

## Bone grafting and bone graft substitute.

### ABSTRACT

Restoring skeletal integrity and bone tissue regeneration is still a significant challenging issue. In this regard, bone grafting have been used to augment orthopedic repairs in human and veterinary surgery for several decades and still being under many investigation to hunt for new approaches to improve bone healing following incidences of bone complications. Bone graft is bone transplant and is categorized into autogenous and allogenic grafts as well as synthetic bone graft which are bone graft substitutes. Each of these classified grafts have some advantageous as well as a range of drawbacks, which researchers are still looking to remove those disadvantageous. Finding new instruments and new sites for graft harvests are the major concerns of researchers to diminish the morbidities of donor site in autografts. Looking for agents boosting inductivity of the allografts is the main worries of these kinds of grafting materials and finally new fabrication techniques by new pore sizes are the significant bothering for synthetic bone graft substitutes. This review would consider all grafting methods and materials that would open new windows to the bone grafting techniques.

**Keyword:** Allograft; Autograft; Bone graft; Bone graft substitutes; Graft incorporation; Synthetic bone grafts; Xenograft.