Bone response to dental implant materials /

Piattelli, Adriano

Woodhead Publishing is an imprint of Elsevier, [2016]

Libros electrónicos | Recursos electrónicos

Monografía

Título: Bone response to dental implant materials edited by Adriano Piattelli

Editorial: Duxford, United Kingdom Woodhead Publishing is an imprint of Elsevier [2016]

Descripción física: 1 recurso en línea

Mención de serie: ScienceDirect All Books Woodhead Publishing series in biomaterials

Nota general: Includes index

Contenido: Front Cover; Bone Response to Dental Implant Materials; Related titles; Bone Response to Dental Implant Materials; Copyright; Contents; List of contributors; 1 -- Introduction to bone response to dental implant materials; 1.1 Introduction; 1.1.1 Bone structure in the aspect of functionality; 1.1.2 Bone remodeling; 1.1.3 The modern concept of biocompatibility; 1.2 Biomaterials; 1.2.1 Autologous bone; 1.2.2 Porous phycogenic hydroxyapatite; 1.2.3 Collagenized porcine biomaterial; 1.2.4 Anorganic bovine bone; 1.2.5 Biphasic calcium phosphate; 1.2.6 Calcium carbonate 1.3 Challenges and further trends1.3.1 Graphene; 1.3.2 Biomedical applications; Acknowledgment; References; 2 -- Mechanical modification of dental implants to control bone retention; 2.1 Introduction; 2.2 The implant as extracellular matrix; 2.3 Cell attachment; 2.4 Cell behavior on smooth surfaces; 2.5 Cell behavior on three-dimensional and roughened surfaces; 2.6 Mechanisms involved with translation of cell configuration to differentiation; 2.7 Using controlled surface configuration to control cell function-tissue engineering surfaces 2.8 Mechanical basis for bone retention around dental implants2.9 Conclusion; References; 3 -- Surface modification of dental biomaterials for controlling bone response; 3.1 Bone responses to implant surfaces; 3.2 Roughening the surface; 3.2.1 Surface characteristics; 3.2.2 The effect of surface topography on bone healing; 3.3 Application of inorganic elements to implant surfaces; 3.3.1 Calcium phosphorus; 3.3.2 Fluoride treatment; 3.4 Application of organic compounds to implant surfaces; 3.5 Concluding remarks; References; 4 -- Bone response to calcium phosphate coatings for dental implants 4.1 Introduction4.2 The bone implant interface; 4.3 Methods of calcium phosphate coating; 4.3.1 Plasma sprayed coatings; 4.3.2 Thermal spray coating technique; 4.3.3 Solgel coating; 4.3.4 Sputter deposition; 4.3.5 Pulsed laser deposition; 4.3.6 Dip-coating technique; 4.3.7 Ion beam assisted deposition of CaP; 4.3.8 Electrophoretic deposition; 4.3.9 Hot isostatic pressing technique; 4.3.10 Biomimetic precipitation; 4.4 Surface coating and peri-implant wound healing process; 4.5

Factors influencing the coated implant bone interface; 4.5.1 Surface morphology/surface topography 4.5.2 The chemical composition and CaP ratio4.5.3 Phase composition and structure; 4.5.4 Coating dissolution of HA; 4.6 CaP coating as drug delivery system; 4.6.1 Silicon; 4.6.2 Strontium; 4.6.3 Silver; 4.6.4 Bisphosphonate; 4.6.5 Proteins; 4.7 CaP coating and peri-implantitis; 4.8 Conclusion; References; 5 -- Peri-implant biological behavior: clinical and scientific aspects; 5.1 Introduction; 5.2 Implant features; 5.2.1 Surface; 5.3 Implant anatomy; 5.3.1 Implant neck design; 5.3.2 Middle threads configuration; 5.3.3 Apex; 5.4 BIC percentage; References 6 -- Implant primary stability and occlusion

Detalles del sistema: Modo de acceso: World Wide Web

Copyright/Depósito Legal: 961934554 967719053

ISBN: 9780081002889 electrónico.) 0081002882 electrónico.) 0081002874

Materia: Dental implants- Materials- Biocompatibility MEDICAL / Dentistry / Dental Implants. bisacsh Dental Implants- adverse effects

Autores: Piattelli, Adriano
