

Ordinary and Activated Bone Grafts: Applied Classification and the Main Features

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Abstract

© 2015 R. V. Deev et al. Bone grafts are medical devices that are in high demand in clinical practice for substitution of bone defects and recovery of atrophic bone regions. Based on the analysis of the modern groups of bone grafts, the particularities of their composition, the mechanisms of their biological effects, and their therapeutic indications, applicable classification was proposed that separates the bone substitutes into "ordinary" and "activated." The main differential criterion is the presence of biologically active components in the material that are standardized by qualitative and quantitative parameters: growth factors, cells, or gene constructions encoding growth factors. The pronounced osteoinductive and (or) osteogenic properties of activated osteoplastic materials allow drawing upon their efficacy in the substitution of large bone defects.

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