



Comparison – Autograft vs. Cyberbone implants

| | Autograft | Personalized, bioresorbable CYBERBONE implants |
|---|---|--|
| Resorbability of the implant - bone regeneration | Yes | Yes |
| Risk of implant/transplant resorption without bone regeneration | Yes | No |
| Shape of the implant | Bone block not matched to the anatomical features of the defect or matched only minimally | Individually designed and fitted with 3D technology, guaranteeing an optimal fit |
| Number of implant specimens for the surgery | 1 piece only | Supply of at least 2 identical implants (1 reserve) |
| Number of surgical procedures | #1 – Taking the patient's own bone (e.g., from the hip bone plate) #2 - Augmentation of the bone defect | #1 surgery - augmentation only |
| Possible connection between the implant and the titanium dental implant screw | Yes (dependent on defect topography and regeneration method) | Yes The procedure can be performed simultaneously, which means that one treatment is performed. The titanium dental implant screw is placed directly in the Cyberbone implant before augmentation. There is no need to wait for the implant to be absorbed. The absorption process takes place independently of the dental reconstruction. Photos below |
| Type of anesthesia for surgical procedures | General anesthesia - in the case of taking a bone graft, for example, from the fibula or hip plate, or local anesthesia in the case of the oral cavity (small bone defects) | Only local anesthesia at augmentation |
| Properties not conducive to infection | Yes | Yes |
| Presence of BMP's | Yes | No |
| The rate of vascularization | High | Low |
| Timing of the surgical procedure | Long | Short |
| Dependent on operator skills | High | Low |
| Rebuilding time | Short | Long |
| Topographical limitations | Possibility to take a limited amount of autogenous bone | Unlimited, preoperational prototyping can be done in advance |