**FINITE ELEMENT MODELING OF IMPLANT FOR RADIUS**

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***Abstract:*** *In our work we studied the correlation between the shape of the radius assessed by modern imagistic methods and the shape of the implant. Thus, an implant with mechanical properties close to the one of bones, and optimal adaptation of shape to the bone in which it is implanted, was designed. By using CAD software* (*Autodesk® Inventor®*), *a 3D shape was created to make the implant personalized, adapted to individual characteristics of the patient. For this purpose, the implant was designed for fixation of the distal epiphysis fracture of the radius, since this type of fracture is common, and the osteoporotic bone is susceptible to this type of fracture. We designed the 3D shape of the implant and tested its mechanical behaviour by finite element analysis. The results allow us to improve the design and to increase the recovery effectiveness, thereby improving the efficiency of health services by reducing the number of secondary interventions and by shortening the recovery time of the patient.*