

	<b>Surgical protocol - Implantize Hybrid</b>		
	PD.PR.19.01	Versão: 2.0	Data de Aprovação: 03/2020

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Implantize *hybrid* is an individualized CAD CAM manufactured implant. Accuracy is needed for straight adaptation of the implant to the patient bone. To achieve good results the implant should be supported by large corticalized areas, and fixed with screws avoiding micro movements that could induce bone resorption. Queratinized gum is important to obtain stability of soft tissue around the emergence of the implant to the exterior (pillars), for that a very rigid CT scan protocol is capital to long term survival of the implants.

This document explains the protocol for the implant order as well as the surgical technique for the medical device placement.

### CT scan protocol

1. Prosthesis trials should be made to obtain final teeth position
2. Radiopaque devices should be bonded on to the vestibular teeth surfaces



3. The patient shall make the CT scan with the guides placed on the mouth, and close to ensure teeth position

### Implant design

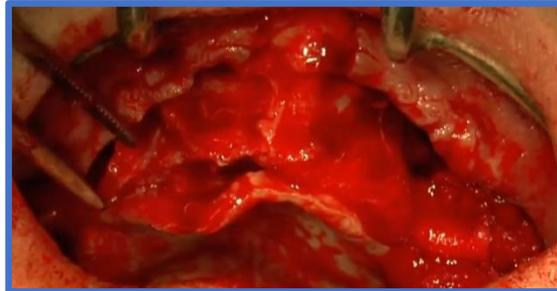
1. CT scan has to be submitted through Dentlabsoft platform, through the invitation made previously by BoneEasy team.
2. BoneEasy team will design the implant and send to the dentist who required the implant to get approval or make some adjustments to the design
3. Implant will be produced
4. The implant will be delivered with osteosynthesis screws for fixation

### Surgical technique

1. A full thickness flap should be made exposing all the fixation area

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## 2. Surgical Guide:

- Fix the surgical guide, using the guide fixation pins existing on the surgical kit. This allows the guide to be totally fixed so the bone preparations could properly take place.



## 3. Bone Preparations (with guide in place):

- First is necessary mark with surgical pencil, the areas to be prepared
- Using the slots of the surgical guide, do the bone osteotomy with the round bone bur.
- Perform osteotomy with Vestibular/Lingual or Vestibular/Palatal movements until achieve the bone level preparation indicated by the surgical guide



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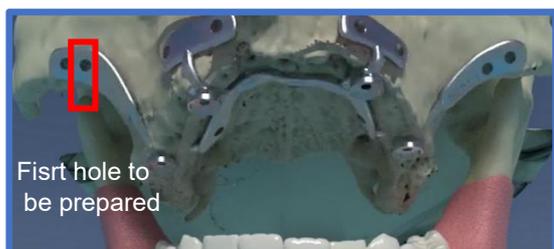
#### 4. Implant fitting test:

- Remove the surgical guide.
- Test the implant fitting over the bone preparations previously done.
- If necessary, it is possible to use the round bur to do final preparations to achieve better fitting.
- The implant doesn't need to fit completely on the preparations slots. It needs to fit completely on the vestibular and lingual/palatal areas of bone contact.



#### 5. Implant fixation:

- For upper cases: With the implant in place, without moving, is necessary to choose one of the Zygoma holes (**distal hole**), prepare the hole with screw drill of the surgical kit, and then place the screw without total insertion. This step should be repeated for the distal Zygoma hole, in the opposite quadrant.
- For lower implants: start implant fixation also for one distal location of each side, without moving the implant. Start with screw bone preparations, place the screw without total insertion and then repeat those two steps for the remaining screws.



- Once every screws are in place, is necessary to confirm if every screwhead is totally in contact with implant plates (it applies to upper and lower cases).
- The implant plates shouldn't bend due to screws torque. The bending of the plates will lead the screws to loose tightness, and the implant to have mobility.

6. If some parts are not completely adjusted, it could be grafted with some autologous or other bone substitute.

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7. Close the wound properly. The area in contact with the exterior (connections areas) are the most critical. Is necessary to ensure that suture is well done in order to avoid infection and exposure points

8. Placed the prosthesis as previously planned.