

**ANSWERS OF THE ENTRY TEST FOR STATE EXAMINATION IN
ORTHODONTICS, FACULTY OF DENTAL MEDICINE, MU – SOFIA**

1. Definition of the normal (orthognathic) occlusion. Normal occlusal relationships in the three planes of space are:

Sagittal plane

-Anterior segment: the buccal surfaces of the mandibular anterior teeth occlude with the palatal surface of the maxillary anterior teeth.

-Posterior segment: each permanent tooth occludes with two teeth from the mandibular arch (antagonist and distal tooth), with the exception of the mandibular central incisors and the maxillary third molar.

Transverse plane

-Anterior segment: the maxillary and mandibular midlines are aligned. The interincisive points in the maxillary and mandibular arch coincide with midsagittal plane of each dental arch and with one another.

-Posterior segment: the buccal cusps of the mandibular posterior teeth occlude with the central sulcus of the maxillary posterior teeth.

Vertical plane

-Anterior segment: the maxillary anterior teeth cover $\frac{1}{3}$ of the clinical crown of the mandibular teeth. The norm for overbite ranges between $\frac{1}{3}$ - $\frac{1}{2}$ clinical crown.

-Posterior segment: posterior teeth are in maximum intercuspation with point contacts of the maxillary posterior lingual cusp tips and the mandibular posterior buccal cusp tips.

2. List the symptoms of the tooth size-jaw size discrepancy:

-Primary dentition without diastemas and tremas.

-The upper posterior teeth in primary dentition have palatal inclination.

-The upper permanent molar erupts with mesial inclination and resorbs the distal surface of the upper primary second molar.

-Lower primary incisors erupt lingually.

-Two primary upper teeth are exfoliated by the eruption of one permanent upper tooth.

-Palatal eruption of the upper lateral permanent incisors.

-Buccal position of the upper canines.

-Upper second permanent molars erupt buccally and the lower second permanent molars erupt with steep mesial inclination.

3. Indications for space maintainer placement:

-Root formation of the permanent teeth less or equal to the crown of the tooth, e.g. $\frac{1}{2}$ its length.

-The height of the alveolar crest, covering the unerupted permanent tooth, is more than 1 mm.

-The mesio-distal width of the space, required for the permanent tooth eruption is decreased

in comparison to the opposite quadrant. If one of the cited parameters is present, space maintainers are indicated.

4. Terms of replacement of the space maintainers in the anterior segment: Every 8 months.

5. Terms of replacement of the space maintainers in the posterior segment: Every 12 months.

6. The proper age for elimination of oral habits: Elimination of the oral habit up to the age of 2,5 years does not lead to malocclusion. The optimal age for elimination of the oral habits is 3 to 6 years.

7. Transitory discrepancies of the dental arch in mixed dentition, that can self-correct:

- Lingual eruption of the lower permanent incisors with sufficient space;
- Rotations of the lower anterior teeth and space deficiency of up to 2 mm and normal overbite;
- Diastema up to 2 mm between the upper central incisors;
- Distal inclination of the upper central incisors;
- Distobuccal rotation of the upper lateral incisors – “ugly duckling” stage

8. Transitory discrepancies of the occlusion in mixed dentition, that can self-correct: Distal occlusion of the first permanent molars in cases with flush terminal plane of the second primary molars and class I of the primary canines.

9. The three physiological bite openings occur with eruption of which teeth:

- Occlusion of the first primary molars.
- Occlusion of the first permanent molars.
- Occlusion of the permanent canines, second premolars or second molars.

10. What are the forms of severity of the malocclusions?

- Dento-alveolar and skeletal form of the malocclusion
- Degree 5, according to the Index of Malocclusion Severity Assessment

11. Definition for primary orthodontic prevention: Primary orthodontic prevention is complex of actions to avoid and eliminate etiological factors, which lead to malocclusion.

12. Definition for myofunctional therapy: Myofunctional therapy is a system of exercises that restore normal morphology and function of the muscles in the maxillo-facial region.

13. Definition for “Orthodontics”: Orthos: correct, straight Odont: tooth

14. Explain the meaning of: -gnathia, -genia, protrusion, proalveolie, retromandibulism:

-gnathos – jaw;

-genys – chin;

-protrusion – forward position of the anterior teeth;

-proalveolie – forward position of the anterior segment of the alveolar bone;

-retromandibulism – backward position of the mandible.

15. List the requirements for proper bottle-feeding:

-Location – infant is on the mother's lap.

-Position of the infant – semi-upright.

-Position of the bottle during feeding – horizontal, thus milk is not poured into the oral cavity, but is suckled with an effort.

-Duration – around 20 minutes.

-Nipple type – anatomic – NUK.

16. Principles of action of the functional orthodontic appliances: The functional orthodontic appliances rehabilitate the equilibrium between the tongue and perioral muscles or redirect the masticatory muscle force in a certain direction.

17. Preventive orthodontic measures during school age, provided by the general dental practitioners:

-Comprehensive sanitation of the dentition;

-Control of the eruption of the permanent teeth;

-Identification of oral habits – mouth-breathing, infantile swallowing;

-Managing early loss of primary teeth;

-Diagnosis of early signs and initial stages of malocclusions and referring the patient to a specialist;

-Control of the negative consequences of the unabraded primary canines.

18. Eruption time of the primary teeth:

-6-12 months – upper and lower incisors

-6-8 months – central incisors

-9-12 months – lateral incisors

-13-16 months – primary first molars

-17-24 months – canines

-24-30 months – primary second molars.

19. Eruption time of the permanent teeth:

-6 years – first molars and lower central incisors

-7 years – upper central incisors and lower lateral incisors

- 8 years – upper lateral incisors
- 9-10 years – upper first premolars and/or lower canines
- 10-11 years – upper canines and second premolars
- 12 years – second molars

Sequence variations:

- eruption of the lower canines before the eruption of the lower first premolars
- eruption of the second premolars before the eruption of canines
- eruption of the second molars before the eruption of canines and/or second premolars.

20. How many growth spurts occur during the development of the maxillo-facial region?

- Minor growth spurt: 5,5-7 years
- Major growth spurt: 10-12 years and 11-13 years
- Remaining (late) growth: 19-21 years.