

THE MINISTRY OF HEALTH OF UKRAINE
THE HIGHER STATE EDUCATIONAL INSTITUTION OF UKRAINE
"UKRAINIAN MEDICAL STOMATOLOGICAL ACADEMY"

Approved
at the meeting of orthodontics department
«____»_____20____y.
protocol №____by _____
Head of department_____ L.V. Smaglyuk

METHODICAL RECOMMENDATION
for independent work of students during the preparation
to practical lessons and on the lessons

Academic discipline	Orthodontics
Module № 1	Orthodontia. Diagnostic of dento-gnathic anomalies and deformations.
The theme of the lesson № 29	The control meaningful module №3
Course	III
Faculty	Preparation of foreign students

Poltava 2016

1. The relevance of the topic. Preventive orthodontics is a complex of measures aimed at preventing and eliminating the etiologic and pathogenic factors that lead to the development of dento-alveolar and facial anomalies. It facilitates the cooperation of orthodontists. Therefore, knowledge about organizational and therapeutic measures, which provide early identification and elimination of risk factors for the development of dento-alveolar and facial anomalies, is important in the training of a dentist-orthodontist.

Relevance of the topic due to know need of all methods of orthodontic treatment to ensure complete care for patients and a complete treatment plan. To prevent the development of malocclusions, and treatment of already formed anomalies are applied several methods of treatment in orthodontics: apparatus, biological, surgical, prosthetic, combined method of treatment that combines several methods. Early diagnosis of dento-alveolar anomalies and deformations and their timely treatment warn of malocclusion prevention. In connection with local and general irregularities in the deformation of the bite it is necessary to use complexes of therapeutic interventions according to age of patient. They should include treatment methods to address the reasons for the development of morphological, functional and aesthetic disturbances in dentition. It is to this refers to biological or physiological method of treatment.

Usually the cause of malocclusion is the abnormal function of muscles of the maxillofacial region. Therefore, in addition to appliance treatment orthodontist has to appoint to child complex of exercises that help normalize the myodynamic balance, accelerate orthodontic treatment and help to achieve optimal result and to avoid relapse of malocclusion.

Postural and functional anomalies of oro-facial musculature are important etiologic factors in malocclusions. Very important place in orthodontic treatment is occupied by the myogymnastics. It has been used in dentistry since the early 19th century. However, scientific justification for the technique was given just over 50 years ago. This method is effective in the treatment of dysfunction of masticatory, facial muscles and temporomandibular joints (TMJ). With the help of special exercises it is possible to achieve correction of malocclusion.

Instrumental method is the main method among orthodontic treatments and is based on the purposeful redistribution of functional and mechanical load on teeth and other areas of dento-alveolar-facial area (the periodontium, the muscles, the alveolar processes of the jaw bones and temporomandibular joint). In Ukraine, the instrumental method for the treatment of malocclusion with a help of different designs of orthodontical appliances is the most common and affordable for wide segments of the population (child, adolescent and adult).

The main purpose of orthodontic measures is the establishment of a new stable form of occlusion, which corresponds to the morphological, functional and aesthetic requirements. Create a new form of occlusion occurs due to the influence of applied orthodontic appliances on the periodontium of the moving teeth, the jaw bone and temporomandibular joint. Therefore, knowledge of changes in the above mentioned structures under the action of orthodontic appliances is important in the preparation of the orthodontist.

Surgical treatment methods may be used both independently and in combination with an instrument method for the treatment of a dento-gnathic pathology. The main factor, accelerating bony tissue rearrangement, is the intensity of enzymatic processes that develop after bone affection.

At sharply evident deformations or anomalies of dental arches and jaws development, and occlusion violation it is not always possible to cure the patient by means of orthodontic methods alone. In such cases a surgical method may be an additional or leading one, which allows achieving persistent results.

Methods of acceleration of orthodontic treatment showing significant reduction in treatment time compared to conventional methods. Also noticeably better results than using traditional approaches. Such methods greatly affects the condition of the bones, therefore the use of surgical, biological and prosthetic methods leads to more effective and favorable outcome of treatment.

2. Specific objectives:

To determine the features of orthodontic care organization;

To know the features of the doctor-orthodontist work organization;

To know the features of the orthodontic dental laboratory organization;

To know the features of the orthodontic prophylactic work organization;

To know the features of the orthodontic dispensary organization;

To know the features of the orthodontic dispensary groups.

To know methods that used for treatment of orthodontic patients;

To define the apparatus method of treatment;

To know the types of biological treatment;

To know the types of surgical treatments;

To know the types of prosthetic treatments;

To define the combined method of treatment.

To know the types of biological treatment;

To know the peculiarities of maxillofacial region development in different age periods;

To know the anatomical and physiological characteristics of facial and masticatory muscles;

To identify indications for physiological capacity using;

To determine the indications for massage using;

To know dosage of the capacity;

To assign set of myogymnastics.

To explain principle of myofunctional balance.

To know classification of bad habits by Okushko.

To know anatomical structure of muscles of the maxillofacial region, the movements of lower jaw with muscle contraction.

To explain the complex of exercises for the muscles of maxillofacial area with without appliances.

To know the orthodontic appliances which are used for myogymnastic exercises.

To explain the complex of exercises for the muscles of maxillofacial area with appliances.

To know anatomical structure of muscles of the maxillofacial region, the movements of lower jaw with muscle contraction.

To explain the complex of exercises for the muscles of maxillofacial area with appliances and without them.

To explain the complex of exercises for the muscles of maxillofacial area for mesial bite treatment.

To explain the complex of exercises for the muscles of maxillofacial area for distal bite treatment.

To explain the complex of exercises for the muscles of maxillofacial area for vertical malocclusion treatment.

To explain the complex of exercises for the muscles of maxillofacial area for cross bite treatment.

To explain the basic terms and concepts of the topic.

To define the appliance method of treatment.

To classify the appliance according to the mechanism of action.

To classify the appliance according place of action.

To know the types of forces used for orthodontic treatment.

To classify orthodontic appliances according to the type of constructions.

To classify orthodontic appliances according to the type of fixation.

To classify orthodontic appliances according to the place of location.

To classify orthodontic appliances according to the purpose.

To define the structural elements of orthodontic appliances.

To explain the period is divided into orthodontic treatment.

To define the age indications for the use of orthodontic appliances.

To explain features of treatment of dento-alveolar anomalies in the formed occlusion.

To know what period orthodontic treatment is divided into.

To explain methods of treatment of dento-facial anomalies (surgical, physical, pharmacological) in the formed occlusion.

To explain an integrated approach in the treatment of dento-alveolar anomalies in the formed occlusion as a way of optimizing orthodontic treatment of adults.

To explain relapse during orthodontic treatment of anomalies of dentition in the bite.

To explain growth modification appliances.

To explain the types of forces used in orthodontics.

Have an understanding of modern methods of surgical treatment of orthodontic patients

To study the nature of surgical techniques used in the treatment of orthodontic pathology

Having a clear idea of the indications for surgical treatment.

To explain the methods used for the treatment of orthodontic patients.

Know the main methods of acceleration of orthodontic treatment.

Know the types of biological methods to accelerate orthodontic treatment.

Know the types of surgical techniques to accelerate orthodontic treatment.

Know the types of prosthetic methods to accelerate orthodontic treatment.

To define combined methods of treatment.

3. Basic knowledge's, abilities, skills necessary for studying the topic (interdisciplinary integration)

Name of previous disciplines	Skills
1. Prevention of dental diseases	To determine the prophylactic work organization. To determine the dispensary organization.
2. Children dentistry	To write the dental formula (clinical, anatomical, WHO).
3. Normal physiology	To determine the timing of muscle contractions, coordination of certain muscle groups work.
4. Anatomy	Features of the facial bones structure. The structure of the TMJ in different age periods. Origin of maxillo-facial region, tongue, soft palate, pharynx and their function.
5. Normal physiology	Sequence of pulses in muscle contraction.
6. Diseases of the nervous	Innervations of muscles.
7. Medical psychology	Principles of information learning in childhood.
8. ENT disease	Diseases of upper respiratory tract (adenoid vegetation, curvature of the nasal septum ...)
9. Children's stomatology	Dental growth and development of the facial skeleton and muscles in the age aspect.
10. Physiotherapy	Physiotherapy methods used for the biological method.
11. Orthodontics	Know the dysfunction of what muscles accompanies malocclusions in sagittal, vertical and transversal planes.
12. Biophysics, informatics and medical equipment	To determine the appropriate forces to move individual or groups of teeth. To consider the direction of the force that develops active elements of orthodontic appliance

4. Tasks for independent work during preparation to the lesson and on the lesson

4.1. A list of the main terms, parameters, characteristics that need to learn by the student during the preparation to the lesson:

Terms	Definition
1. Dispensary	is a method of population health care that includes the appropriate range of health preventive and social events with the aim of preserving and improving the health of the troops, subject to examination.
2. Prophylactic	from Ancient Greek πρό (pró, "before") + φύλαξις (phúlaxis, a watching, guarding") – a medicine which preserves or defends against disease; a preventive.

3. Norm	(lat. norma – "rule") is a regulatory rule that specifies the boundaries of its application; corresponds to something typical or usual, that occurs in a natural way and does not cause health problems.
4. Anomaly	(gr. abnormality) abnormality, an aberration from the general pattern.
5. Deformation	(from lat. deformatio "distortion") – change the size and shape of a rigid body under the action of external forces or other effects.
6. The apparatus method of treatment	The providing method of malocclusions treatment by using special apparatus – orthodontic appliances.
7. The methods of orthodontic treatment	Apparatus, biological, surgical, prosthetic, combined.
8. The combined method of treatment	This method combines a combination of any of the above methods.
9. The biological method of treatment	Method of treatment based on the ability of the organism to self-regulation.
10. The myogymnastic	The method of physiotherapy, which is used in orthodontics for the prevention and treatment of malocclusion.
11. The massage	(from French – masser – grinding) – a set of mechanical and reflex methods effects on tissues and organs in the form of friction, pressure, vibration, carried out directly on the surface of the human body.
12. The appliance method of treatment	The method of treatment of malocclusion by using special devices – orthodontic appliances.
13. Preventive orthodontic appliances	Appliances designed for prevention of development of dentoalveolar anomalies and deformations. Their action is directed on eliminating the factors that lead to the development of anomalies and bite deformation (bad habits, abnormal functions, etc.) and normalization of the development of the dento-maxillofacial region.
14. Myofunctional balance	Balance between muscles that surround dental arches (m. orbicularis oris, m. buccalis, muscles of tongue)
15. Standard preventive appliances	Factory made preventive appliances.
16. Individually preventive appliances	Technical laboratory made preventive appliances individually to certain patient.
17. The appliance method of treatment	The method of treatment of malocclusion by using special devices – orthodontic appliances.
18. Preventive orthodontic appliances	Appliances designed for prevention of development of dentoalveolar anomalies and deformations. Their action is directed on eliminating the factors that lead to the

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21. Individually preventive appliances	Technical laboratory made preventive appliances individually to certain patient.
22. The appliance method of treatment	The method of treatment of malocclusion by using special devices – orthodontic appliances.
23. Structural elements of appliance	The elements that comprise the design of the appliance, which are divided into 3 groups (fixing, operating, or regulating, supporting)
24. Physiological changes in dentition under the influence of orthodontic appliances	<ul style="list-style-type: none"> -the mechanism of addiction to orthodontic devices and dentures; -the changing nature of mastication -change in the qualitative composition of saliva; - adaptation to orthodontic devices
25. Biomorphological changes in dentition under the influence of orthodontic appliances	<ul style="list-style-type: none"> -morphological changes of the periodontal; -morphological changes of the suture connection; -morphological changes of the TMJ; -reactive changes of the mucous membrane; -general pattern of morphological adjustment.
26. Support point	The part of the dentition, which strengthen the unit. Choosing the point of support must always take into account the magnitude of the force developed by the appliance, and the resistance of the moving teeth.
27. Orthognathic surgeries	Corrects dento-facial disproportions involving the maxilla, the mandible or both in all three planes of space. If neither growth modification procedures nor orthodontic camouflage provides solution.
28. Bone resorption	The process by which osteoclasts break down the tissue in bones and release the minerals, resulting in a transfer of calcium from bone tissue to the blood.
29. Bone apposition	The process by which osteoblasts built up the tissue in bones.
30. Mechanisms of osteoreparation processes	Include the following categories of measures: medicinal therapy, physiotherapy (massage, vacuum, application of different types of currents, magnetic and ultrasonic fields), surgical interventions in the area of transferred teeth.

31. Phonophoresis	Is introduction of medicinal substances into tissue with the help of ultrasound.
32. Magnetotherapy	Is the application of an alternating magnetic field of low frequency with a therapeutic purpose.
33. Vibration stimulation	This is the applied method of curative low-frequency vibrating mechanical oscillation.
34. Electrofulguration (carbonization)	In a localized zone of affection provokes dry coagulation necrosis of tissues.

4.2. Theoretical questions to the lesson:

1. The definition of "norm" in orthodontics.
2. The definition of the terms "abnormality" and "deformity".
3. The definition of "prophylactic".
4. The definition of "dispensary".
5. How many orthodontic dispensary groups do you know?
6. The definition of the first dispensary groups.
7. The definition of the second dispensary groups.
8. The definition of the third dispensary groups.
9. The definition of the fourth dispensary groups.
10. To determine the features of orthodontic care organization.
11. To determine the features of the doctor-orthodontist work organization.
12. To determine the features of the orthodontic dental laboratory organization.
13. The methods used for treatment of orthodontic patients;
14. Determination of apparatus treatment method;
15. Types of biological treatment method;
16. Types of surgical treatment method;
17. Types of prosthetic treatment method;
18. Determination of combined treatment method.
19. The biological method of treatment.
20. The concept of "self-regulation".
21. Physiological capacity, its purpose.
22. Types of massage, purpose, methodology.
23. Physiotherapeutic methods of influence, purpose, techniques.
24. Anatomical and functional peculiarities of the masticatory and facial muscles.
25. Myogymnastic complexes of exercises for each kind of anomalies.
26. Devices for myogymnastic.
27. Types of physiotherapeutic influences and their purpose.
28. Appliance method of treatment.
29. Periods of orthodontic treatment.
30. Types of appliances used for orthodontic treatment
31. Principles of elements of orthodontic appliances, used for treatment
32. Types of forces, used for orthodontic treatment
33. Age indications for using of orthodontic appliances.
35. Determination of appliance methods of treatment and indications for its using.

36. Periods of orthodontic treatment according to the age.
37. Types of appliances, used for orthodontic treatment according to the age.
38. Types of forces, used for orthodontic treatment according to the age.
39. Age indications for using of orthodontic appliances according.
40. Characterization of mechanically acting forces.
41. Elements of orthodontic appliances of mechanical action.
42. Characteristics of the functional forces.
43. Functional-guide elements.
44. Functional operating elements.
45. Characteristics of forces that orthodontists use when moving teeth (Schwarz).
46. The changes that occur in the jaws during horizontal movement of individual or groups of teeth.
47. The changes that occur in the jaws with vertical movement of individual or groups of teeth.
48. The changes that occur in the jaws when the rotation of the tooth around its axis.
49. Changes in the TMJ during orthodontic treatment.
50. Theories of periodontal tissues reconstructing.
51. What are surgical methods used for in orthodontics and how are they classified?
52. How many types of the tongue frenulum does Khoroshilkina differentiate?
53. What underlies compact osteotomy?
54. What are the types of compact osteotomy?
55. What is the essence of linear compact osteotomy?
56. Tunnel compact osteotomy, its characteristic features.
57. What are osteotomy and osteoectomy?
58. What is the essence of Hotz' method?
59. Methods used for the treatment of orthodontic patients.
60. Methods of acceleration of orthodontic treatment.
61. Biological methods to accelerate orthodontic treatment.
62. Surgical techniques to accelerate orthodontic treatment.
63. Prosthetic methods to accelerate orthodontic treatment.

4.3. Practical works (task) which are executed at the lesson:

1. To identify the existing malocclusion;
2. To identify the dispensary groups for the existing patient;
3. To make a plan of orthodontic clinic according to Ukrainian orthodontic care organization.
4. To make a graph of orthodontic dispensary groups.
5. To make a complex of miogymnastic exercises with using different biological methods according to the age of patient.
6. To indicate the surgical methods of treatment according to the age of patient and existing malocclusion.
7. To determine stages of dento-jaw region destruction in existing patient.
8. To indicate prosthetic appliances for deferent stages of dento-jaw region

destruction.

9. To use the mixed methods of treatment according to the age of patient in existing patient.
10. To make a complex of myogymnastic exercises with using different biological methods according to the age of patient.
11. To master the technique of massage (finger, vibration).
12. To determine needed stages of physiological capacity.
13. To make a complex of myogymnastic exercises with using different appliances.
14. To learn the determination of appliance methods of treatment and indications for its using.
15. To learn the periods of orthodontic treatment.
16. To learn the types of appliances, used for orthodontic treatment.
17. To learn the types of forces, used for orthodontic treatment.
18. To learn the age indications for using of orthodontic appliances.
19. To learn the periods of orthodontic treatment according to the age.
20. To learn the types of appliances, used for orthodontic treatment according to the age.
21. To learn the types of forces, used for orthodontic treatment according to the age.
22. To learn the age indications for using of orthodontic appliances according to the age.
23. The determination of the type of tooth movement.
24. To determine the source and magnitude of the force orthodontic appliance.

The content of the topic:

Methodical recommendation 18-28.

Materials for self-control:

1. By Zwolinski to conduct orthodontic examination you need the following number of doctors-orthodontists posts per 10,000 child of population:

- 1,7
- 1,0
- 1,5
- 1,25
- 1.75

2. By Treiman for orthodontic clinical examinations will require a number of doctors-orthodontists posts per 10,000 child of population:

- 3,6
- 1,7
- 1,0
- 2,0
- 2,6

3. Measures of orthodontic examination is carried out:

- five stages
- two stages
- three stages
- four stages
- six stages

4. The first stage of prophylactically medical examination is:
registration of patients

- epidemiological studies
- specialized inspection
- formation of studying groups
- monitoring of patients
- 5. The second stage of prophylactically medical examination is:
 - specialized inspection
 - registration of patients
 - epidemiological studies
 - formation of studying groups
 - monitoring of patients
- 6. The third stage of prophylactically clinical examination is:
 - formation of studying groups
 - registration of patients
 - epidemiological studies
 - specialized inspection
 - monitoring of patients
- 7. The fourth stage of prophylactically clinical examination is:
 - monitoring of patients
 - registration of patients
 - epidemiological studies
 - specialized inspection
 - formation of studying groups
- 8. The fifth stage of prophylactically medical examination is:
 - determination of prophylactic medical examination efficiency
 - registration of patients
 - specialized inspection
 - formation of study groups
 - monitoring of patients
- 9. Prophylactically medical examination not carried out in the following groups of children:
 - children with chronic diseases
 - children of the first year of life
 - children of preschool age
 - students under the age of 15 years
 - newborn
- 10. The first group of health include:
 - healthy children with no deviations according to all signs of health
 - children with risk factors for chronic disease
 - children with chronic pathology in the state of decompensation
 - children with chronic pathology in the state of compensation
 - children with chronic pathology in the state of subcompensation
- 11. The second group of health include:
 - children with a risk factors for chronic disease
 - children with chronic pathology in the state of compensation
 - healthy children with no deviations according to all indications of health
 - children with chronic pathology in the state of decompensation
 - children with chronic pathology in the state of subcompensation
- 12. Khoroshilkina offers the following number of dispensary observation groups:
 - four
 - two
 - three
 - five
 - six

13. Child dental examination in the first year of life is carried out:
1 time per 6 months
each month
every 3 months
at the end of the first year of life
inspection of a dentist not required
14. Children dentist examination under the age of 3 years:
1 time per 6 months
each month
every 3 months
at the end of the first year of life
inspection of a dentist not required
15. The system of preventive care for children in outpatient condition does not include such events as:
comprehensive medical examination and rehabilitation of the oral cavity
active dynamic medical supervision over the development of the child
comprehensive medical examination of children by medical specialists
anti-epidemic measures and preventive inoculations
sanitary-educational work with the child's family
16. Operational readiness to malocclusion development does not include:
early restructuring of the swallowing type
violations of the functions (chewing, swallowing, breathing, speech)
children's bad habits
early removal of deciduous teeth
late eruption of the temporary teeth after 4 years
17. The structure of the dental care provision for children is divided into the following levels:
3 levels
2 levels
4 levels
5 levels
6 levels
18. Preventive dental care is provided in institutions:
dental office of kindergarten
the advisory-diagnostic center
the clinics of higher educational establishments
clinical research institutes
third level of accreditation clinics
19. Specialized dental care is provided in institutions:
children's dental clinics
dental office of kindergarten
the advisory-diagnostic center
the clinics of higher educational establishments
third level of accreditation clinics
20. Preventive care is carried out by:
pediatric dentist
orthodontist
periodontist
dental surgeon
pediatric
21. Children aged 3-6 years old must be examined by a dentist:
1 time per year
every 3 months

- 1 every 6 months
- 1 time per quarter
- 1 once a year
- 22. Children aged 3-6 years old must be checked by an orthodontist:
 - 1 time per year
 - each month
 - every 3 months
 - 1 every 6 months
 - 1 once a quarter
- 23. Children aged 6 - 9 years needs to be examined by a dentist:
 - every 6 months
 - 1 time per year
 - every 3 months
 - 1 time per quarter
 - 1 once a year
- 24. Children ages 6 - 9 years old must be examined by the orthodontist:
 - 1 time per year
 - each month
 - every 3 months
 - 1 every 6 months
 - 1 once a quarter
- 25. Children 9 to 12 years of age must be examined by a dentist:
 - every 6 months
 - each month
 - 1 time per year
 - every 3 months
 - 1 once a quarter
- 26. Children 9 to 12 years of age must be examined by an orthodontist:
 - 1 time per year
 - each month
 - every 3 months
 - 1 every 6 months
 - 1 once a quarter
- 27. Children 12 to 15 years should be examined by a dentist:
 - 1 time per year
 - each month
 - every 3 months
 - every 6 months
 - once a quarter
- 25. Children 12 to 15 years should be examined by an orthodontist:
 - 1 time per year
 - each month
 - every 3 months
 - every 6 months
 - every 2 years
- 26. As the head of orthodontic department has the following number of posts of doctors-orthodontists:
 - 5-6
 - 6-7
 - 3-4
 - 2-3
 - 1-2
- 27. Rates of dental technicians to set the rates of doctors-orthodontists in the ratio:

1:1
1:2
1:3
1:4
1:1,5

28. 10,000 children in the city, there are the following number of doctors-orthodontists needed:

1
0,45
0,5
1,5
2

29. In the orthodontic department for each workplace of the orthodontist is not less than:

7 m²
2 m²
3 m²
5 m²
9 m²

30. To work as an orthodontist the basic legal documentation is:

card of dental patient
page of daily accounting
summary statement
attire in the laboratory
referral for orthodontic treatment

31. Average time for one orthodontics patient is:

24 min.
10 min.
15 min.
20 min.
5 min.

32. The average number of patients per one working day at five-day working week is:

15 visits
25 visits
20 visits
40 visits
12 visits

33. For the correction of malocclusions in children of preschool age most often used:

biological method
combined method
instrumental method
prosthetic method
surgical method

34. The purpose of the myogymnastics lesson introductory stage is:

training of body to increasing loads
performing to special exercises aimed at normalizing the functions of separate organs and systems
gradual relaxation of the body, reduced stress, normalization of respiratory function
using of maximum muscle tension
normalization of the swallowing and respiration functions

35. Disks by Fryel used for training:

orbicularis oris muscle
pharyngeal muscles
muscles of the tongue

- muscle that elevate the lower jaw
- muscles that pushing the lower jaw forward
- 36. Activator by Dass used for training
 - orbicularis oris muscle
 - pharyngeal muscles
 - muscles of the tongue
 - muscle that elevate the lower jaw
 - muscles that pushing the lower jaw forward
- 37. Purpose of the final corrective gymnastics lessons is:
 - gradual relaxation of the body, reduce the load, normalization of respiratory function
 - training the body to increasing loads
 - performing of special exercises aimed at normalizing the functions of separate organs and systems
 - using of maximum muscle tension
 - normalization of the swallowing and respiration functions
- 38. Vacuum therapy is used:
 - in the treatment of dental arches narrowing, for a favorable influence
 - to stimulate a muscles tone
 - to normalize of the tongue position in the oral cavity
 - to restore swallowing function
 - to stimulate blood flow
- 39. The appliances of mechanical action include:
 - appliance on the upper jaw with vestibular arch and a screw
 - appliance on the upper jaw with vestibular arch and an inclined plane
 - appliance on the upper jaw with a screw and occlusal planes
 - appliance on the upper jaw with springs and biting plane
 - appliance on the lower jaw with a screw and bilateral occlusal planes
- 40. If necessary, separation of occlusion in lateral areas with preservation of the lower anterior teeth crowns height design of the appliance, you must make:
 - frontal biting plane with imprints
 - smooth occlusal planes
 - inclined biting plane
 - occlusal plane with prints on front teeth
 - inclined plane
- 41. Frontal biting plane is designed for:
 - increasing of pressure on the teeth and alveolar process in the anterior area and separation of occlusion in lateral areas
 - increasing of pressure on the teeth and alveolar process in the lateral areas and retardation of growth in the frontal area
 - stimulating of jaws apical bases development in transversalen direction
 - delay of jaws apical bases development in transversalen direction
 - stimulating of jaws apical bases development in the sagittal direction
- 42. The buccal shields are used for:
 - stimulating of jaws apical bases development in transversalen direction
 - increasing of pressure on the teeth and alveolar process in the anterior area and separation of occlusion in lateral areas
 - increase the pressure on the teeth and alveolar process in the lateral areas and separation of occlusion in the frontal area
 - delay of the apical bases of the jaws development in transversalen direction
 - increasing of the pressure on the teeth and alveolar process in the sagittal plane
- 43. The distal displacement of the mandible in the treatment of prognathic occlusion by Frankel possible:
 - 5 mm

from 2 to 5 mm

from 7 to 10 mm

from 2 to 4 mm

from 1 to 5 mm

44. Appliances with occlusal biting planes correcting the occlusion in:

vertical plane

horizontal plane

sagittal plane

orbital plane

no correct answer

45. In appliance by Brukl'-Reichenbach design is:

appliance for the lower jaw with inclined biting plane and vestibular arch

appliance for the upper jaw with inclined biting plane and vestibular arch

appliance on the upper and lower jaw

frame-block designed appliance

appliance for the upper jaw with occlusal biting plane

46. Orthodontic appliances that called monoblock designed for:

acting on both jaws

acting on the upper jaw

acting on the lower jaw

acting on palatal suture

acting on the threshold of the oral cavity

47. Orthodontic appliances designed Andersen-Haupple represents:

base plates for the upper and lower jaws connected into a single appliance at the line of occlusion

appliances with a vestibular arch, U-shaped pusher fan-shaped screw

appliance on the lower jaw with vestibular arch, with a screw and an inclined plane

appliance on the upper jaw with occlusal biting plane, loops by Rudolph and fan-shaped screw

appliance on the lower jaw with occlusal biting plane and loops of Rudolph

48. The purpose of the crown by Katz is:

treatment appliance

preventive appliance

retention appliance

treatment and prevention

diagnostic

49. Appliance by Korkhaus used for treat the following malocclusions:

diastema

vestibular position of teeth

palatal position of teeth

crowding

oral position of teeth

50. The appliances by Pozdnyakova represents by following elements:

crown on the canine and welded crown on the second premolar and the first molar with a ravine or hooks to the rod

crowns on the canines with the ravine or hooks to the rod

crowns on first permanent molars with a ravine or hooks to the rod

crown on the canine and welded crown on the second premolar and the first premolar with a ravine or hooks to the rod

crowns of the incisor and the first molar with a ravine or hooks to pull

51. The appliance for determining of the bracket location on the tooth is called:

positioner

simmetry

caliper
anthropometr
rhinopneumometr

52. The indication for surgical correction of the tongue frenulum with a violation of lingual-palatal sounds pronunciation at the age use:

3-7 years
up to 3 years
7-9 years
after 9 years
in 2 years

53. Surgical correction of the upper lip frenulum is advantageously carried out at the age of:

6-8 years
up to 1 year
1-3 years
3-6 years
after 8 years

54. Absolutely indication for plastic of upper lip frenulum is:

violation of the lips closing with free nasal breathing
diastema
the existence of anomalies of frenulum of the upper lip
missing of central incisors
multiple spacing

55. Abnormality of the lower lip frenulum attachment often:

the local periodontitis
to the defect of speech
the flattening of the lower jaw frontal segment
violation of the jaws relationship
to the fan-shaped divergence of the teeth

56. Plastic of the oral cavity vestibule at the age use:

7-9 years
up to 3 years
3-7 years
9-12 years
12-15 years

57. While what of these defects may need newborn emergency orthopedic care:

cleft of the palate
malformation of the upper lip
anomaly frenulum of the tongue
cleft of the lip
fistula on the lip

58. Direct indication for extraction of the supernumerary tooth is:

delayed eruption or dystopia of the complete tooth
definition of availability by radiography
the mismatch in the shape of supernumerary tooth crown to group affiliation
the mismatch of degree of formation of the tooth the age of the child
premature complete eruption of milk tooth

59. In which case, plastic surgery of the upper lip frenulum with compactosteotomy use:

when the diastema bigger than 2 mm and divergence of the roots
always in the presence of diastema
when expressed fibrous strands
the diastemas in the upper and lower jaws
in the early stage of the diastema formation

- is:
60. The most rational indication for plastic surgery of the oral cavity vestibule in children
 - the presence of gingivitis and small vestibule of the oral cavity
 - a small vestibule of the oral cavity as a risk factor for pathology
 - short frenulum of the lower lip
 - presence of malocclusion
 - at the children are not indicated
 61. The indication for sequential extraction of teeth by Hotz is:
 - discrepancy between tooth size and jaw
 - narrowing of the dentition
 - shortening of the dentition
 - true progeny
 - presence of supernumerary teeth
 62. Decisive in the determination of orthodontic indications for extraction of teeth is:
 - narrowing of apical basis
 - magnitude of the space lack
 - changing of the dentition shape
 - degree of the dentition narrowing
 - reduce of the anterior segment length
 63. Removable dentures in the permanent dentition to be replaced:
 - 2-3 years
 - in 1-1,5 years
 - after 6 months
 - after 8-10 months
 - each year
 64. In the case of an early loss of the first temporary molar it is necessary to use:
 - fixed prosthesis-maintainer
 - complete removable dentures
 - bridges
 - partial removable dentures
 - partial removable appliances
 65. Sample preparation of temporary canines' cusps without malocclusion is:
 - preventive method of treatment
 - prosthetic method of treatment
 - biological method of treatment
 - combined methods of treatment
 - apparatus method of treatment
 66. Corrective myogymnastics refers to:
 - biological method of treatment
 - prosthetic method of treatment
 - combined methods of treatment
 - apparatus method of treatment
 - surgical method of treatment
 67. Prosthetics in childhood refers to:
 - prosthetic method of treatment
 - apparatus method of treatment
 - biological method of treatment
 - combined methods of treatment
 - preventive method of treatment
 68. The main method of treatment for nasal breathing training is:
 - breathing exercises
 - massage of perioral region
 - balneotherapy

hardware treatment
electrical stimulation

69. The indications for the vestibular plate for myotherapy use in children with temporary occlusion are:

vestibular inclination of the teeth
violations the lips closing
the narrowing of the dentition
unconnecting of anterior teeth
oral inclination of the teeth

70. Gymnastic exercises for the muscles of the maxillofacial region as a method of orthodontic prophylaxis and treatment have been proposed:

Rogers
Khoroshilkina
Angle
Schwartz
Pereverzev

71. Disks by Friel used for training of:

orbicularis oris muscles
pharyngeal muscles
muscles of the tongue
muscle that elevate the lower jaw
muscles, pushing the lower jaw forward

72. Activator by Dass used for training of:

orbicularis oris muscles
pharyngeal muscles
muscles of the tongue
muscle that elevate the lower jaw
muscles, pushing the lower jaw forward

73. For the correction of dentofacial anomalies in children of preschool age most often used:

biological method
instrumental method
combined method of treatment
prosthetic method
surgical technique

74. Vibratory massage is indicated for:

accelerate orthodontic treatment
normalization of swallowing function
eliminate of bad habits
normalization of respiratory function
retention of treatment results

75. To train what muscle equilibrators are used?

orbicularis oris muscles
pharyngeal muscles
muscles of the tongue
muscle that elevate the lower jaw
muscles, pushing the lower jaw forward

76. The windmill is intended for the development and training:

orbicularis oris muscles
pharyngeal muscles
muscles of the tongue
muscle that elevate the lower jaw
muscles, pushing the lower jaw forward

77. The table-machine is used with the aim of development and training of:
 orbicularis oris muscles and respiratory muscles
 pharyngeal muscles
 muscles of the tongue
 muscle that elevate the lower jaw
 muscles, pushing the lower jaw forward
78. Exercise "sticks biting" trains the muscles:
 muscle that elevate the lower jaw
 retractors
 pharyngeal muscles
 muscles of the tongue
 muscles, pushing the lower jaw forward
79. The purpose of the myogymnastics lesson introductory stage is:
 training of body to increasing loads
 performing to special exercises aimed at normalizing the functions of separate organs and systems
 gradual relaxation of the body, reduced stress, normalization of respiratory function
 using of maximum muscle tension
 normalization of the swallowing and respiration functions
80. Purpose of the primary corrective gymnastics lessons is:
 performing of special exercises aimed at normalizing of the functions
 training the body to increasing loads
 the gradual relaxation of the body, normalization of respiratory function
 gradual reduction of loading of separate organs and systems
 the gradual relaxation of the body, normalization of chewing function
81. Purpose of the final corrective gymnastics lessons is:
 gradual relaxation of the body, reduce the load, normalization of respiratory function
 training the body to increasing loads
 performing of special exercises aimed at normalizing the functions of separate organs and systems
 using of maximum muscle tension
 normalization of the swallowing and respiration functions
82. When indicated the hand massage?
 a small turn around a tooth axis
 with narrowing of dental arches
 with the aim of nasal breathing restoring
 for the normalization of swallowing function
 to normalize the function of speech
83. Manual massage is not indicated for:
 pathology of temporomandibular joint
 pathology of attachment of soft tissues
 small turn of a tooth around the axis
 oral inclination of the tooth, subject to the availability of space in the dental arch
 in the absence of diastema and trema during the period of temporary occlusion
84. Vacuum therapy is used:
 in the treatment of dental arches narrowing
 to stimulate the muscle tone
 to normalize the position of the tongue in the oral cavity
 to restore the swallowing function
 to normalize the lips tonus
85. When flattening of the frontal section of the upper jaw, the numbers of vacuum therapy courses are:
 3-4

5-7

1-2

7-8

10

86. When narrowing of the upper jaw, the numbers of vacuum therapy courses are:

4-5

3-4

2-3

5-6

9

87. Exercises with the cotton rolls used to normalize the function:

the lips closing

breathing

swallowing

chewing

speech

88. To labialis the apparatus does not include:

appliance by Shonher

stabilizer by Noah

activator by Dass

appliance by Rogers

disk by Friel

89. For the development of the orbicularis oris muscles do not use the exercise:

with cotton rolls

with a strip of paper

with a feather

with a buttons

whistling

90. Exercise with the metal disk does not contribute to:

the normalization of speech function

moving of the mandible forward

the muscles perioral region

training neck and chest muscles

nose breathing

91. The exercise of "closing of teeth in central occlusion" promotes training of muscles:

the muscles that elevate the lower jaw

the muscles that lower the mandible

the muscles that push the lower jaw

muscle retractors

the muscles that displace the lower jaw to the side

92. To intrabuccal apparatus does not apply:

activator by Dass

vestibular plate by Hotz

vestibular plate by Songer

vestibular plate by Kraus

vestibular plate by Schwartz

93. Biological method does not include:

electroodontodiagnostics

various types of massage

myogymnastics

electrical stimulation

physiological stress

94. Physiological load is recommended for:

normal development of the masticatory apparatus
 eliminate of sucking bad habits
 normalization of swallowing function
 accelerate of orthodontic treatment
 normalization of speech function
 95. In orthodontic practice do not use type of massage:
 relaxing
 vacuum
 ultrasonic
 vibrating
 manual
 95. Electrical stimulation in orthodontics used for:
 acceleration of impacted teeth eruption
 eliminate of bad habits
 retention of the results achieved with orthodontic treatment
 normalization of swallowing function
 the normalization of speech function
 96. What indication for hydromassage?
 for the normalization of swallowing function
 to normalize the function of speech
 for normalization of respiratory function
 the normalization of the movement of the tongue in the palatine
 to normalize the function of mastication
 97. When the distal occlusion is necessary to train the muscles:
 the muscles that displace the lower jaw forward and orbicularis oris
 the muscles that lift the lower jaw
 the muscles that lower the mandible
 the muscles that displace the lower jaw to the side
 the muscles involved in the act of swallowing
 98. Electromyostimulation is used for:
 normalize the function of muscles of the maxillofacial region
 eliminate of bad habits
 for the correction of the soft tissue topography
 to expand the dental arches
 for the expansion of the basal arch
 99. Myoelectrostimulation is indicated for:
 the treatment of deep bite
 the treatment of TMJ
 during the expansion of the dental arches
 eliminate of bad habits
 the treatment of open bite
 100. To correct the palatal inclination of the upper frontal teeth used exercise:
 biting of the lower lip by the upper incisors
 with a plastic of plate
 with cotton rolls
 with appliance by Rogers
 with activator by Dass
 101. In the treatment of distal occlusion is used training:
 with cotton rolls
 with a plastic of plate
 with appliance by Rogers
 with activator by Dass
 biting of the lower lip by the upper incisors

102. Patient K, 11 years old, orthodontist has appointed the following exercise: to place Frenal disk between the lips and to keep them for 1 minute, and then 3-5 minutes. For training of what muscle is this exercise?
- m. orbicularis oris
 - masticatory muscles
 - temporal muscle
 - lateral pterygoid
 - medial pterygoid
103. For patient K, 7 years old, orthodontist prescribes exercise with Dass activator. For training of what muscle is this exercise?
- m. orbicularis oris
 - genioglossus
 - temporal muscle
 - lateral pterygoid
 - medial pterygoid
104. Which appliance is necessary to prescribe for patient with disorder of breathing for m. Orbicularis oris exercise?
- Dass activator
 - Kuznetsov` applicator
 - Mulleman propulsor
 - Bynin kappa
 - Hinz appliance
105. The orthodontic appliance consists of the following structural elements: a vestibular shield, ring. The device is intended for struggle with bad habits of mouth breathing, sucking nipples, fingers, lips, cheeks, foreign objects, biting the lips, cheeks, foreign objects. What is the orthodontic appliance?
- Hinz appliance
 - jaw expander
 - vestibulooral shield
 - Bynina kappa
 - Frankle appliance
106. The main treatment exercise for nasal breathing is?
- breathing exercises
 - appliance treatment
 - massage of m. orbicularis oris
 - balneotherapy
 - electrical stimulation
107. The indications for the use of the vestibular plate for myotherapy in children with temporary occlusion is?
- lips incompetence
 - absence of teeth contact in the anterior area
 - narrowing of the dentition
 - vestibular inclination of the teeth
 - oral inclination of the teeth
108. Gymnastic exercises for the muscles of the maxillofacial region as a method of orthodontic prevention and treatment was proposed by?
- Rogers
 - E. Angle
 - F. Y. Khoroshilkina
 - A. M. Schwartz
 - V.A. Pereverzev
109. Frenal disk is used for training?
- m. orbicularis oris

pharyngeal muscles
muscles of the tongue
muscle that raises the lower jaw
muscles, pushing the lower jaw forward

110. For the correction of dentofacial anomalies in children of preschool age is most often used?

biological method
combined method of treatment
instrumental method
prosthetic method
surgical method

111. Vibratory massage is indicated for?

stimulation of orthodontic treatment
normalization of respiratory function
normalization of swallowing function
eliminate unhealthy habits
retention of treatment results

112. Patient M, 9 years. The hypotonia of the m. Orbicularis oris. Which of the following devices is necessary to prescribe for the training of m. Orbicularis oris?

Dass` activator
Kuznetsov applicator
Propulsor of Mulleman
Bynina cap
Klamt appliance

113. Exercise "biting sticks" trains the muscles?

muscles that raise lower jaw
pushing the lower jaw forward
retractors
lowering the lower jaw
shifting the lower jaw to the side

114. The exercise of "closing of teeth in central occlusion" promotes training muscles?

muscles that lower the mandible
muscles that push the lower jaw forward
muscles which raise the lower jaw
retractors
shifting the lower jaw to the side

115. Patient M, 8 years. The concave profile, the nasolabial folds are highly expressed, supramental sulcus is smoothed. Reverse incisal overlap, the ratio of the canines and molars mesial. For what muscle you want to assign exercises?

geniohyoid
genioglossus
lateral pterygoid
medial pterygoid
m. orbicularis oris

116. Patient M, 7 years. Complain of aesthetic defect. The convex profile, nasolabial folds are smoothed, the supramental fold is deep. Deep incisal overlap, the ratio of the canines and the molars distal. For what muscle you want to assign exercises?

lateral pterygoid
genioglossus
geniohyoid
medial pterygoid
digastricus

117. Patient M, 7 years. The convex profile, nasolabial folds are smoothed, the

supramental fold is deep. Deep incisal overlap, the ratio of the canines and the molars distal. For what pathological types of occlusion will be appointed myogymnastics?

- deep distal
- deep mesial
- open
- cross
- deep

118. The patient K. 7 years. Doctor prescribed the following exercise: 1 – the lips close, 2 – lips pulling into a tube as much as possible, on the count 3 – lips open with the tension, on the 4 – lips relax. For what muscle is this exercise?

- m. orbicularis oris
- pharyngeal muscles
- muscles of the tongue
- muscle that raises the lower jaw
- muscles, pushing the lower jaw forward

119. Patient G. 8 years, the doctor prescribed the following exercise patient licks the upper and lower lips, tongue sliding from one corner of mouth to the other. Trying to get tongue to the nose and chin. Clicks tongue. For normalization of what function is this exercise designed?

- swallowing function
- chewing
- closing of lips
- speech function
- respiratory function

120. The patient K 7 years the doctor prescribed the following exercise: lift the tongue up and placed near the front part of the hard palate, then move back to the soft palate For normalization of what function is this exercise designed?

- swallowing function
- chewing
- closing of lips
- speech function
- respiratory function

121. Patient B 6 years. Doctor prescribed the following exercise: clicking the tongue, imitating the sound of hooves of the horse. For normalization of what function is this exercise designed?

- swallowing function
- chewing
- closing of lips
- speech function
- respiratory function

122. Patient B 6 years. Doctor prescribed the following exercise: grit teeth, close lips, place tongue in the frontal part of the hard palate in the projection of the roots of the central incisors, swallow the saliva. For normalization of what function is this exercise designed?

- swallowing function
- chewing
- closing of lips
- speech function
- respiratory function

123. Patient M. to 8 years, the doctor prescribed the following exercise: with lower teeth take upper lip and keep it to 3 sec. For what pathological types of occlusion will be appointed myogymnastics?

- deep distal
- deep mesia
- open

cross

deep

124. Dass activator is used for?

trainings of orbicular muscle of mouth

removals of harmful habit of finger sucking

removals of mouth breathing

trainings of masseters

removals of infantile type of swallowing

125. The Kerbitz vestibular shield is used for?

removals of harmful habit of finger sucking

removals of nasal breathing

removals of harmful habit of tongue sucking

trainings of masseters

removals of infantile type of swallowing

126. Jaw expander is used for?

trainings of masseters

removals of harmful habit of upper lip sucking

removals of mouth breathing

trainings of orbicular muscle of mouth

removals of infantile type of swallowing

127. The Freal` disk is used for?

trainings of orbicular muscle of mouth

trainings of masseters

removals of mouth breathing

mouth removals of harmful habit of upper lip sucking

removals of infantile type of swallowing

128. Rudolf's loops used for?

removals of infantile type of swallowing

removals of harmful habit of finger sucking

removals of mouth breathing

trainings of orbicular muscle of mouth

trainings of masseters

129. The Betelman vestibular plate (with folds) is used for?

removals of mouth breathing

trainings of masseters

removals of harmful habit of upper lip sucking

trainings of orbicular muscle of mouth

Removals of infantile type of swallowing

130. Occlusal lastic rings are used for?

trainings of masseters

removals of harmful habit of finger sucking

removals of mouth breathing

trainings of orbicular muscle of mouth

removals of infantile type of swallowing

131. Okushko classification of harmful habits has?

three groups

one group

two groups

four groups

five groups

132. Kraus vestibular-oral plate is used for?

removals of the mouth breathing and infantile type of swallowing

trainings of masseters

removals of infantile type of swallowing
 removals of the infantile type of swallowing
 trainings of masseters m pterigoideus
 133. Harmful habit of upper lip sucking leads to?
 mesial bite
 cross bite
 distal bite
 deep bite
 ortognathic
 134. Harmful habit of lower lip sucking leads to?
 distal bite
 mesial bite
 cross bite
 deep bite
 ortognathic
 135. The infantile type of swallowing more frequent leads to?
 open bite
 progenic bite
 deep bite
 cross bite
 overjet
 136. Mastication on one side leads to?
 crossbite
 open bite
 deep bite
 prognathic bite
 overjet
 137. The orthodontic practice uses massage?
 manual, vacuum, ultrasonic, vibration
 vacuum
 ultrasonic
 vibration
 acupuncture
 138. Equilibrator used for training
 circular muscle of the mouth
 respiratory muscles
 muscles of the tongue
 pharyngeal muscles
 muscles that raise the lower jaw
 139. Manual massage is indicated for?
 small rotation of a tooth with enough space in the dental arch
 narrowing of dental arches
 restore nasal breathing
 normalization of swallowing function
 when tooth rotating 90°
 140. Biological method is?
 physiological load, various types of massage, myogymnastics, electrical stimulation
 different types of massage
 myogymnastics
 electrical stimulation
 treatment using bracket-technology
 141. Electrical stimulation in orthodontics used for?
 stimulation the eruption of impacted teeth

normalization of functions

eliminate of bad habits

retention of the results achieved with orthodontic treatment

improve posture

142. When the distal occlusion is necessary to train the muscles?

muscles that displace the lower jaw forward

muscles that displace the lower jaw to the right side

muscles which raise the lower jaw

muscles that lower the mandible

muscles that displace the lower jaw to the left side

143. In the treatment of distal occlusion is used training?

m. lateralis pterigoideus

m. masseter

m. pterigoideus medialis

m. buccinator

m. risorius

144. In open bite it is necessary to train the muscles?

circular muscle of the mouth and the muscles that lift the lower jaw

muscles that raise the lower jaw

muscles that lower the mandible

muscles that displace the lower jaw side

muscles that displace the lower jaw forward

145. By purpose all orthodontic appliances are divided into?

therapeutic, retentive, preventive, therapeutic and preventive

retentive

preventive

therapeutic and preventive

appliances of combined action

146. By mechanism of action all orthodontic appliances are divided into?

appliances of mechanical action, functionally directing appliances, the appliances of

combined action, functionally acting appliances

functionally directing devices

the appliances of combined action

functionally acting appliances

functionally directing and functionally acting appliances

147. Functionally acting and functionally directing elements are?

don't have their own source of power, don't have active elements

have their own source of power

have active elements

don't have active elements

don't have their own source of power

148. The models of the jaws are classified as follows?

control models, diagnostic models, working models, additional, training models, museum models

control models, working models, educational models

working models, educational models, control and diagnostic models

working model, museum model, diagnostic model

diagnostic models, control models, additional models

149. In orthodontic practice are used next types of impressions?

anatomical, duplicate, functional, compression

double (duplicate)

functional

compressive

anatomical

150. Diagnostic models of the jaws are used for the following purposes?

for carrying out of biometric studies

for determining the constructive occlusion

for making wax reproductions of orthodontic appliance

for appliance correction

for demonstration

151. Control models of the jaws are used for?

monitor the dynamics of treatment

for the fabrication of orthodontic appliances

for correction of the orthodontic appliances

for the fabrication and correction of orthodontic appliances

for determining the constructive occlusion

152. The additional models of the jaws are used for?

for determining the constructive occlusion

for the fabrication of orthodontic appliances

for correction of the orthodontic appliances

for the fabrication and correction of orthodontic appliances

monitor the dynamics of treatment

153. Central occlusion is characterized by?

closing of dental arches with maximum number of teeth-antagonists contacts

closing of dental arches in the maximum number of contact teeth-antagonists, and

extension of the lower jaw forward

moving the lower jaw to the right or to the left

closing of dentition with maximum number of teeth-antagonists contacts, moving the

lower jaw to the right or left and moving of lower jaw forward

moving of the mandible forward

154. Definition of "occlusion"?

closing of dental arches or separate groups of teeth-antagonists

all movements of the lower jaw towards the upper, with the assistance of the masticatory muscles

moving of the lower jaw to the right or to the left

closing of dental arches with maximum number of teeth-antagonists contact, moving of the lower jaw to the right or left and forward

moving of the mandible forward

155. Definition of "articulation"?

all kinds of position and movement of the lower jaw relative to the upper carried by the chewing muscles

closing of dental arches or separate groups of teeth-antagonists

moving of the lower jaw to the right or to the left

closing of dental arches with maximum number of teeth-antagonists contact, moving of the lower jaw to the right or left and forward

moving of the mandible forward

156. What type of impressions is usually used in orthodontics?

anatomical

functional

compressive

double

decompressive

157. Impressions in orthodontics usually are taken with such impressive materials?

alginate

gypsum

thiolic

- silicone
- epoxy
- 158. Standard vestibular plate of Shonher made according to?
 - dimensions and anatomic features of the oral cavity
 - malocclusion
 - the presence of certain bad habits
 - disorders of the oral cavity function
 - age period of development of occlusion
- 159. Fixation by Napadov refer to the following form?
 - denta-alveolar
 - cap
 - clasp
 - crown
 - rings
- 160. For fixation of appliances for upper jaw are used next clasps line?
 - diagonal
 - vertical
 - trasversal
 - sagittal
 - vertical and transversal
- 161. Factors that contribute to orthodontic movement of the tooth after the use of force?
 - method of movement, anatomical conditions, biological and social conditions, individual conditions, the timing of the move
 - anatomical, biological, and social conditions
 - special terms and conditions
 - the timing andthe way of movement
 - method of movement, anatomical terms
- 162. Bodily tooth movement includes?
 - extrusion, intrusion, parallel movement
 - intrusion
 - parallel movement
 - rotation
 - extrusion
- 163. There are next types of teeth movement under the action of orthodontic forces?
 - tipping and rotational movement of the tooth, rotation of the tooth, bodily movement of the tooth
 - rotation of the tooth
 - bodily movement of the tooth
 - rotation and bodily movement of the tooth
 - tipping and rotational movement of the tooth
- 164. How many degrees of severity of the tissue changes under the influence of orthodontic appliances Kalvelis D. A. distinguished?
 - 4
 - 2
 - 3
 - 1
 - 5
- 165. What movement refers to the vertical movements of the teeth?
 - extrusion and intrusion
 - intrusion and rotation
 - rotation and tipping
 - extrusion and tipping
 - extrusion and rotation

166. According to the classification by Khoroshilkina F.Y. and Malygin J.M. orthodontic appliances according to the principle of action divided into?
 mechanical, functionally acting, functionally directing, combined action
 functionally directing, combined action
 interjaws and combined action
 one jaw and two jaws action
 mechanical, functionally acting
167. A device for determining the location of the bracket on the tooth is called?
 positioner
 simmetrography
 caliper
 anthropometr
 rhinopneumonitis
168. Choosing a method of treatment with fixed appliances should be considered?
 patient's age, stage of root development of permanent teeth, periodontal status, the hygiene of the oral cavity
 stage of roots formation of permanent teeth
 condition of parodontium tissues
 hygiene of the oral cavity
 age of the patient
169. Korkhaus appliances by mechanism of action is?
 mechanical acting appliance
 functionally acting appliance
 appliance of combined action
 functionally directing appliance
 preventive
170. Stationary arc of Angle by mechanism of action is?
 mechanical acting appliance
 functionally acting appliance
 appliance the combined action
 functionally directing appliances
 preventive
171. According to the purpose the stationary arc of Angle is an appliance for?
 therapeutic
 prevention
 retention
 therapeutic and prevention
 functionally directing appliance
172. The expansive arc of Angle by mechanism of action is?
 mechanical acting appliance
 functionally acting appliance
 appliance of combined action
 functionally directing appliance
 retentative
173. According to the purpose the expansive arc of Angle is a appliance for?
 therapeutic
 preventive
 therapeutic and preventive
 retention
 combined action
174. According to the classification of Khoroshilkina F.Y. and Malygin J.M. orthodontic appliances according to location is divided into?
 extraoral and intraoral

- functionally directing, combined action
 - interjaws action and combined action
 - mechanical, functionally acting
 - vestibular, oral, vestibulooral
175. According to the classification of Khoroshilkina F.Y. and Malygin J.M. orthodontic appliances according to construction divided into?
- arc, cap, plate, beam, frame, elastic
 - functionally directing, combined action
 - interjaws action and combined action
 - arc, kappa, plate, beams
 - mechanical, functionally acting
176. According to the classification by Khoroshilkina F Y and Malygin J M orthodontic appliances according to the method of fixation are divided into?
- fixed, removable and combined
 - functionally directing, combined action
 - fixed and removable
 - removable and combined
 - mechanical, functionally acting
177. According to the classification by Khoroshilkina F.Y. and Malygin J. M. extraoral orthodontic appliances are divided into?
- head, neck, jaw, combined
 - neck and jaw
 - head and jaw
 - head and neck
 - jaw, head, and combined
178. Schwartz divided the forces that applied during orthodontic treatment?
- small, medium, large, extra large
 - intermittent
 - constant and intermittent
 - low, high, narrow, wide
 - optimal and sub-optimal
179. What periods of orthodontic treatment is divided into?
- period of active orthodontic treatment, support and retention period
 - period of active orthodontic treatment and retention period
 - period of active orthodontic treatment, support period, additional and retention
 - active and reactive
 - active, reactive and retention
180. In the clamp there are following components?
- shoulder, body, processus
 - shoulder, body, basis
 - semicircular bend, the body, the process
 - M-shaped bend, body, processus
 - spring
181. Vestibular arch with two semicircular curves is used for?
- retraction of the front teeth and improve the fixation of orthodontic appliance
 - mesial movement of teeth
 - vestibular movement of the front teeth
 - dentoalveolar shortening and lengthening
 - distal movement of teeth
182. Vestibular arch with M-shaped curves is used for?
- normalization of the canines location in the dental arch
 - mesio-distal movement of the lateral teeth
 - elimination of the diastema

dentoalveolar lengthening in the posterior area
distal movement of teeth
183. Lingual arc is designed to?
move individual teeth and retention of treatment results
oral displacement of the anterior teeth
mesio-distal movement of the lateral teeth
rotation of the teeth along the axis
distal movement of teeth
184. Orthodontic coil springs are used for?
move individual teeth and their groups
dentoalveolar lengthening and shortening
changing the position of the mandible in the sagittal plane
fracture the palatal suture
changing the position of the mandible in the vertical plane
185. Z- spring is used to?
vestibular inclination of the teeth
oral tooth inclination
mesiodistal movement of the teeth
dentoalveolar lengthening
changing the position of the mandible in the vertical plane
186. Oval spring is used for?
vestibular inclination of the teeth
oral tooth inclination
mesiodistal movement of the teeth
dentoalveolar lengthening
changing the position of the mandible in the vertical plane
187. Arm shaped spring by Kalvelis is used for?
mesiodistal movement of the teeth
vestibular inclination of the teeth
oral tooth inclination
dentoalveolar lengthening
changing the position of the mandible in the vertical plane
188. Coil spring is used for?
mesiodistal movement of the teeth
vestibular inclination of the teeth
oral tooth inclination
dentoalveolar lengthening
changing the position of the mandible in the vertical plane
189. The Coffin spring is used for?
expansion of the upper dentition, its lengthening and mesiodistal movement of the teeth
expansion of the lower dentition, its lengthening and mesiodistal movement of the teeth
fracture of palatal suture
changing in position of the mandible in the sagittal plane
changing the position of the mandible in the vertical plane
190. Koller spring is used for?
unilateral and bilateral expansion of lower jaw dentition
unilateral and bilateral expansion of upper jaw dentition
fracture of palatal suture
changing in position of the mandible in the sagittal plane
changing the position of the mandible in the vertical plane
191. The active elements of orthodontic appliances include?
arc, springs, screws
inclined plane, bite plane, occlusal bite plane

buccal shields, labial pilot
the springs, screws and fixing elements
tongue guard

192. Functionally active elements of orthodontic appliances include?

buccal shields, labial pilot
inclined plane, bite plane, occlusal bite plane
arc, springs, screws
the springs, screws and fixing elements
frontal biting plane

193. Functionally directing elements of orthodontic appliances include?

inclined plane, frontal bite plane, occlusal bite plane
buccal shields, labial pilot
arc, springs, screws
the springs, screws and fixing elements
tongue guard

194. Chin cap with head cap and rubber traction is used for?

delays growth changes of the mandible in the treatment of mesial occlusion
delays growth changes of the maxilla in the treatment of distal occlusion
changing the position of the mandible in transversal direction
expansion of the lower dentition, its lengthening and mesiodistal movement of the teeth
tongue guard

195. What elements of orthodontic appliance used for expansion of the dentition?

screws, springs
screws, springs, vestibular and oral arc
inclined planes, frontal biting plane and occlusal biting plane
labial pilot
tongue guard

196. What elements of orthodontic appliance are used for elongation of dentition?

screws, springs
screws, springs, vestibular and oral arc
inclined plane, bite plane, occlusal bite plane
buccal shields
tongue guard

197. What elements of orthodontic appliance are used for dentoalveolar shortening?

frontal bite plane, occlusal bite plane
screws, springs, vestibular and oral arcs
screws, springs
buccal shields
tongue guard

198. What elements of orthodontic appliance used for oral inclination of the teeth?

vestibular arches
screws, springs, lingual arches
inclined plane, bite plane, occlusal bite plane
buccal shields
tongue guard

199. What elements of orthodontic appliance used for vestibular inclination of the teeth?

oral arcs, protractive springs
screws, springs
inclined plane, bite plane, occlusal bite plane
buccal shields
tongue guard

200. What elements of orthodontic appliance used for mesiodistal movement of teeth
along the arc?

coil spring, arm shape Kalvelis spring
 oral arcs, protractive springs
 screws, springs
 buccal shields
 tongue guard
 201. What elements of orthodontic appliance used for fixing of orthodontic appliance?
 vestibular arc
 buccal shields, labial pilot
 coil spring, arm shape Kalvelis spring
 inclined plane
 tongue guard
 202. What elements of orthodontic appliance used for treatment of narrowing of the upper dentition in lateral area and protrusion of the frontal teeth?
 expanding screw and vestibular arc
 inclined plane
 occlusal bite plane
 inclined plane and protractive spring
 tongue guard
 203. Appliance with frontal flat bite plane is used for?
 correction of deep incisor occlusion
 correction of open bite
 correction of the distal malocclusion
 correction of transversal malocclusion
 correction of the mesial malocclusion
 204. Appliance with frontal flat bite plane is used for?
 intrusion of the lower anterior teeth and dentoalveolar elongation in the lateral area
 dentoalveolar lengthening in frontal area and intrusion of lateral teeth
 lengthening of the dental arches
 shortening of the dental arches
 changing the position of the mandible in transversal direction
 205. For dentoalveolar lengthening in the posterior are used the following element?
 frontal flat bite plane
 occlusal bite plane
 inclined bite plane
 frontal inclined bite plane
 tongue guard
 206. For dentoalveolar lengthening in the frontal area used the following element?
 occlusal bite plane
 frontal flat bite plane
 inclined bite plane
 frontal inclined bite plane
 tongue guard
 207. Inclined bite plane in the frontal area is used for?
 change the position of the mandible in the sagittal direction
 changing the position of the mandible in transversal direction
 correction of the vertical malocclusion
 fracture of palatal suture
 tongue guard
 208. Inclined bite plane in the frontal area in the maxillary appliance is used for?
 displacement of the mandible forward in the distal occlusion
 normalization of the position of the mandible in the horizontal plane
 vestibular displacement of palatally located incisors of the upper jaw
 the correction of deep incisal occlusion

- tongue guard
209. Inclined bite plane in the region of incisors of the mandibular appliance is used for?
 vestibular displacement of palatal located incisors of the upper jaw
 normalization of the position of the mandible in the horizontal plane
 displacement of the mandible forward in the distal occlusion
 the correction of deep incisor occlusion
 tongue guard
210. Inclined bite plane for the posterior teeth used for?
 normalization of the position of the mandible in the horizontal plane
 vestibular displacement of palatal located incisors of the upper jaw
 displacement of the mandible forward in the distal occlusion
 the correction of deep incisor occlusion
 tongue guard
211. To move the lower jaw forward in distal occlusion is used the following element?
 inclined frontal bite plane
 frontal flat bite plane
 inclined-flat frontal bite plane
 occlusal bite plane
 screw
212. For vestibular displacement of the palatal located incisors of the upper jaw are used?
 Schwartz and Bynin` cap
 maxillary appliance with inclined bite plane
 maxillary appliance with inclined-flat frontal bite plane
 appliance for the upper jaw with occlusal bite plane
 tongue guard
213. A face-bow with extraoral traction is used for?
 retention of growth of the upper jaw, distal movement of upper posterior teeth, the treatment of vertical malocclusions
 the delay of upper jaw growth and stimulation of growth of the lower jaw
 the delay of growth of the lower jaw and stimulation of growth of the upper
 treatment of transversal malocclusion
 impaction
214. Lip bumpers are used for?
 lengthening of the dentition and elimination of crowding position of the teeth
 dentoalveolar lengthening
 dentoalveolar shortening
 mesiodistal movement of the teeth and elimination of diastema
 impaction
215. To eliminate harmful habits of sucking (lips, fingers, nipples) in the milky period and the early period of the mixed occlusion appropriate to use?
 vestibular shield
 vestibular-oral shield
 RF-I
 appliance with loops Rudolph
 Bynin cap
216. To eliminate bad habits of tongue sucking in the milky bite and the early period of the mixed occlusion appropriate to use?
 vestibular-oral shield
 vestibular shield
 RF-I
 appliance with loops Rudolph
 Bynin cap
217. To eliminate harmful habits of sucking in childhood in temporary and mixed

dentition is used?

- shields therapy
- fixed appliance
- removable appliances of mechanical acting
- extraoral orthodontic appliances
- orthopedic prostheses

218. To eliminate bad habits of tongue sucking, infantile type of swallowing and open bite in the early period of the mixed occlusion should be used?

- vestibular-oral shield
- vestibular disc
- appliance frontal biting plane
- cap chin with a vertical pull
- fixed technique

219. To eliminate bad habits of tongue sucking, infantile type of swallowing and open neutral bite in early period of the mixed occlusion should be used

RF-IV, RF-I

RF-Ib

RF-II

RF-III

RF-Ia

220. To eliminate bad habits of tongue sucking, infantile type of swallowing, narrowing of the upper dentition and open bite in the period of the mixed occlusion should be used?

- removable appliance with the expanding screw and Rudolf loops
- removable appliance with the expanding screw and the inclined plane
- removable appliance with the expanding screw and frontal biting plane
- fixed technique

removable appliance with the expanding screw and vestibular arc with pressing loops

221. To eliminate bad habits of tongue sucking, infantile type of swallowing, narrowing of the upper dentition and open bite in the permanent dentition period it is necessary to use?

- fixed braces
- removable appliance with the expanding screw and the inclined plane
- removable appliance with the expanding screw and frontal biting plane
- removable appliance with the expanding screw and loops rudolf

removable appliance with the expanding screw and vestibular arc with pressing loops

222. For the treatment of distal occlusion in the temporal occlusion is used?

- propulsor of Mulleman
- appliance for the upper jaw with the inclined plane
- appliance with expansion screw
- appliance with vestibular arc
- non-removable devices

223. The shield method of treatment is indicated in the next period of development of the child?

- stable and aging period of temporary occlusion, the early period of the mixed occlusion
- formation period of temporary occlusion
- late period of the mixed occlusion
- period of formation of permanent dentition
- period of stable permanent dentition

224. Propulsor of Mulleman is indicated in the following period of development of the child?

- stable and aging period of temporary occlusion, the early period of the mixed occlusion
- formation period of temporary occlusion
- late period of the mixed occlusion
- period of formation of permanent dentition

- period of stable permanent dentition
225. The appliance of Angle indicated for the treatment of malocclusions in the next period of development of occlusion?
- permanent dentition period
 - period of stable temporary occlusion
 - aging period of temporary occlusion
 - early period of the mixed occlusion
 - late period of the mixed occlusion
226. Fixed intraoral appliances indicated for the treatment of malocclusions in the next period of development of occlusion?
- permanent dentition period
 - period of stable temporary occlusion
 - aging period of temporary occlusion
 - early period of the mixed occlusion
 - late period of the mixed occlusion
227. Cap chin with head cap and rubber traction for the decreasing of growth of the lower jaw is used in the next period of development of the child?
- stable and aging period of temporary occlusion, the early period of the mixed occlusion
 - formation period of temporary occlusion
 - late period of the mixed occlusion
 - period of formation of permanent dentition
 - period of stable permanent dentition
228. Examination of a 9-year-old child revealed protrude chin, the lower lip overlapping the upper lip. There are diastemas and thremas between the lower incisors, the lower incisors overlap the upper ones by $\frac{2}{3}$ of crown height. Sagittal fissure is 3 mm. Specify the treatment tactics?
- Brueckl's appliance
 - Bynin's guard
 - Schwartz' guard
 - Angle's sliding appliance
 - myogymnastics complex
229. An orthodontist monitors a 4-year-old child with mouth breath. The child has a history of adenotomy. What preventive device will help the child to give up the habit of mouth breath?
- vesibular and oral Kraus' screen
 - standard Schonherr's vestibular screen
 - Frankel's function regulator
 - Andresen-Haupl activator
 - Rudolph's appliance
230. An 8-year-old child is found to have convex facil profile, forced closing of lips, sagittal gap of 7 mm. This abnormality can be eliminated by means of Frankel 1 type regulator. What is the mechanism of action of this device?
- normalization of labial, buccal and lingual pressure as well as of mandible position
 - maxillary expansion by means of a screw
 - inhibition of maxilla growth in the sagittal direction
 - normalization of mandible position and growth by means of intermandibular traction
 - normalization of upper front teeth position by means of a vestibular bar
231. Appliance on the upper jaw with protractive springs for the treatment of malocclusion better in the following periods of occlusion?
- period of the mixed occlusion
 - formation period of temporary occlusion
 - aging period of temporary occlusion
 - period of stable temporary occlusion

- permanent dentition period
232. Brucle appliances for treating of malocclusion better in the following periods of occlusion?
- period of the mixed occlusion
 - formation period of temporary occlusion
 - aging period of temporary occlusion
 - period of stable temporary occlusion
 - permanent dentition period
233. Activator Andresen-Houple for the treatment of malocclusion better in the following periods of occlusion of the child?
- period of the mixed occlusion
 - formation period of temporary occlusion
 - aging period of temporary occlusion
 - period of stable temporary occlusion
 - permanent dentition period
234. The regulator of functions Frenkel type III for the treatment of malocclusion better in the following periods of occlusion of the child?
- period of the mixed occlusion
 - formation period of temporary occlusion
 - period of formation of permanent occlusion
 - period of stable temporary occlusion
 - permanent dentition period
235. The best treatment results of regulator of functions Frenkel at the age of?
- 6-8 years
 - 3-5 years
 - 10-12 years
 - 12-15 years
 - 18-25 years
236. For treatment of open bite in the period of the mixed occlusion are used orthodontic appliances with such structural elements?
- loops of Rudolph and occlusal biting plane
 - frontal biting plane
 - inclined biting plane
 - labial pilots and buccal shields
 - lip bumper
237. For the treatment of deep bite in the period of the mixed occlusion are used orthodontic appliances with such structural elements?
- frontal biting plane
 - occlusal biting plane
 - inclined biting plane
 - labial pilots and buccal shields
 - lip bumper
238. Active orthodontic malocclusion treatment should be started?
- in the final period of milky and the early period of the mixed occlusion
 - the formation period of temporary occlusion
 - in the period of formation of permanent dentition
 - the period of stable temporary occlusion
 - the late period of the mixed occlusion
239. In the final period of mixed and initial period of permanent dentition for the correction of a deep bite use?
- physiological increase of occlusion due to eruption of premolars, canines and second permanent molars
 - normalize the function of lips closing

normalization of chewing function
eliminate harmful habits of sucking
improving the posture

240. Puberty, as one of the periods of active growth of the girls jaws?

10 to 12 years

5 to 7 years

12 to 14 years

17 to 18 years

8 to 9 years

241. Puberty, as one of the periods of active growth of the boys jaws?

from 13 to 14 years

from 5 to 7 years

from 10 to 12 years

from 17 to 18 years

from 8 to 9 years

242. The distal jaw relationship that does not require active orthodontic treatment refers to the period?

neonatal

stable temporary occlusion

aging temporary occlusion

mixed bite

permanent dentition

243. For the treatment of progenic bite, which is caused by the palatal position of the incisors of the upper jaw in the period of the mixed occlusion should be used following appliance?

maxillary appliance with protractive springs and occlusal biting plane

vestibular-oral shield

RF-I

appliance with Rudolph loops

Bynin cap

244. For the treatment of progenic bite, which is caused by the palatal position of the incisors of the upper jaw, deep overlap in the period of the mixed occlusion should be used following appliance?

Brucle appliance

vestibular-oral shield

RF-I

appliance with Rudolph loops

Bynin cap

245. For the treatment of prognathic bite in temporary bite next orthodontic appliances are used?

Muelleman's propulsor

Gulyayeva's appliance

Brukl's appliance

Frenkel's function regulator type II

Frenkel's function regulator type III

246. For the treatment of mesial occlusion in the period of the mixed occlusion should be used following appliance?

RF-III

vestibular-oral shield

RF-I

appliance with loops Rudolph

Muleman propulsor

247. For the treatment of distal occlusion with protrusion of upper anterior teeth in the

period of the mixed occlusion occlusion should be used following appliance?
 appliance for the upper jaw with vestibular arch and inclined plane
 vestibular-oral shield
 RF-III
 appliance with loops Rudolph
 Brucle appliance
 248. For the treatment of deep bite in the period of the mixed occlusion should be used following appliance?
 appliance for the upper jaw with frontal biting plane
 vestibular-oral shield
 RF-III
 appliance with loops Rudolph
 Brucle appliance
 249. For treatment of open bite in the period of the mixed occlusion should be used following appliance?
 appliance with Rudolph loops
 Muleman propulsor
 vestibular-oral shield
 RF-III
 Brucle appliance
 250. What processes Flourens take into account in his theory?
 apposition, resorption
 resorption
 apposition
 the elasticity of the bone tissue
 apposition, resorption, bone elasticity
 251. What are the disadvantages in the theory of Oppenheim?
 teeth during moving inclined
 resorption, apposition
 the teeth move bodily
 resorption of teeth' roots
 teeth rotated about its axis
 252. What are the advantages of the Kalvelis theory?
 resorptive-oppositive processes occur simultaneously inside the hole and outside of the alveolar process, the tooth is moved gradually tipping
 resorptive-oppositive processes occur simultaneously inside the hole and outside of the alveolar bone, the tooth moves bodily
 take into account the elasticity of the bone tissue
 resorptive-oppositive processes are inside the hole, the tooth moves bodily
 resorptive-oppositive processes are inside the hole, the tooth moves gradually tipping
 253. What takes into account the theory Kingsley-Walkhof?
 the elasticity of the bone tissue
 resorption
 the apposition, resorption
 the apposition
 the apposition, resorption, bone elasticity
 254. Haw Schwartz divided the force for tooth moving?
 small, large, medium
 intermittent
 permanent
 low, high, narrow
 optimal and suboptimal
 255. What happened during third post lag phase of tooth movement?

- progressive tooth movement
 - rapid tooth movement for a short distance which then stops
 - little or no tooth movement
 - nothing happened
 - rotation
256. D A Kalvelis studied?
- tissue changes that occur during orthodontic pressure on the teeth in the region of the median palatal suture during expansion of the upper jaw
 - the influence of different designs of orthodontic appliances on alveolar bone
 - the influence of crowns, that increase the bite on the tissues which surround the supporting milk teeth and the germs of permanent teeth
 - the issue of changes in palatal suture during expansion of the upper jaw
 - the effect of different types of orthodontic appliances on the mandibular angle
257. According to the Flourens theory on the side opposite to the direction of movement of abnormally positioned tooth should happen?
- thickening of bone tissue
 - thinning of bone tissue
 - stretching of spongy bone tissue
 - compression of the spongy bone tissue
 - the expansion of spongy bone tissue
258. What happened during second lag phase of tooth movement?
- little or no tooth movement
 - rapid tooth movement for a short distance which then stops
 - progressive tooth movement
 - nothing happened
 - rotation
259. What forces are necessary for bodily movements (Gavrilov, Oxman)?
- no more than 40-50 g/cm²
 - 56 g/cm²
 - 61 g/cm²
 - 70-80 g/cm²
 - 60-70 g/cm²
260. The swallowing function begins rebuilt in?
- after the first eruption of the front teeth
 - 10-12 months of age
 - 10-15 years
 - 2 years
 - 3 years
261. In what time is it needed fixation of orthodontic appliance after maxillary osteotomy?
- after 12-14 days
 - 3-5 days
 - after 7 days
 - in a month
 - on the day of surgical intervention
262. What forces are used when you move unerupted teeth?
- 17-20 g/cm², intermittent
 - 3-15 g/cm², short-term
 - 17-20 g/cm², constant
 - 45-60 g/cm², intermittent
 - 23-30 g/cm², constant
263. In consequence of what there is gingiva-muscle reflex?
- stimulation of pain receptors in the periodontium
 - stretching of the masticatory muscles

- irritation of tactile receptors in the skin
- irritation of pain receptors of the mucous membrane of the oral cavity
- stretching of the facial muscles
- 264. Theory of Kingsley-Walkhof take into account?
 - apposition
 - reposition
 - apposition, reposition
 - elasticity of the bone tissue
 - apposition, reposition, elasticity of the bone tissue
- 265. What shows the Law of Anri – Shulga?
 - small forces inhibit tooth movement
 - large stimulate tooth movement
 - average forces are stimulate
 - average power stimulate, small forces inhibit tooth movement
 - small force stimulate, the average forces inhibit, large forces inhibit movement of teeth
- 266. On the question of the influence of orthodontic appliances on the alveolus is known for such theories?
 - Flourence theory
 - Kingsley theory
 - Walkhof theory
 - Oppenheim theory
 - Katz theory
- 267. A small force in orthodontics is?
 - up to 5 g/cm²
 - up to 28 g/cm²
 - up to 38 g/cm²
 - up to 41 g/cm²
 - up to 64 g/cm²
- 268. What fibers form the basis of the actual mucous membrane of the gums?
 - collagen
 - oxicologen
 - argyrophilic
 - elastic
 - cellular
- 269. The bone in the lower jaw has?
 - small spongy structure with horizontal trabecular
 - small spongy structure with vertical trabecular
 - large spongy structure with vertical trabecular
 - large spongy structure with horizontal trabecular
 - large spongy structure with transversally direction of trabecular
- 270. The bone in the upper jaw has?
 - large spongy structure with vertical trabecular
 - small spongy structure with vertical trabecular
 - small spongy structure with horizontal trabecular
 - large spongy structure with horizontal trabecular
 - large spongy structure with transversally direction of trabecular
- 271. How many theories of orthodontic appliances influence on alveolar are known?
 - three theories
 - two theories
 - one theory
 - four theories
 - six theories
- 272. What process happens on the pressure side during orthodontic treatment?

- compression of PDL, osteoclastic activity
- compression of PDL, osteoblastic activity
- stretching of PDL, osteocytes activity
- stretching of PDL, fibroblastic activity
- lining cells activity
- 273. What process happens on the tension side during orthodontic treatment?
 - stretching of PDL, osteoblastic activity
 - compression of PDL, osteoclastic activity
 - stretching of PDL, osteocytes activity
 - stretching of PDL, fibroblastic activity
 - lining cells activity
- 274. According to the Flourens theory displacement of the tooth is?
 - bodily
 - tipping
 - rotational
 - inclination-rotational
 - bodily- rotational
- 275. First phase of tooth movement?
 - initial
 - lag
 - post lag
 - active
 - directing
- 276. The most advanced theory of reconstruction of bone tissue from a previously proposed is?
 - Oppenheim
 - Kingslie
 - Valkhof
 - Flourence
 - Andersen
- 277. What cells take part in bone resorption?
 - osteoclastic activity
 - osteoblastic activity
 - osteocytes activity
 - fibroblastic activity
 - lining cells activity
- 278. What cells take part in bone formation?
 - osteoblastic activity
 - osteoclastic activity
 - osteocytes activity
 - fibroblastic activity
 - lining cells activity
- 279. What happened during first initial phase of tooth movement?
 - rapid tooth movement for a short distance which then stops
 - little or no tooth movement
 - progressive tooth movement
 - nothing happened
 - rotation
- 280. What is the complication during orthodontic treatment by appliance with screw due excessive activation?
 - pain in the joints
 - mobility of the teeth
 - teeth pain with biting

- excessive expansion of the dentition
- curvature of the tooth roots
- 292. What is the complication during orthodontic treatment by Schwartz Cap?
 - intrusion of frontal teeth, open bite
 - pain in the joints
 - tooth mobility
 - gingivitis in the area of the front teeth of the lower jaw
 - pain in the teeth
- 293. Application of appliances with bilateral screw and vestibular arc often leads to the next complication?
 - the size discrepancies of the dental arches in the lateral area
 - the appearance of diastema and thremas in the frontal area
 - vestibular inclination of the teeth
 - increased degree of crowding
 - decreased degree of crowding
- 294. Functionally-acting appliances develop next force?
 - intermittent
 - permanent
 - short-term
 - small, large, medium
 - low, high
- 295. In what area begins morphological remodeling in the early days of activation of a removable maxillary appliance with a screw?
 - palatal sutura
 - periodontal tissues
 - pulp
 - alveolar process
 - temporomandibular joint
- 296. At what age should begin the method of tooth extraction according to Hotz?
 - 7-8 years
 - 11-12 years
 - 9-10 years
 - 10-11 years
 - 12-15 years
- 297. What is the method of Hotz mean?
 - serial extraction of teeth
 - frenulotomy of the tongue
 - method of myogimnastics
 - restorative therapy
 - fracture of palatal suture
- 298. Compactosteotomy is used for?
 - stimulation of orthodontic treatment
 - improve the fixation of orthodontic appliance
 - extension of time of orthodontic treatment
 - expansion of dental arch
 - fracture of palatal suture
- 299. Reconstructive surgery on the jaw bones are?
 - not earlier than 14 years
 - 10 – 23 years
 - at any age
 - not earlier than 25 years
 - 5 years
- 300. Child 12 years with complaints of absence of a tooth in the upper jaw. According to

- parents: the temporary tooth was extracted at 4 years due to trauma. The bite is permanent. In the upper jaw is missing a tooth 21. The gap between the 11 and 22 - 4 mm. On the radiograph: tooth 21 is located at an angle of 45 degrees to the tooth 11. Select the best method of treatment?
- combined method of treatment (surgical and instrumental)
 - instrumental
 - surgical
 - orthopedic
 - physiotherapy
301. Child 6 years with complaints on incorrect position of teeth. On examination: the face without features. Mixed bite. Teeth 31 and 41 erupted behind 71 and 81. What needs to be done in the first place?
- extract the temporary central incisors
 - appoint a massage of the frontal area of dentition
 - assign a myogymnastics
 - expand the jaw
 - stimulate the growth of apical basis
302. At 10-year-old child found a diastema and low attachment of the frenulum of the upper lip. What is your treatment strategy?
- plastic frenulum of the upper lip and orthodontic treatment
 - plastic frenulum of the upper lip
 - orthodontic treatment
 - to assign a myogymnastics
 - observation and clinical account
303. Normal or simple lip should be located at such the distance from the gingival margin?
- 50 mm
 - 45 mm
 - 30 mm
 - 35 mm
 - 40 mm
304. Child 75 years is a consultation with the orthodontist. Objectively: the depth of the vestibulum of the oral cavity - 4mm. In the field 41, 31 is determined the recession of the gingival margin, crowding of the teeth 42, 41, 31, 32. In anamnesis- oral type of breathing. Which of the following must perform first?
- plastic of vestibulum of the oral cavity
 - finger massage
 - the myogymnastics
 - treatment of gingivitis
 - to make a vestibular appliance
305. 5 years old child. There is no contact of incisors, vertical gap- 1-1,5 mm, nonabraded cusps of milk teeth. Tongue-frenulum is thin, almost transparent, normally attached to the tip, but limits its movement. What the tactics of treatment and preventive measures?
- plastic of a tongue-frenulum and grinding of cusps of lateral teeth
 - gymnastics of mimic and masticatory muscles
 - application of the vestibular shield
 - massage of the alveolar processes
 - physiological load
306. The child of 7 years, the crowding of the anterior teeth of 2 degrees complained with localized chronic catarrhal gingivitis. Select the best method of treatment?
- instrumental and physiotherapy
 - physiological (biological)
 - instrumental
 - surgical

- physiotherapy
307. Specify permanent teeth, which are usually extract to create space in the tooth row when abnormal teeth location?
- first permanent premolars
 - second permanent molars
 - first permanent molars
 - permanent second premolars
 - central incisor
308. Removal of first premolars is indicated for?
- II-1 in adulthood
 - narrowing of the dentition
 - shortening of the dentition in the period of the mixed occlusion
 - presence of a supernumerary tooth
 - anomalies of the location of the fangs
309. The depth of the vestibulum of the oral cavity - the distance in millimeters from the middle of the gingival margin to the bottom of the vestibule of the oral cavity The average depth of the vestibulum consider dimensions from?
- 5-10 mm
 - 15-20 mm
 - 5-6 mm
 - 10-15 mm
 - 3-7 mm
310. In a clinical study the proper attachment of the frenulum of the upper lip, its length and the strength check by?
- pulling lips forward when closed tooth rows
 - pulling the lip down when closed tooth rows
 - pulling lip down with open tooth rows
 - the presence of a vertical gap between the lips as they are closed
 - restricted mouth opening due to restricted movements of the upper lip
311. Timing of frenulotomy of upper lip are characterized by the following age limits?
- 7-8 years
 - 11-12 years
 - 9-10 years
 - 10-11 years
 - 5-6 years
312. Before the eruption of what teeth should be frenulotomy?
- lateral incisors
 - first premolars
 - first permanent molars
 - central incisors
 - permanent canines
313. What anomalies caused by a low attachment of the frenulum of the upper lip?
- true diastema of the upper dentition
 - narrowing of the upper dentition
 - lengthening of the upper dentition
 - shortening of the upper dentition
 - false diastema of the upper dentition
314. The method of surgical treatment is mainly applied in the period?
- permanent dentition
 - temporary occlusion
 - mixed bite
 - reduction of temporary occlusion
 - stable temporary bite

315. Specify clinical situations in which appropriate to make intersection of the frenulum of the upper jaw?

- the presence of diastema of a width exceeding 4 mm, the presence of local periodontitis
- the retention of canines of the upper jaw
- impacted central incisors
- the retention of the lateral incisors
- impacted canine

316. What is the sequence of the extractions according to the method of Hotz?

III, IV, 4

II, III, IV, 3

II, III, IV, 4

I, II, III, IV

III, IV, V, 4

317. A teenager applied to an orthodontist complaining about tooth malposition

Objectively: the face is without peculiarities. Occlusion of permanent teeth is present. There are no abnormalities of jaw correlation in three planes. The 23 tooth is vestibularly over the occlusive plane the space in the dental arch is less than 1/3 of crown size How is it possible to make room for the malpositioned 23 tooth?

- to extraction the 24 tooth
- to enlarge transversal jaw dimensions
- to enlarge sagittal jaw dimensions
- to remove the 23 tooth
- to enlarge vertical dimensions

318. Removal of first premolars is indicated for?

- individual macrodontia
- narrowing of the dentition
- shortening of the dentition in the period of the mixed occlusion
- presence of a supernumerary tooth
- anomalies of the location of the fangs

319. What is surgery with simultaneous elimination of defects of the hard and soft palate?

- uranostaphyloplastic
- staphyloplastic
- uranoplast
- interlamina osteotomy
- frenulotomy

320. Premature removal of the second temporary molars likely cause of retention?

- second premolars
- first premolars
- central incisors
- third molars
- canines in both jaws

321. A child is 7 years old. He has early transitional dentition. There is overcrowding of the lower front teeth: the 42 and 32 teeth erupted orally with a complete lack of space. Make a plan of treatment?

- serial consecutive extraction by Hotz method
- extraction of the 42 and 32 teeth
- extraction of the 41 and 31 teeth
- extraction of the 83 and 73 teeth
- extraction of the 84 and 74 teeth

322. Under what conditions is possible to create a place for the canines by expanding the dentition of a 13-year-old patient?

- lack of space is 2-3 mm
- the lack of space in the tooth row - 6 mm

lack of space is 50% of the width of the canine

lack of space — 5 mm

full lack of space

323. Which of the following methods does not speed up orthodontic treatment?

prosthetics

vacuum therapy

removal of teeth

compactosteotomy

vibration

324. For the treatment of dental crowding in a 9-year-old girl was the proposed method of system tooth extraction by Hotz. What was the indication for the selection of this treatment method?

discrepancy between tooth size and jaw

narrowing of the jaws, both sides

mismatched sizes of the jaws

elongation of the anterior sections of the dental arch

presence of supernumerary teeth

325. A 5-year-old child removed 54,55,64,65 teeth. To what leads premature removal of these teeth?

shortening of the dental arches

elongation of the dental arches

dentoalveolar elongation

expansion of the jaws

uneven growth of the jaws

326. What kind of pathological forms may have dentition in children with shortened frenulum of the tongue?

flattened

asymmetric

saddle

sharp (coracoids)

v-shaped

327. During the examination of 13-year-old patient was established the final diagnosis: vestibular position 13 and 23 teeth with a complete lack of space, narrowing of the upper dentition, the rotation 12 and the teeth 22 around the axis. To eliminate this pathology it is proposed to extend the tooth row and teeth. What teeth are removed for orthodontic indications?

first premolars

upper canines

second molar

second premolars

first molars

328. The child at the age of 1 month, a congenital cleft of the upper lip on the left. What age is appropriate for cheiloplasty?

3-6 months

first days of life

1-2 years

3-4 years

4-5 years

329. Parents 12 years with complaints of absence of a tooth in the upper jaw. According to parents: the temporary tooth was removed at 4 years of age due to injury. During the examination: the face without features. The bite is permanent. In the upper jaw is missing a tooth 21. The gap between the 11 - and 22- 4 mm. On the radiograph: 21 is located at an angle of 45 degrees to 11. Select rational method of treatment?

combined method of treatment (surgical and instrumental)

instrumental
surgical
orthopedic
physiotherapy

330. Child 75 years is a consultation with the orthodontist. Objectively the depth of the vestibule of the oral cavity – 4mm. In the field 41, 31 is determined by the recession of the gingival margin, crowding of the teeth 42, 41, 31, 32. History of the oral type of breathing. Which of the following must perform first?

plastic vestibule of the oral cavity
manual massage
myogymnastics
treatment of gingivitis
vestibular plate

331. What is the massage?

mechanical stimulation of tissues used for therapeutic purposes
dry tissue necrosis
formation of aseptic inflammation
destructive effect on soft tissue
effect on acupuncture points

332. Vacuum therapy is?

use of low pressure for therapeutic purposes
the use of high pressure for therapeutic purposes
mechanical tissue irritation
destructive effect on soft tissue
effect on acupuncture points

333. Ultrasound is?

cellular massage
massage of the skin
massage of the mucous membrane
acceleration of blood circulation
mechanical tissue irritation

334. Magnetic therapy is?

alternating magnetic field of low frequency
alternating magnetic field of high frequency
magnetic field of constant frequency
effect of electromagnetic millimeter waves
use of different magnets

335. Magnetic resonance therapy is?

influence of electromagnetic millimeter waves
mechanical stimulation of tissues
alternating magnetic field of low frequency
introduction into the tissues of drugs using ultrasound
formation of aseptic inflammation

336. Vibrostimulation is?

application of mechanical vibrations of low frequencies
alternating magnetic field of low frequency
destructive effect on soft tissue
effect of electromagnetic millimeter waves with a frequency equal or close to the individual frequency of electromechanical oscillations of cellular microstructures
mechanical tissue irritation

337. Child 75 years is the doctor-orthodontist. Objectively: the depth of the vestibule of the oral cavity – 4mm in the area of 31, 41 determined the recession of the gingival margin, crowded 31, 32, 41, 42. In anamnesis – oral breathing. Which of the following should be done

first?

vestibuloplastics

manual massage

myogymnastic

treatment of gingivitis

teeth extracting

338. Compactosteotomy is used for?

accelerate orthodontic treatment

improve the fixation of orthodontic appliance

extension of time of orthodontic treatment

improving the fixing of orthodontic apparatus, extension of time of orthodontic treatment

not used in orthodontics

339. What optimization method of active orthodontic treatment by Doroshenko?

vacuum therapy

magnetic resonance reflex therapy

electrophoresis

general health therapy

massage

340. To the orthodontist came the patient K, 17 years with complaints on improper position of the canine in the upper jaw. Objectively: the bite is permanent, the ratio first permanent molars I class by Angle, 13 vestibular and above the occlusal plane, between 14 and 12 to 65 mm. In what period of orthodontic treatment can be used phonophoresis with lidas?

active period

retention period

passive

preparatory period

not used in orthodontics

341. The child 7 years old, the crowding of the anterior teeth of 2 degrees, complicated with localized chronic catarrhal gingivitis. Select the best method of treatment?

instrumental and physiotherapeutic

physiological (biological)

therapeutic

surgical

physiotherapy

342. Decreasing of the efficiency of orthodontic treatment contributes to?

prosthetics

compactosteotomy

electrical stimulation

vacuum therapy

ultrasonic effect

343. To optimize orthodontic treatment is used electrophoresis of 0.5-3% solution of Trilon B for such purpose?

decrease in bone density

anti-inflammatory action

recovery of bone density in retention period

anti-tumor properties

restorative action

344. To improve blood supply and tropism of the bone tissue is used?

vacuum therapy

ultrasound exposure

electrophoresis

ufo

amplipulse –therapy

345. To stimulate the eruption of impacted teeth (after creating space in the tooth row) is used?
- electrical stimulation
 - vacuum therapy
 - uhf therapy
 - electrophoresis
 - amplipulse
346. To consolidate the results of orthodontic treatment (relapse prevention) it is recommended to use electrophoresis with?
- 5-10% sol of calcium chloride
 - 2% sol of chloramine
 - 2% sol of chlorhexidine digluconate
 - 1% sol of sodium fluoride
 - 3% sol of remodent
347. In the correction of abnormal position of individual teeth, narrowing of dentition is used?
- vacuum therapy
 - electrophoresis
 - laser therapy
 - uhf therapy
 - currents of d`arsonval
348. Vacuum therapy by the method of V. I. Kulazhenko promotes?
- improve blood supply and trophicity in the treated area
 - stimulation of eruption of impacted teeth
 - anesthesia
 - increase mineral saturation of bone tissue
 - decrease of mineral saturation of bone tissue
349. During orthodontic treatment electrophoresis with 10% sol. of calcium chloride promotes?
- increase mineral saturation of bone tissue
 - reducing mineral saturation of bone tissue
 - improve blood supply and trophicity in the treated area
 - stimulation of eruption of impacted teeth
 - anesthesia
350. During orthodontic treatment, which is complicated with inflammatory periodontal disease of the teeth that moved, it is advisable to use?
- laser therapy
 - massage
 - myogimnastics
 - electrophoresis with 10% sol of calcium chloride
 - vacuum therapy
351. Injection of medicinal substances in the bone tissue or mucous membrane by using of ultrasound is called?
- phonophoresis
 - electrophoresis
 - magnitophoresis
 - lazerphoresis
 - depophoresis
352. Injection of medicinal substances by means of the galvanic current through the skin and mucous membranes is called?
- electrophoresis
 - magnitophoresis
 - lazerphoresis

- depophoresis
- phonophoresis
- 353. The advantage of applying of vacuum therapy in complex treatment of dento-facial anomalies?
 - increases the level reparative processes in the bone tissue
 - reduces mineral saturation of bone tissue
 - stimulates the eruption of impacted teeth
 - promotes analgesia
 - has anti-tumor effect
- 354. At what stage of orthodontic treatment used electrophoresis of medications?
 - at all stages of treatment
 - at the initial stage of treatment
 - during the period of active orthodontic treatment
 - retention period
 - not applicable
- 355. At what stage of orthodontic treatment vacuum therapy is used?
 - the period of active orthodontic treatment
 - at all stages of treatment
 - retention period
 - at the initial stage of treatment
 - not applicable
- 356. At what stage of orthodontic treatment applies laser treatment?
 - the period of active orthodontic treatment
 - at all stages of treatment
 - retention period
 - at the initial stage of treatment
 - not applicable
- 357. At what stage of orthodontic treatment used electrical stimulation of the masticatory and mimic muscles?
 - the period of active orthodontic treatment
 - at all stages of treatment
 - retention period
 - at the initial stage of treatment
 - not applicable
- 358. During the expansion of the dentition and the movement of individual teeth is used?
 - electrophoresis with 2% sol of lithium chloride
 - UHF therapy
 - currents of D'arsonval
 - amplipuls therapy
 - Eelectrophoresis with 1% sol of sodium fluoride
- 359. Laser therapy during orthodontic treatment has an effect?
 - anti-inflammatory, desensitizing
 - reduces mineral saturation of bone tissue
 - stimulates the eruption of impacted teeth
 - increases the mineral saturation of bone tissue
 - speeds up the movement of teeth
- 360. To stimulate the process of eruption of permanent teeth during orthodontic treatment used electrophoresis with?
 - lydasum
 - 2 % sol of lithium chloride
 - 1% sol of sodium fluoride
 - 10 sol calcium gluconate
 - 3% sol remodent

361. To stimulate the eruption of the tooth when there is enough space in the dental arch is used?

- massage of the alveolar process
- electrophoresis of 10% sol of calcium chloride
- myogymnastics
- amplipuls-therapy
- UHF-therapy

362. In the treatment of patients with impacted teeth I - II degree, due to the presence of supernumerary teeth, apply?

- electrical stimulation
- UFO
- UHF-therapy
- electrophoresis of 10% sol of calcium chloride
- amplipuls-therapy

363. What method of physiotherapy treatment improves blood supply and tropism of the bone tissue during orthodontic treatment?

- vacuum therapy
- electrophoresis of 10% sol of calcium chloride
- electrophoresis of 2% sol of lithium chloride
- UHF therapy
- UFO

364. To stimulate the timing of appliance treatment anomalies of position of individual teeth and narrowing of dentition, is used?

- ultrasonic effect
- UHF therapy
- currents of D'arsonval
- amplipuls therapy
- electrophoresis with 1% sol of sodium fluoride

365. To stimulate the tooth movement and eruption of impacted teeth applies?

- vibration impact
- laser therapy
- UHF therapy
- currents of D'arsonval
- amplipuls therapy

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