

## Questions for the exam in the discipline

dentistry: **orthodontics**

**Year 5 fall semester**

**1.**

Activator

Clamp,

design features,

modifications.

Characteristics of the device according to the classification of F. Ya. Khoroshilkina and Yu. M.

Malygin, indications for use, mechanism of action.

**2.**

Analysis of the profile X-ray cephalogram. Practical significance.

**3.**

Anomalies of the dental arches in the vertical plane. Dental alveolar elongation and tooth alveolar shortening: etiology, clinic, diagnosis. Treatment during different periods of bite formation.

**4.**

Anomalies of the dental arches in the horizontal plane. Narrowing and widening of the dentition: etiology, clinic, diagnosis. Treatment during different periods of bite formation.

**5.**

Anomalies of the dental arches in the sagittal plane. Lengthening and shortening of dentition etiology, clinic, diagnosis. Treatment during different periods of bite formation.

**6.**

Anomalies of dentition and position of individual teeth. Classification. Etiology, clinic, diagnosis and treatment depending on the period of bite formation.

**7.**

The device

Derichswiler.

Characteristics

of the device.

Design features, indications for use.

**8.**

Biomechanics of orthodontic tooth movement

**9.**

Biomechanical concepts of tooth movement. Their practical significance in the prevention of possible complications.

**10.**

Extraoral orthodontic devices. Characteristics of devices according to the classification of F. Ya. Khoroshilkina and Yu. M. Malygin, varieties, indications for use.

**11.**

Temporary bite. Formation periods. Features of teeth, dental arches and their ratios. Risk factors for the occurrence and development of dental anomalies.

**12.**

Deep incisor occlusion and dysocclusion. Types, forms, severity, etiology, clinic, diagnosis.

**13.**

Deontology in the work of an orthodontist.

**14.**

Diagnostic examination of an orthodontic patient.

**15.**

Diastema, varieties. Trema. Etiology, clinic, diagnosis and treatment depending on the period of bite formation.

**16.**

Diastema. Etiology. Pathogenesis And Diagnosis. Treatment in different age periods of bite formation. Prevention.

**17.**

Distal occlusion (1st subclass of class II according to E. H. Angle classification). Kinds. Etiology, clinic, and diagnosis.

**18.**

Distal occlusion (2nd subclass of class II according to E. H. Angle). Etiology, clinic, and diagnosis.

**19.**

Additional research methods in orthodontics. Their importance for diagnosis, planning, and evaluation of treatment outcomes.

**20.**

Classification of dentoalveolar anomalies according to E. H. Angle, A. Ya. Katz, MGM State Medical University. International nomenclature of maxillofacial anomalies.

Their practical application, advantages and disadvantages.

**21.**

Classification of orthodontic devices according to F. Ya. Khoroshilkina and Yu. M. Malygin.

**22.**

Clinic, diagnosis and treatment of anomalies in the position of teeth in the vertical, transversal and sagittal directions.

**23.**

Clinical dynamic method of examination in orthodontics. Its role in the diagnosis and planning of treatment of maxillofacial anomalies.

**24.**

Complex method of treatment of dental anomalies. Absolute and relative orthodontic indications for tooth extraction.

**25.**

Macrodentia: types, etiology, clinic, diagnosis. Treatment during different periods of bite formation.

**26.**

Mesial occlusion. Forms and types. Etiology, clinic, and diagnosis.

**27.**

Methods of studying diagnostic models of jaws by A. Pont, G. Korkhaus, G. Their practical application.

**28.**

Methods of studying diagnostic models of jaws by Nance, H. G. Gerlach, P. Tonn. Their practical application.

**29.**

Methods of treatment of maxillofacial anomalies. Planning of complex treatment of occlusion anomalies depending on the periods of bite formation.



Mechanically operating apparatuses. List the types. Features of each of them.

**31.**

Mechanical hardware method of treatment in orthodontics.

**32.**

Microdentia: types, etiology, clinic, diagnosis. Treatment during different periods of bite formation.

**33.**

Myodynamic

equilibrium

in

the maxillofacial

Myotherapeutic and functional hardware methods of treatment in orthodontics.

**34.**

Myotherapy. Purpose, objectives, age-related indications for use in orthodontics. Rules and principles of the event. Reduced endurance of the masticatory and facial muscles. Dosage of exercise depending on the degree of decreased muscle endurance.



**35.**

Morphological and functional characteristics of permanent bite in children. Six keys of occlusion to Andrews.

**36.**

Morphological changes in the suture joints during expansion of the jaws and in the temporomandibular joints during sagittal movements of the lower jaw.

**37.**

Occlusal plane. The Spey curve.

**38.**

Orthodontic devices of combined action.

**39.**

Orthodontic diagnosis. Algorithm for making an orthodontic diagnosis.

**40.**

Orthopantomography. The method of studying the hands by A. Bjork. Computed tomography of the head. Their significance for diagnosis and planning of orthodontic treatment

**41.**

Basic elements of the bracket system. The principle of operation of the straight arc technique.

**42.**

Open incisor and lateral dysocclusions. Types, forms, and degrees of severity. Etiology, clinic, and diagnosis.

**43.**

Cross occlusion. Types, forms, etiology, diagnosis, clinic.

**44.**

Positioning braces.

**45.**

Permanent bite. Formation periods. Features of teeth, dental arches and their ratios. Risk factors for the occurrence and development of dental anomalies.

**46.**

Causes of relapses and ways to prevent them. Possible complications during and after orthodontic treatment. Prevention.

**47.**

Wire elements of removable orthodontic devices. Clasps: types, components, and purpose.

**48.**

Prevention and treatment of deep incisor dysocclusion depending on the period of bite formation.

**49.**

Prevention and treatment of distal occlusion depending on the period of bite formation.



Prevention and treatment of mesial occlusion depending on the period of bite formation.

**51.**

Prevention and treatment of open incisor and lateral dysocclusion depending on the period of bite formation.

**52.**

Prevention and treatment of cross occlusion depending on the period of bite formation.

**53.**

R. Frankel type I function controller. Characteristics of the device according to the classification of F. Ya. Khoroshilkina and Yu. M. Malygin, design features, indications for use. Constructive bite.

**54.**

R. Frankel II type function controller. Characteristics of the device according to the classification of F. Ya. Khoroshilkina and Yu. M. Malygin, design features, indications for use. Constructive bite.

**55.**

R. Frankel type III function controller. Characteristics of the device according to the classification of F. Ya. Khoroshilkina and Yu. M. Malygin, design features, indications for use. Constructive bite.

**56.**

Bone tissue remodeling Periods of active growth.

**57.**

Retention period in the treatment of dental anomalies and deformities.

The concept. Duration. Mobile devices.

**58.**

Mixed bite. Condition of teeth, dental arches, their ratio.

Risk factors for the occurrence and development of dental anomalies.

**59.**

Current understanding of the etiology of maxillofacial anomalies. The role of exo - and endogenous factors in the occurrence of maxillofacial anomalies.

**60.**

Standard functional orthodontic devices. Trainers. Vestibular plates, LM activators, etc. Indications for their use.

**61.**

Removable single-jawed orthodontic devices of functional action.

**62.**

Telerentgenography of the facial skeleton. Methods and rules for conducting the study, the amount of radiation exposure. Informative value of the method in orthodontics

**63.**

Close position of teeth. Vestibuloposition of permanent canines. Etiology, clinic, diagnosis and treatment depending on the period of bite formation.

**64.**

Tissue transformations occurring during orthodontic treatment in the median palatine suture. Prevention of possible complications.

**65.**

Removal of teeth for orthodontic indications. Justification and indications for the choice of tooth extraction of various groups.

**66.**

Factors that ensure the stability of dentition rows. Occlusal curves and their functional significance. The concept of dental, alveolar and basal arches.

**67.**

Physiological permanent bite. Kinds. Morphological and functional characteristics of orthognathic occlusion.

**68.**

Photography in orthodontics. Its practical significance.

**69.**

Characteristics of forces used in orthodontic treatment.

**70.**

Surgical methods in terms of complex orthodontic treatment.

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