Reconstruction of different cranial bone defects by interpositional modelling of autogenous or alloplastic materials is usual common practice so far, and it does not always lead to satisfactory cosmetic effect. In recent years, an attempt was made with preservation of individual implant modeling based on data obtained by CT scan. 3D individual model of the skull is based on preserving data obtained by CT scan and 3D printing is used as a basis for determining the edges of the defect, the stage of the implant, the position and thickness of the implant. We present the case of reconstruction of the left frontal bone in a patient 30 years old. Complete reconstruction of the defects is made for isolated frontaldefect in the area of the bone itself. Limits of bone resection, stage and position of the individual titaniumimplants are determined on the basis of a 3D model that is based on the CT image. This technique represents the future in reconstructive surgery of facial bones and can be used for reconstruction of bone defects that occurred after trauma, postoperative defects occurred after surgery of tumors, and cosmetic deterioration after cranial surgery. The method required a multi-disciplinary approach and cooperation between surgeons, radiologists and engineers.

In reconstructive maxillofacial surgery, the approach to be used is based on the individual's clinical presentation, as well as on the condition of the surrounding structures. Optimization of the surgical plan is achieved through a multidisciplinary approach. The individual approach to each patient is based on a thorough assessment of the patient's condition and the specific needs of the individual. The surgical team consists of experienced surgeons, radiologists, and engineers, all working together to achieve the best possible outcome for the patient.