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| Titolo                  | Biomechanics in Dentistry: Evaluation of Different Surgical Approaches to Treat Atrophic Maxilla Patients // by Muhammad Ikman Ishak, Mohammed Rafiq Abdul Kadir   |
| Pubbl/distr/stampa      | Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2013   |
| ISBN                    | 1-283-63179-2<br>9786613944245<br>3-642-32603-X  |
| Edizione                | [1st ed. 2013.]  |
| Descrizione fisica      | 1 online resource (102 p.)   |
| Collana                 | SpringerBriefs in Computational Mechanics, , 2191-5342   |
| Disciplina              | 617.6  |
| Soggetti                | Biomedical engineering<br>Biomaterials<br>Mechanics<br>Mechanics, Applied<br>Dentistry<br>Biomedical Engineering and Bioengineering<br>Solid Mechanics   |
| Lingua di pubblicazione | Inglese  |
| Formato                 | Materiale a stampa   |
| Livello bibliografico   | Monografia   |
| Note generali           | Description based upon print version of record.  |
| Nota di bibliografia    | Includes bibliographical references and index.   |
| Nota di contenuto       | Anatomical Considerations -- Treatment Options for Severely Atrophic Maxillae -- Biomechanical Considerations -- Finite Element Modelling -- Bone and Prosthetic Component Responses in Various Occlusal Loading Locations -- Bone and Prosthetic Component Responses in Various Occlusal Loading Directions.  |
| Sommario/riassunto      | This book shows computational finite element simulations to analyse the strength of implant anchorage for intrasinus and extramaxillary approaches under various occlusal loading locations and directions. Three-dimensional model of the craniofacial area surrounding the region of interest, soft tissue and framework are developed using computed tomography image datasets. The zygomatic and standard dental implants are modeled using a conventional computer-aided design software and placed at the appropriate location. Material |

properties are assigned appropriately for the cortical, cancellous bones and implants with Masseter forces applied at the zygomatic arch and occlusal loadings applied on the framework surface.

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