

**Orthodontics Syllabus
State exam in orthodontics**

2018/2019

1. Prenatal development from orthodontic point of view.
2. Primary dentition. Formation, time of eruption, characteristics and development.
3. Mixed and permanent dentition. Formation, time of eruption, characteristics and development.
4. Craniofacial growth and development. /Evolutionary variations/.
5. Normal occlusal relationships in primary, mixed and permanent dentition.
6. Heredity and main etiological factors of dentofacial deformities during prenatal development.
7. Birth and nutrition as etiological factors.
8. Hormonal disorders and vitamin deficiencies- factors for malocclusions.
9. Bad habits as etiological factors for dentofacial deformities. Impaired nasal breathing and mouth breathing- factors for malocclusions.
10. Caries lesions and premature loss of primary and permanent teeth- factors for malocclusions.
11. Fractures and traumas in childhood, bone and TMJ disorders - factors for malocclusions.
12. Diagnostic Clinical methods in orthodontics
13. Biometrical analysis in orthodontics
14. Radiographic methods of examination in orthodontics.
15. Functional methods of examination in orthodontics.
16. Terminology and the norm concept in orthodontics.
17. Classification of malocclusions. Classification of Angle, Katz and Simon.
18. Primary prevention of orthodontic malocclusions during pregnancy. Prevention in infancy up to the age of 1.
19. Primary and secondary prevention of orthodontic malocclusions in preschool years (3-6- year old children).

20. Primary and secondary prevention of orthodontic malocclusions of school aged children (6-12 years).
21. Myofunctional therapy in orthodontics.
22. Orthodontic appliances- types, classification and application.
23. Main principles of action of the functional and mechanical appliances.
24. Interceptive appliance – types, classification and application.
25. Angle's appliances. Contemporary modifications.
26. General characteristics of Edgewise technique – principles and treatment phases. Basic concepts of orthodontic biomechanics.
27. Main characteristics of the extraoral orthodontic appliances – appliances design and principles of action.
28. Lingual plate - design, indications, modifications (with inclined and horizontal bite plane).
29. Schwarz appliance.
30. Monoblock and activator.
31. Fränkel functional appliances.
32. Klammt appliance (elastic open activator).
33. Balters appliances.
34. Tooth shape and size deviations. Clinical manifestation, diagnosis, prevention and treatment.
35. Deviations in the number of teeth. Impacted and persisting teeth. Clinical manifestation, diagnosis, prevention and treatment.
36. Deviations in tooth position. Clinical manifestation, diagnosis, prevention and treatment
37. Diastema and tremas. Clinical manifestation and diagnosis. Prevention and treatment.
38. Compression (endognathia). Clinical manifestation and diagnosis. Prevention and treatment.
39. Expansion. Clinical manifestation and diagnosis. Prevention and treatment
40. Protrusion. Clinical manifestation and diagnosis. Prevention and treatment.
41. Retrusion. Clinical manifestation and diagnosis. Prevention and treatment.
42. Prognathia. Clinical manifestation and diagnosis. Prevention and treatment.
43. Deckbiss. Clinical manifestation and diagnosis. Prevention and treatment.
44. Progenia. Clinical manifestation and diagnosis. Prevention and treatment.
45. Laterognathia. Clinical manifestation and diagnosis. Prevention and treatment.

46. Open bite. Clinical manifestation and diagnosis. Prevention and treatment.
47. Deep bite. Clinical manifestation and diagnosis. Prevention and treatment.
48. Cross bite in anterior and posterior segment. Clinical manifestation and diagnosis.
Prevention and treatment.
49. Combined orthodontic-prosthetic treatment.
50. Combined orthodontic-surgical treatment of severe malocclusions, clefts and syndroms.
51. Tissue changes under the effect of orthodontic appliances.
52. Relapse after orthodontic treatment - retention and retention appliances.
53. Indications for teeth extraction in orthodontic treatment. Hotz serial extraction.

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