation requirements.

- 1. Zygomatic Implant
- 2. Oncological Zygoma Implant
- 3. Atrophic Maxillary Zygoma Implant

ZYGOMA Implant

Zygoma implant is a special implant applied to the cheek bone in the zygoma region in patients with non-treatable advanced bone loss in the upper jaw.

ONCOLOGICAL ZYGOMA Implant

It is an alternative dental implant that is used instead of laborious and difficult treatment methods, especially in patients who have some or all of the upper jaw bone removed due to accident or tumors.

ATROPHIC MAXILLARY ZYGOMA Implant

Zygoma Atrophic Maxillary implant is a special implant applied to the cheekbone in the zygoma region in patients with a non-treatable high degree of maxillar bone loss in the upper jaw.



Zygomatic Implants

ZYGOMA Implant

6		ø4.3
0	35 mm	ZYG35
	37,5 mm	ZYG37.5
	40 mm	ZYG40
	42,5 mm	ZYG42.5
	45 mm	ZYG45
	47,5 mm	ZYG47.5
	50 mm	ZYG50
	52,5 mm	ZYG52.5
	55 mm	ZYG55
	57,5 mm	ZYG57.5
	60 mm	ZYG60

ONCOLOGICAL ZYGOMA Implant

ø4.3	
25 mm	Z-ONC25
27,5 mm	Z-ONC27.5
30 mm	Z-ONC30
32,5 mm	Z-ONC32.5

ATROPHIC MAXILLARY ZYGOMA Implant

	ø4.3
35 mm	ZAP35
37,5 mm	ZAP37.5
40 mm	ZAP40
42,5 mm	ZAP42.5
45 mm	ZAP45
47,5 mm	ZAP47.5
50 mm	ZAP50
52,5 mm	ZAP52.5
55 mm	ZAP55
57,5 mm	ZAP57.5
60 mm	ZAP60





Zygoma Prosthesis

A	ABUTMENT		
	3 mm	5 mm	
	ZCA4330	ZCA4350	



ANGLED ABUTMENT		
3 mm	5 mm	
ZAA43203	ZAA43205	



LAB	ANAL	OG
-	ZLA	

HEALING CAP + SCREW

3 mm	5 mm	Y	
ZHA4330	ZHA4350		



IMPRESSION COPING PICK-UP+GUIDE PIN

ZICP







ZYGOMA

Zygoma Surgical Kit



ZYGOMA HANDLE	ZHDL
ZYGOMA DEPTH GAUGE STRAIGHT	ZDIS
ZYGOMA DEPTH GAUGE ANGLED	ZDIA
ZYGOMA DRILL GUARD	ZDG
ZYGOMA DRILL GUARD SHORT	ZDGS







References/Bibliography

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