



Faculty of Dental Medicine

Department I

University Department Sub-Structure of Propedeutics and Dental Materials

Associate Professor, Position 49

Topics

1. Dental Prostheses: Definition, classification. The prosthetic field (general notions). Clinical and laboratory stages in the fabrication of dental prostheses. Reconstruction, coverage, substitution, and overlays.
2. Impressions and Models in Dental Medicine: Analog models, auxiliary models, and virtual models.
3. Articulators and Facebows.
4. Technological Methods and Possibilities for Fabricating a Dental Prosthesis: Polymer processing (chemoplastic and thermoplastic) and ceramic materials processing (sintering, pressing, casting, milling by copying, CAD/CAM systems, electrostatic deposition). Physicochemical processes; systems. Methods and procedures for processing metals and alloys: bending, deep drawing, galvanizing, melting-casting, sintering, computerized milling, electroerosion processing, soldering, and welding. Equipment and systems.
5. Components of Fixed Partial Dentures: Fabrication procedures. Technological particularities of aggregation elements. Traditional fixed partial dentures: clinical-technical stages. Pontic elements for the maxilla. Pontic elements for the mandible.
6. Technological Alternatives for Fabricating a Dental Prosthesis: Electroforming, selective laser sintering/melting (SLS/SLM), CAD/CAM/CAE techniques, computerized milling, electroerosion processing, electrodeposition processing, soldering, and welding.
7. Complete Edentulism: Etiology of complete edentulism. Morphofunctional changes in the stomatognathic system due to complete edentulism. Complications of complete edentulism. Symptomatology of complete edentulism. The edentulous prosthetic field. Complete dentures: components, factors contributing to retention and stabilization, and the biodynamics of complete dentures.
8. Technological Alternatives for Fabricating Complete Dentures: Injection and casting techniques. Deflasking, processing, and polishing of dentures. Insertion of dentures into the oral cavity. Immediate complete dentures, early complete dentures, and complete dentures with resilient saddles. Denture duplication. Single-arch complete dentures. Converting complete edentulism to partial edentulism using implants.
9. Removable Partial Dentures with Metal Frameworks: Characteristics, advantages, and disadvantages. Retention, support, and stabilization elements (primary and auxiliary).
10. Special Retention, Support, and Stabilization Elements; Hybrid Prostheses.

Bibliography:

1. Bratu D, Nussbaum R and colab.- Bazele clinice și tehnice ale protezării fixe, Editura Signata, 2001.
2. Bratu D, Bratu E, and colab, Restaurarea edentațiilor parțiale prin proteze mobilizabile, Editura Medicală, București, 2008.
3. Bratu D, Ieremia L și colab.– Bazele clinice și tehnice ale protezării edentației totale, Editura Medicală, Timișoara, 2003.
4. Crăciunescu EL, Romînu M, Negruțiu ML, Sinescu C, Novac AC, Caplar BD, Pop DM, Indirect Restorative Polymeric Dental Materials[Internet]. Dentistry. IntechOpen; 2024. Available from: <http://dx.doi.org/10.5772/intechopen.113089>
5. Ardelean LC, Rusu LC, Tigmeanu CV, Negrutiu ML, Pop D.M. - Advances in Dentures: Novel Polymeric Materials and Manufacturing Technologies Available from <http://dx.doi.org/10.5772/intechopen.113936>