

**ENGLISH MASTERING ACTIVITIES
FOR DENTAL STUDENTS**

Minsk BSMU 2021

МИНИСТЕРСТВО ЗДРАВООХРАНЕНИЯ РЕСПУБЛИКИ БЕЛАРУСЬ
БЕЛОРУССКИЙ ГОСУДАРСТВЕННЫЙ МЕДИЦИНСКИЙ УНИВЕРСИТЕТ
КАФЕДРА ИНОСТРАННЫХ ЯЗЫКОВ

**УПРАЖНЕНИЯ ПО АНГЛИЙСКОМУ ЯЗЫКУ
ДЛЯ СТУДЕНТОВ-СТОМАТОЛОГОВ**

**ENGLISH MASTERING ACTIVITIES
FOR DENTAL STUDENTS**

Учебно-методическое пособие



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Представляет собой комплекс разнообразных упражнений, что позволяет овладеть профессиональной лексикой, привить навыки чтения текстов по специальности и общаться на профессиональные темы. Основная задача издания — совершенствование приобретённых ранее знаний и умений в разных видах речевой деятельности.

Предназначено для студентов стоматологического факультета.

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ПРЕДИСЛОВИЕ

Учебно-методическое пособие «Упражнения по английскому языку для студентов-стоматологов» предназначено для комплексной подготовки студентов стоматологического факультета медицинского вуза.

Издание состоит из 5 тематических разделов, которые носят автономный и в то же время целостный характер: «Анатомия зубов», «Терапевтическая стоматология», «Эндодонтия», «Протезирование» и «Гигиена полости рта».

Основная задача учебно-методического пособия — совершенствование приобретённых ранее знаний и умений в разных видах речевой деятельности на базе отобранного аутентичного материала. При отборе материалов авторы руководствовались принципами практикоориентированности и взаимосвязанного обучения основным видам иноязычной речевой деятельности. Комплекс разнообразных упражнений позволяет студентам овладеть профессиональной лексикой, развить навыки чтения и обсуждения текстов по специальности, а также навыки общения на профессиональные темы.

UNIT I. TOOTH ANATOMY

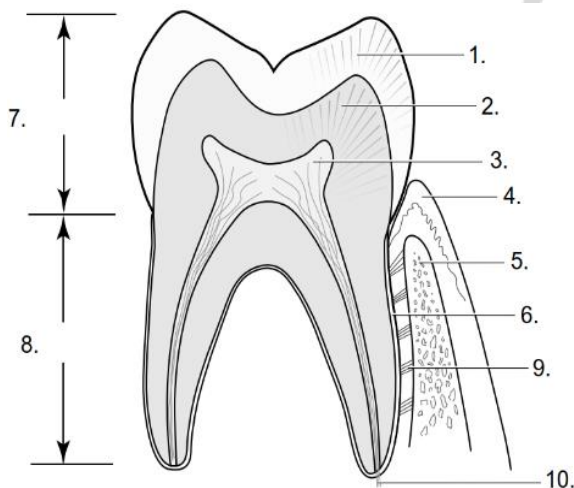
PART I. STRUCTURE OF THE TEETH

LANGUAGE DEVELOPMENT

I. Match the word with its definition:

1. the part above the gum line, the only visible part	a) enamel
2. the hard outer tissue layer covering the root attaching the surrounding gum tissue to the root of the tooth	b) dentine
3. the part of the jawbone that surrounds the root of the teeth	c) cementum
4. the outer calcified tissue layer covering the crown of the tooth; it's one of the hardest substances in the body	d) dental pulp
5. the soft tissue covering the necks of the teeth	e) gum
6. the inner tissue layer that lies beneath the enamel or cementum	f) apical foramen
7. the center part of the tooth that consists of blood vessels and nerves that enters the tooth from a hole at the bottom of the root	g) alveolar bone
8. the region of the tooth that is at the gum line, between the root and the crown	h) periodontal ligament
9. a specialized connective tissue that attaches the cementum of a tooth to the alveolar bone	i) crown
10. the small opening at the apex of a tooth	j) neck

II. Label the following tooth structures:



- Enamel
- Cementum
- Dentine
- Crown
- Pulp
- Root
- Gingiva (Gum)
- Periodontal Ligament
- Alveolar Bone
- Nerve and Blood Vessels

III. Complete the table:

Part	Brief Description	Function
1. crown	—	- appearance - maintains proper tooth spacing -
2.	- the part of the tooth anchored in the jaw bone	- - anchors the tooth

Part	Brief Description	Function
3.	- soft tissue	- - nourish the tooth
4. enamel	- the outer surface of the tooth -	-
5.	- hard calcified tissue	- makes up the body of the tooth -
6. pulp	-	-
7. cementum	- layer of calcified tissue	-

IV. Choose a word from the box and complete the text:

<i>cementum</i>	<i>supporting structure</i>	<i>attach</i>
<i>surrounding tissues</i>	<i>periodontal ligament</i>	<i>consists</i>

The periodontium is the **1.** _____ of a tooth, helping to **2.** _____ the tooth to **3.** _____ and to allow sensations of touch and pressure. It **4.** _____ of the cementum, **5.** _____, alveolar bone, and gingiva. Of these, **6.** _____ is the only one that is a part of a tooth.

V. Fill in the gaps with a suitable word:

An individual **1.** _____ consists of an exposed **2.** _____ and a **3.** _____, buried in the **4.** _____ and jaw. The **5.** _____ is usually partly covered by an outer layer of an especially hard substance related to the bone called **6.** _____. Beneath the enamel is an intermediate layer of material called **7.** _____, which is also similar to bone but is not nearly as hard as **8.** _____. It surrounds an inner pulp cavity filled with **9.** _____ (a living, vascular and well innervated tissue). Blood **10.** _____ and nerves reach the **11.** _____ through a channel, called the **12.** _____, that penetrates the root. An additional layer of bony material, **13.** _____, usually surrounds the root.

VI. Read the text. Fill in the blanks with missing words and answer the questions below:

The Structure of Teeth

All true teeth have the same general structure and consist of three layers. In mammals an outer layer or the **1.** _____, which is wholly inorganic and is the hardest tissue in the body, covers a part or all of the crown of the tooth. The middle layer of the tooth is composed of **2.** _____, which is less hard than **3.** _____ and similar in composition to bone. The dentine forms the main bulk (основная масса), or core, of each tooth and extends almost the entire length of the tooth, being covered by enamel on the crown portion and by **4.** _____ on the roots. Dentine is nourished by the **5.** _____, which is the inner portion of the tooth. The pulp consists of cells, tiny blood vessels, and a nerve and occupies a cavity located in the centre of the tooth. The pulp canal is long and narrow with an enlargement, called the pulp **6.** _____, in the coronal end. The pulp canal extends almost the whole length of the tooth and communicates with the body's general nutritional and nervous systems through the apical foramina (holes) at the end of the **7.** _____. Below the gumline extends the root of

the tooth, which is covered at least partially by **8.** _____. The latter is similar in structure to bone but is less hard than dentine. Cementum affords (обеспечивает) a thin covering to the root and serves as a medium for attachment of the fibres that hold the tooth to the surrounding **9.** _____ (periodontal membrane). **10.** _____ is attached to the adjacent alveolar bone and to the cementum of each tooth by fibre bundles.

Answer the questions:

1. How many layers are there in a tooth?
2. What is the hardest tissue in the body?
3. What is the name of the tissue just below the outer layer?
4. What is dentine?
5. What is the name of the soft center of a tooth?
6. What does the pulp consist of?
7. How long is the pulp canal?
8. What is the main function of cementum?
9. What is the name of the soft tissue that surrounds the base of teeth?
10. Are you able to retell the text? Do, please.

GRAMMAR PRACTICE

WORD ORDER

Word order in English is strict and inflexible:

Subject (noun/pronoun) + Predicate (verb) + Object + Adverbial Modifier
or

**Adverbial Modifier of place or time + Subject + Predicate (verb) + Object +
+ Adverbial Modifier**

The lower jaw has its own separate bone, which is called the mandible.

On one side of the root the cementum is attached to the periodontal (gum) ligament.

I. Make sentences from the following words:

1. The enamel, is, the white, the tooth, hard, of, covering.
2. The crown, that, with, the area, connects, the neck, the root, is.
3. The, cementum, at, enamel, the, of, meets, neck, root.
4. The, the, blood, contains, and, nerves, dentin, pulp, and, nourishes, vessels.
5. Every, into, inserted, is, the, root, jaw, tooth, by, its.

II. Translate the sentences into English:

1. Зубная эмаль — защитная оболочка зуба и самая твердая ткань в организме человека.
2. Все зубы имеют одинаковое строение. В каждом зубе различают три части: коронку зуба, шейку зуба и корень зуба.
3. В середине каждого зуба имеется полость с отверстием на верхушке корня.
4. Под эмалью находится более мягкий слой — дентин.
5. Шейка — суженная часть зуба, расположенная между коронкой и корнем.

III. Correct the mistake:

1. The outer layer of the pulp is with the special cells lined.
2. Dental anatomy examines the structures that the teeth of a human being make up.
3. The root of the tooth below the cemento-enamel junction lays.
4. On the other side is the cementum connected to the dentin.

IV. Make your own sentences using the word combinations below:

1. Periodontal membrane ...
2. Called gum ...
3. The junction of crown and root ...
4. Supporting structure ...
5. Attached to the socket ...

PART II. FIRST AND SECOND DENTITIONS

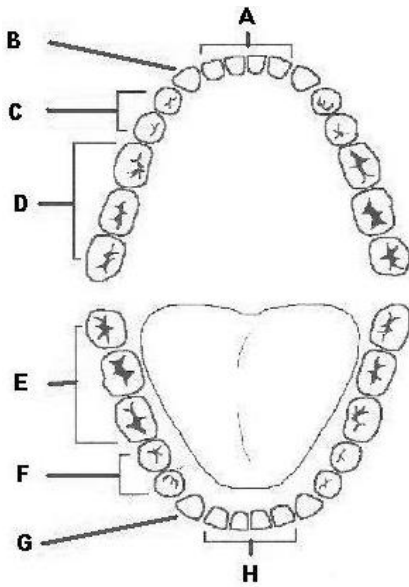
Preview Test

Human Teeth

1. What tissue covers the outer surface of the crown of the tooth?
a) enamel; b) dentin; c) pulp; d) cementum.
2. How many teeth are there in the primary dentition?
a) 32; b) 10; c) 20; d) 15.
3. Teeth do not help us in
a) speaking; b) breathing; c) chewing; d) biting.
4. How many layers are there in a tooth?
a) 1; b) 4; c) 2; d) 3.
5. Which is not a layer of a tooth?
a) dentine; b) skin; c) enamel; d) pulp.
6. Canine type of teeth helps in ...
a) tearing; b) cutting; c) chewing; d) biting.
7. Which tooth tissue contains the blood vessels and nerves of the tooth?
a) enamel; b) pulp; c) dentin; d) cementum.
8. How many molars are located in each arch?
a) 3; b) 6; c) 2; d) 12.
9. Cutting edges are found on:
a) cuspids; b) bicuspid; c) molars; d) incisors.
10. The alveolar process:
a) is bony;
b) supports the teeth;
c) partially disappears when teeth are lost;
d) is a connective tissue;
e) items a, b, and c above.

LANGUAGE DEVELOPMENT

I. Label the types of teeth:



II. Name the four tooth groups, their functions and location:

Tooth Group	Functions	Location

III. Match the two columns:

1. visible part
2. outer covering
3. soft tissue
4. supporting structures
5. bundle of fibres
6. periodontal ligament
7. teeth eruption
8. cusps
9. adjacent tissues
10. to attach
11. incisor, canine, molar
12. to replace deciduous teeth
13. resorption of roots
14. a complete dentition
15. adjacent tissues
16. the crown of the tooth

- a) бугорки
- b) видимая часть
- c) выдерживать жевательную нагрузку
- d) замещать молочные зубы
- e) корень зуба
- f) коронка зуба
- g) мягкая ткань
- h) наружная оболочка
- i) периодонтальная связка
- j) поддерживающие структуры
- k) полный зубной ряд
- l) прилегать
- m) прилегающие ткани
- n) прилегающие ткани
- o) прорезывание зубов
- p) пучок фиброзных волокон

- | | |
|---------------------------------------|-----------------------------|
| 17. the root of the tooth | q) рассасывание корней |
| 18. the neck of the tooth | r) резец, клык, моляр |
| 19. crevices and fissures | s) шейка зуба |
| 20. to withstand the masticatory load | t) щели и трещины (фиссуры) |

IV. Choose a word from the box and complete the text:

<i>deciduous teeth</i>	<i>premolars</i>	<i>teeth</i>
<i>central incisors</i>	<i>occurring</i>	<i>erupt</i>
<i>lateral incisors</i>	<i>recognized</i>	<i>broad</i>
	<i>dentition</i>	

Primary Dentition

These are the first teeth to 1. _____ into the oral cavity. There is a 2. _____ range of normal times for 3. _____ to push through the gum tissue into the mouth. For primary teeth, the 4. _____ are the first teeth to erupt, 5. _____ at about 6 months of age. By about 2½ years of age, all the primary teeth can usually be seen in the child's mouth. The primary 6. _____ is comprised of 20 teeth. Often these teeth are referred to as 7. _____. In each arch of the mouth, there are two central and two 8. _____, two canines, and four molars. The teeth are usually 9. _____ by a letter of the alphabet beginning with "A" (Maxillary right second molar) and ending with "T" (Mandibular right second molar). There are no 10. _____ and third molars in the primary dentition.

V. Fill in the blanks with missing words and answer the questions:

When do wisdom teeth erupt and why are they recommended to be removed?

Wisdom Teeth

Wisdom teeth, which are included among the 1. _____, are the final four 2. _____ that most adults develop. These 3. _____ are located in the very 4. _____ of the mouth, two in the upper and two in the 5. _____ arches. Wisdom teeth typically 6. _____ during the teen years but can develop at any time. It also is not unusual for wisdom teeth to be impacted (below the 7. _____) and not erupt at all. Not all wisdom teeth 8. _____ extraction. However, due to the risk of overcrowding, infection or misalignment, the dentist may determine that your wisdom teeth should be removed.

VI. Match the word with its definition:

1. the surface of a posterior tooth facing the cheeks	a) occlusal
2. the surface of a tooth that is closest or next to the tongue	b) labial
3. the surface of a tooth that faces the lips or cheeks; includes the labial and buccal surfaces	c) palatal
4. the parts of the occlusal surface that are raised	d) incisal
5. the surface of a tooth that faces the midline	e) distal
6. the surface of anterior teeth facing the lips	f) cusps
7. any area on the biting surfaces of the front teeth	g) buccal
8. the surface of a tooth that is closest or next to the tongue, but on the upper teeth	h) facial
9. the surface of a tooth that is away from the midline	i) mesial
10. the chewing / biting surface of posterior teeth	j) lingual

VII. Study the word cloud attentively. Choose a noun for each adjective. Make sentences with the words that don't have a pair.



VIII. Fill in the blanks with missing words:

Tooth Surfaces

In addition to identifying and naming teeth, it is important to name the tooth individual surfaces. The surfaces are named according to their 1. _____ in the oral cavity and also their uses. The number of surfaces of a tooth is different for 2. _____ and posterior teeth.

Anterior teeth are those closer to the 3. _____ and comprise central incisor, lateral incisor and 4. _____. Anterior teeth have 5. _____ surfaces — labial (lip), palatal 6. _____ and lingual 7. _____, mesial and distal — and one edge — 8. _____ edge.

Posterior teeth are those away from the 9. _____ and comprise 10. _____ and 11. _____. Posterior teeth have 12. _____ surfaces: buccal 13. _____, palatal and lingual, mesial, distal and occlusal.

GRAMMAR PRACTICE

TYPES OF QUESTIONS

Dentine protects the inner part of the tooth.

- | | |
|--|--------------------------|
| 1. <i>Does dentine protect^s the inner part of the tooth?</i> | <i>General</i> |
| 2. <i>Does dentine protect the inner or outer part of the tooth?</i> | <i>Alternative</i> |
| 3. <i>Dentine protects the inner part of the tooth, doesn't it?</i> | <i>Disjunctive (tag)</i> |
| 4. <i>What does protects the inner part of the tooth?</i> | <i>To the subject</i> |
| 5. <i>What does dentine protect^s?</i> | <i>Special</i> |

Who = she, he, it — verb+S

I. Match the items in column A to the ones in column B to make correct sentences:

Column A

1. Permanent teeth typically erupt in pairs,
2. The microscope shows that enamel
3. Each tooth in the mouth contains

Column B

- a) with the tongue to help you swallow food.
- b) the purpose of cutting and tearing food.
- c) in that they may have more than one root.

- | | |
|--|---|
| 4. Deciduous incisors and canines are replaced | d) they are shed and are soon replaced by eruption of their permanent successors. |
| 5. The anterior teeth are designed for | e) and often in a predictable order |
| 6. Posterior teeth differ from anterior teeth | f) front teeth (central incisors) around age 6. |
| 7. After the deciduous teeth loosen, | g) four different tissues that serve different functions. |
| 8. Molars work closely | h) and eruption times will vary. |
| 9. Tooth development in children is individualized | i) by permanent teeth of the same name. |
| 10. The first baby teeth to loosen are the top | j) consists of long solid rods, called prisms. |

II. Make 5 questions (general, alternative, tag, special, to the subject):

1. People have two sets of teeth in their lives.
2. The eight incisors cut food by their edges.
3. Primary molars are replaced by permanent premolars.
4. Cementum meets enamel at the neck of the tooth.
5. Children will have between 28 and 32 permanent teeth.

III. Make sentences from the following words:

1. The, or, teeth, the, pointed, eye-teeth, between, the, and, canines, are, premolars, long, incisors.
2. Molar, cusps, teeth, have, each, or, more, four.
3. The, and, vessels, of, tooth, nerves, the, called, the, blood, are, pulp.
4. The, alveolar, ligament, the jaw, attaches, the roots, to, the, bone, periodontal, of.
5. Most, are, visible, with, no, babies, born, teeth — the, are, inside, teeth, gums, forming, the.

IV. Fill in the blanks with correct prepositions:

1. Primary teeth fall _____ and are replaced _____ 32 permanent teeth.
2. Blood vessels and nerves reach the pulp cavity _____ the root canal.
3. What is the term _____ front teeth?
4. The crown is coated _____ enamel to protect the dentin and pulp _____ bacteria.
5. The enamel is primarily made _____ calcium phosphate minerals.
6. After canines there are two premolars _____ each side of the mouth _____ both the top and bottom.
7. Cementum forms a protective layer _____ the root portion of the dentin.
8. The pulp chamber is located _____ the crown.
9. _____ birth the baby has a full set of 20 primary teeth hidden _____ the gums.
10. The part of the tooth that you can see _____ the gum is called the crown.

PART III. THE JAWS

LANGUAGE DEVELOPMENT

I. Match the word with its definition:

1. the roof of the mouth separating the mouth from the nasal cavity	a) maxilla
2. the posterior more or less vertical part on each side of the lower jaw that articulates with the skull	b) mandible
3. a rounded prominence at the end of a bone, most often for articulation with another bone	c) palate
4. the triangular anterior process of the mandibular ramus, giving attachment to the temporal muscle	d) sinus
5. the central bone of the midface	e) mastication
6. a hollow cavity in the skull	f) ramus
7. the only movable cranial bone	g) condyle
8. the process of grinding and chewing food into smaller pieces in the oral cavity	h) mandibular foramen
9. an opening on the internal surface of the ramus of the mandible for divisions of the mandibular nerve and blood vessels to pass through	i) coronoid process
10. the joint between condylar head of the mandible and the mandibular fossa of the temporal bone	j) TMJ

II. Match the two columns:

- | | |
|-------------------------------|----------------------------------|
| 1. buccal | a) верхнечелюстная пазуха |
| 2. palatal | b) верхняя челюсть |
| 3. tongue | c) височно-нижнечелюстной сустав |
| 4. normal occlusion | d) вращательные движения |
| 5. maxilla | e) выступающая челюсть |
| 6. mandible | f) жевательные мышцы |
| 7. to be attached | g) мышелок |
| 8. rotary movements | h) небный |
| 9. muscles of mastication | i) нижняя челюсть |
| 10. saliva | j) правильный прикус |
| 11. a prominent jaw | k) прикрепляться |
| 12. a hard palate | l) слюна |
| 13. a maxillary sinus | m) твердое небо |
| 14. condyle | n) щечный |
| 15. a temporomandibular joint | o) язык |

III. Fill in the blanks with missing words:

Jaw, either of a pair of 1. _____ that form the framework of the 2. _____ of vertebrate animals, usually containing 3. _____ and including a movable 4. _____ jaw 5. _____ and fixed 6. _____ jaw 7. _____. Jaws function by moving in opposition to each 8. _____ and are used 9. _____ biting, chewing, and the handling of 10. _____.

IV. Choose a word from the box and complete the text:

<i>halves</i>	<i>mandible</i>	<i>central</i>
<i>bones</i>	<i>mandible</i>	<i>midline</i>
<i>alveolar</i>	<i>cranial</i>	<i>skull</i>
	<i>maxilla</i>	

The Lower Jaw

The left and right 1. _____ of the lower jaw, or 2. _____, begin originally as two distinct 3. _____, but in the second year of life the two bones fuse at the 4. _____ to form one. The horizontal 5. _____ part on each side is the body of the 6. _____. The upper portion of the body is the 7. _____ margin, corresponding to the alveolar margins of the 8. _____. The projecting chin, at the lower part of the body in the midline, is said to be a distinctive characteristic of the human 9. _____. On either side of the chin is the mental foramen, an opening for the mental branch of the 10. _____ nerve, the third division of the fifth cranial nerve.

V. Choose a word from the box and complete the text:

<i>form</i>	<i>membrane</i>	<i>surface</i>
<i>cheeks</i>	<i>bottom</i>	<i>functions</i>
<i>muscular</i>	<i>speech</i>	<i>swallowed</i>
<i>teeth</i>	<i>flexible</i>	<i>chewing</i>
<i>lingual</i>	<i>taste</i>	<i>functions</i>

The Tongue

The tongue is a 1. _____ organ in the mouth with several 2. _____. It is attached to the 3. _____ of the mouth by a 4. _____ on its underside called the 5. _____ frenum. The top 6. _____ of the tongue contains papillae, the tiny nodules or bumps that include the 7. _____ buds.

One of the 8. _____ of the tongue is taste, but it also facilitates 9. _____, digesting, swallowing and speaking. The tongue is very 10. _____. With the help of the 11. _____, it guides food to be chewed by the 12. _____ so it can be properly 13. _____ and digested. The tongue also works with the teeth to 14. _____ certain 15. _____ patterns, making speech possible.

GRAMMAR PRACTICE

ACTIVE VOICE AND PASSIVE VOICE

<i>Active voice</i>	Premolars replace deciduous molars.
<i>Passive voice</i>	To be + Participle II Deciduous molars are replaced by premolars

I. Make correct passive sentences using the prompts below. Make any changes if necessary:

1. The alveolar process / make up / of several bony layers.
2. The body of the maxilla / shape / like a four-sided, hollow pyramid.
3. Canines / use by / some species as weapons in fighting.
4. The periodontal ligament / also call / the periodontal membrane.
5. Dentine / make of / living cells, which secrete a hard mineral substance.

II. Choose the correct verb form:

1. The teeth (*are held, is held, held, hold*) within the jaw bones and serve several important functions beyond allowing you to chew. 2. The crown of a tooth (*is covered, are covered, covered, covers*) with the enamel. 3. The deciduous teeth (*are replaced, replaced, is being replaced, be replaced*) by permanent teeth. 4. The deciduous teeth also (*are called, is called, called, call*) “baby” or “milk” teeth. 5. The maxilla and the mandible (*contain, contains, are contained, be contained*) the same number and types of teeth. 6. The first permanent teeth (*will appear, appeared, are appearing, appear*) at six. 7. Each tooth (*was divided, will be divided, is divided*) into three parts: a crown, a neck, a root. 8. The roots of teeth (*are embedded, were embedded, will be embedded*) in the sockets of the jaw. 9. The upper teeth usually (*are formed, form, will form*) a wider arch therefore overlap the lower ones. 10. The bulk of each tooth (*compose, is composed, will compose*) of a hard substance called dentine.

III. Put the verbs in brackets into the correct active or passive tense:

1. The first temporary, or deciduous, set (*know*) as milk teeth.
2. Each tooth (*have*) a pulp cavity at the center that (*fill*) with connective and lymphatic tissue, nerves, and blood vessels.
3. Each tooth (*compose*) of a crown, a neck, and a root.
4. A tooth may (*have*) multiple roots or just one root (single-rooted teeth).
5. The normal color of enamel (*vary*) from light yellow to grayish white.
6. Primary teeth (*start*) to form between the sixth and eighth weeks in utero, and permanent teeth begin to form in the twentieth week in utero. If teeth (*not start*) to develop at or near these times, they (*not develop*) at all.
7. A significant amount of research (*focus*) on determining the processes that initiate tooth development.
8. The periodontal ligament is a specialized connective tissue that (*attach*) the cementum of a tooth to the alveolar bone.
9. The alveolar bone (*be*) the bone of the jaw which (*form*) the alveolus around teeth.
10. Baby teeth (*be*) as important as permanent teeth because they hold space in the jaw for the coming permanent teeth that still (*develop*) under the gums.

IV. Rewrite the sentences in the Passive Voice:

1. The periodontal ligament attaches the root to the alveolar processes of the jaws.
2. The articular disc covers the condyle.
3. The root supports the tooth in the jawbone.
4. The pulp forms the central soft part of each tooth.
5. Dentine occupies the interior of the crown and root

6. The presence of large cusps on pre-molar and molar teeth marks the main difference between them and the front teeth.

7. The body and the ramus composes the mandible.

8. Ligaments do not move the joint; muscles move it.

9. Reflexes usually control the coordinated movements of the right and left joints.

10. As with the maxillae, an alveolar process surrounds the tooth roots.

V. Write questions to which the words in bold are the answers:

1. In many species, **incisors** are used as pincers for picking food.

2. Wisdom teeth are included **among the molars**.

3. The body of the mandible is located **in the anterior part** of the lower jawbone.

4. Eruption is completed **at 18 to 25 years of age**.

5. The teeth are usually recognized **by a letter of the alphabet** beginning with “A” and ending with “T”.

FOLLOW-UP ACTIVITIES

I. Match the word with its definition:

1. the surface of a tooth that faces away from the midline of the face	a) lingual
2. it surrounds the teeth and covers the jaw bone, creating a protective barrier	b) occlusal
3. the biting edge of anterior teeth	c) enamel
4. the chewing surface of posterior teeth	d) distal
5. makes up the protective outer surface of the crown of the tooth	e) dentin
6. it makes up the majority of the inner surface of the tooth. It cannot normally be seen except on x-rays	f) buccal
7. the area inside the tooth that holds the nerves and blood vessels of the tooth	g) canines
8. it makes up the outer surface of the root of the tooth; it is much softer than enamel	h) mesial
9. these teeth are located distal to the lateral incisors and form the corners of the mouth	i) pulp
10. the surface of a tooth that is closest to the midline (middle) of the face	j) cementum
11. the surface of a posterior tooth facing the cheeks	k) incisal edge
12. the large teeth with four cusps located in the back of the mouth	l) neck
13. the surface of an anterior tooth facing the lips	m) gingiva
14. the surface of a tooth facing the tongue	n) molars
15. the junction of the crown and root	o) labial

II. Give the synonyms to the following:

Deciduous, masticate, mandible, appear / teeth, gingiva, antrum, cuspids, bicuspid, anterior teeth, back teeth, eye-teeth, alveolar bone, adult tooth.

III. Choose the correct preposition:

A. The alveolar mucosa consists 1. (*of, on, at, in*) the tissue 2. (*inside, outside*) the cheeks, vestibule (the space 3. (*among, between*) the lips or cheeks and the teeth), lips,

soft palate, and 4. (*above, under, on, inside*) the tongue. This tissue is more movable and is lightly attached 5. (*to, in, at, by*) the underlying bone and muscles. Its texture is smooth and its color is red to bright red.

B. The gingiva, also known as gum tissue, surrounds the teeth and can be attached 1. (*to, in, at, by*) the underlying bone (attached gingiva) or unattached (free gingiva). When healthy, the gingiva should be firm and well adapted 2. (*to, in, at, by*) the teeth. Its texture appears similar 3. (*of, to, on, for*) an orange peel. The colour of healthy gingiva depends 4. (*to, on, of, by*) the pigmentation of each person, but 5. (*at, in, on, at*) general it should appear light pink.

vestibule — преддверие

IV. Make 5 questions (general, alternative, tag, special, to the subject) to each sentence:

1. The mandibular first molar has five functional cusps.
2. Every tooth consists of a crown and one or more roots.
3. The crown is the part visible in the mouth.
4. Enamel cannot undergo repair.
5. The mandibular second molar are arranged similarly to those of the mandibular first molar.

V. Make sentences:

1. Pulp, tooth, a, of, the, located, beneath, is, the, layer, dentine, tissue.
2. The, front, the, teeth, first, incisors, central, are, to, permanent, erupt.
3. Teeth, specific, and, shapes, in, have, different, the, functions, chewing, process.
4. The, is, called, bone, the, alveolar, alveolar, also, process.
5. Cementum, the, that, tissue, the, of, root, the, very, covers, in, a, thin, layer, is, tooth.
6. Every, root, inserted, into, tooth, is, jaw, the, by, its.

VI. Dental word scramble:

- | | |
|----------------|---------------------|
| 1. NRISSOCI | 9. DEDUOCISU EHTET |
| 2. ASNICEI | 10. TDNEIN |
| 3. PAEX | 11. OCNWR |
| 4. OORT | 12. LPUP |
| 5. UTEMMCN | 13. SCPUS |
| 6. LOEASUVL | 14. CISBIDSPU |
| 7. MAENEL | 15. LASRMO |
| 8. MOWDIS EETH | 16. MAPNNEERT ETHTE |

VII. Fill in the blanks with the missing word and complete the text:

Teeth

The teeth have two major parts, the 1. _____ and the 2. _____. When looking at a cross section of the 3. _____ the four main 4. _____ that make up the 5. _____ are the enamel, the dentin, the cementum and the 6. _____. All of these parts 7. _____ important roles in the proper functioning of the 8. _____. The 9. _____ dentition is made up of 20 teeth, while the 10. _____ or adult

dentition contains 32 teeth. Most **11.** _____ professionals refer to a numbering or lettering system when identifying the teeth. There are four main **12.** _____ of teeth, the incisors, the canines, the premolars and the molars. Each type of the tooth serves a different **13.** _____ in eating. Understanding dental **14.** _____ is essential in order to begin to develop an appreciation for the role of teeth in digestion, appearance, speech and sensory input. Without the proper function of the teeth, usually due to diseases such as decay or cavities, a person's health, appearance and nutrition can **15.** _____ affected.

VIII. Translate the following sentences from Russian into English:

1. Все зубы имеют одинаковое строение.
2. Зубы располагаются в ротовой полости и являются частями верхней и нижней челюстей.
3. Коронку зуба покрывает эмаль, которая является самой твёрдой тканью в организме, что объясняется высоким содержанием неорганических веществ (до 97 %) [inorganic compounds].
4. Место соприкосновения десны и коронки зуба называется шейкой зуба.
5. Пульпа — волокнистая соединительная ткань, заполняющая зубную полость, которая содержит в себе большое количество кровеносных и лимфатических сосудов.
6. Зубы мудрости прорезаются не у всех.

IX. Translate the text into your native language:

A. Teeth vary in shape and size but have an identical structure. Each tooth is composed of the connective tissue, the pulp, covered by three calcified tissues: dentin(e), enamel, and cement(um). The pulp is in the pulp cavity, which comprises a pulp chamber in the crown and one or more root canals in the root(s). The root canals open by apical foramina, which transmit nerves and vessels to the pulp. The cementum is connected to the alveolar bone by periodontium to form a fibrous joint between a tooth and its socket (alveolus).

B. In humans the primary dentition consists of 20 teeth — four incisors, two canines, and four molars in each jaw. The primary molars are replaced in the adult dentition by the premolars, or bicuspid teeth. The 12 adult molars of the permanent dentition erupt (emerge from the gums) behind the primary teeth and do not replace any of these, giving a total of 32 teeth in the permanent dentition. The permanent dentition is thus made up of four incisors, two canines, four premolars, and six molars in each jaw.

X. Match the term in Column II to the appropriate description of the surfaces of the teeth in Column I:

- | Column I | Column II |
|--|-------------|
| 1. The broad chewing surface of posterior teeth. | a) lingual |
| 2. The narrow cutting edge of anterior teeth. | b) facial |
| 3. The tooth surfaces that face each other. | c) occlusal |
| 4. Faces toward the tongue. | d) incisal |
| 5. Faces toward the cheek or lips. | e) proximal |
| 6. The anterior surface of the tooth. | f) distal |
| 7. The posterior surface of the tooth. | g) mesial |

XI. Be ready to discuss the following topics:

1. Structure of the teeth
2. Tooth anatomy
3. Occlusion
4. Dentitions
5. Jaws
6. Tissues of the teeth
7. Tooth surfaces
8. Types of the teeth

TEST YOURSELF

- A.**
1. Permanent anterior teeth include:
 2. Each tooth replacing the primary tooth of the same type is called:
 3. How many sets of teeth do people have?
 4. What are the sets of teeth that people have in their life time?
 5. How many teeth are there in each dentition?
 6. Which teeth are referred to as the “cornerstone” of the dental arch?
 7. Which primary mandibular molar is the largest?
 8. Which arch is fixed and not capable of movement?
 9. What class of teeth is present in the permanent dentition that is NOT present in the primary dentition?
 10. How many types of teeth are in the primary dentition? What are they?
- B.**
1. All of the following tooth surfaces are axial surfaces EXCEPT the _____ surface.
a) facial; b) lingual; c) mesial; d) distal; e) occlusal.
 2. What is the facial surface of posterior teeth sometimes called?
a) labial; b) lingual; c) distal; d) buccal.
 3. The surface that contacts the central incisor of the opposite side of the dental arch is the _____ surface.
 4. Which teeth have more cusps?
a) incisors; b) cuspids; c) bicuspids; d) molars.
 5. Which molars have three roots instead of two?
a) maxillary; b) mandibular.
 6. What tooth tissue does the periodontal ligament attach the alveolar bone to?
a) dentine; b) cementum; c) pulp; d) enamel.
 7. What tissue forms the outer boundary of almost all of the pulp chamber?
*a) alveolar bone; d) cementum;
b) periodontal ligament; e) enamel.
c) dentine;*
 8. What is the name of the teeth that comes from their similarity to dogs’ fangs?
a) canines; b) molars; c) incisors; d) wisdom teeth.
 9. The area of the tooth closest to the tongue is referred to as the _____ surface.
 10. Which teeth is referred to as the “cornerstone” of the dental arch?
a) canines; b) molars; c) incisors; d) wisdom teeth.

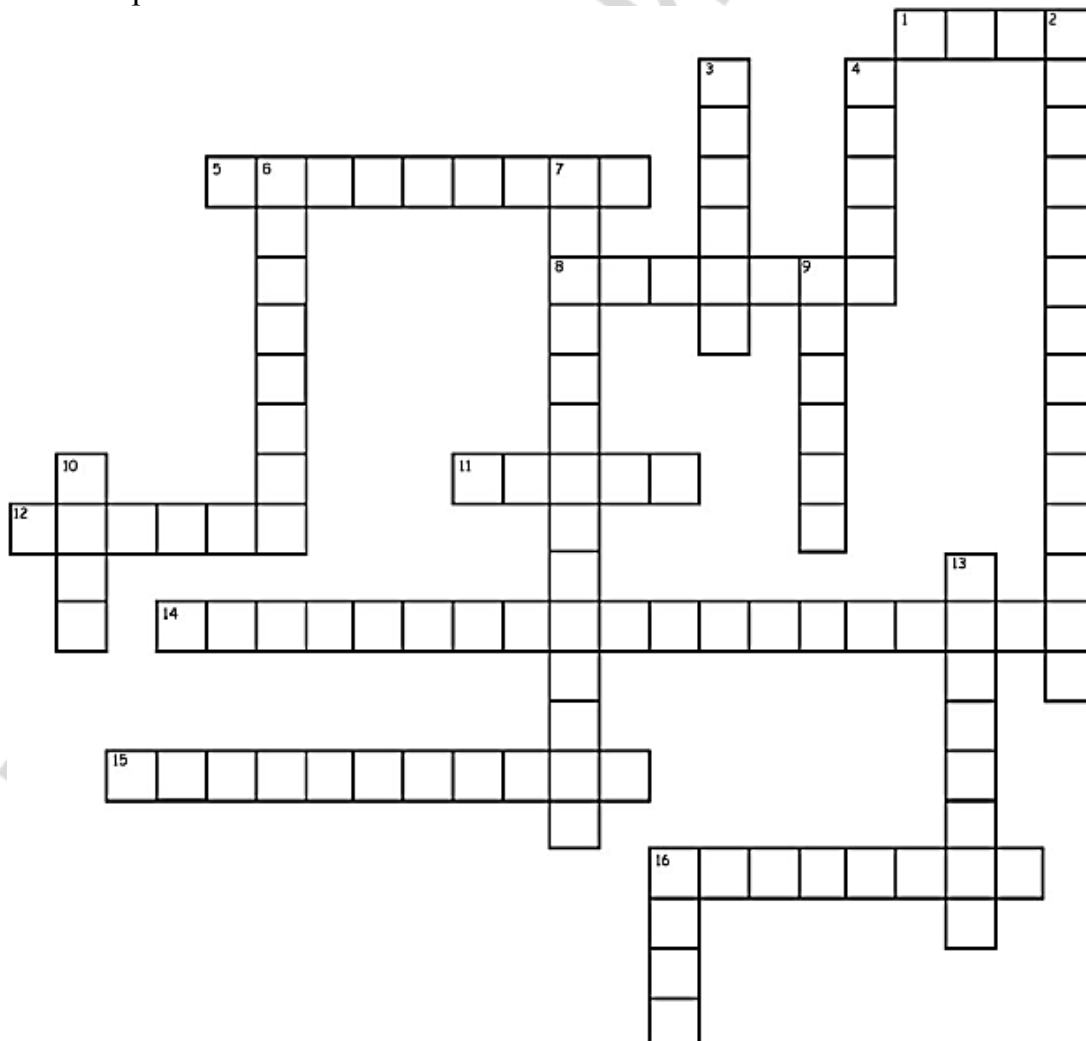
Dental Crossword Puzzle

Across:

1. This area consists of blood vessels that bring oxygen and nutrients to the tooth
5. The teeth which are located behind the canines
8. The name of these teeth comes from their similarity to dogs' fangs
11. Portion of the tooth that is visible above the gum line
12. These teeth are used for the most forceful chewing
14. What attaches the cementum of the tooth to the alveolus?
15. Third molars
16. A socket in the jawbone through which the root of the tooth is anchored

Down:

2. The 32 teeth that replace baby teeth
3. The layer beneath the tooth's enamel
4. The ridges on top of the crown that are used for grinding and chewing
6. These teeth have a straight, sharp edge and are used to cut food
7. Baby teeth, or milk teeth
9. Forms the outer layer of the tooth and protects it from bacteria and temperature change
10. The portion of the tooth below the gum line
13. The outer layer of the tooth below the gum
16. The bottom point of the tooth's root



ENGLISH TENSES REVISION

Present	Active	Passive
Simple (fact, habitual action)	I treat	I am treated
Continuous (everything we can see/hear right now)	I am treating	
Perfect (the result of the action)	I have treated	I have been treated
Perfect Continuous (duration with a starting point)	I have been treating	

I. Match the items in column A to the ones in column B to make correct sentences:

Column A

1. People have two sets
2. Cementum meets enamel
3. The primary dentition
4. The pulp forms
5. The root supports
6. The roots of teeth are embedded
7. The gingiva surrounds the teeth and
8. The mandibular first molar has
9. The crown is the part
10. Teeth vary in shape and size but

Column B

- a) the central soft part of each tooth.
- b) five functional cusps.
- c) can be attached to the underlying bone
- d) the tooth in the jawbone.
- e) at the neck of the tooth.
- f) have an identical structure.
- g) of teeth in their lives.
- h) visible in the mouth.
- i) in the sockets of the jaw.
- j) is comprised of 20 teeth.

II. Choose the best answer:

1. She _____ when she saw the blood.
a) had fainted; b) fainted; c) faints.
2. The treatment _____ to prevent the patient's condition from getting worse.
a) given; b) has given; c) is given.
3. The patient _____ an allergy to that medicine last time.
a) developed; b) develops; c) have developed.
4. This _____ a safe painkiller, with no harmful side-effects.
a) being; b) been; c) is.
5. The doctor _____ a course of antibiotics after the treatment tomorrow.
a) prescribed; b) will prescribe; c) prescribes.
6. Every time this patient _____ badly to the penicillin.
a) have been reacted; b) will react; c) reacts.
7. The dentist _____ the cavity now.
a) is cleaning; b) is being cleaning; c) has cleaned.
8. The patient _____ from severe toothache for 3 days.
a) suffers; b) has been suffering; c) has suffered.
9. I _____ the results of the tooth X-ray yet.
a) haven't received; b) didn't receive; c) not received.
10. Pulpitis _____ by the dentist during the examination yesterday.
a) diagnosed; b) was diagnosed; c) is diagnosed.

III. Choose the best variant:

1. Yesterday when you called, I _____ in the dental chair.
a) sat; b) had sat; c) was sitting.
2. Many people _____ their wisdom teeth pulled by a dentist.
a) get; b) had got; c) are getting.
3. Incisors _____ like tiny chisels with flat ends that are sharp.
a) shape; b) are shaped; c) will be shaped.
4. A significant amount of research _____ on determining the processes that initiate tooth development.
a) has focused; b) had focused; c) focus.
5. More and more people, both children and adults _____ orthodontic treatment today.
a) are seeking; b) will seek; c) seek.
6. The first "British Dental Journal" _____ in 1843.
a) published is; b) published; c) was published.
7. Innovative dental practices _____ every day.
a) are developing; b) are being developed; c) develop.
8. Early recognition and treatment of any problems _____ greatly your chances of avoiding complications.
a) will be improved; b) will have improve; c) will improve.
9. I just _____ by the dentist.
a) have been questioned; b) am questioned; c) have questioned.
10. I _____ my pulpitis tomorrow at 5 p.m.
a) will treat; b) will be treated; c) will be treating.
11. I _____ the topic by the time you get back.
a) will study; b) will have studied; c) have studied.
12. How long _____ dentistry?
a) have you been studying; b) are studying; c) have studied.
13. The denture _____ tomorrow.
a) will make; b) will be making; c) will be made.
14. Dr. Lucy Beaman Hobbs _____ the first woman to graduate an American dental school in 1866.
a) became; b) had become; c) was becoming.
15. By 1859 dentists _____ ether anesthesia for oral surgery.
a) developed; b) had developed; c) had been developed.

IV. Choose the best answer:

1. This patient _____ by the dentist tomorrow morning.
a) will examine; c) will be examined;
b) 's being examined; d) is examined.

2. The dentist _____ the boy's teeth when the nurse came in.
a) *was examining;* c) *have examined;*
b) *examined;* d) *examining.*
3. He _____ as a doctor only for a severely short time.
a) *'s being working;* b) *works;* c) *worked;* d) *'s been working.*
4. The nurse _____ all the instruments before the treatment began.
a) *had disinfected;* c) *has disinfected;*
b) *disinfected;* d) *disinfects.*
5. The enamel _____ by this time.
a) *is forming;* c) *will have formed;*
b) *form;* d) *will form.*
6. His tooth _____ by 5 o'clock tomorrow.
a) *will be filled;* c) *'ll have been filled;*
b) *will fill;* d) *is filled.*
7. He _____ by this dentist 3 weeks ago.
a) *was treated;* c) *treated;*
b) *was treating;* d) *had been treated.*
8. The dentist is busy now. He _____ the tooth.
a) *extracted;* c) *extracts;*
b) *have extracted;* d) *is extracting.*
9. The patient _____ for an hour.
a) *has been waiting;* c) *waits;*
b) *has waiting;* d) *waited.*
10. She _____ by the best specialist yesterday.
a) *is treated;* c) *was treated;*
b) *treated;* d) *has been treated.*

V. Choose the best answer:

1. Anyone who _____ ever a toothache can attest to the vital role dentists play in ensuring good public health.
a) *will have;* b) *has had;* c) *have had;* d) *is having.*
2. Dr. Smith _____ as an orthodontist for ten years already.
a) *is working;* b) *has working;* c) *'s been working;* d) *works.*
3. While the doctor _____ the nurse was holding the saliva ejector.
a) *drilled;* b) *was drilling;* c) *has drilled;* d) *is drilling.*
4. I think I _____ one unit every week.
a) *does;* b) *do;* c) *did;* d) *will do.*
5. Do you think the teacher _____ our homework by Monday morning?
a) *'ll have marked;* b) *will mark;* c) *marks;* d) *is marking.*
6. We know that people _____ their teeth with some type of tool since ancient times.
a) *clean;* b) *cleaned;* c) *have cleaned;* d) *has cleaned.*

7. At the dentist: Which tooth _____ you?
a) *is troubling*; b) *does trouble*; c) *do trouble*; d) *are troubling*.
8. A month from now he _____ all his exams.
a) *has finished*; b) *'ll have finished*; c) *is finishing*; d) *will finished*.
9. Toothpaste _____ as long ago as 500 BC in both China and India.
a) *has been used*; b) *is used*; c) *was used*; d) *uses*.
10. Was Peter pleased with the treatment.
– No, he was angry because anesthesia _____ not _____.
a) *had given*; b) *was given*; c) *had been given*; d) *has been given*.
11. Doctors have to do a lot of work.
– Yes, but they _____ well.
a) *will pay*; b) *have paid*; c) *pay*; d) *are paid*.
12. You _____ never the structure of the teeth before entering our University.
a) *had studied*; b) *have studied*; c) *studied*; d) *was studying*.
13. Dental offices everywhere _____ to “cater to comfort” by offering sedation and laser dentistry.
a) *are started*; b) *are starting*; c) *has started*; d) *starts*.
14. Excellent communication between you and your dentist _____ a trusting relationship for years to come.
a) *are building*; b) *will be built*; c) *will have built*; d) *will build*.
15. In 1848, Waldo Hanchett _____ the dental chair.
a) *patented*; b) *was patented*; c) *had patented*; d) *were patented*.

VI. Put the verb in brackets into the correct tense form:

1. The new method of treatment _____ now. (to demonstrate)
2. How many patients you _____ today? (to examine)
3. He always _____ the dentist in summer. (to visit)
4. I _____ for the dentist for an hour now. I can't wait any longer. (to wait)
5. She _____ anything yesterday because she had a toothache. (to eat)
6. New modern techniques _____ in treating this patient's tooth tomorrow morning. (to use)
7. The tooth _____ by 6 o'clock yesterday. (to fill in)
8. Dentists _____ to be polite and friendly to their patients. (to teach)
9. I felt a terrible toothache while I _____ home. (to drive)
10. Nothing _____ in treating caries recently. (to change)

VII. Put the verb in brackets into the correct tense form:

1. My mum _____ from toothache since last night (to suffer).
2. When your lecture is over, I _____ for you (to wait).
3. Molars _____ closely with your tongue to help you swallow food (work).
4. Sensitivity to pressure may indicate that the pulpal inflammation _____ to the periodontal ligament (to extend).
5. The first real electric toothbrush _____ in 1939 and developed in Switzerland (to produce).

6. In 1859, 26 dentists _____ in New York and officially formed the American Dental Association (to meet).

7. By understanding normal mouth development and learning to recognize abnormal conditions, you _____ spot the early warning signs of problems or disease (to be able).

8. You _____ your report by this time next week (to finish).

9. Normal tooth eruption at about six months _____ as teething and can be painful (to know).

10. There's no doubt that Dentistry _____ a long way and changed for the better (to come).

11. Ann can't answer the phone now, she is very busy, she _____ her Anatomy exam (to take).

12. Once a relationship between you and your doctor _____, your dentist may become your real friend (to establish).

13. I _____ to the Anatomy lecture when the tooth ached (to listen).

14. The nurse said that the dentist _____ already out (to go).

15. You _____ four types of teeth and your task _____ to name them correctly (to show, to be).

VIII. Read the dialogue. Choose the most suitable verb form for each space.

Patient: Hello, Doctor.

Dentist: Good morning, Sam. How **1.** _____ today?

Patient: I'm OK. I **2.** _____ some gum pain recently.

Dentist: Well, we **3.** _____ a look. Please recline and open your mouth ... that's good.

Patient: (after being examined) How does it look?

Dentist: Well, there is some inflammation of the gums. Why **4.** _____ you come earlier? I think it **5.** _____ you for quite a while.

Patient: Well, you know, it is not quite a pleasure to go to the dentist's. And every time I **6.** _____ to come it got better.

Dentist: **7.** _____ you feel the ache from cold or hot water?

Patient: I **8.** _____ the ache from cold.

Dentist: I think we should also do a new set of X-rays.

Patient: Why do you say that? **9.** _____ something wrong?

Dentist: No, no, it's just standard procedure every year. It **10.** _____ like you may have a few cavities as well.

Patient: That's not good news.

Dentist: There are just two and they look superficial.

Patient: I hope so.

- | | | | |
|--------------------------|---------------------|--------------------|---------------------|
| 1. a) is you | b) are you doing | c) do you | d) have you done |
| 2. a) had had | b) have | c) have been | d) have been having |
| 3. a) takes | b) will | c) will take | d) have taken |
| 4. a) didn't | b) don't | c) won't | d) isn't |
| 5. a) had hurt | b) has been hurting | c) hurt | d) hurts |
| 6. a) will decide | b) have decided | c) decide | d) decided |
| 7. a) do | b) have | c) is | d) will |
| 8. a) am filling | b) had felt | c) feel | d) will feel |
| 9. a) has | b) were | c) does | d) is |
| 10. a) looked | b) is looking | c) 's been looking | d) looks |

IX. Read the dialogue. Choose the most suitable verb form for each space.

- Hi.
– Hello.
– What **1.** _____ now? Let's go for a walk.
– No, unfortunately I can't now. I **2.** _____ for a test on jaws.
– Our group **3.** _____ the same test last Monday. And I **4.** _____ the whole weekend! But you **5.** _____ so hard recently, so I think you **6.** _____ it easily.
– Well, you **7.** _____ already all the thing on the topic. Could you help me and ask several questions?
– I can if you like. What **8.** _____ the function of the mandible?
– It **9.** _____ the lower teeth in place, it **10.** _____ in mastication and **11.** _____ the lower jawline.
– That's right. And what are the main parts of the mandible?
– The mandible **12.** _____ of the body and the ramus and **13.** _____ inferior to the maxilla. The body is a horizontally curved portion that **14.** _____ the lower jawline.
– You know the subject perfectly!
– I am not sure. I **15.** _____ much but not everything. It **16.** _____ a lot of time, so I won't go for a walk today.

- | | | | |
|----------------------|--------------------|-----------------------|-----------------------|
| 1. a) do you do | b) do you doing | c) are you doing | d) were you doing |
| 2. a) were preparing | b) am preparing | c) prepare | d) will prepare |
| 3. a) have | b) has | c) will have | d) had |
| 4. a) am learning | b) learnt | c) was learning | d) learn |
| 5. a) study | b) are studying | c) have been studying | d) have studying |
| 6. a) pass | b) will be passing | c) have passed | d) will pass |
| 7. a) are reading | b) have read | c) will have read | d) read |
| 8. a) are | b) were | c) is | d) was |
| 9. a) hold | b) is holding | c) has been holding | d) holds |
| 10. a) assists | b) assist | c) is assisting | d) has been assisting |
| 11. a) is forming | b) form | c) forms | d) will form |
| 12. a) are composed | b) is composed | c) is composing | d) composes |
| 13. a) are located | b) are locating | c) locates | d) is located |
| 14. a) are created | b) is created | c) creates | d) create |
| 15. a) have revised | b) revise | c) have been revised | d) am revised |
| 16. a) take | b) have taken | c) will be taking | d) will take |

UNIT II. THERAPEUTIC DENTISTRY

PART I. CAUSES AND EFFECTS OF CARIES

LANGUAGE DEVELOPMENT

I. Read and translate the words and word combinations:

1. **acid:** acid formation, to produce acid, to be attacked by acid, acidic, can be turned into acid, the duration of acid production, the number of acid attacks, caused by acid
2. **consume:** to be consumed, to consume carbohydrates, excessive consumption
3. **involve:** involved, the whole side of the face is involved, to be involved in inflammatory swelling
4. **bacteria:** bacterium, bacterial, the action of certain bacteria, harmless bacteria, the irritant action of bacteria
5. **resistant:** resistance, resistant to acid attack, absolutely resistant, considerable resistance
6. **reduce:** to reduce the amount of consumption, considerable reduction, to reduce stagnation areas

II. Match the two columns:

- | | |
|------------------------------|------------------------------------|
| 1. to dissolve enamel | a) усиленный кровоток |
| 2. apical foramen | b) болезненное состояние |
| 3. increased blood flow | c) сдавливание кровеносных сосудов |
| 4. blood vessels compression | d) отверстие в десне |
| 5. painful condition | e) растворять эмаль |
| 6. hole in the gum | f) достигать пульпы |
| 7. to reach the pulp | g) апикальное отверстие |

III. Fill in the blanks with the missing words:

Tooth 1. _____ (or dental caries) is damage to a 2. _____ that can happen when decay-causing 3. _____ in your mouth make acids that attack the tooth surface, or 4. _____. This can lead to a small hole in a tooth, called a 5. _____. If tooth decay is not treated, it can cause pain, infection, and even 6. _____ loss.

People of all ages can get tooth decay once they have teeth — from 7. _____ through the senior years.

When decay-causing bacteria come into contact with sugars and starches from foods and drinks, they form an 8. _____. This acid can attack the tooth 9. _____ causing it to lose minerals.

This can happen if you eat or drink often, especially foods and drinks containing sugar and 10. _____. The repeated cycles of these “acid attacks” will cause the enamel to continue to lose 11. _____. Over time, the enamel is weakened and then destroyed, forming a 12. _____.

IV. Form the necessary part of speech:

Dental caries is an 1. (*infection*) and communicable disease that causes 2. (*de + mineral*) and 3. (*dissolve*) of the dental tissues with the 4. (*form*) of a cavity. It is

the worldwide health concern, 5. (*affect*) humans of all ages. Dental caries is the single most common chronic disease in children, however, due to recession of the 6. (*gingiva*) tissues, many older adults experience root caries. Caries has affected humankind since the 7. (*begin*) of recorded history. Since the late nineteenth century, dentists have been fighting tooth decay by 8. (*drill*) out the decayed tooth structure and 9. (*fill*) the tooth with a 10. (*restore*) material. Although this 11. (*treat*) eliminates decay that is already present, it does nothing to lower levels of bacteria in the mouth that may cause 12. (*add*) caries. The cause of 13. (*carious*) is bacterial breakdown of the hard tissues of the teeth. This occurs due to acid made from food debris of sugar on the tooth 14. (*superficial*). It is an ongoing process that begins with the plaque, a 15. (*colour* + “*absence*”), soft, sticky layer of 16. (*harm*) bacteria. Plaque is the most 17. (*danger*) when bacteria group into colonies within 24 hours. After repeated attacks, if the plaque is not 18. (*remove*), the enamel breaks down and decays.

V. *Study the word cloud. Speak about caries development using the suggested words:*



GRAMMAR PRACTICE

THE COMPLEX SUBJECT

The Complex Subject consists of a **noun / pronoun** (in the nominative case) and **the infinitive**. It is considered to be *the subject of the sentence*; its *Russian equivalent* is in most cases *a subordinate clause*.

a noun (in the nominative case)

+ to + infinitive

Pronoun (in the nominative case)

A noun / pronoun + Passive Predicate + **to** + **infinitive**

But: A noun / pronoun + **seem, appear, happen, chance, prove, turn out, etc.**
(the Active Voice) + **to** + **infinitive**

Composites are known to be widely used in dentistry.

Известно, что композитные материалы широко используются в стоматологии.

I. Study the forms of the Infinitive:

- to treat — Infinitive Simple Active
- to be treated — Infinitive Simple Passive
- to have treated — Infinitive Perfect Active
- to have been treated — Infinitive Perfect Passive

II. Read the following sentences, define the Complex Subject and the forms of the Infinitive in them. Translate the sentences and comment on the translation:

1. He is said to consult his patients every day.
2. He was said to be treated by this dentist.
3. He turned out to have consulted the dentist.
4. He is likely to be consulted by this dentist.

III. Choose the best answer:

1. He is known _____ an outstanding doctor.
a) to be; b) being; c) been.
2. He doesn't _____ to keep the oral hygiene.
a) seems; b) seem; c) seeming.
3. His father was said _____ the best dentist in the town.
a) being; b) be; c) to be.
4. All the doctors _____ to be wearing rubber gloves.
a) are supposed; b) supposed; c) have supposed.
5. He appears _____ the treatment.
a) to have finished; b) to be finished; c) finishing.
6. The present article _____ to be the first paper published on the clinical use of this medicine.
a) is reported; b) reports; c) is reporting.
7. Sensitivity to antibiotics was found _____ not only in this patient but in all the other members of the family.
a) to be present; b) to have been present; c) to have present.

IV. Paraphrase the sentences using the Complex Subject:

Model: *It is known that this method is very effective.*
It is known that this method is (=to be) very effective.
This method is known to be very effective.

1. It seems he knows everything about this procedure.
2. It seemed that his teeth had not been treated for a long time.
3. It appeared that he had not heard the recommendations.
4. It happened that I was present at the opening of a new clinic.
5. It turned out that my prediction about treatment was correct.
6. It is certain that the dentist will be back soon.
7. It is likely that this new course of treatment will help your patient.
8. It is known that this procedure takes much time.

V. Translate the sentences using the Complex Subject:

1. Известно, что пульпит развивается, когда кариес разрушает дентин и достигает пульпы.
2. Оказалось, что зубная боль была острой.
3. Говорят, что он хороший стоматолог.
4. Оказалось, что он уже запломбировал все пораженные зубы.
5. Известно, что некоторые продукты способствуют развитию кариеса.
6. Вероятно, что у него разовьется абсцесс.
7. Вряд ли, что этот зуб будет удален.
8. Известно, что боль может быть острой и хронической.

PART II. PULPITIS

LANGUAGE DEVELOPMENT

I. Match the words in column A with the words in column B to make expressions. Use expressions to make sentences:

- | A | B |
|-----------------|-----------------|
| 1. refined | a) consumption |
| 2. excessive | b) fissures |
| 3. blood | c) treatment |
| 4. pulp | d) carbohydrate |
| 5. occlusal | e) death |
| 6. cavity | f) preparation |
| 7. conservative | g) supply |

II. Match the words with their definitions:

1. a damage to a tooth that can happen when decay-causing bacteria in your mouth make acids that attack the tooth surface, or enamel	a) stagnation
2. the practice of caring of your teeth to keep them healthy	b) cavity
3. a permanently damaged area in the hard surface of your teeth that develop into tiny openings or holes	c) caries
4. it is usually placed in a thin layer over exposed pulp within a cavity preparation	d) pulpitis
5. the location on the surface of the tissue where there is a tendency for food debris to accumulate	e) prevention
6. a condition that causes painful inflammation of the pulp	f) lining
7. a condition affecting the tissues surrounding the teeth, the gums become swollen, red, and may bleed.	g) bacteria
8. a substance with particular chemical properties	h) inflammation
9. a sticky colorless deposit that grows on surfaces within the mouth	i) alveolar abscess
10. a pus pocket adjacent to the tooth root which is related to plaque and calculus deposition	j) acid

III. Complete the text with the words given below:

<i>occur</i>	<i>extreme</i>	<i>causes</i>	<i>mild</i>
<i>dentin</i>	<i>enamel</i>	<i>infection</i>	<i>nerve</i>
<i>toothache</i>	<i>symptom</i>	<i>oral</i>	<i>pain</i>
<i>sensitivity</i>	<i>inflammation</i>	<i>chamber</i>	<i>fillings</i>
<i>findings</i>		<i>dental caries</i>	

Pulpitis

Pulpitis is an **1.** _____ of dental pulp tissue. Usually it is associated with **2.** _____. Increased **3.** _____ to stimuli, specifically hot and cold, is a common **4.** _____ of pulpitis. A prolonged throbbing **5.** _____ may be associated with the disease. However, pulpitis can also **6.** _____ without any pain.

Pulpitis may be caused by **7.** _____ that penetrates (goes) through the **8.** _____ and **9.** _____ to reach the pulp, or it may be a result of trauma and lots of treatments such as **10.** _____ or dental crowns.

Inflammation is commonly associated with a bacterial **11.** _____ but can also be due to other **12.** _____ such as repetitive (recurrent) trauma or in rare cases periodontitis. In the case of penetrating decay, the pulp **13.** _____ is no longer sealed off from the environment of the **14.** _____ cavity.

When the pulp becomes inflamed, pressure from inflammation affects the **15.** _____ and can cause from **16.** _____ to **17.** _____ pain, depending upon the severity of the inflammation and the body's response.

Diagnosis is based on clinical **18.** _____ and confirmed by X-ray.

Answer the questions:

1. What kind of the disease is pulpitis?
2. What are the common symptoms of pulpitis?
3. What are the causes of pulpitis?
4. Why does pain occur in pulpitis?
5. What is the diagnosis of pulpitis based on?

IV. Fill in the blanks with the missing words:

Pulpitis is **1.** _____ of the dental **2.** _____ resulting from untreated **3.** _____, trauma, or multiple restorations. Its principal symptom is **4.** _____. Diagnosis is based on clinical findings, and results of x-rays and pulp vitality tests. **5.** _____ involves removing decay, restoring the damaged **6.** _____, and sometimes doing **7.** _____ canal therapy or extracting the tooth.

GRAMMAR PRACTICE

I. Read the following sentences; define the Complex Subject and the forms of the Infinitive in them. Translate the sentences and comment on the translation:

1. He happened to have attended a seminar on caries prevention.
2. He is known to have been treated by that dentist last year.
3. He is sure visit the dentist next morning.
4. He is likely to be examined by the doctor soon.

II. Choose the best answer:

1. He is said _____ a lot of doctors.
a) to have visited; b) to visit; c) have visited.
2. The body of the mandible is established _____ two surfaces (external, internal) and two borders (superior or alveolar, and inferior).
a) to have; b) to have been; c) have.
3. The angle of the mandible is known _____ the angle forming between the body and ramus of the mandible.
a) to being; b) be; c) to be.
4. Pulpitis is found _____ when caries extends through the dentine and reaches the pulp.
a) to have occurred; b) to occur; c) occurring.
5. The formation of dental caries is thought _____ due to the bacteria on the teeth.
a) to have appeared; b) to appear; c) to have appear.
6. Gum irritation was revealed _____ after each administration of this preparation.
a) to occur; b) to have occurred; c) to be occurring.
7. The patient was known _____ tooth extraction a month before.
a) to have; b) to have had; c) to be having.

III. Paraphrase the sentences using the Complex Subject:

Model: It is known that this method is (= to be) very effective.
 This method is known to be very effective.

1. It seems the doctor knows everything about his patients.
2. It seemed that all his patients had not undergone professional hygiene for a long time.
3. It appeared that he had not followed the dentist's advice.
4. It happened that I was invited to dental conference.
5. It turned out that treatment was performed in 2 appointments.
6. It is certain that the dentist will make a correct diagnosis.
7. It proved that caries is caused by bacteria.
8. It is known that a cavity in his tooth has reached the pulp.

IV. Translate the sentences using the Complex Subject:

1. Говорят, что этот стоматолог очень умелый.
2. Оказалось, что он уже был у стоматолога на прошлой неделе.
3. Известно, что пульпит бывает острым и хроническим.
4. Вероятно, что зуб придется удалить.
5. Известно, что гибель пульпы сопровождается болью.
6. Известно, что лечение помогло устранить боль.
7. Оказалось, что зуб был удален вовремя.
8. Несомненно, что рекомендации будут соблюдаться.

PART III. PREVENTION AND TREATMENT OF CARIES

LANGUAGE DEVELOPMENT

I. Match the antonyms:

- | | |
|-------------|--------------|
| 1. consume | a) decrease |
| 2. cause | b) disappear |
| 3. expose | c) result |
| 4. increase | d) relax |
| 5. compress | e) produce |
| 6. occur | f) cover |

II. Match the synonyms:

- | | |
|-----------------|--------------|
| 1. destroy | a) defend |
| 2. regenerate | b) often |
| 3. modification | c) initial |
| 4. worsen | d) restore |
| 5. incipient | e) aggravate |
| 6. advocate | f) change |
| 7. frequently | g) impair |

III. Choose the best answer:

1. If I give you local _____, you won't feel any pain.
a) *painless*; b) *medicine*; c) *anesthesia*.
2. Most people hate the sound of a dentist's _____.
a) *drill*; b) *drift*; c) *drain*.
3. I'm sorry, but your dental plan does not _____ (= pay for) this type of treatment.
a) *cover*; b) *assist*; c) *make*.
4. You have a _____ in that tooth.
a) *cavity*; b) *cave*; c) *chamber*.
5. I suggest we put a porcelain _____ on that tooth.
a) *crane*; b) *crown*; c) *corn*.
6. We'll have to _____ that tooth. = We'll have to remove that tooth.
a) *excel*; b) *accept*; c) *extract*.
7. Is your cheek still _____? = Do you still have no feeling in your cheek?
a) *dumb*; b) *lame*; c) *numb*.
8. Could you bite down on this paper and _____ your teeth? (= rub your teeth together)
a) *grind*; b) *grow*; c) *greet*.

IV. Choose the correct preposition:

Dental caries is a disease resulting **1.** (*in, on, at*) the destruction of the hard tissues **2.** (*at, by, of*) the tooth beginning **3.** (*off, on, with*) the outer surface and progressing inwards at a variable but slow rate. It is always associated **4.** (*by, at, with*) the presence **5.** (*to, of, in*) bacteria **6.** (*with, at, on*) the tooth surface.

In order that the disease should become established it would seem that the bacteria need **7.** (*by, at, to*) colonize on areas of the tooth sheltered **8.** (*from, by, in*) the effects of mastication. This colonization produces a film of bacteria **9.** (*from, on, with*) the surface known as dental plaque. Before the disease can progress **10.** (*by, on, at*) a significant rate the bacteria require the presence in the plaque of readily fermentable refined carbohydrate.

V. Complete the text with the words which are given below:

<i>cavity</i>	<i>dental floss</i>	<i>molar teeth</i>	<i>braces</i>
<i>dental hygienist</i>	<i>tooth decay</i>	<i>filling</i>	<i>Novocain</i>
<i>getting a tooth pulled</i>		<i>root canal treatment</i>	

Next week I have to go to the dentist's office. I am always nervous to go because I usually have a **1.** _____. The dentist has to put a **2.** _____ in it to fix the tooth. I don't like it one bit.

Actually, I don't even like seeing the **3.** _____ who cleans my teeth. Last year, when I was at the dentist, I asked for some **4.** _____ before they cleaned my teeth. I was informed that this drug was only given for really painful procedures like **5.** _____. I wasn't happy about that at all. The dentist told me that I should use **6.** _____ to clean my teeth if I didn't want to get so many cavities. One tooth was so bad that I needed a **7.** _____. This is not a fun experience. Besides having a lot of **8.** _____, I also have some crooked teeth. I should probably get **9.** _____ but I don't think I will. They cost a lot of money. I figure that as long as I have my **10.** _____ I can still chew my food. That is all I am worried about for now.

One day I will start taking better care of my teeth. I'm sick of painful trips to the dentist's!

GRAMMAR PRACTICE

I. Paraphrase the sentences using the Complex Subject:

Model: It is known that this method is (=to be) very effective.
This method is known to be very effective.

1. It proved that bacteria in the mouth make acids.
2. It is sure that a cavity is a hole that can grow bigger and deeper over time.
3. It is likely that your patient will fill better after the treatment.
4. It is known that these procedures are not easy to perform.
5. It proved that in time treatment had produced a marked effect.
6. It was reported that his severe toothache had been associated with pulpitis.
7. It appears that the initial diagnosis will be confirmed by laboratory analyses.
8. It was known that the patient had not been treated by that doctor before.

II. Translate the sentences using the Complex Subject:

1. Известно, что кариес вызывает разрушение тканей зуба.
2. Оказалось, что пациент не чистит зубы.
3. Оказалось, что пульпит вызывал острую боль.
4. Несомненно, что зуб следует удалить.
5. Известно, что остатки пищи вызывают развитие кариеса.

6. Вероятно, что пациент почувствует боль.
7. Известно, что острая боль появилась неделю назад.
8. Ожидали, что пациент придет через два дня.

III. Make sentences from the words in the columns. Translate them into Russian:

The dentist	is/are said	to have good results in studies
Medical students	is/are known	to treat patients every day
He	is/was reported	to clean teeth regularly
She	is believed	to be the best doctor in this clinic
They	is likely	to have too many snacks between meals
We	seem(s)	to know how to calm the patient
	appear(s)	to be examining the patient now
		to be cleaning the teeth at the moment
		to have received the results of the test
		to have become a skillful dentist

PART IV. FILLINGS

LANGUAGE DEVELOPMENT

I. Read and translate the words and word combinations:

1. **restore:** to restore the tooth, the function is restored, pre-constructed restoration, permanent restoration of back teeth, restore normal appearance
2. **filling:** temporary filling, permanent filling, according to the type of filling, filling material, to insert a filling
3. **retention:** to provide retention, filling retention, maximum retention
4. **hard:** hard material, to harden, harden rapidly enough, to harden in the cavity
5. **adhere:** adhere rapidly, adhesive, adhesive effect, adhesive material

II. Form the necessary part of speech. Ask and answer questions on the text. Tell the main idea:

A cavity 1. (*prepare*) is a medical procedure that removes caries or 2. (*exist*) restorative materials and a limited amount of healthy tooth structure to receive and retain 3. (*fill*) materials within the cavity. Caries can occur on one or more surfaces and can be of 4. (*vary*) sizes ranging from very small to those that include all five surfaces of the tooth. Cavities can be divided into simple and compound. A cavity which occurs on the surface of the tooth is called simple. A cavity is considered to be a complex one when three or more surfaces are involved. Cavities may be classified according to the 5. (*local*) of carious lesions.

A 6. (*dentistry*) filling is a type of 7. (*restoration*) dental treatment used to repair minimal tooth fractures, tooth decay or damaged surfaces of the teeth. Filling materials, which include composite, porcelain, ceramic, silver or amalgam may be used to even out tooth surfaces for better 8. (*bite*) or 9. (*chew*). There are also composite fillings, made of plastic or glass.

III. Match the words in column A with the words in column B to make expressions. Use expressions to make sentences:

A	B
1. root	a) mixing
2. gum	b) measure
3. temporary	c) canal
4. adhesive	d) ejector
5. permanent	e) margin
6. hand	f) filling
7. saliva	g) cement

IV. Complete the sentences with the words which are given below:

<i>pulpitis</i>	<i>implant</i>	<i>cause</i>	<i>cavity</i>
<i>diagnosis</i>	<i>filling</i>	<i>tooth</i>	<i>pulp</i>
<i>root canal</i>		<i>inflammation</i>	

1. Once a spot has appeared, the caries progresses to form a _____.
2. The dentist had removed the _____ before the patient's jaw became inflamed.
3. The dentist has already determined the _____ of the pain.
4. This medication can stop the spreading of _____.
5. Tooth decay has already damaged the _____.
6. If the nerve is damaged, _____ treatment will be carried out first.
7. Complete nerve death is considered to be the consequence of untreated _____.
8. The assistant watched the doctor prepare the _____ material.
9. The X-ray examination is considered to be very important in _____.
10. Untreated pulpitis leads to _____ loss.

V. Choose the best answer:

1. I think my filling _____.
a) fell out; b) fell off; c) fell away.
2. That isn't the tooth that's causing the _____. It's the one next to it.
a) hurt; b) painful; c) pain.
3. A root _____ treatment involves removing the nerve from a specific tooth.
a) canal; b) hole; c) cave.
4. Does this _____? = Does this cause you pain?
a) pain; b) negative; c) hurt.
5. When was your last _____? = When was the last time you had your teeth checked?
a) search; b) check-up; c) look-through.
6. Your gums are _____. You might have an infection.
a) swollen; b) big; c) blown-up.
7. My gums are really _____.
a) sensory; b) sensitive; c) sensible.
8. _____ refers to an inflammation of the gums.
a) Ginger; b) Genetics; c) Gingivitis.

VI. Study the word cloud. Determine its topic. Prepare a speech using the suggested words:



GRAMMAR PRACTICE

I. Choose the best answer:

1. Dr. Jonson _____ to be the best dentist of the team.
a) believing; b) is believed; c) believed.
2. The patient didn't seem _____ to the words of the doctor.
a) to listen; b) to be listening; c) listening.
3. The treatment is expected _____ within an hour.
a) to have started; b) to start; c) being started.
4. That tooth _____ have already been treated.
a) is said to; b) said to; c) is said.
5. The dentist _____ to be wearing a medical mask.
a) is expected; b) expected; c) is expecting.
6. Additional studies _____ to determine the cause of the inflammation.
a) to require; b) are required; c) have required.
7. He _____ to be working at an urgent problem now.
a) have believed; b) believes; c) is believed.

II. Paraphrase the sentences using the Complex Subject:

Model: It is said that this procedure is (=to be) very expensive.
 This procedure is said to be very expensive.

1. It is likely that this procedure will not help.
2. It was certain that his toothache had been associated with trauma.
3. It appears that bacteria are normal residents of the mouth.
4. It is likely that the patient will calm down after the injection of a sedative.
5. It is known that modern diet contains mainly refined carbohydrates.
6. It is considered that pulpitis occurs in acute or chronic forms.
7. It turned out that the treatment of that tooth was quite easy.
8. It seemed that the treatment was coming to an end.

III. Translate the sentences using the Complex Subject:

1. Оказалось, что его зуб уже запломбирован.
2. Доказано, что фториды повышают резистентность зубов к влиянию кислот.
3. Известно, что постоянная пломба требует специального препарирования полости.
4. Известно, что коронки изготавливаются предварительно в лабораториях.
5. Считают, что тип лечения зависит от состояния пульпы.
6. Оказалось, что пораженные эмаль и дентин не были удалены.
7. Вероятно, она страдает от какого-то серьезного осложнения.
8. Маловероятно, что он соблюдает рекомендации стоматолога.

PART V. INSTRUMENTS

LANGUAGE DEVELOPMENT

I. Match the antonyms:

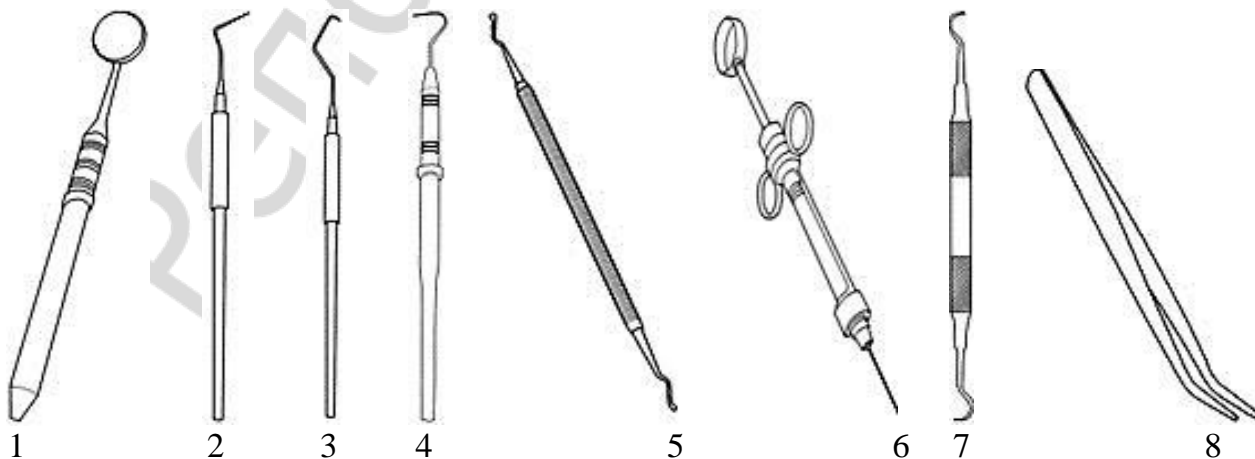
- | | |
|-----------------|--------------|
| 1. restoration | a) temporary |
| 2. conservative | b) damage |
| 3. insert | c) enlarge |
| 4. permanent | d) modern |
| 5. severe | e) mild |
| 6. reduce | f) extract |

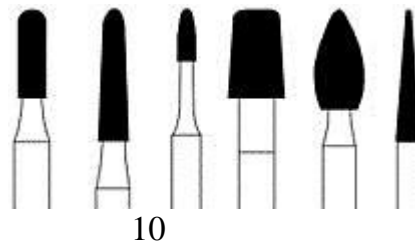
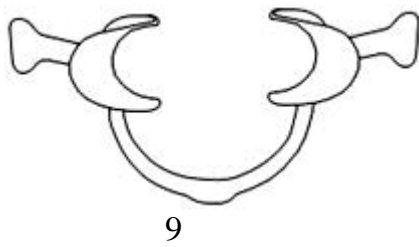
II. Match the synonyms:

- | | |
|--------------|---------------|
| 1. adherent | a) caries |
| 2. decay | b) reduce |
| 3. build up | c) impair |
| 4. eliminate | d) sticky |
| 5. destroy | e) accumulate |

III. Label the instruments:

1. tweezers
2. dental burs
3. sickle probe
4. syringe
5. excavator
6. periodontal probe
7. curette
8. Briault probe
9. mouth mirror
10. dental retractor





IV. Match the words with their definitions:

1. a mechanical instrument used to perform a variety of common dental procedures, including removing decay, polishing fillings, performing cosmetic dentistry, and altering prostheses	a) chisel
2. an instrument used for cutting hard tissues — tooth or bone	b) excavator
3. a long, thin, and blunted at the end instrument used to measure pocket depths around a tooth in order to establish the state of health of the periodontium	c) handpiece
4. a long-bladed hand tool with a beveled cutting edge and a handle	d) bur
5. it is a tube that is responsible for sucking the saliva that accumulates in the oral cavity of the patient	e) periodontal probe
6. an instrument, generally a small spoon or curette, for cleaning out and shaping a carious cavity prepared for filling	f) aspirator
7. it is used to remove subgingival calculus	g) tweezers
8. it is used by dentists and oral surgeons to move the cheeks, lips and tongue out of the way so the mouth and teeth are exposed and accessible	h) syringe
9. it is required for procedures that are known to cause some pain; a numbing or freezing agent will be administered using it	i) curette
10. this instrument is used to place and remove small items like cotton wool pellets into the mouth safely	j) retractor

V. Read the text and choose the correct preposition:

Dental Instruments

You'll find most people despise the dentist whether they have good teeth or not. While many dental procedures aren't painful, many people have developed a fear **1.** (*in, of, with*) visiting the dentist (often known as "odontophobia") and would rather put up with dental infections, pain or even broken/unsightly teeth **2.** (*in, at, of*) order to avoid a visit to the dentist. However, there are remedies **3.** (*for, at, with*) these fears. One such remedy is simply knowing and understanding the instruments used **4.** (*with, in, by*) your dentist as well as what they do. Often a simple understanding is enough to calm the nerves and put your mind **5.** (*at, in, off*) ease.



Mouth Mirrors

A mouth mirror or dentist's mirror is an instrument used **6.** (*with, in, on*) dentistry. The head **7.** (*of, at, in*) the mirror is usually round, and the most common sizes used are 18 mm and 20 mm. The mouth mirror has a range **8.** (*at, of, off*) uses, including; allowing indirect vision by the dentist, reflecting light onto desired surfaces and retraction of soft tissue.



Periodontal Probe

A periodontal probe usually has a long, thin and blunted end. Its primary use is to measure pocket depths **9.** (*around, in, of*) the tooth **10.** (*on, in, with*) order to establish the state of health of the periodontium (specialized tissue that surrounds and supports the teeth). Most periodontal probes have markings **11.** (*in, on, within*) the head in order to allow accurate and precise readings.



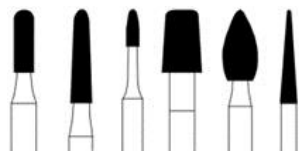
Briault Probe

A Briault probe is similar **12.** (*at, to, in*) a periodontal probe but has a sharp end to it. Briault probes are most commonly used to detect caries **13.** (*of, on, in*) the mesial and distal surfaces of your teeth. It can also be used to detect hidden pockets of tartar building **14.** (*on, up, with*) in the periodontal pockets.



Dental Retractors

A dental retractor is used **15.** (*by, with, at*) dentists and oral surgeons to move the cheeks, lips and tongue **16.** (*in, out, at*) of the way so the mouth and teeth are exposed and accessible. There are various types of dental retractors, used **17.** (*on, for, of*) different procedures.



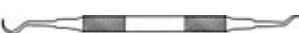
Dental Burs

Dental burs are essential cutters which are used with a handpiece **18.** (*with, in, at*) removable heads. The burs are often made of diamond or tungsten carbide for strength. There are three parts in dental burs; the head, the neck & the shank, the heads of some burs contain the blades which remove material **19.** (*in, out, from*) teeth. Burs come **20.** (*on, off, in*) various shapes and sizes for different procedures.



Excavator

Excavators are often double headed instruments used by dentists **21.** (*for, in, at*) the main purpose of removing carious dentine from teeth, depending **22.** (*out, on, in*) the cavity that needs to be prepared there are various sizes and shapes of excavators.



Curettes

Curettes are small hand tools used **23.** (*on, with, in*) surgical instruments designed to remove subgingival calculus. The tips of curettes come **24.** (*at, on, in*) various sizes and shapes, but they're always rounded **25.** (*in, at, of*) the tip to ensure cleansing is less traumatic to the gingiva.

Answer the questions:

1. What are mouth mirrors used for?
2. Why do most periodontal probes have markings?
3. What is the difference between Briault Probe and Periodontal Probe?
4. What are dental retractors used for?
5. What are dental burs made of?
6. Why do burs have various shapes and sizes?
7. What is the difference between excavators and curettes?
8. Do you have odontophobia?

GRAMMAR PRACTICE

I. Choose the best answer:

1. You _____ to go to the laboratory. Why are you still here?
a) were suppose; b) is supposed; c) were supposed.
2. Caries proves _____ destruction and demineralization of hard tissues of teeth by acid production occurring from bacterial fermentation of food.
a) caused; b) to be caused by; c) to cause.
3. Sensitivity to antibiotics was reported _____ not only in this patient but in all the other members of the family as well since their early age.
a) to be present; b) to have been present; c) to present.
4. Gum irritation was revealed _____ after each treatment.
a) to occur; b) to have occurred; c) to be occurring.
5. The patient was known _____ pulpitis accompanied by gum inflammation.
a) to have; b) to have had; c) to be having.
6. The patient was known _____ a bad toothache a week before his present visit to the hospital.
a) to have; b) to have had; c) to be having.
7. The case of pulpitis _____ to be too complicated.
a) turn out; b) is turned out; c) turned out.

II. Paraphrase the sentences using the Complex Subject:

Model: It is said that this procedure is (=to be) very expensive.
This procedure is said to be very expensive.

1. It was considered that the X-ray confirmed pulpitis.
2. It was known that the patient had not been diagnosed with caries before.
3. It is known that she visits the dentist every year.
4. It was known that she was examined by an experienced dentist.
5. It is said that she has treated the tooth.
6. It is likely that she will be explained the tooth extraction procedure.
7. It is known that zinc oxide and eugenol cement are the temporary filling materials.
8. It is reported that preparations containing eugenol may cause a burning sensation.

III. Translate the sentences using the Complex Subject:

1. Известно, что амальгама широко использовалась для пломбирования дистальных зубов.
2. Маловероятно, что этот зуб удалят.
3. Говорят, что инструменты стерилизуют регулярно.
4. Мне случалось лечить его раньше.
5. Полагают, что обследование не выявит пульпит.
6. Говорят, что эти инструменты используются во многих клиниках.
7. Известно, что акрил используется для постоянных пломб на передних зубах.
8. Известно, что боры используют для сверления твердых тканей.

UNIT III. ENDODONTICS. ORAL SURGERY

PART I. ENDODONTICS

LANGUAGE DEVELOPMENT

I. Match the word with its meaning:

1. causing slight inflammation or other discomfort to the body;	a) abscess, n
2. a hard tough thermoplastic substance which is the coagulated latex. It consists chiefly of a hydrocarbon isomeric with rubber and is now used in Dentistry.	b) drainage, n
3. a piece of some material used to block up a cavity in a tooth;	c) exposure, n
4. an excitation of a nerve impulse caused by a change or event; a physical reaction to a specific stimulus or situation;	d) extraction, n
5. a crack or break in a hard object or material, typically a bone;	e) filling, n
6. the action of removing or taking out something, especially by effort or force;	f) fracture, n
7. the state of having no protection from something harmful;	g) gutta-percha, n
8. the action or process that causes or allows liquid in something to run out, leaving it empty or dry;	h) irritant, adj
9. a swollen area within body tissue, containing an accumulation of pus.	i) response, n

II. Read and translate the words and word combinations:

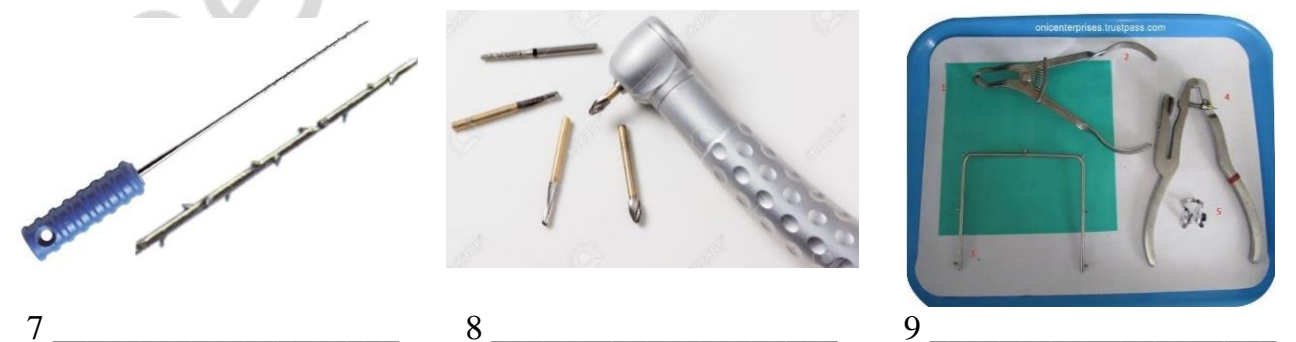
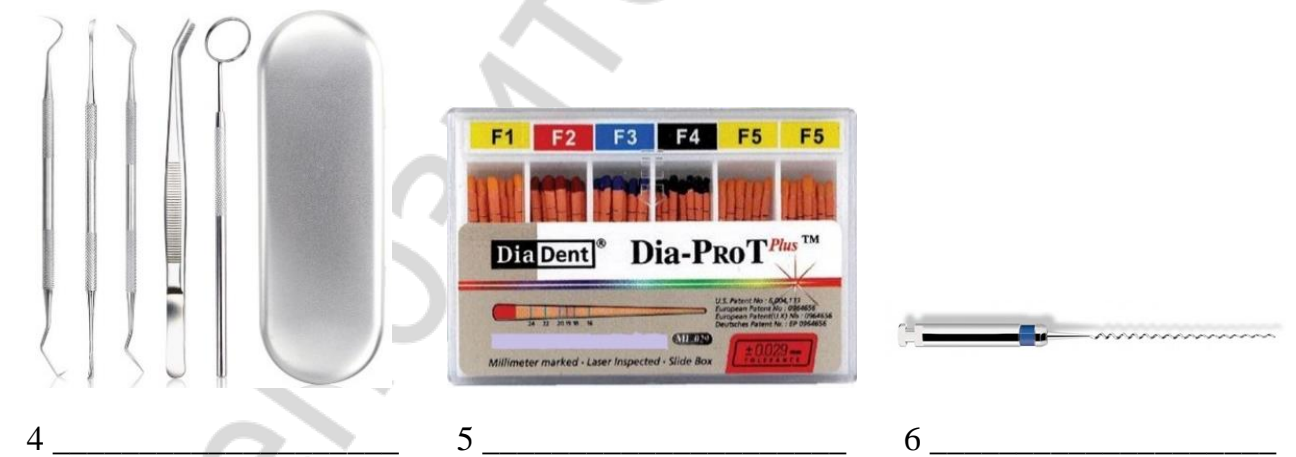
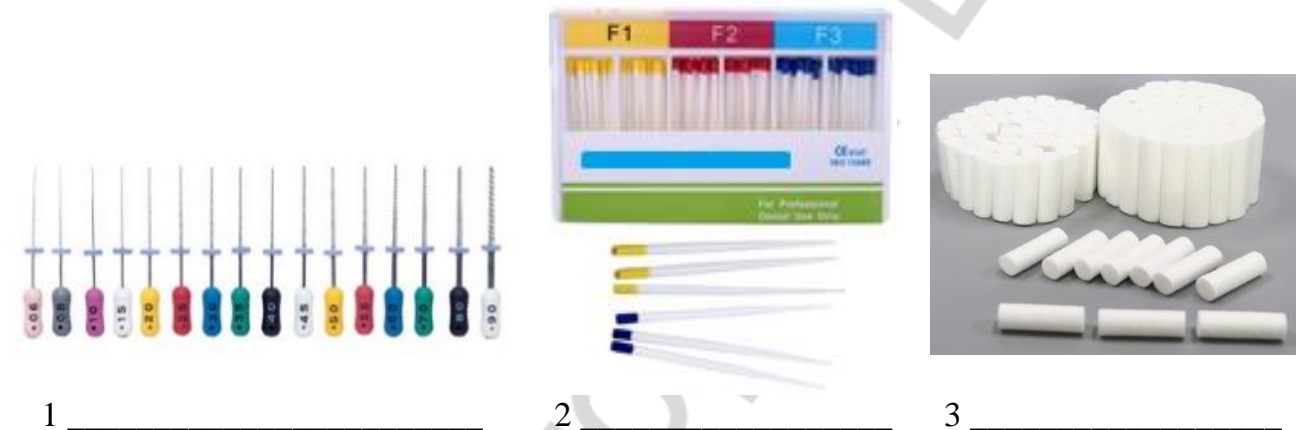
- consider** [kən'sɪdə]: to consider an unpleasant procedure; to consider the pulp to be alive; to consider all the possibilities of treatment; to consider all risks; consideration; to take into consideration
- contaminate** [kən'tæmɪneɪt]: contaminated; contaminate the wound; bacteria in the saliva can contaminate the cleansed root canals
- determine** [dɪ'tɜ:mɪn]: to determine the cause of pulpitis; to determine the state of the pulp; to determine by using vitality tests
- endodontic** [ˌendəʊ'dɒntɪk]: endodontic instruments; to require endodontic treatment; the object of endodontic treatment; endodontics; to treat by endodontics
- expose** [ɪk'spəʊz]: the crown fracture may expose the pulp; to be exposed to mouth bacteria; an alive and unexposed pulp; exposure [ɪk'spəʊzə]; accidental exposure
- irrigate** ['ɪrɪgeɪt]: to irrigate the canals several times; to irrigate with antimicrobial solutions
- lead** [li:d]: to lead to an alveolar abscess; to lead to pulp death; to lead to a chain of events; to lead to the cessation of pain; to lead to an ultimate failure of treatment
- response** [rɪ'spɒns]: the painful response; an apparent response; the response to certain stimuli; the response to heat, cold or electricity
- result** [rɪ'zʌlt]: to result **in** the impairment of function; the inflammation resulted **from** infection

III. Study some endodontic instruments.

Part A: match the two columns:

- | | |
|---|--|
| 1. mirror, probe and tweezers | a) зеркало, зонд и пинцеты |
| 2. local anesthetic equipment | b) наконечник и боры |
| 3. rubber dam equipment | c) пульпоэкстракторы, римеры, файлы, каналонаполнители |
| 4. handpiece and burs | d) стерильные бумажные иглы и ватные валики |
| 5. barbed broaches, root reamers and files, spiral root canal fillers | e) гуттаперчевые или серебряные штифты и цемент |
| 6. sterile paper points and cotton wool | f) коффердам |
| 7. drug(s) for sterilizing root canal | g) местная анестезия |
| 8. gutta-percha or silver points and cement | h) лекарство(-а) для обработки каналов |

Part B: label the pictures using the names of the instruments given in Part A:



IV. Translate the families of the words of the same root:

accidental; accident; accident-free; accidentence; accidentology; accidentally

apply; application; applicator; applicatory; applied

consider; consideration; considerate; considered; considerable; considerably; considering

determine; determination; determinative; determined; determinedly; determiner; determining

extract; extractable; extracted; extracting; extraction; extractive

response; respond; response; respondent/responsive; responsivity; responsiveness

suffice; (in)sufficiency; (in)sufficient; (in)sufficiently

V. Form the necessary part of speech:

Diagnostic and Preparation

Before endodontic therapy is carried out, a correct 1. (*diagnostic*) of the dental pulp and the surrounding 2. (*peri + apex*) tissues is required. This allows the 3. (*endodontics*) to choose 4. (*appropriate, superlative*) treatment option, allowing 5. (*preservative*) and longevity of the tooth and surrounding tissues. 6. (*Treat*) options for an 7. (*irreversible*) inflamed pulp include either 8. (*extract*) of the tooth or removal of the pulp.

9. (*Remove*) the 10. (*infect*) or 11. (*inflamm*) pulpal tissue enables the endodontist to help preserve the longevity and 12. (*functional*) of the tooth. The treatment option chosen involves 13. (*taken*) into account the expected prognosis of the tooth, as well as the patient's wishes. A full history is required (which includes the patient's symptoms and 14. (*medicine*) history), along with a clinical 15. (*examine*) (both inside and outside the mouth), and the 16. (*useful*) of 17. (*diagnose*) tests.

VI. Use the synonyms:

1. Pulpitis always *leads to* pulp death.
2. Endodontic treatment *removes* the source of irritation.
3. The exposure of the pulp allows mouth bacteria *to enter* the pulp chamber.
4. Even when the pulp is not exposed, pulpitis can still *occur*.
5. The blow damages the apical blood vessels and pulp death *ensues*.
6. The *state* of the pulp determines the dentist's choice of treatment.
7. What may the exposure of the pulp *be due to*?

VII. Choose a word from the box and complete the text:

<i>replace</i>	<i>gutta-percha</i>	<i>insert</i>	<i>dry</i>	<i>pulp</i>
<i>smooth</i>	<i>apex</i>	<i>temporary</i>	<i>pulp chamber</i>	<i>removed</i>
<i>seal off</i>	<i>canal</i>	<i>empty</i>	<i>prevent</i>	<i>filling</i>

Root Filling

The objective of root filling is to remove the inflamed or dead 1. _____ from a tooth and 2. _____ it with a sterile non-irritant, insoluble root canal 3. _____. It is usually done in two stages: the first is to prepare the 4. _____; the second to 5. _____ the root filling. If no difficulties arise, both stages can be completed in one visit. However, many practitioners prefer a separate visit for each stage.

At the first visit:

1. The pulp is removed.
2. The root canal is enlarged and cleaned to prepare a 6. _____, 7. _____, 8. _____ canal which tapers (*сходит на конус*) gradually from the 9. _____ toward the 10. _____.
3. A 11. _____ filling is inserted to cover the entrance to the empty root canal and 12. _____ contamination of the canal between visits.

At the second visit:

1. The temporary filling is 13. _____.
2. If the root canal is still clean and dry, it is filled with 14. _____ to 15. _____ the entire canal to within a millimeter of the apex.

VIII. Choose the correct preposition:

What is Endodontics?

Endodontics is a field of dentistry concerned 1. (*with, to, on*) the biology and pathology of the dental pulp and root tissues of the tooth. It focuses 2. (*in, on, -*) the prevention, diagnosis, and treatment of diseases and injuries 3. (*to, with, of*) these tissues. Root canal treatment is a commonly performed endodontic procedure.

Root canal treatment is a treatment sequence 4. (*before, for, in*) the infected pulp of a tooth which is intended to result 5. (*in, from, to*) the elimination of infection and protection of the decontaminated tooth 6. (*of, out, from*) future microbial invasion. Root canals and their associated pulp chamber are the physical hollows 7. (*at, within, beneath*) a tooth that are naturally inhabited 8. (*-, with, by*) nerve tissue, blood vessels and other cellular elements.

Endodontic therapy involves 9. (*in, for, -*) removal of these structures, disinfection and subsequent shaping, cleaning, and decontamination of the hollows 10. (*with, by, through*) small files and irrigating solutions, and the obturation (filling) 11. (*in, of, within*) the decontaminated canals. Obturation of the cleaned and decontaminated canals is done 12. (*of, by, with*) an inert filling such as gutta-percha and typically zinc oxide eugenol-based cement.

GRAMMAR PRACTICE

THE FORMS OF THE INFINITIVE

	Active	Passive
Simple infinitive refers to the same time as that of the <u>preceding verb</u>	(to) examine	(to) be examined
Continuous infinitive refers to the same time as that of the <u>preceding verb</u> and expresses an action in progress or happening over a period of time	(to) be examining	—
Perfect infinitive refers to a time before that of the <u>preceding verb</u>	(to) have examined	(to) have been examined
Perfect continuous infinitive refers to a time before that of the <u>preceding verb</u> and expresses an action in progress or happening over a period of time	(to) have been examining	—

THE USE OF THE COMPLEX OBJECT

Study the following examples:

Everyone *considers* **him to be** an expert in oral surgery.
He *intended* **them to go** with him to an operating room.
The doctor *advised* **the patient to use** a soft toothbrush.
He *asked for* **saliva to be ejected** from the operative area.
I *like* **my patients to come** to semi-annual check-ups.

Particle **to isn't used** after the following verbs: *to make* (= *to force*), *to let* (= *to allow*), *to have*, *to get* (= *to force*, *to ask*), *to help*.

The teacher *let* **dental students watch** the procedure.
I *shall have* **him come** whether he likes or not.

After verbs denoting perception by means of sensory organs, **a bare infinitive** (without *to*) construction or a Participle I construction is used.

Compare

Verb + infinitive

I *saw* **him fill** a root canal.

I saw the whole action — from giving anesthesia and preparing the cavity till polishing the crown of the filled tooth. We want to emphasize that the action is completed.

Verb + Participle I

I *saw* **him filling** a root canal.

An action is repeated or continues over a period of time; we perceive only a part of it.

In the negative, *not* usually comes before the infinitive:

The assistant *asked* **the patient not to grasp** at the dentist's hands.

In some cases, the verb in the main clause is negative, not the infinitive:

I *don't want* **them to be** late for the appointment.

I. Read the sentences with the Complex Object. Spot the construction and define the forms of the Infinitive. Translate the sentences:

1. We expect this dentist to clean root canals thoroughly.
2. We found out this dentist to have cleaned root canals thoroughly.
3. We watched this dentist clean root canals thoroughly.
4. We watched this dentist have been cleaning root canals thoroughly for more than half an hour.
5. The patient wanted the root canals in his tooth to be cleaned thoroughly.
6. The dentist considered the root canals in the patient's tooth to have been cleaned thoroughly.

II. Choose the best variant. Translate the sentences into Russian:

1. A correct diagnosis allows the endodontist _____ the most appropriate treatment option.
a) to choose; c) to have chosen;
b) choose; d) choosing.
2. Dentists know pulpitis _____ to an acute alveolar abscess.
a) lead; c) leading;
b) to lead; d) have been leading.
3. The dentist suggested pulpitis _____ irreversible before the appearance of the first symptoms.
a) to become; c) to have become;
b) become; d) have become.
4. Specialists consider extraction or endodontics _____ the only treatment of pulpitis or pulp death.
a) to be; b) not to be; c) be; d) to not be.
5. Dental students saw the dentist _____ root reamers of different size to shape root canals.
a) to use; c) be used;
b) use; d) to have been used.
6. The dentist recommended several pulp vitality tests _____ out before making the treatment plan.
a) to have carried; c) to have been carried;
b) to carry; d) to be carried.
7. I heard the patient sitting in the near dental chair _____ with pain.
a) to moan; c) to have moaned;
b) moaning; d) to be moaning.
8. Endodontic treatment requires a patient _____ a well-maintained mouth.
a) to have had; b) had; c) to have; d) having.
9. The dentist believed the exposure of the pulp _____ by a fracture of the crown.
a) to be caused; c) to cause;
b) to have been caused; d) have caused.
10. The dentist observed the inflammation of the gum tissue _____ since the administration of a proper antibiotic treatment.
a) be disappearing; c) disappearing;
b) to be disappearing; d) have been disappearing.

Study the following:

A complex sentence:

I know that she brushes her teeth regularly.



The Complex Object construction:

I know ~~that~~ ~~her~~ to brush ~~her teeth~~ regularly.

III. Paraphrase the sentences using the Complex Object. Use the model given in the chart:

1. We know that the use of anaesthesia makes root canal treatment painless.
2. The X-ray film proved that the canal had been filled completely.
3. We were going to use silver points. The dentist didn't want it.
4. The dentist said my treatment could be completed in one visit. I'd like the dentist...
or I'd like my treatment...
5. The dentist forbade that his assistant use composite materials for root canals.
6. I recommend that gutta-percha point should be cut with heated excavator blade.
7. Dental students watched how their teacher was inserting some antiseptic solution to sterilize the root canal.
8. The patient didn't feel that an electric pulp tester was applied on the crown.
9. I like when all the steps of the procedure are explained beforehand.
10. I watched how the dentist was drying a root canal with paper points.

PART II. PULPOTOMY AND APICECTOMY

LANGUAGE DEVELOPMENT

I. Match the word with its definition:

1. a technique used in dental restorations to prevent the dental pulp from necrosis, after being exposed, or nearly exposed during a cavity preparation;	a) apex, n
2. become sound or healthy again;	b) escape, v
3. have a similar appearance to or qualities in common with (someone or something); look or seem like;	c) flap, n
4. a small part of something that remains when the rest of it has been removed or broken off;	d) heal, v
5. make stitches to join together the open parts of a wound, especially the one made after a patient has been operated on;	e) perforation, n
6. the top or highest part of something, especially the one forming a point;	f) pulp capping
7. continue to live or exist;	g) retrograde, adj
8. (of a substance) get out of smth; expand; leak from a container;	h) resemble, v
9. a hole made by boring or piercing which passes through or into something;	i) stump, n
10. directed or moving backwards;	j) survive, v
11. a thin, flat piece of tissue which is attached on one side only and covers an opening or hangs down from something;	k) suture, v

WORD FORMATION

NEGATIVE PREFIXES

In English, one way to make negative statements is by adding negative prefixes to nouns, adjectives and verbs. Some English negative prefixes are *a-*, *dis-*, *il-*, *im-*, *in-*, *ir-*, *non-*, *un-*.

- Words that take *a-* as a negative prefix always begin with a consonant,

typical – atypical,

but the prefix may become *ab-* or *an-* if a word begins with a vowel.

articular – abarticular, aerobic – anaerobic

- Words that take *dis-* as a negative prefix may begin with a vowel or a consonant.

agree – disagree; comfort – discomfort

- Words that take *il-* as a negative prefix always begin with the letter *l*.

logical – illogical

- Words that take *im-* as a negative prefix always begin with the letter *m* or *p*.

mobile – immobile; pure – impure

- Words that take *in-* as a negative prefix can begin with a vowel (except *i* or *u*) or a consonant.

accurate – inaccurate; sensible – insensible

There are many words that begin with *in-* that are not words with a negative prefix. For example: *incline* ≠ not *cline*; *indulge* ≠ not *dulge*; *insist* ≠ not *sist*; *invoke* ≠ not *voke*.

- Words that take *ir-* as a negative prefix always begin with the letter *r*.

resistible – irresistible

- Words that take *non-* as a negative prefix may begin with a vowel or a consonant.

sense – nonsense, essential – nonessential

- Words that take *un-* as a negative prefix may begin with a vowel or consonant.

comfortable – uncomfortable

Remember, not all words that appear to have a negative prefix are negative:

alike ≠ not *like*; *discuss* ≠ not *cuss*; *universe* ≠ not *iverse*; *illuminate* ≠ not *luminare*;
important ≠ not *portant*; *involve* ≠ not *volve*; *irrigate* ≠ not *rigate*.

Sometimes the idea of “lack of, no, without” may be expressed by suffix *-less* or *-free*:
painless, rootless, symptomless, symptom-free.

II. Use negative prefixes for the following. Translate the obtained words:

accessible, regular, specific, balance, able, symptomatic, infect, legal, controlled, normal, possible, necessary, occlude, adjacent, legible, complete, reversible, successful, evitable

SUFFIXES *-TOMY, -ECTOMY*

Suffix	Meaning	Example
<i>-tomy</i>	incision, <i>partial</i> removal	pulpotomy (the removal of a portion of the pulp tissue) — пульпотомия (удаление коронковой части пульпы)
<i>-ectomy</i>	excision, <i>complete</i> removal	pulpectomy (the removal of all the pulp tissue, both in the crown and roots) — пульпэктомия

III. Read the words. Explain their meaning in English and translate them into Russian using a word combination and a medical term:

- a) adenotomy, frenotomy, sialodenotomy, sinusotomy, osteotomy, glossotomy;
b) apicectomy, gingivectomy, odontectomy, cystectomy, alveolectomy, abscessectomy

IV. Form the necessary part of speech:

If a child complains of pain when cold, hot or 1. (*sweetness*) things touch their tooth/teeth, it may mean that he/she has 2. (*pulp*). It is the 3. (*inflammation*) of the pulp and its main cause is 4. (*negative, treat*) cavities. This tooth 5. (*sensitive*) is usually the first sign that the child may have caries.

The dentist will 6. (*recommend*) that the child undergoes a pulpotomy if on dental 7. (*examine*) it is discovered that the child has caries that has 8. (*affected*) the pulp in the crown. It is also done when the tooth decay is so close to the pulp in the crown that 9. (*remove*) the decay will 10. (*expose*) the pulp.

If it is discovered, that the child has 11. (*negative, reverse*) pulpitis caused by tooth decay – where the pulp in the tooth is 12. (*severely*) damaged — then a 13. (*pulp + “incision”*) will not be 14. (*performance*). Instead, the child will have to undergo 15. (*pulp + “excision”*) or tooth 16. (*extract*).

You may be wondering why the child’s affected tooth isn’t 17. (*simply*) removed since it is a primary tooth that will eventually be 18. (*replaced*) by a permanent one. The reason is that primary teeth help the permanent teeth to be arranged properly and will have enough space when they start to 19. (*grow*).

V. Combine the two columns to make a word combination. Use them in the sentences of your own:

healing	the pulp
retrograde	the infected tissue
the pulp	occurs
to cover	a flap
to seal off	into place
to raise	survives
to expose	the apex
to scrape away	syringing
to suture back	the stump
to remove by	root filling

VI. Substitute the words in italics by their synonyms:

Pulpotomy: Procedure

The area around the tooth will be numbed with a topical anaesthetic, then a local **1. anaesthetic** will be injected.

The dentist will **2. single out** the tooth to be treated and **3. eliminate** any tooth decay on or around the teeth to prevent **4. infection** of the pulp.

The pulp chamber will be opened by **5. perforating with a bur** through the enamel and the dentin. Once the roof of the pulp is drilled through, it will **6. discharge some blood**. This shows that the pulp is still **7. sound**. If the pulp chamber is **8. full of pus** or it's **9. hollow** and dry, the dentist cannot continue with the **10. pulp incision**. She/he must either perform a **11. pulp excision** or tooth extraction.

The coronal pulp will then be **12. removed**. When this is done, **13. wet** cotton **14. swabs** or pellets will be used to **15. stop** the **16. haemorrhage** and clean the area. Ideally, this blood discharge should stop within a minute or two, or tops five.

If the bleeding doesn't stop after that time, it shows that the pulp in the **17. radicular part** is no longer healthy, and has probably been **18. affected** by **19. caries**. So, a pulpectomy or tooth **20. pulling out** will have to be performed.

VII. Choose a word from the box and complete the text:

<i>apicectomy</i>	<i>crown</i>	<i>oral hygiene</i>	<i>symptom-free</i>	<i>replaces</i>
<i>non-vital</i>	<i>removed</i>	<i>re-treatment</i>	<i>gum</i>	<i>previously</i>
<i>access</i>	<i>visible</i>	<i>repair</i>	<i>general anaesthesia</i>	<i>blood clotting</i>
<i>canal</i>	<i>nerves</i>	<i>respond</i>	<i>remnants</i>	<i>treatment</i>
<i>inert</i>	<i>restoration</i>	<i>stump</i>	<i>endodontic</i>	<i>uncontrolled</i>

Apicectomy — What Is It?

An **1.** _____ is a surgical procedure in which the apex of a tooth is **2.** _____ and the root tip **3.** _____ is hermetically sealed with a root filling.

An apicectomy should be considered only when traditional **4.** _____ root filling techniques have failed.

A conventional endodontic **5.** _____ is indicated if the dental pulp becomes **6.** _____ or is likely to be put at risk due to the type or size of **7.** _____ needed to **8.** _____ the tooth.

During endodontic treatment, the dentist removes the dead **9.** _____ of the dental pulp and **10.** _____ it with an **11.** _____ filling material which is **12.** _____ on an X-ray.

Most teeth will **13.** _____ satisfactorily to this type of treatment and become **14.** _____.

Apicectomies ARE NOT done on:

- ✓ teeth that have been **15.** _____ apicected (low success rate for repeated apicectomies);
- ✓ molar teeth (difficult **16.** _____, low success rate and potential problems with **17.** _____ and sinuses);
- ✓ patients who have poor **18.** _____, active **19.** _____ disease or **20.** _____ tooth decay;

- ✓ teeth where the post-crowns do not fit the root **21.** _____ or the post has been re-cemented on more than one occasion;
- ✓ teeth where there is little tooth substance left to place a **22.** _____ on afterwards;
- ✓ teeth which have post-crowns that can be removed to allow **23.** _____;
- ✓ patients who require intravenous sedation / **24.** _____;
- ✓ patients at risk from bacterial endocarditis or with **25.** _____ disorders.

VIII. Choose the correct preposition or adverb:

Frequently Asked Questions about Apicectomies

What is an apicectomy? An apicectomy is a minor procedure to remove the tip (apex) of the root of a tooth. This will be done 1. (*in, with, by*) association 2. (*for, with, of*) the root treatment of the tooth. Sometimes, apicectomies also involve the removal of a cyst 3. (*on, to, at*) the top of the tooth root. Apicectomies are more often performed 4. (*for, in, at*) front teeth — they are easier to access — but can be carried out 5. (*at, on, with*) back teeth.

How are apicectomies performed? Apicectomies are usually carried out 6. (*by, with, under*) local anaesthesia while you are awake. The dentist or oral and maxillofacial surgeon will need to gain access 7. (*to, at, for*) the tip of the root, which means that they will make an incision 8. (*of, in, on*) your gum raising a “flap” 9. (*by, with*) a scalpel and then might need to remove 10. (*away, off, –*) some bony tissue. The root apex of the tooth is removed by drilling along with the infection or cyst scraped 11. (*away, out, from*) with an instrument. A small white filling is placed 12. (*on, at, to*) the end of the tooth to seal it. The gum flap is then replaced and held 13. (*at, on, in*) place with dissolving sutures (stitches).

How long does it take to heal after the apicectomy? The sutures disappear usually 14. (*for, during, within*) two weeks and over time the bony window heals up 15. (*under, on, to*) the gum. If the procedure is successful, it takes 16. (*away, about, in*) six months for some bone to replace the space where the root apex and cyst were removed.

GRAMMAR PRACTICE

I. Spot the sentences with the Complex Object construction. Translate them into Russian.

1. Each group of teeth is known to perform specific function.
2. I would like you to consult an oral surgeon.
3. They send patients to X-ray examination to make a correct diagnosis.
4. They believed the endodontic treatment to have been performed successfully.
5. Students watched the dentist perform flap surgery lifting gums to remove underlying tartar.
6. He was the first scientist to suggest water, milk and salt fluoridation.
7. It is impossible to save his broken tooth. It's too late.
8. The endodontist considered complete nerve death to be the consequence of untreated pulpitis.
9. An oral surgeon recommended his patient to undergo tissue grafting to treat gingivitis.
10. Patient Smith is supposed to have his root canals re-treated next visit.
11. The patient heard the dentist scraping a tooth with a curette.

II. Fill in the appropriate verb from the box. Mind the use of particle "to":

(to) extract	(to) remove	(to) protect	(to) be used	(to) carry out
(to) be performed	(to) have been blocked	(to) have escaped	(to) have been made	(to) be covered

1. Yesterday she agreed a surgeon _____ an abscessed tooth.
2. He believed pulpotomy not _____ on adult teeth.
3. We know cement _____ in retrograde root filling.
4. The dentist let his assistant _____ the debris from the operative field with saline solution.
5. The X-ray of the patient's tooth showed irritant cement _____ through the apex.
6. She expected pulp capping _____ the pulp from infection.
7. The surgeon advised the amputated pulp stump _____ with a calcium hydroxide dressing.
8. The dentist determined the canal _____ by a broken instrument during the previous treatment.
9. We saw the dentist _____ several pulp vitality tests.
10. The dentist found out the root canal _____ sterile before inserting the filling material.

III. Translate into English using the Complex Object construction:

1. Мы узнали, что после эндодонтического лечения зуб требует установки коронки.
2. Стоматолог предположил, что боль была вызвана инфекцией мягких тканей внутри корневого канала.
3. Пациент хотел, чтобы лечение корневых каналов было закончено за одно посещение.
4. Стоматолог распорядился, чтобы ассистент подготовил набор файлов и штифтов для обработки и пломбирования каналов.
5. Серия рентгеновских снимков позволяет стоматологу понять полностью ли запломбирован канал.
6. Студенты наблюдали, как гуттаперчевые штифты вводились в канал и обрезались нагретым инструментом.
7. После промывания каналов стоматолог заставил пациента прополоскать рот хлоргексидином несколько раз.
8. Я бы хотел, чтобы мой зуб не удалили, а запломбировали корневые каналы.
9. Пациент не почувствовал, как хирург-стоматолог поднял десневой лоскут и просверлил отверстие в кости.
10. Стоматолог запретил пациенту чистить зубы жесткой щеткой в первую неделю после апикэктомии.

PART III. PERIODONTAL DISEASES

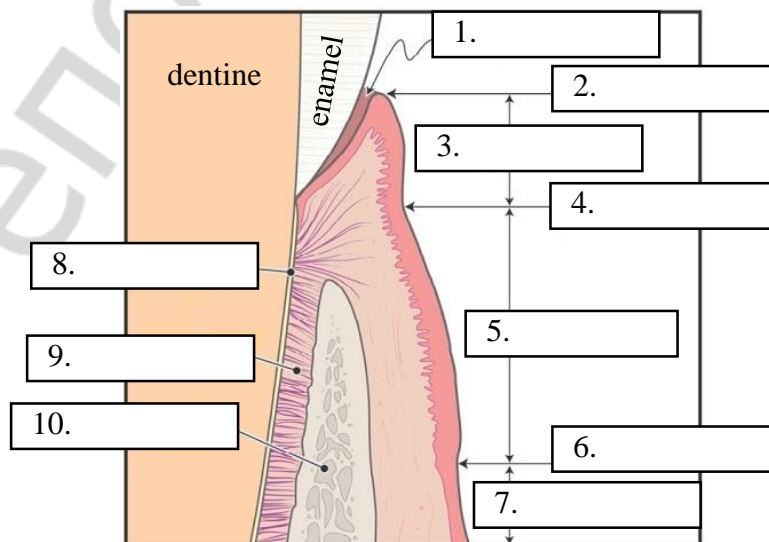
LANGUAGE DEVELOPMENT

I. Match the word with its definition:

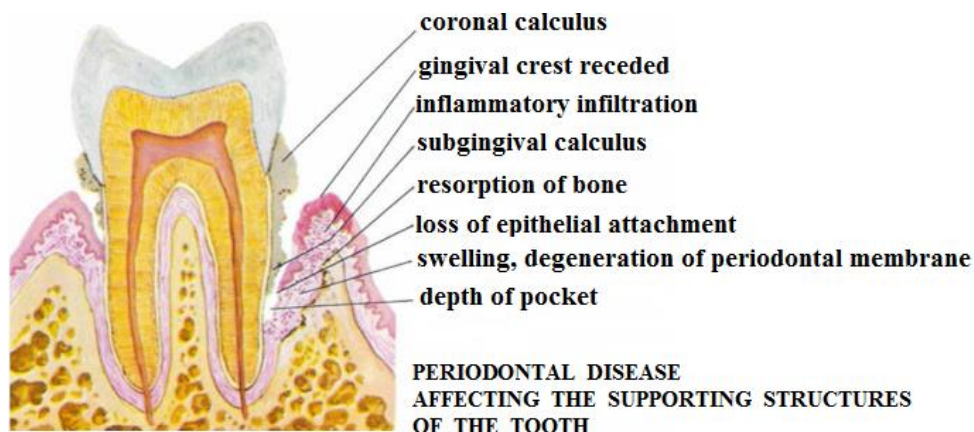
1. a serious gum infection that damages the soft tissue and, without treatment, can destroy the bone that supports the teeth;	a) aggravate, v
2. a dental term indicating the presence of an abnormal depth of the gingival sulcus near the point at which the gingival tissue contacts the tooth;	b) calculus/tartar, n
3. to remove tartar from the teeth above and below the gum line by scraping them with ultrasonic or hand instruments;	c) gingivitis, n
4. a sticky, colourless or pale yellow biofilm of microorganisms (mostly bacteria but also fungi) constantly forming on and between the teeth and along the gum line;	d) periodontal pocket
5. to make a problem, injury, or disease worse or more serious;	e) periodontitis, n
6. tending to hold tightly onto something, clinging or adhering closely;	f) plaque, n
7. a common and mild form of gum disease (periodontal disease) that causes irritation, redness and swelling (inflammation) of the part of the gum around the base of teeth;	g) scale, v
8. to develop into or become affected by small sores;	h) tenacious, adj
9. a mineralized (calcified) bacterial plaque formed on subgingival and/or supragingival tooth surfaces where there is constant supply of saliva.	i) ulcerate, v

II. Label the diagram using the words from the box:

<i>attached gingiva</i> <i>periodontal ligament (=membrane)</i> <i>cementum</i> <i>free gingival groove</i> <i>alveolar mucosa</i>	<i>gingival margin</i> <i>free gingiva</i> <i>mucogingival junction</i> <i>gingival crevice (sulcus)</i> <i>alveolar bone</i>
--	---



III. Give the Russian equivalents for the structures shown in the picture:



IV. Match the words logically:

periodontal	calming
chronic	deposit / stagnation
underlying	smooth
solid	endodontic
accumulation	improve
tiny	acute
irritant	heal
prevent	overlying
jagged	enlarged
ulcerate	restore
aggravate	loose
destroy	cause

V. Form the necessary part of speech:

Causes of Periodontal Disease

The primary cause of 1. (*gingiva* + “*inflammation*”) is poor or 2. (*effective, negative*) oral hygiene which leads to the 3. (*accumulate*) of debris and bacteria at the gum line, called dental plaque. Other 4. (*contribute*) are poor nutrition and 5. (*under* + *lie*) medical conditions such as diabetes.

In some people, gingivitis progresses to periodontitis. This condition is characterized by the 6. (*destroy*) of the gingival 7. (*fibrous, plural*). The gum tissues separate from the tooth and the sulcus deepens forming the so-called 8. (“*around*” + *dental*) pocket. 9. (“*Beneath the gingiva*”, *adjective*) microorganisms colonize the periodontal pockets and cause further 10. (*inflammation*) in the gum tissues and progressive bone 11. (*loss*).

12. (*Smoke*) is another factor that increases the 13. (*occurrence*) of periodontitis, directly or indirectly, and may interfere with or affect 14. (*adversely*) its 15. (*treatment*). It is 16. (*an important, superlative*) environmental risk factor for periodontitis. Research has 17. (*shown*) that smokers have more bone loss, 18. (*attachment*) loss and tooth loss compared to 19. (*non-smokers, negative*) because smoking has several effects on the immune 20. (*response*) including:

- ✓ it decreases the time of wound 21. (*healing*);
- ✓ it suppresses antibody 22. (*production*);
- ✓ It reduces neutrophilic 23. (*phagocytosis* + “*process; condition*”).

VI. Choose a word from the box and complete the text:

<i>progresses</i>	<i>destruction</i>	<i>history</i>	<i>anchored</i>	<i>interfere</i>
<i>advance</i>	<i>pull away</i>	<i>habits</i>	<i>saliva</i>	<i>pregnancy</i>
<i>cause</i>	<i>contribute</i>	<i>precedes</i>	<i>plaque</i>	<i>sockets</i>
<i>bleed</i>	<i>irritated</i>	<i>pockets</i>	<i>debris</i>	<i>deepen</i>
<i>loose</i>	<i>bacterial growth</i>	<i>repair</i>	<i>damage</i>	<i>puberty</i>

Gingivitis and Periodontal Disease

Periodontitis, also generally called gum disease or periodontal disease, begins with 1. _____ in the mouth and may end — if not properly treated — with tooth loss due to 2. _____ of the tissue that surrounds the teeth.

Gingivitis (gum inflammation) usually 3. _____ periodontitis (gum disease). At the early stage of gingivitis, bacteria in 4. _____ build up, causing the gums to become inflamed and to 5. _____ easily during tooth brushing. Although the gums may be 6. _____, the teeth are still firmly planted in their 7. _____. No irreversible bone or other tissue 8. _____ has occurred at this stage.

When gingivitis is left untreated, it can 9. _____ to periodontitis. In a person with periodontitis, the inner layer of the gum and bone 10. _____ from the teeth and forms 11. _____. These small spaces between teeth and gums collect 12. _____ and can become infected. As the disease 13. _____, the pockets 14. _____ and more gum tissue and bone are destroyed. When this happens, teeth are no longer 15. _____ in place, they become 16. _____, and tooth loss occurs.

Plaque is the primary 17. _____ of gum disease. However, other factors can 18. _____ to periodontal disease. These include:

- ✓ Hormonal changes, such as those occurring during 19. _____, 20. _____ or menopause make gums more sensitive.
- ✓ Illnesses may affect the condition of the gums. This includes diabetes, cancer or HIV that 21. _____ with the immune system.
- ✓ Medications can affect oral health, because some lessen the flow of 22. _____, which has a protective effect on teeth and gums. Some drugs can cause abnormal growth of gum tissue.
- ✓ Bad habits, for example, smoking, make it harder for gum tissue to 23. _____ itself.
- ✓ Poor oral hygiene 24. _____ like not brushing and flossing on a daily basis, make it easier for gingivitis to develop.
- ✓ Family 25. _____ of dental disease can be a contributing factor for the development of gingivitis.

VII. Choose the correct preposition or adverb:

Periodontitis

1. (*In, On, At*) the early stages of periodontitis, the gums recede 2. (*of, from, away*) the teeth and small pockets are formed 3. (*between, among, around*) gums and teeth. The pockets harbour harmful bacteria. The immune system tries to fight 4. (*with, off, -*) the infection and gum tissue starts to recede. The patient will likely experience bleeding during brushing and flossing as well, and possibly some bone loss.

To treat periodontitis the dentist will give some instructions 5. (*-, about, on*) how to reduce the number of bacteria in the mouth. During a professional cleaning, the doctor will remove plaque build-up and tartar 6. (*from, of, away*) the teeth and their roots, and then

polish the teeth and treat them 7. (*by, with, for*) fluoride. A deep-cleaning method called scaling and root planning will help to scrape 8. (*-, out, off*) tartar and remove any rough spots 9. (*on, in, at*) the tooth root where bacteria tend to gather.

In some cases, the dentist will prescribe antibiotics to help 10. (*-, with for*) persistent gum infections that haven't responded 11. (*on, for, to*) cleanings. The antibiotic might be 12. (*by, as, in*) the form of a mouthwash, gel or an oral tablet.

If inflammation persists in sites inaccessible to brushing and flossing, the dentist may recommend a surgical procedure called flap surgery to clean deposits 13. (*under, from, off*) the gums. 14. (*On, Under, Beneath*) anaesthesia, the gums are lifted 15. (*of, away, from*) and the roots of the teeth are cleaned. The gums are then sutured back 16. (*to, in, into*) place. If any bone loss is observed, a procedure known as bone grafting may be done 17. (*at, in, on*) the same time as flap surgery to regenerate the lost bone.

GRAMMAR PRACTICE

I. Correct the mistakes:

1. Periodontitis can causes teeth to loosen or lead to tooth loss.
2. I would like she to consult a dental surgeon.
3. We know some periodontal diseases progress rapidly.
4. Dentists consider periodontitis destroying the tissues anchoring teeth into the bone.
5. I saw my colleague to remove subgingival calculus with hand instruments.
6. Scientific studies have shown regular use of mouthwash twice daily to reduces accumulation of dental plaque by 50 %.
7. Examining a pregnant woman the dentist found out her to have periodontal disease during her previous pregnancies too.
8. The dentist supposed the patient to not have applied an antibiotic gel to his inflamed gums.

II. Make sentences from the words in the columns. Translate them into Russian:

I	know	periodontal disease	to affect the supporting structures of the teeth.	
			to involve the gum alone.	
We	recommend(s)	gingivitis	to be caused by accumulation of debris at the gum margin.	
			to pay attention to their oral hygiene.	
The dentist	watched	my patients	to show me endodontic instruments.	
			to be filled carefully.	
The students	would like	root canals	use a rubber dam in endodontic treatment.	
			his colleague	shape root canals.
		my teeth	introduce gutta-percha points into the canals.	
			the endodontist	to be scaled.
				to eliminate gingival pockets surgically.
				to remove interdental plaque by flossing.

PART IV. SCALING AND GINGIVECTOMY

LANGUAGE DEVELOPMENT

I. Study the word cloud.

a) Distribute the words into groups:

Procedures and Actions	Equipment



b) Consult Internet or a dictionary to find out the information about unknown instruments. What are they used for?

II. Match the word with its definition:

1. a new occurrence of something that happened or appeared before; a repeated occurrence;	a) detachable, adj
2. certain to happen; unavoidable;	b) dislodge, v
3. the beginning of something, especially something unpleasant;	c) entail, v
4. to remove (dirt or moisture) from something using a cloth, a piece of paper, etc;	d) futile, adj
5. a hot or cold pad of absorbent material used for treating an injury;	e) inevitable, adj
6. to remove something from where it was fixed or held;	f) onset, n
7. to involve something as a necessary or inevitable part or consequence;	g) pack, n
8. made so that it can be removed from the object;	h) recurrence, n
9. having no effective result; unsuccessful.	i) wipe, v

III. Combine the two columns to make a word combination. Translate them into Russian:

- | | |
|----------------|---|
| 1. the removal | a) subgingival deposits |
| 2. to cover | b) the gum with a gingivectomy knife |
| 3. to cure | c) for the treatment of periodontal disease |
| 4. to detect | d) of calculus and plaque |

- | | |
|------------------|---|
| 5. to dislodge | e) considerable bleeding |
| 6. to entail | f) the onset of periodontal disease |
| 7. to incise | g) rapid painless healing |
| 8. to make | h) the raw area with a pack |
| 9. to perform | i) care over oral hygiene |
| 10. to prevent | j) detachable blades |
| 11. to produce | k) a recurrence of the original condition |
| 12. to promote | l) cases with shallow gingival pockets |
| 13. to result in | m) much instrumentation |
| 14. to take | n) the procedure painless |
| 15. to use | o) scales of calculus |

IV. Choose a word from the box and complete the text:

<i>remove</i>	<i>jet</i>	<i>softer</i>	<i>sub-gingivally</i>	<i>vibrational</i>
<i>pockets</i>	<i>roots</i>	<i>recede</i>	<i>cementum</i>	<i>gum line</i>
<i>damaging</i>	<i>debris</i>	<i>smooth</i>	<i>manual</i>	<i>beneficial</i>
<i>calculus deposits</i>	<i>gently</i>	<i>surfaces</i>	<i>plaque biofilms</i>	<i>shallow</i>

What Is an Ultrasonic Scaler?

The infection and inflammation of gum tissue can cause what are called periodontal 1. _____ which are spaces in between your teeth and gums as your gums 2. _____ and begin to pull away from your teeth. Ultrasonic scalers are as effective as 3. _____ instruments for removing calculus in 4. _____ gum pockets, but if you have any pockets greater than 4 mm, then they are significantly more effective.

An ultrasonic scaler allows a hygienist to 5. _____ calculus from your teeth in a way that is very gentle, producing minimal or no damage to your teeth and tooth 6. _____ which is critical. Part of the purpose of a hygiene treatment is to leave your tooth surfaces nice and 7. _____, because the smoother the surface, the harder it is for 8. _____ to re-attach themselves.

Ultrasonic scalers use ultrasound to remove 9. _____ from the teeth more effectively. They work mechanically using high 10. _____ energy that effectively breaks calculus, so that it will be easier to remove. The 11. _____ of water helps to cool the tip of the ultrasonic scaler and is highly effective at helping to flush away 12. _____ from the tooth being treated.

Initially ultrasonic scalers were used to only remove calculus deposits on tooth 13. _____ visible in the mouth, but they can also be used 14. _____, meaning they can remove calculus deposits from just below the 15. _____, cleaning the surfaces of tooth roots without 16. _____ them. While the teeth are covered with a hard layer of enamel, tooth roots are covered with something called 17. _____ which is much 18. _____ than enamel and more easily damaged, so it's vital that any calculus on the tooth roots is 19. _____ removed. Ultrasonic scalers can be especially 20. _____ if a patient has any signs of gum disease.

V. Choose the correct preposition or adverb:

Gingival or periodontal flap surgery is indicated 1. (*in, for, against*) advanced periodontal disease, when the stability of the teeth is compromised 2. (*with, by, of*) infection, which displaces the ligament and bone. 3. (*At, In, On*) gingivectomy, the gingival

flap is resected or separated 4. (*of, away, from*) the bone, exposing the root. The calculus build-up 5. (*on, at, near*) the tooth, down to the root, is removed. The surgery is performed 6. (*with, under, at*) local anaesthesia.

Surgery will take place in the periodontist's office and usually takes a few hours 7. (*by, since, from*) the time of surgery 8. (*until, to, for*) the anaesthetic wears off. After that, normal activities are encouraged. It takes a few days or weeks 9. (*to, for, -*) the gums to heal completely. Ibuprofen or acetaminophen are very effective 10. (*with, against, for*) pain. Dental management after surgery that includes deep cleaning 11. (*by, by means of, with*) a dental hygienist will be put in force to maintain the health of the gums. Visits 12. (*-, to, of*) the dentist 13. (*for, since, in*) the first year are scheduled every three months to remove plaque and tartar build-up. After a year, periodontal cleaning is required 14. (*for, -, in*) every six months.

GRAMMAR PRACTICE

THE FORMS OF THE GERUND

	Active	Passive
Simple gerund • can refer to the same time as that of the <u>verb in the main clause</u> • can also refer to a time before that of the <u>verb in the main clause</u>	<i>writing</i>	<i>being written</i>
Perfect gerund refers to a time before that of the <u>verb in the main clause</u> . It is only used if the time of the action expressed by the gerund is not obvious from the context. If it is clear that an earlier time is meant, we use the simple gerund.	<i>having written</i>	<i>having been written</i>

In the negative, **not** usually comes before the gerund:

*There is no point in **applying** for the grant.*
*There is no point in **not applying** for the grant.*

In some cases, the verb in the main clause is negative, not the gerund:

*I **don't like** using too much anaesthetics.*

I. Fill the gaps with a preposition and an -ing form:

from	of	placing	treating and repairing
in	on	sealing	recommending or beginning
of	before	developing	filling
for	by	growing	detecting
by	with	returning	tapping

- Restoration is the process _____ something to its original condition.
- Filling prevents the decay _____ deeper.
- In many cases sensitivity of a decayed tooth is eliminated _____ an appropriate dental filling material.
- The clinical signs of abscess include swollen face, permanent pain and severe toothache _____ the tooth.
- The tooth can be saved _____ the cavity.

6. Untreated gingivitis increases the risk _____ serious periodontal problems in future.

7. Flap surgery is the leading method _____ periodontal pockets if they can't be removed by scaling and cleaning.

8. The dentist is busy _____ the root canal with gutta-percha.

9. The dentist should take X-rays, carry out visual examination and make a diagnosis _____ scaling and root planning.

10. A significant success has been achieved _____ the etiological and pathological links between periodontal disease and other systemic conditions.

THE FORMS OF THE PARTICIPLE

	Active	Passive
Present participle shows that this time is the same as the time of the <u>preceding verb</u> or the <u>verb in the main clause</u>	<i>writing</i>	<i>being written</i>
Perfect participle shows that the time of the action that it refers to is before that of the <u>verb in the main clause</u>	<i>having written</i>	<i>having been written</i>
Past participle	<i>written</i>	<i>written</i>

THE DIFFERENCE BETWEEN THE GERUND AND THE PRESENT PARTICIPLE

A **Gerund** always functions as a **noun**:

Root canal filling can be an alternative to the extraction.

*What I really like is **consulting** paediatric patients.*

*The dentists suggested **taking some more X-rays**.*

*The patient rushed out of the consulting room without **saying** a word.*

*Could you give up **smoking**?*

*We had no **drinking** water left.*

The **Present Participle** has the following functions:

Function	Example sentence
Continuous aspect	<i>The patient wasn't moaning.</i> <i>What have you been doing?</i> <i>You must be sterilizing the instruments.</i> <i>I happened to be passing your clinic.</i>
Adjective	<i>The survey revealed some worrying results.</i> <i>The results of the survey were/seemed worrying.</i>
Participle clauses	<i>The man holding the jaw was not injured.</i> <i>The patient was moaning with pain (while) waiting for the doctor.</i> <i>Opening the cupboard, I found two boxes with gutta-percha points.</i> <i>Having nothing left to do, the nurse went home.</i>

II. Read and translate the sentences. Define the type of -ing form:

1. Periodontal disease is a common, complex, inflammatory disease characterized by the damage of tooth-supporting tissues of periodontium including periodontal ligament and alveolar bone.
2. All filling materials are used to smooth dental surfaces to improve biting and chewing.
3. Quitting smoking is very important for periodontal therapy to be successful.
4. The surrounding alveolar, or exposed bone, may require reforming to ensure proper healing.
5. A putty-like coating spread over the teeth and gums protects the sutures.
6. This coating serves as a kind of bandage and allows the eating of soft foods and drinking of liquids after surgery.
7. If it hurts only when eating or drinking something cold or sweet, or when breathing cold air, the decay is deep enough for the nerve to feel temperature changes.
8. Aggressive periodontal disease involves a rapid worsening of symptoms.
9. All periodontal diseases have similar symptoms but they may vary depending on the form of the condition.
10. In gingivitis red and swollen gums, gums that easily bleed while brushing and flossing, receding gum line, bad breath can be observed.

III. Choose the best form of an -ing form:

1. Diabetics, pregnant women and steroid users face increased risks of _____ gingivitis.
a) *developing*; c) *being developed*;
b) *having developed*; d) *having been developed*.
2. For _____ the severity of periodontitis a dentist may review a medical history, examine the mouth, measure the pocket depth and take dental X-rays.
a) *determining*; c) *having determined*;
b) *being determined*; d) *having been determined*.
3. Root planing smoothes the root surfaces _____ further build-up of tartar and bacteria and removes bacterial by-products.
a) *having discouraging*; c) *being discouraged*;
b) *discouraging*; d) *having been discouraged*.
4. More than one in three people over the age of 30 have a form of periodontitis _____ beyond gingivitis.
a) *advancing*; c) *having advanced*;
b) *being advanced*; d) *having been advanced*.
5. When the disease progresses, the pockets deepen _____ to gum tissue and bone destruction.
a) *being led*; c) *having been led*;
b) *leading*; d) *having led*.
6. Daily brushing and flossing _____ can help to remove most of the plaque from your teeth.
a) *doing*; c) *being done*;
b) *having done*; d) *having been done*.

7. The female patient with gingivitis has started _____ an oral contraceptive recently.
 a) taking; c) having taken;
 b) being taken; d) having been taken.
8. _____ on two weeks before the patient with acute periostitis is still receiving antibiotics intravenously.
 a) operating; c) being operated;
 b) having operated; d) having been operated.
9. Bacteria _____ to grow, spread and cause damage have destroyed the connective tissues that support the teeth.
 a) allowing; c) having allowed;
 b) being allowed; d) having been allowed.
10. The second step of periodontal therapy involves surgical procedures with the intention of _____ the prognosis of teeth and aesthetics.
 a) improving; c) being improved;
 b) having improved; d) having been improved.

PART V. ORAL SURGERY

LANGUAGE DEVELOPMENT

I. Match the word with its definition:

1. to break (a bone) into several small fragments;	a) biopsy, n
2. a tooth that, for some reason, has been blocked from breaking through the gum;	b) bruxism, n
3. the action of taking out something, especially using effort or force;	c) comminute, v
4. to insert or fix (tissue or an artificial object) in a person's body, especially by surgery;	d) complication, n
5. an examination of body fluid or tissue removed from a living body to discover the presence, cause, or extent of a disease;	e) denture, n
6. to reattach surgically to the body (a part that has been removed or severed);	f) extraction, n
7. to dislocate, put something out of its normal position;	g) impacted (tooth)
8. the involuntary or habitual grinding of the teeth, typically during sleep;	h) implant, v
9. a removable plate or frame holding one or more artificial teeth;	i) luxate, v
10. a medical problem that occurs as a result of another illness or disease.	j) replant, v

II. Translate the following word combinations:

- the branch of dentistry; to branch;
- to suffer a trauma; traumatic injuries; to traumatize teeth;
- removable denture; fixed denture; to replace by a denture;
- to luxate; luxation; to become luxated;
- comminuted teeth; to comminute
- to replant a totally displaced tooth; a tooth may be replanted

III. Choose a word from the box and complete the text:

<i>office</i>	<i>treatment</i>	<i>permanent</i>	<i>hospital</i>
<i>anaesthesia</i>	<i>trauma</i>	<i>procedures</i>	<i>removal</i>
<i>fracture</i>	<i>surgery</i>	<i>extraction</i>	<i>impacted</i>

When you hear the words “oral surgery”, you may think of a **1.** _____ setting, general **2.** _____ and one or more days in recovery from this type of dental procedure. But you might be surprised to know what is actually considered oral **3.** _____ in Dentistry. Many **4.** _____ done in a general dental **5.** _____ are considered oral surgery and patients that require such procedures are booked for them without the inconvenience of being put on a waiting list for **6.** _____.

The most recognized form of oral surgery is tooth **7.** _____. Reasons for tooth extraction can range from:

- ✓ **8.** _____ or partially erupted wisdom teeth
- ✓ teeth beyond repair either from tooth decay, root **9.** _____ or **10.** _____;
- ✓ primary teeth that have failed to fall out, preventing the eruption of **11.** _____ teeth;
- ✓ orthodontic treatment plans may require the **12.** _____ of some teeth to achieve the optimum result.

IV. Change the words in italics for their synonyms:

If you’ve been told, “you need to have a tooth extracted”, it’s natural to feel **1. a bit nervous**. But the old phrase “it’s like pulling teeth” no more will really describe how dentists **2. carry out** this **3. standard manipulation**.

Dentists always try to **4. maintain** your natural teeth, but sometimes it is impossible. If **5. caries** has gone untreated for a long time, it may **6. damage** or destroy most of the structures that **7. hold** the tooth. A tooth like this may not **8. be sound at work**.

Because of severe gum diseases, the tooth can **9. separate** from the tissues that **10. encircle** and **11. hold** it in the mouth. When this happens, **12. removing** the tooth is sometimes the best option.

V. Form the necessary part of speech:

Corrective Jaw Surgery. Orthognathic surgery, known as jaw surgery, is performed by an oral and **1. (maxilla + face)** surgeon. Common reasons for jaw surgery include:

- ✓ TMJ or **2. (templum + mandible)** joint pain and dysfunction caused by trauma or **3. (deform)**;
- ✓ major or minor **4. (traumatic)**;
- ✓ **5. (mal + occlude)** or incorrect bite;
- ✓ bruxism or clenching, grinding of the teeth causing **6. (excess)** tooth wear;
- ✓ difficulty **7. (chew, eat, open)** and **8. (close)** the mouth or **9. (talk)**;
- ✓ **10. (correct, negative)** jaw position and unproportioned facial **11. (appear)**.

Your dentist will refer you to see an oral surgeon if he/she expects the situation to benefit from a **12. (surgeon)** treatment option.

Dental Implants. Dental implants are becoming a common procedure to replace **13. (miss)** teeth or provide **14. (stable)** to a new or existing denture. Performed by a dentist or oral surgeon, the procedure for placing a dental implant may **15. (various)** depending on the technique used by the specialist and type of a **16. (use)** implant. Most people that have had a dental implant report the **17. (recover)** was similar to that of a tooth **18. (extract)** and they were able to return to normal eating within a week after the procedure.

VI. Choose the correct preposition or adverb:

Detection and Treatment of Diseases

Over 34,000 Americans will be diagnosed 1. (*with, of, –*) oral cancer resulting 2. (*from, in, to*) 8,000 deaths every year. The dentist is considered to be highly skilled in case he is able to detect oral cancer, as the signs of this devastating disease typically go unnoticed and are not easily detected. If the dentist discovers something suspicious 3. (*on, at, in*) an area of the mouth, face, neck or jaw that may have an underlying problem, a biopsy may be performed to further diagnose the condition. A biopsy is usually a surgical procedure that is used to remove 4. (*–, from, out*) a piece of tissue in an area of the body that is suspected as being diseased. The patient may be referred 5. (*for, to, –*) an oral surgeon for the biopsy, but 6. (*within, on, in*) some cases this procedure may be performed by a general dentist. Oral surgery is commonly used to treat oral cancer and may be used in combination treatment 7. (*with, by, along*) radiation therapy. Chemotherapy uses drugs to kill cancer cells. Researchers are looking 8. (*at, for, after*) effective drugs or drug combinations to treat oral cancer. They are also exploring ways to combine chemotherapy with other forms of cancer treatment to help destroy the tumour and prevent the disease 9. (*against, away, from*) spreading.

GRAMMAR PRACTICE

THE ABSOLUTE CONSTRUCTIONS

1. The Nominative Absolute Participial construction

The toothache being severe, I took a pain-killer tablet.

Так как зубная боль была сильной, я принял таблетку обезболивающего.

The tooth having been X-rayed, the dentist could make a correct diagnosis.

После того, как был сделан снимок зуба, стоматолог смог поставить правильный диагноз.

The dentist extracted the destroyed tooth, the assistant stopping minor bleeding from the wound.

Стоматолог удалил зуб, а ассистент остановил незначительное кровотечение из раны.

2. The Prepositional Absolute Participial construction

It is formed of the previous construction by adding the preposition *with* at the beginning.

In the research data, the age of the children in group 1 ranged from 9–12 years, with most participants being 10 years old (74 %).

По данным исследования, возраст детей в 1-й группе варьировал от 9 до 12 лет, причем большинству участников было 10 лет (74 %).

3. The Nominative Absolute construction

It is formed of the Nominative Absolute Participial construction by *omitting* the participle of the verb *to be*.

The patient set in the dental chair, the dentist and the assistant being at his side.

Пациент сидел в стоматологическом кресле, а стоматолог и ассистент были рядом с ним.

4. The Prepositional Absolute construction

It is a combination of models 2 and 3.

With both a dentist and a nurse being out, the surgery was locked.

Поскольку ни стоматолога, ни медсестры не было на месте, кабинет был закрыт.

I. Read and translate the following sentences. Mind the Absolute constructions:

1. The patient wearing dentures, oral mucosa showed some signs of irritation.
2. One needs to consult a dentist as soon as possible, certain changes in oral cavity becoming apparent.
3. Hypercementosis complicating the course of periodontitis, the sequence of treatment procedures should be carefully considered.
4. All the doctors decided to postpone the operation, the issue having been discussed.
5. Cells becoming abnormal and dividing without control or order, cancer occurs.
6. Cancer cells breaking away from a malignant tumour, they can enter the bloodstream or the lymphatic system.
7. The patient having teeth with curved roots, surgical removal was the best option.
8. The tooth having been numbed, the dentist uses an elevator to loosen it.
9. The diagnosis of TMJ disorder was suggested, the patient complaining of headaches, difficulty opening and closing the mouth.
10. Implants being anchored to the bone and covered with a crown, they don't require other teeth for support.

II. Choose the best form of the participle. Translate the sentences:

1. The dentist _____ the patient about her condition, she did not mention any symptoms.
a) asking; c) being asked;
b) having asked; d) having been asked.
2. The doctor _____ the patient about the treatment plan, the patient agreed to start it immediately.
a) informing; c) being informed;
b) having informed; d) having been informed.
3. The jaws _____ together hard, a condition called concussion may develop into a total periodontitis.
a) striking; c) being struck;
b) having struck; d) having been struck.
4. The tooth _____, the place of extraction is covered with a piece of gauze and the patient keeps it for 30 minutes.
a) extracting; c) being extracted;
b) having extracted; d) having been extracted.
5. Ice packs _____, the patient still complained of the extraction side being sore.
a) applying; c) being applied;
b) having applied; d) having been applied.
6. Implants _____ of titanium, the body accepts them well.
a) making; c) being made;
b) having made; d) having been made.

7. Irritation fibromas commonly _____ on the buccal mucosa, they may be found throughout the oral cavity.

- a) *locating;* c) *being located;*
b) *having located;* d) *having been located.*

8. The fracture _____ frontal teeth, the patient needed a suitable method of fixation.

- a) *involving;* c) *being involved;*
b) *having involved;* d) *having been involved.*

9. A severe loss of bony tissue _____ loss of function, it may be considerable interference with the patient's normal mastication, speech and appearance.

- a) *causing;* c) *being caused;*
b) *having caused;* d) *having been caused.*

10. The luxation of a partially displaced tooth _____, the tooth is held in its natural position with wires or special splints.

- a) *reducing;* c) *being reduced;*
b) *having reduced;* d) *having been reduced.*

UNIT IV. PROSTHETICS. ORTHODONTICS

PART I. PROSTHETICS

LANGUAGE DEVELOPMENT

I. Fill in the gaps with a suitable word and say what prosthodontics is:

Prosthetic dentistry, also known as 1. _____ is a branch of 2. _____ that covers the scope of replacing 3. _____ teeth by the use of 4. _____ and other artificial dental methods. It also deals with the reconstruction of other oral defects like missing parts of teeth and problems on the structures of 5. _____ and teeth bones. Prosthetic dental treatment means that a damaged single 6. _____ or all teeth are being 7. _____ by an artificial method constructed in a dental laboratory.

Dental prosthetics is changing the way we face dental defects nowadays. It boosts confidence in a person for smiling and 8. _____. This is not just for aesthetic 9. _____, but it also has a significant role. Modern dental prosthesis restores normal 10. _____ function in a patient, thus, ensuring overall good health.

II. Read the text. Choose the best word and answer the questions below:

Tooth Loss: Cause and Effect

Strong 1. (*tooth, teeth*) symbolize 2. (*poor, better, good*) health and a healthy 3. (*lifestyle, life*). The loss of a tooth not only has serious physiological effects but harms self-confidence and the quality of 4. (*lifestyle, life*).

There 5. (*is, are*) many reasons 6. (*on, for, to*) tooth loss: congenital condition, injury, periodontal disease, or decay. A single tooth 7. (*must, should, may*) be missing, or several teeth or more, including all upper or all lower teeth.

After losing one or more teeth, changes occur in the oral 8. (*mouth, -, cavity*). The adjacent teeth, jaw bone, and jaw joint 9. (*is, are*) all affected 10. (*by, to, in*) the length of time the site remains 11. (*with, without*) a tooth. Adjacent teeth may 12. (*displace, be displaced, displaced*) and close to the 13. (*open, filled, empty*) space. This shift causes changes in the distance 14. (*among, between*) the teeth, leading 15. (*to, from, in*) occlusion issues. Changes to the jaw joint can produce 16. (*diseases, illness, disorders*) such as facial pain that manifests over time. There may be bone loss around the 17. (*missing, existing, lacking*) tooth, which leads to aesthetic issues and may 18. (*restricted, be restricted, restrict*) future restoration options.

Extensive 19. (*loss of, missing, existing*) teeth causes significant damage 20. (*for, to, in*) the aesthetics of the face, the profile, and the jawline. Over time, tooth loss leads 21. (*to, for, in*) an older appearance as the cheeks, chin, or jaw shrink or sag. Beyond the aesthetics, of course, tooth loss impairs your ability to 22. (*swallow, chew, breathe*). You may avoid eating certain difficult-to-chew foods such as apples or carrots, which may affect your overall health. Tooth loss can also change speech and pronunciation.

Answer the following questions:

1. What does the loss of teeth harm?
2. What are the reasons for tooth loss?
3. Where do changes occur in case of tooth loss?
4. What kind of changes are there in the mouth in case of tooth loss? Describe them.
5. What can extensive loss of teeth cause?

III. Match the word with its definition:

1. a physical condition resulting either from a faulty or inadequate diet	a) denture
2. a denture anchored to teeth on either side of missing teeth	b) artificial
3. biting and grinding food in your mouth so it becomes soft enough to swallow	c) full denture
4. having lost teeth	d) malnutrition
5. a usually removable artificial replacement of one or more teeth	e) prosthetics
6. something that holds fast or prevents from moving	f) mastication
7. a physical condition in which there is a disturbance of normal functioning	g) edentulous
8. the branch of medicine dealing with the production and use of artificial body parts	h) trap
9. an artificial replacement for one or more teeth	i) bridge
10. made or produced by human beings rather than occurring naturally, especially as a copy of something natural	j) disorder

IV. Match the synonyms and try to find a mistake:

- | | |
|-----------------|--------------------|
| 1. artificial | a) poor |
| 2. full denture | b) develop |
| 3. disorder | c) bridgework |
| 4. bridge | d) partial denture |
| 5. mastication | e) false |
| 6. oral cavity | f) edentulous |
| 7. restoration | g) disease |
| 8. toothless | h) chewing |
| 9. bad | i) return |
| 10. arise | j) mouth |

V. Choose a word from the box and complete the text:

<i>replacement</i>	<i>full dentures</i>	<i>mouth</i>
<i>tissues</i>	<i>natural</i>	<i>most</i>
<i>spaces</i>	<i>removal</i>	<i>partial dentures</i>

Dentures

Dentures are removable 1. _____ for missing teeth and adjoining 2. _____. 3. _____ fill in the 4. _____ created by missing teeth, keep remaining teeth from shifting and are an option if you have some 5. _____ teeth remaining. If you have lost 6. _____ or all of your teeth, complete or 7. _____ are recommended. "Immediate" dentures are inserted immediately after 8. _____ of the natural teeth; "conventional" dentures are placed in the 9. _____ about three to six months after tooth removal.

IV. Fill in the gaps with a suitable word:

Dental Bridges

A dental 1. _____ is a false 2. _____ that is fused 3. _____ two porcelain 4. _____ to fill in or bridge the space left by a 5. _____ tooth. The two crowns holding the 6. _____ bridge in place are cemented 7. _____ your teeth on each 8. _____ of the space; the bridge is secured into place and is irremovable. Some bridges also may contain two or more false 9. _____ between the crown components, depending 10. _____ the case.

GRAMMAR PRACTICE

SEQUENCE OF TENSES

Present Tenses → *Past Tenses*
Past Simple → *Past Perfect*
Will → *Would*

The patient said (that) he (~~lost~~) had lost his tooth (~~yesterday~~) the day before.

- I. Read the text. Complete the text using the verbs in brackets in appropriate Active or Passive voice (see p. 16) following the Sequence of Tenses. Answer the questions below the text:**

First Dental Impressions

The idea of making dental impressions **1.** (*to date*) back to the 18th century and German dentists in Prussia. Philipp Pfaff **2.** (*to serve*) as a dentist to the King of Prussia, Frederick the Great, and **3.** (*to describe*) taking impressions in wax. First Pfaff **4.** (*to soften*) the wax in hot water, molded it to the teeth, removed it, then **5.** (*to use*) plaster of Paris to make the cast. Around the same time, German surgeon Matthaus Purmann **6.** (*to describe*) using the same type of wax model for making prosthetic teeth.

Fast forward about 50 years to “the New York Daily” advertisement in 1787, where John Greenwood **7.** (*to practice*) medicine in Boston before the Revolutionary War. In the ad, he **8.** (*to promise*) to make “false teeth” by using beeswax impressions. It **9.** (*to be*) the first known use of a dental model in prosthetic dentistry in America. Greenwood’s son and grandson also **10.** (*to become*) dentists, and used their grandfather’s technique of beeswax molds, but **11.** (*not to add*) plaster of Paris until after 1820.

Levi S. Parmly **12.** (*to be*) another dentist who **13.** (*to write*) about use of molds in 1819: “Where the teeth mostly **14.** (*to go*), in both or in either of the jaws, the method **15.** (*to be*) to form an artificial set, by first taking a mould of the risings and depressions of every point along the surface of the jaw, and then making a corresponding artificial socket for the whole”. Parmly **16.** (*to consider*) it one of the great advances in dentistry.

In 1820, a French dentist, C. F. Delabarre, **17.** (*to invent*) the first impression tray — you know, those trays we all **18.** (*to come*) to know nowadays. So **19.** (*to thank*) Delabarre for that. Rather than using wax alone, he **20.** (*to create*) a metal tray and **21.** (*to line*) it with wax to get a better imprint. The trays also **22.** (*to keep*) the cheeks from getting in the way of the impression.

Soon, “the manner of obtaining a model” **23.** (*to become*) widely documented in dental textbooks.

Answer the following questions:

1. Who were the first dentists to make dental impressions?
2. What did they do to make an impression?
3. What could people read in the advertisement?
4. When did the ad appear?
5. What did Levi S. Parmly write about dental work?
6. What is C. F. Delabarre famous for?

II. Turn the following sentences into the Reported Speech:

1. The teacher said, "Tooth loss is a common dental problem that can be brought about by a variety of factors."

2. "Patients wearing dentures don't realize they are losing bone," she said.

3. He said: "The issue of bone loss after tooth loss has been ignored in the past by traditional dentistry."

4. The lecturer mentioned, "People think that United States President George Washington was one of the people of the time that had dentures."

5. "Implants, bridges and dentures will help to restore an aesthetically pleasing and functional smile, giving the face back a more youthful appearance," the doctor said.

6. The doctor's assistant said, "The loss of teeth can add 10 or more years to a person's face."

7. "After the teeth have been removed and the gum tissue has begun to heal, the doctor will be ready to make a denture," the nurse said.

8. "Eating with new dentures will take a little practice and may be uncomfortable for some wearers for a few weeks!" — the doctor said.

9. "If dentures 'click' while you're talking, you must contact your dentist," the nurse recommended.

10. "While there are many different types of restorative dental materials in the market, we will suggest the best option according to your individual tooth conditions," the dentist said.

PART II. IMPRESSION MATERIALS

LANGUAGE DEVELOPMENT

I. Match the synonyms:

- | | |
|----------------------------|------------------------|
| 1. distortion | a) deep |
| 2. a reproduction of teeth | b) edge |
| 3. detect | c) teething |
| 4. margin | d) deformation |
| 5. capture | e) properties |
| 6. features | f) define |
| 7. tray | g) take/catch |
| 8. saturated | h) show |
| 9. dentition | i) baseplate |
| 10. demonstrate | j) an imprint of teeth |

II. Fill in the gaps with a suitable word:

A dental impression is an imprint of **1.** _____ and/or soft **2.** _____, formed with specific types of **3.** _____ materials that is used in different area of **4.** _____ including Prosthodontics.

A correctly made **5.** _____ **6.** _____ will capture a part or all of a person's **7.** _____ and surrounding **8.** _____ of oral **9.** _____. The dental impression forms an imprint of teeth and soft tissues, which can then be used to **10.** _____ a cast of the dentition.

III. Choose a word from the box and complete the text:

<i>margin</i>	<i>accuracy</i>	<i>distortion</i>
<i>plaster</i>	<i>odor</i>	<i>include</i>
<i>divided</i>	<i>structures</i>	<i>prostheses</i>
<i>details</i>	<i>shrink</i>	<i>demonstrate</i>
<i>tray</i>	<i>requirements</i>	<i>case</i>
<i>choice</i>	<i>depend</i>	<i>rigid</i>
<i>application</i>	<i>detect</i>	<i>features</i>

Impression Materials

Impression materials are used in dentistry to record the **1.** _____ of intraoral **2.** _____ to fabricate a reproduction of teeth and soft tissues for the construction of dental **3.** _____. An ideal impression material should have many **4.** _____. It should not **5.** _____ during polymerization, shipping or storage and should have excellent flow. The color of the impression material should be saturated enough to **6.** _____ whether the prepared tooth **7.** _____ is captured. An ideal impression material should also **8.** _____ excellent detail reproduction, good tear strength, and no **9.** _____ when removed from the mouth. It must be biocompatible, non-toxic and have an acceptable **10.** _____ and taste. Desirable features also include long working time, short setting time, and a long shelf life. Disinfection should not reduce surface detail or **11.** _____. An ideal impression could be poured multiple times, without losing accuracy. No impression material meets all of these **12.** _____, but significant improvements have been made.

Impression materials can be categorized as **13.** _____ and elastic impression materials. Rigid ones include **14.** _____ and compo/zinc oxide-eugenol; however, since they cannot engage the undercuts, their **15.** _____ is limited nowadays. Elastic impression materials can be further **16.** _____ into hydrocolloid and elastomeric impression. Hydrocolloid materials **17.** _____ agar, which is reversible, and alginate, which is irreversible. Elastomeric materials include polysulfide, polyether, condensation-cured silicone, and addition-cured silicone.

The **18.** _____ of which impression material to use in each case will **19.** _____ not only on the specific needs of each **20.** _____, but also on the impression technique and **21.** _____ to be used.

Answer the questions:

1. What are impression materials used for?
2. What properties should the impression materials have?
3. What categories are they divided into?
4. What does the choice of impression materials depend on?
5. What rigid impression materials can you name? What elastic impression materials do you know?
6. Why is the use of rigid impression materials limited?

IV. Put different types of questions in the form of a plan. Entitle and retell the text:

Usually made from plastic or metal, dental impression trays hold the impression material while the imprint is being created intraorally, and then provide a firm backing to make sure the impression is free of distortions as it finishes setting. Some impression trays

are designed to be reused while others essentially become a part of the impression when it is sent to the dental laboratory. Available in various sizes, trays are designed to capture a specific part of the patient's anatomy such as a full arch, a quadrant or opposing dentition. Because different restorative situations require the use of different types of trays, it can be helpful to have a variety of tray sizes and styles on hand.

GRAMMAR PRACTICE

CLAUSES WITHOUT CONJUNCTIONS

We know (that) *metal trays are the most commonly used impression trays.*

I. Translate the following sentences into your own language. Pay attention to the clauses without conjunctions:

1. A porcelain crown that has been designed to match your surrounding teeth will be cemented or screwed onto the abutment.
2. Plaster of Paris that is used for edentulous impressions cannot be removed in one piece.
3. The dentist explains dentures are made in a dental laboratory.
4. Everybody knew George had to wait several months for the bone to heal before he received the implant.
5. Adults that have missing teeth in their mouths because of tooth decay or any other reason have few options of closing the gaps between their teeth.
6. The only option that comes close to real teeth is dental implants that are designed to look, feel, and function like natural teeth.
7. The patient I am treating now is very anxious about his appearance.
8. A partial denture which is filled in the spaces created by missing teeth prevents other teeth from changing position.
9. Advances in prosthetic dentistry have made it possible to fill the spaces with bridges and implants that are more functional and attractive than the teeth they have replaced.
10. It's happened. The day has come when your dentist informs you oral surgery is required to resolve the problem you're experiencing in your mouth.

II. Match the items in column A to the ones in column B to make correct sentences:

- | | |
|--|---|
| <ol style="list-style-type: none">1. I don't think2. The denture I made last time3. This is the denture4. It's sometimes possible to successfully implant permanent teeth5. Different types of impression materials are available,6. Dental surgery is any of a number of medical procedures7. Dentists monitor new tested and certified materials | <ol style="list-style-type: none">a) that supports fabricated teeth.b) that involve artificially modifying dentition.c) the market regularly offers.d) dentistry has evolved (developed) over the last 25 years.e) speaks for the need of a complete denture.f) that have been knocked out.g) we have received from the laboratory. |
|--|---|

- | | |
|--|--------------------------------------|
| 8. Dentures are made out of a plastic base | h) this impression tray will do. |
| 9. The fact that all the teeth are missing | i) looks like natural healthy teeth. |
| 10. Dental implants have changed the way | j) which vary in their properties. |

III. Make the correct sentences using your active grammar rules:

1. That are broken or damaged by decay teeth can be fixed with a filling, crown, or other dental treatment.
2. Dental amalgam has served that is a metal-like restorative material as a dental restoration for more than 165 years.
3. Some people which can result in dental crowding as permanent teeth grow in are born with a smaller jaw (genetics).
4. Many people can cause dental crowding impacted wisdom teeth believe.
5. Dental alginate, when mixed with water, is a powder impression material that turns into a flexible and elastic gel.

IV. Read the text. Put the verbs in brackets into the correct Active or Passive tense. Choose correct prepositions:

Dental implants as we 1. (*to know*) them today 2. (*to invent*) 3. (*at, on, in*) 1952 4. (*with, by, for*) a Swedish orthopedic surgeon named Per-Ingvar Brånemark. Today, they 5. (*to consider*) to be the standard 6. (*of, for, in*) care 7. (*for, of, in*) prosthetic replacement of missing teeth 8. (*at, to, in*) dentistry. A dental implant 9. (*to be*) a surgical fixture that 10. (*to place*) 11. (*on, onto, into*) the jawbone and allowed 12. (*to, -, of*) fuse 13. (*by, in, with*) the bone. The dental implant 14. (*to act*) as a replacement 15. (*for, in, by*) the root 16. (*in, of, on*) a missing tooth. 17. (*In, at, on*) turn, this “artificial tooth root” 18. (*to serve*) to hold a replacement tooth or bridge. The process 19. (*in, of, -*) fusion 20. (*among, between*) the dental implant and jawbone 21. (*to call*) “osseointegration”. Most dental implants are made 22. (*of, in, at*) titanium, which 23. (*to allow*) them to integrate 24. (*in, with, from*) bone without being recognized as a foreign object 25. (*in, over, within*) our body. 26. (*From, over, through*) time, technology and science 27. (*to progress*) to greatly improve the outcomes 28. (*from, on, of*) dental implant placement. Today, the success rate 29. (*to, for, on*) dental implants is close 30. (*to, of, by*) 98 %.

V. Read the text. Put the verbs in brackets into the correct Active or Passive Tense:

The 1930s 1. (*to be*) an incredibly important time for the advancement of composites. Glass fibre 2. (*to introduce*) by Owens Corning who also 3. (*to start*) the first fibre reinforced polymer (FRP) industry. The resins engineered during this era 4. (*to use*) still to this day and, in 1936, unsaturated polyester resins 5. (*to patent*). Two years later, higher performance resin systems 6. (*to become*) accessible.

The first carbon fibre 7. (*to patent*) in 1961 and then 8. (*to become*) commercially available. Then, in the mid-1990s, composites 9. (*to start*) to become increasingly common in manufacturing and construction due to their relatively cheap cost compared to materials that 10. (*to use*) previously.

The composites on a Boeing 787 Dreamliner in the mid-2000s substantiated their use for high strength applications.

PART III. IMPRESSIONS

LANGUAGE DEVELOPMENT

I. Insert prepositions where necessary:

Alginate is currently one 1. _____ the most popular impression materials. It is supplied as dust-free powders. After mixing 2. _____ proper amount of water 3. _____ a rubber bowl 4. _____ a spatula, it is ready 5. _____ impression taking. Two to three minutes 6. _____ the surface tackiness has been lost, it can be removed 7. _____ the oral cavity. However, it does not produce very accurate surface detail, and has poor dimensional stability. A snap-removal technique is required 8. _____ minimize permanent deformation. It is thus not recommended 9. _____ the fabrication 10. _____ crowns and bridges.

II. Find the synonyms to the following words in the text:

1. constantly		2. lost	
3. shortcomings		4. specialization	
5. apply		6. dentures	
7. inside the mouth		8. chewing	
9. modifications		10. kind	
11. reconstruct		12. fix	
13. false teeth		14. help	

Dental Prosthesis

A dental prosthesis is an intraoral prosthesis used to restore intraoral defects such as missing teeth, missing parts of teeth, and missing soft or hard structures of the jaw and palate. Prosthodontics is the dental specialty that focuses on dental prostheses. Such prostheses are used to rehabilitate mastication, improve aesthetics, and aid speech. A dental prosthesis may be held in place by connecting to teeth or dental implants, by suction, or by being held passively by surrounding muscles. Like other types of prostheses, they can either be fixed permanently or removable; fixed prosthodontics and removable dentures are made in many variations. Permanently fixed dental prostheses use dental adhesive or screws, to attach to teeth or dental implants.

III. Choose a word from the box and complete the text:

arches	record	primary	molded	paste
streaks	impression tray	mixture	suitable	detail
tubes	amounts	arches	special tray	eugenol

Rigid Impressions (Impression Compound & Zinc Oxide Eugenol)

The rigid materials are usually used to 1. _____ impressions of edentulous 2. _____ only. Impression compound must be heated in a water bath and then 3. _____ onto the 4. _____. It doesn't flow well and can't record fine 5. _____. It is therefore used for 6. _____ impressions of edentulous 7. _____. Impression 8. _____ is a modified form of zinc oxide eugenol. Other properties are added to make it 9. _____

to use as an impression material. It comes in two 10. _____: one containing a white zinc oxide 11. _____ and the other containing a red 12. _____ mixture. When using this product equal 13. _____ of each paste should be squeezed onto a pad and mixed with a spatula. The mix should then be loaded into a 14. _____ for secondary impressions of the edentulous arch. When the products are mixed together they will create a different colour; there should not be any red or white 15. _____ remaining.

IV. Read the text. Fill in the gaps with a suitable word. Find the sentences with Adverbial Clauses of Time:

Making an Alginate Impression

Before the 1. _____ or dental hygienist begin work, she will fit you for an impression 2. _____, usually made from a rigid 3. _____, such as metal or stiff plastic. The 4. _____ will be sprayed clean of any debris or extra saliva and allowed to partially dry.

The next step in making a successful alginate 5. _____ is mixing the powdered additive and 6. _____ to make a smooth, spreadable 7. _____. The dentist will put this gel into the 8. _____ and smooth it over your teeth with a tool or gloved fingers, being careful to work quickly, but not create any bubbles or lumps that might result in 9. _____ in the final mold.

The mixture will be firmly held in place and removed after a few 10. _____ when the 11. _____ has completely set.

Usually, within 30 minutes of being taken out of the 12. _____ the impression is filled with one of several types of impression stone — a plaster-like liquid that dries to a solid. When the stone is fully 13. _____, it is pulled away 14. _____ the soft gel in the tray. Any excess stone is then trimmed in the 15. _____ office or lab making the device.

GRAMMAR PRACTICE

ADVERBIAL CLAUSES OF TIME / CONDITION

After, before, (un)till, if, when, as soon as + Subject + Present Tense Form

If you ~~will~~ lose one tooth, different changes will occur in your organism.

I. Translate the following sentences into your own language:

1. If food particles are consistently building up between teeth in a certain area, there will be more bacterial accumulation.
2. If the cavity is not repaired, it will worsen, eventually leading to the tooth loss.
3. Keeping the area as clean as possible daily will not be the solution of the problem if decay or a fracture causes the food trap.
4. The orthodontist will evaluate your mouth before he recommends the type of tooth braces suitable for you.
5. If impression techniques are understood in detail, it will be easier to decide which kind of material and technique should be used for different cases.
6. If there are teeth missing naturally, there will be a gap on the finished mold.

7. If moisture such as saliva or blood is present, then the filling will not likely stay in the tooth.

8. Temporary dental crowns will cover the tooth while the permanent crown is being created in the dental lab.

9. When replacement of missing teeth is very complex or costly, the doctor will recommend you the complete denture.

10. As soon as you are with the uncertainty of not knowing which tray will be the most suitable, our recommendation will be to think about the economic factor.

II. Match the items in column A to the ones in column B to make correct sentences:

- | | |
|--|---|
| 1. If a tooth is badly destroyed and cannot be restored, | a) you will be referred to a special dental clinic. |
| 2. If you decide to restore your damaged tooth, | b) you will need someone to pick you up, as you will be tired. |
| 3. When wisdom teeth become impacted and cause pain, | c) if s/he thinks the lesion in the mouth looks suspect. |
| 4. If you lost or seriously damaged a tooth, | d) dentists will suggest their removal. |
| 5. As soon as a white filling does discolour over time, | e) until your permanent one is being made. |
| 6. The doctor will remove a small piece of tissue and then send it to the lab for analysis | f) a crown will make it stronger and more stable. |
| 7. After the surgical procedure is over, | g) some of the pressure in the area of a toothache will diminish. |
| 8. If you need an implant, | h) you will need teeth prosthetics. |
| 9. If you elevate your head when resting, | i) a dentist will recommend extraction. |
| 10. You will have a temporary denture | j) it will easily be replaced. |

III. Make your own sentences using your active vocabulary and grammar rule. The following words will help you:

1. If, defects, want to correct, qualified dentists, select, proper techniques.
2. Before, thoroughly, removed, dentist, review, medical and dental history.
3. When, there, no teeth, mouth, what tray, choose.
4. Manufacture, read, attentively, you won't.
5. Powder, mix, get, an accurate impression.

PART IV. BITE REGISTRATION

LANGUAGE DEVELOPMENT

I. Form the necessary part of speech, complete the text:

Dental Occlusion

The *dental occlusion* or *the bite* is the relationship between the 1. (*up*) and the 2. (*low*) teeth when they approach each other. It is very important to determine the exact bite when a 3. (*restore*) is designed.

The dental 4. (*occlude*) has to be 5. (*analyze*) in two 6. (*differ*) circumstances: when the jaw is 7. (*move*) and when the jaws are 8. (*close*) and stationary.

II. Read the text. Fill in the gaps with a suitable word.

Static occlusion refers to 1. _____ contact between teeth when the jaw is 2. _____ and stationary. The correct static occlusion is the 3. _____ where the 4. _____ teeth make the most possible 5. _____ with the lower teeth. This position is also 6. _____ as *maximum intercuspation*.

Patients must reach this position without 7. _____ efforts. Unnatural efforts to reach this position may sometimes lead to difficulties in registering the correct 8. _____.

When large 9. _____ are planned, it is extremely important to establish the 10. _____ static occlusion. It is ideal not to disturb a correct bite by leaving the restoration high (or low).

III. Choose a word from the box and complete the text:

<i>contacts</i>	<i>TMJ</i>	<i>forwards</i>
<i>angle</i>	<i>depend</i>	<i>movements</i>
<i>determine</i>	<i>mandible</i>	<i>moving</i>
	<i>reconstruction</i>	

Dynamic occlusion refers to occlusal 1. _____ made when the jaw is 2. _____. These contacts are made when the 3. _____ is moving sideways, 4. _____, backwards, or at an 5. _____. The dynamic occlusion contacts 6. _____ on both the teeth positions and shapes and the shape of the 7. _____. It is important to 8. _____ whether some of these contacts can interfere with the planned 9. _____ during various functional 10. _____.

IV. Choose the correct preposition:

Bite Registration Manipulations

The bite is usually recorded 0. (*with, in, from*) a rigid impression material.

1. The material is prepared (*with, by, in*) mixing a putty base (*for, at, with*) the catalyst. A self-mixing impression material syringe can also be used.

2. The prepared material is positioned (*with, over, among*) the entire length of a dental arch (*upper or lower*) or just (*in, at, for*) the posterior (back) parts. Special trays can be used.

3. The patient is invited (*to, with, for*) "bite" (*on, at, in*) the correct occlusion.

4. After material sets (it usually takes 1–2 minutes), the record is sent to the dental laboratory together (*within, with, among*) the other impressions.

V. Find the synonyms to the following words in the text:

put		area	
exact		occlusion	
allocate/distribute		correct	
reach/touch		bite stage	
take off		close	
the sick		make sure	
watch		front	
oral cavity		manipulation	

Bite Registration Procedure

1. Ensure the patient is sitting in an upright position.
2. Ask the patient to close the back teeth together.
3. Tell the patient the way you need her/him to close the mouth with the bite registration material in place.
4. Observe how both sides of the arches occlude.
5. Place the bite registration material cartridge into the dispensing gun.
6. Dispense material onto the occlusal surface of the patient's arch starting in the posterior molars on one side and continuing to syringe the material onto the anterior teeth and around to the molars on the opposite side. A full-arch bite registration will ensure an accurate occlusal record.
7. Have the patient close the mouth, or guide the patient's jaw into the proper position. Most vinyl polysiloxane bite registration materials will set in 20 to 30 seconds.
8. Remove the bite registration from the mouth.
9. Rinse the material, dry, and disinfect according to manufacturer's instructions.
10. Be sure to avoid contact with any chemicals known to inhibit setting of vinyl polysiloxane such as latex gloves and acrylic residues. Wear vinyl gloves during this procedure.

VI. Match the two columns:

- | | |
|-----------------------------------|-----------------------------------|
| 1. to attach | a) временный зуб |
| 2. extracted teeth | b) выступающая челюсть |
| 3. a dislocated tooth | c) кость |
| 4. lose the tooth | d) окклюзионная поверхность |
| 5. an occlusal surface | e) оставшиеся зубы |
| 6. a temporary tooth | f) последователь и предшественник |
| 7. tooth extraction | g) прикреплять |
| 8. a bone | h) смещенный зуб |
| 9. a prominent jaw | i) терять зуб |
| 10. remaining teeth | j) удаление зуба |
| 11. a successor and a predecessor | k) удаленные зубы |

PART V. ORTHODONTICS

LANGUAGE DEVELOPMENT

I. Revise the grammar rules from the unit and translate the following sentences:

1. Accurate impressions depend on identifying the applications that do or do not fit each material's characteristics.
2. After the teeth have been removed and the gum tissue has begun to heal, the doctor will be ready to make a denture.
3. Impression materials that are currently popular include hydrocolloids, addition silicones, polyethers, and polysulfides.
4. Before the extraction: the tooth will be moved back and forth until the periodontal ligament breaks enough to loosen the tooth from the alveolar bone so that it can be removed.
5. The dentist said the tray was positioned in the mouth and pressed over the dental arch.

6. The technique that will be selected for a particular situation may depend on different factors.

7. Before a tooth is removed, the area around your infected tooth will be numbed using local anesthetic.

8. When the dentist first advises you to replace missing teeth, you will probably have several options that vary in price and the difficulty of the procedure.

9. The maxilla that is the entire central portion of our face determines our nasal cavity, our airway space, our cheekbones, and the position of our mandible.

10. A few days after a fixed brace is fitted, you will be able to eat a normal range of foods.

II. Read the text. Put the verbs in brackets into the correct active or passive tense:

More and more people, both children and adults **1.** (*to seek*) orthodontic treatment today.

And humans **2.** (*to deal*) with their tooth pain and rearranging their smiles for over 2,000 years now. Archaeologists **3.** (*to find*) devices designed to treat malocclusion, abnormal alignment of the teeth and jaw on mummified remains dating back to the Egyptian Empire. Crude metal implements (material) **4.** (*to discover*) wrapped around teeth. Experts **5.** (*to theorize*) that catgut **6.** (*to use*) to guide the teeth and keep them in position.

Pierre Fauchard **7.** (*to create*) the first true set of modern braces in 1728, making him known as the “Father of Modern Dentistry”. His device **8.** (*to use*) flat strips of metal and string to draw the teeth together. While crude, they **9.** (*to be*) closer to what we **10.** (*to see*) in modern orthodontics. They **11.** (*to use*) the same principle of an individual connector on each tooth, allowing for more accurate adjustment. Thankfully, since then orthodontics **12.** (*to make*) leaps and bounds. The addition of wiring and rubber bands **13.** (*to date*) as far back as the mid-1800s. Modern braces **14.** (*to continue*) to improve on these early designs. The next major development in orthodontics **15.** (*to come*) with the invention of the retainer device by Dr. Charles Hawley, which **16.** (*to preserve*) the orthodontic adjustments after the braces **17.** (*to come*) off.

Crude — необработанный

III. Match the word with its definition:

1. an artificial replacement for a missing tooth/teeth	a) braces
2. the location on the surface of a tissue where there is a tendency for food debris to accumulate	b) crowding
3. a clear, plastic appliance that is molded to fit over the teeth and is used to correct their alignment	c) implant
4. a fixed appliance, usually comprised of brackets, bands and wires	d) orthodontics
5. teeth extending beyond the normal contour of the dental arches; usually in an anterior direction	e) retainers
6. any device, attached to the teeth or removable, designed to move the teeth, change the position of the jaw, or hold the teeth in their finished positions after braces or aligners are removed	f) stagnation aria
7. faulty contact between the upper and lower teeth when the jaw is closed	g) aligner

8. a custom-made, removable or fixed appliance that helps teeth maintain their new position after braces have been removed	h) protruding teeth
9. a branch of dentistry dealing with irregularities of the teeth and their correction	i) malocclusion
10. dental misalignment caused by inadequate space for the teeth	j) appliance

IV. Form the necessary part of speech, complete the text and answer the questions:

Orthodontics

Orthodontics is the 1. (*form*) name of the dental 2. (*special*) concerned with the diagnosis, 3. (*prevent*), interception, 4. (*guide*) and adjustment of bad bites. The purpose of orthodontic 5. (*treat*) is to create a 6. (*health*) bite — straight teeth that properly meet opposing teeth in the opposite jaw. A good bite makes it 7. (*easy*) for you to bite, chew and speak.

If your teeth are 8. (*crowd*), protrusive, spaced too far apart, meet in an 9. (*normal, negative*) way, or do not meet at all, 10. (*correct*) may be recommended. Braces are the “appliances” 11. (*ortho* + “*specialist*”) most commonly use to guide teeth into their proper positions. Retainers preserve and 12. (*stabilization* as a verb) the results of the orthodontic treatment.

In the past, orthodontic treatment was associated with 13. (*child*) and teens, but today many adults seek orthodontic treatment for 14. (*correct*) long-standing problems, or problems that stem from maturational changes. Orthodontists can help people of any age achieve a healthy and 15. (*beauty*) smile. So esthetics and function are the main reasons to seek orthodontic treatment.

Answer the questions:

1. What is Orthodontics?
2. What is its aim?
3. Why is a good bite essential?
4. In what cases do people need orthodontic treatment?
5. What appliances do doctors usually use?
6. Why do adults seek orthodontic treatment?

V. Match the synonyms:

- | | |
|------------------|-----------------------|
| 1. cause | a) space |
| 2. long-lasting | b) braces |
| 3. crooked teeth | c) imprint |
| 4. missing teeth | d) reason |
| 5. brackets | e) not-straight teeth |
| 6. dentures | f) device |
| 7. impression | g) prolonged |
| 8. room | h) removal |
| 9. appliance | i) lost teeth |
| 10. elimination | j) false teeth |

VI. Fill in the gaps with a suitable word:

Space Maintainers

When 1. _____ teeth are lost earlier than 2. _____, 3. _____ fillers need to be put in so that other 4. _____ do not grow into the space meant for the 5. _____ tooth. These space 6. _____ are used to keep this space 7. _____ until more teeth 8. _____ out and adult teeth begin to grow in. Fixed space maintainers work with a band which is 9. _____ to one tooth and a wire which is extended to the tooth on the other side of the 10. _____ gap in order to stretch and keep it open.

VII. Choose the correct preposition:

Braces are the most common fixed appliances, braces consist 1. (*in, of, from*) bands, wires and/or brackets. Bands are fixed 2. (*near, next to, around*) the teeth or tooth and used as anchors 3. (*for, of, in*) the appliance, while brackets are most often bonded 4. (*at, into, to*) the front of the tooth. Arch wires are passed 5. (*over, across, through*) the brackets and attached 6. (*at, to, for*) the bands. Tightening the arch wire puts tension 7. (*in, on, to*) the teeth, gradually moving them 8. (*to, for, in*) their proper position. Braces are usually adjusted monthly to bring about the desired results, which may be achieved 9. (*within, after, before*) a few months 10. (*until, for, to*) a few years. Today's braces are smaller, lighter and show far less metal than 11. (*at, on, in*) the past. They come 12. (*at, on, in*) bright colors 13. (*of, for, to*) kids as well as clear styles preferred 14. (*with, to, by*) many adults.

VIII. Choose a word from the box and complete the text:

<i>instead of</i>	<i>lower jaw</i>	<i>larger</i>
<i>pressure</i>	<i>protruding</i>	<i>position</i>
<i>cause (2)</i>	<i>consequences</i>	<i>habit</i>
<i>childhood</i>	<i>protrude</i>	<i>forward</i>
<i>permanent</i>	<i>milk teeth</i>	<i>pushed</i>

Displaced Teeth Causes

For many people, the 1. _____ of protruding teeth is thumb-sucking during 2. _____. Unfortunately, this common childhood habit can have long-lasting 3. _____!

Thumb-sucking and dummies aren't such a problem in younger children, as their 4. _____ won't stay around for long. But when a child's 5. _____ teeth start to grow, a thumb-sucking 6. _____ can 7. _____ the teeth to grow out 8. _____ down.

It's also possible to have 9. _____ teeth even if you didn't suck your thumb. Some people are simply born with a 10. _____ whose shape or 11. _____ puts 12. _____ on their teeth, pushing 13. _____ them.

Other causes include having 14. _____ teeth than normal, and overcrowding. If your teeth are large for the size of your mouth, they can 15. _____. Similarly, if you have too many teeth, the front teeth can get 16. _____ forward.

TEST YOURSELF

A.

- _____ is used when a significant amount of tooth needs to be restored.
a) denture; b) crown; c) implant; d) all of them.
- _____ are hard plastic or metal fixtures surgically embedded through the soft tissue into the jawbone.
a) dentures; b) crowns; c) implants; d) all of the above.
- Missing teeth are replaced with _____ with support from teeth next to space.
a) bridges; b) crowns; c) brackets; d) prosthetics.
- The support teeth on a bridge are called _____.
a) buck; b) abutment; c) impression; d) appliance.
- _____ is a metal or ceramic holding device used to support and stabilize the arch wire in the mouth.
a) prosthetic; b) brackets; c) impression; d) tray.
- The branch of dentistry that diagnoses, prevents, and treats dental and facial irregularities is _____.
a) prosthetics; b) surgery; c) endodontics; d) orthodontics.
- _____ is placed by the dentist and cannot be removed; either cemented or bonded into place.
a) removal appliance; c) impression;
b) fixed appliance; d) abutment.
- Causes of malocclusion include:
a) trauma; b) disease; c) malnutrition; d) habits; e) all of them.
- Success in denture wearing depends on:
a) the talent of the laboratory technician;
b) the skill of the dentist;
c) the willing collaboration of the patient;
d) all of them.
- Disadvantages of Alginate are (name them) _____.

B.

- A device that replaces a missing body part such as an arm or leg, eye, tooth or teeth is referred to as
a) robotic; b) imaginary; c) exotic; d) prosthetic.
- Beyond the aesthetics, tooth loss impairs the ability to
a) swallow; b) sleep; c) chew; d) breathe.
- Imprint of the teeth and adjacent structures is
a) crown; b) prosthetic; c) impression; d) impression tray.
- What does bite registration do?
a) restore intraoral defects; c) replace missing teeth;
b) hold the impression material; d) record occlusal bite.

5. Plaster disadvantages are:
 - a) *patient discomfort;*
 - b) *cannot be used in undercuts;*
 - c) *improved fit;*
 - d) *accuracy can be improved.*
6. When preparing the patient for an impression the operator should:
 - a) *explain the procedure to the patient;*
 - b) *place a napkin on the patient to protect their clothing;*
 - c) *place the patient in upright position;*
 - d) *have the patient taken off all removable appliances;*
 - e) *all of the above mentioned.*
7. When preparing to take an alginate impression, it is preferable to use:
 - a) *warm water;*
 - b) *very hot water;*
 - c) *cool water;*
 - d) *room temperature water.*
8. Instead of modern brackets some ancient dentists used _____:
 - a) *metal;*
 - b) *catgut;*
 - c) *spring;*
 - d) *plastic.*
9. Which word refers to the loss of all permanent teeth?
 - a) *atrophy;*
 - b) *prosthetic;*
 - c) *edentulism;*
 - d) *periodontal .*
10. Alginates are good for _____.

Be ready to discuss the following topics:

1. Prosthetics as a branch of dentistry
2. Orthodontics as a branch of dentistry
3. Loss of Teeth
4. Impression Materials
5. Occlusion
6. Malocclusion
7. Bite Registration
8. Types of Dentures

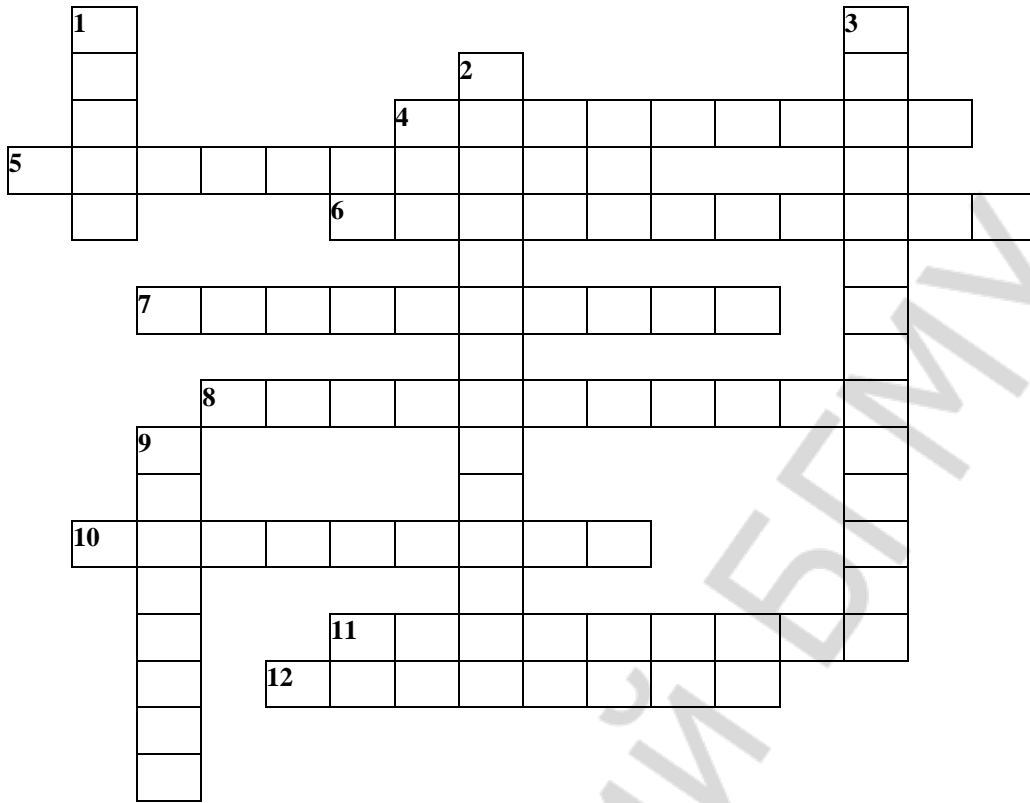
REMOVABLE PROSTHESES

Across:

4. Metal skeleton of removable partial denture
5. To be without teeth
6. Another word for chewing
7. Replacement for missing tooth
8. Replaces all of teeth in one arch
10. Metal that joins various parts of a partial denture
11. Represents/helps establish arrangement of the jaw and teeth
12. Tooth, root or implant to support a prosthesis

Down:

1. a color slightly different from the one under consideration
2. Deals with the replacement of missing teeth and related mouth or jaw structures by bridges, dentures
3. Replaces selected teeth within the same arch
9. An insufficient amount of space for all the teeth to properly fit



РЕПОЗИТОРИЙ БГМУ

UNIT V. PREVENTIVE DENTISTRY

PART I. ORAL HYGIENE

LANGUAGE DEVELOPMENT

I. Match the words with their definitions:

1. Accumulation of food debris in hard-to-clean areas, particularly in case of poor oral hygiene	a) detergent food
2. Crisp products such as apples, celery, or carrots that can help you clean your teeth	b) refined carbohydrate
3. Sugars and grain products that have been processed by a food manufacturer so that the dietary fiber, vitamins, and minerals have been removed	c) snack
4. A small amount of food eaten between meals	d) food stagnation
5. To turn food, minerals in the body into new cells, energy and waste products by means of chemical processes	e) to calcify
6. To harden by the deposit of calcium salts	f) to metabolize
7. Short, stiff, abrasive hairs of an animal, plant, or synthetic origin on cleaning or painting tools	g) abrasion
8. Damage by scraping, wearing, grinding or rubbing away by friction	h) contribution
9. The part played by a person or thing in bringing about a result or helping something to advance	i) bristles

II. Match the Russian-English equivalents:

- | | |
|---|---|
| 1) вращательное движение | a) tooth supporting tissues |
| 2) удалять налёт | b) preventive dentistry |
| 3) оттирающее движение | c) to be free of food debris |
| 4) не соответствовать требованиям | d) to remove plaque |
| 5) профилактическая стоматология | e) to take/eat snacks between meals |
| 6) правильно использовать зубную щётку | f) medium bristles |
| 7) прикрепляться (приставать, прилипнуть) к поверхностям зубов | g) dental health education |
| 8) поддерживающий аппарат зуба | h) to rinse the toothbrush |
| 9) не содержать остатков пищи | i) rotary motion |
| 10) иметь (представлять) большое значение | j) scrubbing action |
| 11) щетина средней жёсткости | k) to lack requirements |
| 12) стоматологическое образование; обучение основам ухода за зубами | l) to properly use an ordinary toothbrush |
| 13) перекусывать между основными приёмами пищи | m) to adhere to the surfaces of the teeth |
| 14) прополоскать щётку | n) to be of great importance |

III. Match the beginnings and endings of the phrases. (Choose the best variant!)

- | | |
|--------------------------|--------------------------------------|
| 1. to entail elimination | a) of teeth to disease |
| 2. the primary cause | b) of the necks of the teeth |
| 3. the method | c) of caries and periodontal disease |
| 4. the resistance | d) of food stagnation |
| 5. to remove | e) accessible tooth surface |
| 6. detergent | f) discipline |
| 7. dietary | g) food |
| 8. to clean every | h) knowledge and skill |
| 9. to massage | i) food debris |
| 10. to avoid abrasion | j) in the gingival crevice |
| 11. to require | k) of prevention |
| 12. to remain | l) harmful accumulation of bacteria |
| 13. to retain | m) the gum margin |

IV. Write out pairs of synonyms:

a



b



V. Make 10 sentences with the words and expressions from ex. I–IV.

VI. Fill in prepositions:

- ... case ... caries food stagnation leads ... acid production.
- Most dental disorders are due ... caries and periodontal disease.
- Firm fibrous fruit and vegetable are an additional measure ... toothbrushing and can be used ... the end ... a meal when toothbrushing is not possible.
- After toothbrushing the mouth should be thoroughly rinsed ... warm water to remove food debris dislodged ... the toothbrush.
- You should brush not more than two teeth ... a time.

6. Plaque adheres ... the surfaces ... the teeth inaccessible ... natural or mechanical cleansing.
7. New plaque forms ... the teeth ... a few hours.
8. Tartar retains ... harmful accumulations ... bacteria ... contact ... the periodontium.

VII. Fill in the missing words:

1. is the basic method of preventing dental diseases.
2. The two dangerous disorders which affect dental health are ... and
3. Apples, pears, carrots, celery are ... foods that can help clean the teeth after meals.
4. Products with tough ... consistency require much ... and can scour the teeth clean of food
....
5. ... is the most effective method of cleaning teeth.
6. Buccal, lingual, mesial and distal ... are cleaned by a ... motion.
7. Occlusal ... are cleaned by a ... action.
8. Electric toothbrushes can be particularly effective for the physically

GRAMMAR PRACTICE

SUBJUNCTIVE MOOD (СОСЛАГАТЕЛЬНОЕ НАКЛОНЕНИЕ)

SUBJUNCTIVE MOOD IN SUBJECT CLAUSES

Pattern 1:

It is / was	necessary important essential desirable recommended	that	I he, she, it we you they	V₁ / should + V₁ be / should be do / should do be done / should be done
--------------------	--	-------------	--	---

Model:

It is required that the dentist **change / should change** latex gloves between patients.

VIII. Use the verbs in the necessary form:

1. It is necessary that patients (to follow) oral hygiene regularly.
2. It is important that human diet (to contain) enough proteins, minerals and vitamins.
3. It is essential that practitioners (to be) tactful and polite to their patients.
4. It is important that the patient (to undergo) a course of antibiotic treatment as soon as possible.
5. It was necessary that the dentist (to take) a panoramic X-ray of the teeth.
6. In case of a fire it is desirable that everyone (not to panic).
7. It was required that all the students (to wear) sterile uniforms.
8. It is recommended that you (to watch) this video several time to understand it completely.
9. It is essential that you (to examine) by the dentist at least twice a year to prevent oral disease.

Give your examples:

10. _____

11. _____

SUBJUNCTIVE MOOD IN OBJECT CLAUSES EXPRESSING COMMANDS AND REQUESTS

Pattern 2:

He	commanded suggested insisted ordered demanded	that	I he, she, it we you they	$V_1 / should + V_1$ be / should be do / should do be done / should be done
-----------	--	-------------	--	--

Model:

The surgeon required that everyone **put on / should put on** sterile gowns, caps and masks before entering the operating room.

IX. Use the verbs in the necessary form:

1. The World Health Organization recommends that expectant and nursing mother (to consume) more fresh fruit and vegetables, and dairy products.
2. The policeman commanded that everyone (to leave) the building.
3. The surgeon insisted that the patient (to operate on) urgently.
4. The dentist ordered that the nurse (to sterilize) the dental instruments.
5. The dentist suggested that the patient's tooth (to replace) by denture with a post crown.
6. The patient insisted that the dentist (to extract) his tooth under local anaesthesia.
7. The general practitioner recommended that the woman (to have) a regular diet and (to avoid) emotional overstrain.
8. The ambulance doctor ordered that the victim of the accident (to deliver) to Emergency Hospital.

Add your examples:

9. _____

10. _____

SUBJUNCTIVE MOOD IN ADVERBIAL CLAUSES OF COMPARISON

Pattern 3:

as if as though (как будто бы, если бы)	I he, she, it we you they	were / did (for simultaneous actions) had done (for previous actions)
---	--	---

Model:

He **looks** as if / as though he **knew** the answer. (*Two simultaneous present actions*)

She **smiled** as if / as though she **knew** the answer. (*Two simultaneous past actions*)

The students **look tired** as if / as though they **hadn't slept** for days. (*The action in the subordinate clause precedes the present action in the principal clause.*)

The students **looked tired** as if / as though they **hadn't slept** for days. (*The action in the subordinate clause precedes the past action in the principal clause.*)

X. Use the verbs in the necessary form:

1. He looks as if he (to be) ill.
2. He behaved as if nothing (to happen).
3. He behaves as if he (to be) the boss here.
4. She looks as though she (to want) to say something.
5. The patient was pale as if he (to have) internal bleeding.
6. The patient was pale as if he (to lose) a lot of blood.
7. On examination the boy behaved courageously as though he (not to feel) the pain.
8. She pretended as if she (not to hear) the remark.
9. He is smiling as though he (not to be afraid) of the operation.
10. He smiled as though he (not to be afraid) of the operation.

Add your examples:

11. _____

12. _____

SUBJUNCTIVE MOOD IN ADVERBIAL CLAUSES OF PURPOSE

Pattern 4:

so that (чтобы)	I he, she, it we	V_1 / <i>should</i> + V_1 be / should be
lest (чтобы не)	you they	do / should do / can do be done / should be done

Model:

Pregnant women should have a balanced diet so that the fetus **get / should get / can get** all the necessary nutrients.

Write this formula in your exercise-book lest you **forget / should forget** it.

XI. Use the verbs in the necessary form. Make the sentences negative if necessary.

1. You should follow a strict bed regime so that you (can + to recover) soon.
2. You should make an appointment with the dentist so that he (to have) time to see you.
3. Put your key into the bag lest you (to lose) it.
4. You should remove dental plaque regularly lest you (to develop) caries.
5. Massage your gums gently so that you (to avoid) tooth neck abrasion.

Add your examples:

6. _____

7. _____

**SUBJUNCTIVE MOOD IN OBJECT CLAUSES EXPRESSING WISHES
AND REGRETS REFERRING TO THE PRESENT OR FUTURE**

Pattern 5:

I wish ... (Если бы ... Жаль, что ...)	I he, she, it we you they	+ V₂ were / did
		OR would + V₁ (в случае настоящего пожелания) would do

Model:

I wish I **could give** first aid to people with cardiac diseases.

I wish the ambulance **would arrive** in time!

XII. Use the verbs in the necessary form. Make the sentences negative if necessary.

1. I wish I (can) treat periodontal diseases.
2. I wish Dr. Brown (to be here).
3. I wish it (to be) sunny tomorrow.
4. I wish my second right upper molar (to stop) aching.
5. Everyone wished the patient (to survive) the operation successfully.

Add your examples:

6. _____
7. _____

**SUBJUNCTIVE MOOD IN OBJECT CLAUSES EXPRESSING WISHES
AND REGRETS REFERRING TO THE PAST**

Pattern 6:

I wish ... (Если бы ... Жаль, что ...)	I he, she, it we you they	had + V₃ (<i>Past Participle</i>) had done
---	--	--

Model:

I wish you **had consulted** the dentist earlier.

I wish this patient **had followed** oral hygiene since childhood.

XIII. Use the verbs in the necessary form. Make the sentences negative if necessary.

1. I'm afraid I have a sore throat. I wish I (to eat) the ice-cream yesterday.
2. You have multiple progressive caries. I wish you (to consume) more products rich in calcium and phosphorus in your childhood.
3. I wish you (to have) such a serious accident last week. Fortunately, no one was badly injured.

4. I wish I (to leave) the key to the door at home this morning.
5. Max has failed the exam. He wishes the professor (to ask) him about the chemical composition of composite fillings.

Add your examples:

6. _____
7. _____

Mixed Practice

XIV. Use the verbs in the necessary form. Make the sentences negative if necessary.

1. I wish I (to be) a doctor.
2. I wish I (to help) the victim of the accident yesterday.
3. I wish pharmacies (to be) closed on Sundays.
4. I wish the pharmacy (to be) closed this morning when I came there to buy an antiseptic solution.
5. I wish the mankind (to know) more about the treatment of infectious diseases.
6. I wish I (to follow) a proper daily regimen since childhood.
7. I wish you (to have) any complications after tomorrow's operation.

FOLLOW-UP ACTIVITIES

XV. Read the text. Choose a proper title for each paragraph from the list in the box.

Keep Your Teeth Healthy

Part A

<i>motions</i>	<i>halitosis</i>	<i>prevent</i>	<i>neglect</i>
<i>gingivitis</i>	<i>calculus</i>	<i>tongue</i>	<i>plaque</i>

1. Having a healthy smile takes a lifetime of care. It's crucial to take the right steps every day to take care of your teeth and 1) _____ dental problems. This involves getting the right oral care products, as well as being mindful of your daily habits.

2. It's no secret that the general recommendation is to brush your teeth at least twice a day. Still, many of us continue to 2) _____ brushing our teeth at night. But brushing before bed gets rid of the germs and 3) _____ that accumulate throughout the day.

3. The way you brush is equally important — in fact, doing a poor job of brushing your teeth is almost as bad as not brushing at all. Take your time, moving the toothbrush in gentle, circular 4) _____ to remove plaque. Unremoved plaque can harden, leading to 6) _____ buildup and 5) _____ (early gum disease).

4. Plaque can also build up on your 7) _____. This can lead not only to bad breath (8) _____), but also to other oral health problems. Gently brush your tongue every time you brush your teeth.

Part B

<i>prescription</i>	<i>re-mineralizes</i>	<i>stimulate</i>	<i>reduce</i>
<i>flossers</i>	<i>arthritis</i>	<i>decay</i>	<i>hard-to-brush</i>
<i>barrier</i>	<i>acid</i>	<i>amount</i>	<i>toothpaste</i>

5. When it comes to 1) _____, there are more important elements to look for than whitening powder and flavors. No matter which version you choose, make sure it contains fluoride, because fluoride is a leading defense against tooth 2) _____. It works by fighting germs that can lead to decay, as well as providing a protective 3) _____ for your teeth.

6. Many people who brush their teeth regularly neglect to floss. Flossing is not just removing food debris stuck in between the teeth. It's really a way to 4) _____ the gums, 5) _____ plaque, and help lower inflammation in the area. Flossing once a day is usually enough to reap these benefits.

7. Flossing can be difficult, especially for young children and older adults with 6) _____. Rather than give up, look for tools that can help you floss your teeth. Ready-to-use dental 7) _____ from the drugstore can make a difference.

8. Mouthwash helps in three ways: It reduces the 8) _____ of 9) _____ in the mouth, cleans 10) _____ areas in and around the gums, and 11) _____ the teeth. In children and older people, where the ability to brush and floss may not be ideal, a mouthwash is particularly helpful. Certain brands are best for children, and those with sensitive teeth. 12) _____ mouthwash is also available.

Part C

<i>jaws</i>	<i>cavities</i>	<i>avoid</i>	<i>beverages</i>
<i>chew</i>	<i>treatment</i>	<i>meal</i>	<i>converts</i>
<i>enamel</i>	<i>sticky</i>	<i>checkups</i>	<i>fiber</i>

9. Water continues to be the best beverage for your overall health — including oral health. Also, as a rule of thumb, dentists recommend drinking water after every 1) _____. This can help wash out some of the negative effects of 2) _____ and acidic foods and 3) _____ in between brushes.

10. Ready-to-eat foods are convenient, but perhaps not so much when it comes to your teeth. Eating fresh, crunchy produce not only contains more healthy 4) _____, but it's also the best choice for your teeth. Parents should get their kids on harder-to-eat and 5) _____ foods at a younger age. Try to 6) _____ the overly mushy processed stuff, stop cutting things into tiny pieces, and get your 7) _____ working!

11. Ultimately, sugar 8) _____ into acid in the mouth, which can then erode the 9) _____ of your teeth. These acids lead to 10) _____. Acidic fruits, tea and coffee can also wear down tooth enamel. While you don't necessarily have to avoid such foods altogether, it doesn't hurt to be mindful.

12. Your own everyday habits are crucial to your overall oral health. Still, even the most dutiful brushers and flossers need to see a dentist regularly. At minimum, you should see your dentist for cleanings and 11) _____ twice a year. Not only can a dentist remove calculus and look for cavities, but they will also be able to spot potential issues and offer 12) _____ solutions.

XVI. Look through the text “Keep your teeth healthy” again and find an appropriate title for each paragraph in the box below.

- A. See your dentist at least twice a year.
- B. Take care of your teeth regularly.
- C. Drink more water.
- D. Eat crunchy fruits and vegetables.
- E. Use a fluoride toothpaste.
- F. Brush your teeth properly.
- G. Treat flossing as important as toothbrushing.
- H. Don't neglect your tongue plaque.
- I. Don't go to bed without brushing your teeth.
- J. Use mouthwash regularly.
- K. Don't let flossing difficulties stop you.
- L. Limit sugary and acidic food intake.

XVII. Say if the sentences are true or false according to the text.

1. Toothbrushing in the morning is more important than that at night.
2. The toothbrushing technique is as important as the time of toothbrushing.
3. Plaque is a film containing bacteria that builds up on the teeth.
4. Flossing is primarily used to remove food debris remaining between the teeth.
5. You should floss your teeth as frequently as brush them.
6. There are various kinds of flossers designed for people with special needs.
7. Mouthwashes have two basic functions — to remove pieces of foods from hard-to-brush areas and to freshen the breath.
8. Children and adults should use different mouthwashes.
9. Drinking water helps reduce the amount of acid in the mouth.
10. The harder consistency food products have, the healthier for teeth they are.
11. When buying a toothpaste, you should give preference to toothpastes with whitening powder and mint flavor.

XVIII. Read the text about various types of dental floss and fill in the table below.

Dental Floss

From the horse hair “floss” of ancient times to the silk thread “floss” of the 1800s, floss was used by very few people until the invention of nylon floss in the 1940s. Nylon remains one of the most popular floss materials today.

Nylon floss (“regular” or “traditional”) is made of multiple nylon filaments twisted together with 2.5–3.5 twists per inch to create one much stronger strand. Nylon works well in roomy spaces between teeth, but tends to tear or shred when flossing tight spaces. Ribbon nylon floss works well when spaces between teeth are wider, and is often used for children.

Teflon floss is made from the same fiber used for Teflon cookware. Just one filament is all it takes for a strong floss that is less prone to shredding or breaking. Dental tape is most often made of Teflon, which allows the floss to move smoothly between tight teeth.

Eco-friendly floss is made of biodegradable silk thread spun and coated with natural beeswax or a plant-derived wax. Silk breaks and snags easily, so it works best for teeth with smooth edges.

Cleaning teeth with braces, bridges or implants can be tricky. This waxed floss is specially made with stiffer ends to be easily moved through the dental work.

Unwaxed floss is thinner and has a more abrasive texture that may clean smooth edges more easily. Waxed floss can move more easily between teeth that are closely spaced or have rough edges. And for a special treat, waxed floss comes in a variety of flavors, from mint to bubble gum to bacon!

No matter which of these flossing materials you choose, you need to floss every day to protect your teeth against plaque.

Type of Dental Floss	Advantages	Disadvantages
<i>Nylon</i>		
<i>Teflon</i>		
<i>Silk</i>		
<i>Waxed</i>		
<i>Unwaxed</i>		
<i>Flavored</i>		

XIX. Discuss the following questions:

1. What does prevention of dental disease entail?
2. Name the reasons why you should seek dental visits regularly.
3. In what ways can the teeth be cleaned?
4. What role does chewing play in cleaning teeth?
5. Why are teeth still exposed to the risk of caries even if the patient brushes them after each meal?
6. When is toothbrushing considered to be effective?
7. What hardness of the toothbrush should be preferred for adults/children? Why?
8. Why are toothbrushes with a small head considered to be the most effective?
9. Describe the toothbrushing technique recommended by dentists.
10. How should the toothbrush be handled between toothbrushing procedures?
11. Are electric toothbrushes more effective than ordinary ones? In what cases may electric toothbrushes be preferred?
12. How quickly does new plaque form?
13. Speak about the role of plaque in the etiology of dental diseases.
14. What type of dental floss are you using now? What advantages does it have? Do you experience any discomfort when flossing your teeth? If so, how can you explain it?
15. Make a list of 10 basic steps to prevent oral diseases and explain their significance.

PART II. PUBLIC HEALTH MEASURES

LANGUAGE DEVELOPMENT

I. Match the words with their definitions:

1. A baby from birth to about 2 months of age	a) a toddler
2. A child during the earliest period of its life (usually including the time from birth to about one year old), especially before he or she can walk; baby	b) a newborn
3. A child approximately 12 to 36 months old (the noun is derived from the word, which means to walk unsteadily, like a child of this age)	c) an infant
4. A human being between the stages of birth and puberty	d) an adolescent
5. A young person during the transitional stage from puberty to legal adulthood (age of majority)	e) a pregnant woman
6. An expectant mother	f) a midwife
7. A health professional who is trained to assist women in childbirth	g) a benefit
8. (<i>noun</i>) The beginning of something, especially something unpleasant	h) incipient
9. (<i>adjective</i>) Beginning to happen or develop; existing in an early stage	i) an onset
10. Attempt to do something; energy needed to do something; activities towards the aim	j) an impact
11. A helpful or good effect; an advantage or profit gained from something	k) a child
12. A marked effect or influence	l) an effort

II. Match the Russian-English equivalents:

- | | |
|--|---|
| 1) консультирование по гигиене полости рта | a) to entail regular inspection |
| 2) позволить сохранить зубы | b) a significant reduction in caries |
| 3) включать регулярные осмотры | c) to be available |
| 4) рентгенографические снимки с прикусным устройством | d) instruction in oral hygiene |
| 5) быть доступным | e) at waterworks |
| 6) побочные эффекты | f) disclosing tablets |
| 7) подчеркнуть, обратить внимание | g) to enable the teeth to be conserved |
| 8) нанести раствор фторида олова на зубы | h) to stain teeth bright red |
| 9) беременные женщины | i) clinic staff |
| 10) таблетки для индикации зубного налета | j) bite-wing X-rays |
| 11) окрашивать зубы в ярко-красный цвет | k) to paint stannous fluoride solution over the teeth |
| 12) на предприятиях по переработке воды | l) side effects |
| 13) персонал клиники | m) expectant mothers |
| 14) значительное снижение (уменьшение) частоты кариеса | n) to emphasize |

III. Match the beginnings and endings of the phrases:

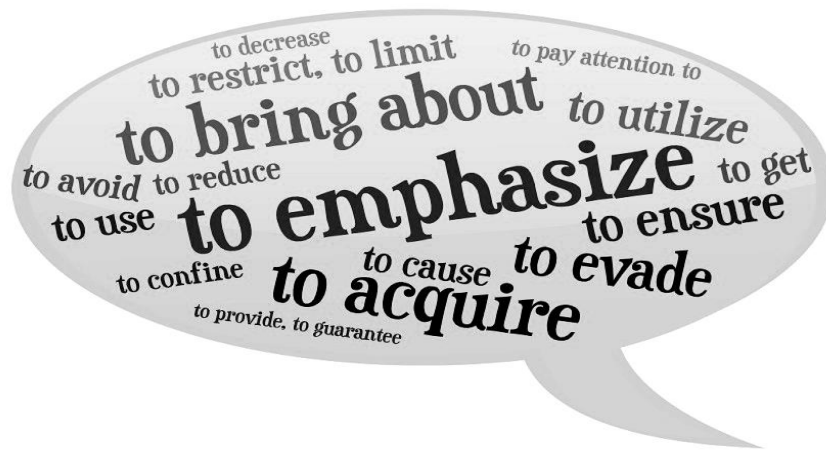
- | | |
|----------------------------------|------------------------------------|
| 1. removal | a) stagnation areas |
| 2. an incipient onset | b) fluoridation of enamel |
| 3. an urgent | c) on general health |
| 4. topical | d) until toothache develops |
| 5. to eliminate | e) a dye |
| 6. to suck | f) effect |
| 7. to contain | g) of calculus |
| 8. to produce a beneficial | h) of periodontal disease |
| 9. to apply fluoride | i) good dental health |
| 10. to establish | j) a disclosing tablet |
| 11. to maintain | k) need |
| 12. to fluoridate water | l) to the crowns |
| 13. to have no adverse effects | m) as a place of interest |
| 14. to make enamel more | n) good dental habits in childhood |
| 15. to evade dental inspection | o) supplies |
| 16. to accept the dental surgery | p) resistant to acid attack |

IV. Write out pairs of synonyms:

- a)
- | | |
|--------------------|---|
| 1) beneficial | a) deciduous |
| 2) available | b) wide-spread |
| 3) correct | c) normal, sufficient |
| 4) essential | d) useful, healthy |
| 5) sufficiently | e) quickly |
| 6) milk (products) | f) producing good results for the amount of money spent |
| 7) milk (teeth) | g) dairy |
| 8) adequate | h) enough |
| 9) rapidly | i) proper |
| 10) deficient | j) necessary, vital |
| 11) common | k) insufficient |
| 12) apparent | l) evident |
| 13) cost-effective | m) accessible |
- b)



c)



V. *Make 10 sentences with expressions from ex. I–IV.*

VI. *Fill in prepositions:*

1. Instruction ... oral hygiene is most effective when given ... chairside.
2. The dye ... a disclosing tablet stains the teeth ... bright red.
3. Dentists should warn patients ... snacks ... meals.
4. Any diseases are treated more easily ... initial stages.
5. ... topical fluoridation stannous or sodium fluoride solution is applied ... the teeth.
6. The discipline ... confining sweets ... mealtimes can be developed ... an early age.
7. Children's nutrition should not leave a film ... carbohydrate debris ... the teeth.
8. Well-developed teeth are more resistant ... caries.
9. During the period of tooth formation fluoride is incorporated ... the teeth.
10. In many areas natural water supplies are deficient ... fluoride.
11. Due ... water fluoridation only, caries is reduced ... 50 % ... the entire population.

VII. *Fill in the missing words:*

1. ... is better than cure.
2. The ... effect of cleaning teeth is cancelled out if the patient has frequent ... between meals.
3. To prevent periodontal disease developing, periodic ... to remove calculus should be done on a regular
4. The dentist can ... sodium fluoride gel using a special impression
5. Fluoride tablets prove to be effective if they are taken in ..., and
6. Expectant and ... mothers should be consulted on the most common causes of caries in children.
7. Parents should ... their children's consumption of chocolates and sweet drinks.
8. Calcium, phosphorus and vitamins ... proper tooth structure.
9. If a child consumes a ... amount of dairy products, meat, fish, fresh fruit and vegetables, the risk of caries will be
10. Teeth can be made more resistant to caries through fluoridation of water supplies, topical fluoridation of enamel, fluoride ... and fluoride
11. ... fluoridation of water supplies is adding fluoride at the ... where it reaches the ideal concentration of 1 p. p. m.

GRAMMAR PRACTICE

CONDITIONALS

VIII. Use the words in brackets according to the models and translate the sentences.

A) TYPE 0 CONDITIONAL SENTENCES (INDICATIVE MOOD)

		Principal Clause	Subordinate clause
Type 0 Conditionals	Complex sentences with a <u>real</u> condition referring to the <u>present</u> and expressing <u>general truth</u>	Present Simple (V₁ / V₁ + (e)s)	if + Present Simple V₁ / V₁ + (e)s

Model:

If you **are ill** with an infectious disease, your body temperature **rises**.

1. If water (to heat) to 100 °C, it (to boil).
2. If a patient (to have) caries, the dentist (to reveal) areas of softened enamel and dentine in one or more teeth.
3. If a patient (not to remove) plaque regularly, bacteria (to multiply) on the teeth and (to cause) caries.
4. If calculus (not to remove) in time, it (to lead) to periodontal disease.
5. Scaling (to have) little effect if the patient (to continue) not to follow proper oral hygiene.
6. Caries still (to occur) if snacks (to take) between meals.

Give your examples:

7. _____
8. _____

B) TYPE 1 CONDITIONAL SENTENCES (INDICATIVE MOOD)

		Principal Clause	Subordinate clause
Type 1 Conditionals	Complex sentences with a <u>real</u> condition referring to the <u>future</u>	Future Simple (shall/will + V₁)	if + Present Simple V₁ / V₁ + (e)s

Model:

If you **cut** your finger, it **will bleed**.

1. If the dentist (to detect) caries, he (to fill) the tooth.
2. If the patient (to have) a cavity in one of the front teeth, the dentist (to insert) a composite filling.
3. The dentist (to give) you a disclosing tablet if he (to want) to check whether you have a correct toothbrushing technique.
4. If a patient (to complain) of gum bleeding, the dentist (to suspect) gingivitis.
5. The child (to receive) a toy after the examination if he (to behave) well during the dental treatment.
6. If the dentist (to be able) to see me on Friday, I (to make) an appointment with him for 3 p.m.

Give your examples:

7. _____

8. _____

C) TYPE 2 CONDITIONAL SENTENCES (SUBJUNCTIVE MOOD)

		Principal clause	Subordinate clause
Type 2 Conditionals	Complex sentences with an <u>unreal</u> condition referring to the <u>present</u> or <u>future</u>	would / could / might + V₁	if + V₂ NB! was → were (for both singular and plural)

Model:

If I were you, I would use the dental floss regularly. = Were I you, I would use the dental floss regularly.

The girl would need braces if she had malocclusion. = Should the girl have malocclusion, she would need braces.

1. If the patient (to have) pulpitis, the dentists (to perform) pulp extirpation and endodontic treatment.
2. If I (not + can brush) my teeth after eating carbohydrate food, I (to rinse) the mouth with water.
3. I (not to allow) my child to have so many sweets and chips for snacks if I (to be) you.
4. If you (not to floss) your teeth, bacteria (to accumulate) in the interdental areas.
5. If the water in this area (not to be) naturally fluoridated, fluoride (to add) to the water supplies artificially at the waterworks.

Give your examples:

6. _____

7. _____

D) TYPE 3 CONDITIONAL SENTENCES (SUBJUNCTIVE MOOD)

		Principal clause	Subordinate clause
Type 3 Conditional	Complex sentences with an <u>unreal</u> condition referring to the <u>past</u>	would have V₃	if + had V₃

Model:

If you had visited the dentist a few months ago, you wouldn't have developed pulpitis. = Had you visited the dentist a few months ago, you wouldn't have developed pulpitis.

1. If the child (not + to have) deep caries in his left lower canine, the dentist (not to extract) it.
2. The dentist (not to detect) interdental caries if he (not to take) X-rays yesterday.

3. The predisposition of your permanent teeth to caries is largely due to your poor oral health in childhood. If you (to have) a correct diet and (to suck) fluoride tablets regularly, your deciduous teeth (to be) stronger.
4. The surgeon (not to extract) your first right lower molar if it (to be) possible to preserve it.
5. During the last visit to the dental clinic the children read some posters and pamphlets on the cause of caries. If they (not to explain) the basics of oral hygiene by the dentists, they (not to realize) the necessity of tooth brushing and flossing.

Give your examples:

6. _____

7. _____

E) MIXED TYPE CONDITIONAL SENTENCES (SUBJUNCTIVE MOOD)

	Principal clause	Subordinate clause
Sentence with an unreal condition (the condition refers to the past, the consequence refers to the future)	would + V₁	if + had V₃
Sentence with an unreal condition (the condition refers both to the past and present (denotes a general statement); the consequence refers to the past)	would have + V₃	if + V₂ (NB! was → were is used for both singular and plural)

Model:

If you **had gone** to bed earlier yesterday, you **wouldn't have** a headache now. = **Had** you **gone** to bed earlier yesterday, you **wouldn't have** a headache now.

If you **were a responsible parent**, your son **wouldn't have developed** multiple caries. = **Were** you **a responsible parent**, your son **wouldn't have developed** multiple caries.

1. The man (to have) still 32 teeth if he hadn't had his wisdom teeth extracted.
2. If you (to be) in the habit of brushing and flossing your teeth regularly, you (not to develop) subgingival calculus by your age.
3. If you (to have) topical application of fluoride in your childhood, your tooth enamel (to be) resistant to caries now.
4. If the patient (not to have) mobile teeth in both upper and lower jaws, the dentist (not to make) the diagnosis of periodontal disease yesterday.
5. If the concentration of fluoride in the water supplies (not to be) higher than 1 p.p.m. in this area, the dental survey at the beginning of this year (not to reveal) mottling of enamel in 40 % of children.
6. If the dentist (not to remove) tartar during the preventive check-up, the jagged scales of calculus (to continue) to irritate the gums.

Give your examples:

7. _____

8. _____

MIXED PRACTICE

IX. Choose a proper translation.

1. If the weather were fine we'd go for a walk.
 - a) Если погода хорошая, мы ходим на прогулку.
 - б) Если погода будет хорошая, мы пойдём на прогулку.
 - в) Если бы погода была хорошей, мы бы пошли на прогулку.
2. If you had consulted the dentist, you wouldn't have developed caries.
 - a) Если бы ты регулярно консультировался со стоматологом, у тебя не развивался бы кариес.
 - б) Если бы ты раньше консультировался со стоматологом, у тебя не появился бы кариес.
3. If nursing mothers were encouraged to bring their babies for their own dental inspections, children would accept dental surgery as a place of interest.
 - a) Если бы женщин, имеющих грудных детей, раньше поощряли брать малышей с собой на собственные стоматологические осмотры, дети стали бы воспринимать кабинет стоматолога как место, вызывающее у них интерес.
 - б) Если бы женщин, имеющих грудных детей, поощряли брать малышей с собой на собственные стоматологические осмотры, дети в будущем воспринимали бы кабинет стоматолога как место, представляющее для них интерес.

X. Determine the type of the conditional sentences. Translate the sentence into Russian.

1. If patients have oral diseases, they go to the dentist.
2. If you went to the dentist, he would instruct you on oral hygiene and explain to you how to use an electric toothbrush.
3. If you go to the dentist, he will examine your teeth and administer a proper dental treatment if necessary.
4. If you had followed oral hygiene since childhood, you wouldn't have signs of periodontal disease at such a young age.
5. Unfortunately, your tooth is far gone. If you had consulted the dentist earlier, he would have filled the cavity and saved the vitality of the pulp.

XI. In-class practice. Use the verbs in the necessary form of the Subjunctive Mood. (Express unreal actions.)

1. If young teenagers (to realize) the importance of good oral health they (to come) for dental inspections more regularly.
2. If the child (not to be) so little he (to brush) his teeth himself.
3. If the girl (to start) brushing her teeth earlier, she (not to have) carious teeth now.
4. If my fellow student (to study) harder during the semester, he (not to fail) the exam in Anatomy.
5. If the patient (not to lose) two teeth due to an injury, the dental technician (not to have to fabricate) dentures now.
6. If you (to brush) your teeth twice a day, your risk of caries (to be) much lower.
7. If metal fillings (not to conduct) heat and electricity, dentists (not to need to place) linings before their insertion to insulate the pulp.
8. If the dentist (to have) enough time for inserting the permanent restoration during the last visit, he (not to arrange) another appointment for the patient.

XII. Out-of-class practice. Use the verbs in the necessary form of the Subjunctive Mood. (Express unreal actions.)

1. Dentists (to have) too many responsibilities if dental nurses (not to assist) them.
2. Before the examination the nurse had sterilized the dental instruments. If she (not to do) so, the patient (can + to infected) with pathogenic microorganisms.
3. If the patient (not to wear) braces when he was 10, he (to suffer) from malocclusion now.
4. If elderly people (not to have) edentulous jaws they (not to have to wear) full dentures.
5. If the man (not to survive) a car crash, he (not to receive) multiple bone fractures.
6. If the ambulance (not to come) to the call in 15 minute, the old woman (can + to die) because of a bad heart attack.
7. If I (to know) that sweetened fruit juices caused caries I (not to consume) them in my childhood.
8. If dental care in many countries (not to be) so expensive many more people (can + to afford) it.

XIII. Answer the questions using the Subjunctive Mood:

1. If you had crowded teeth, would you consult a maxillofacial surgeon or an orthodontist?
2. What would you do if you noticed gum bleeding after toothbrushing?
3. How would you clean your teeth after a meal if you had no toothbrush?
4. What would you use to remove food debris from the interdental areas?
5. What type of dental floss would you recommend to your patients and why?
6. What mouth-wash could a dentist prescribe if a patient had stomatitis?
7. What diet would you recommend to a pregnant woman? Why?
8. What salt would you prefer for cooking — fluoridated or ordinary one? Explain your choice.
9. If a male patient had deep gum pockets, would he be administered apicectomy or gingivectomy?
10. Would you be able to diagnose caries / pulpitis / periodontitis if you were shown X-ray pictures?
11. If you were a dentist, what filling materials would you use for filling front and back teeth?

FOLLOW-UP ACTIVITIES

XIV. Arrange the words logically to make sentences.

1. Oral, responsibility, the, is, patient's, hygiene.
2. Water, reduction, in, fluoridation, can, cause, the incidence, of, a dramatic, caries.
3. Tooth, cleans, the toothbrush, massages, all, the gums, not, also, accessible, but, only, surfaces.
4. Can, unremoved, calculus, harden, to form, plaque.
5. Disclosing, red, bacteria, stain, the teeth, tablets, on, bright.
6. Be, only, should, confined, to, sweets, mealtimes.

XV. Read the text. Fill in the missing prepositions when necessary.

The link ... fluoride and oral health dates ... the 1930s, and today fluoride remains one ... dentistry's key strategies to prevent dental caries. There are many methods ... fluoride delivery e.g. toothpaste, fluoridated water, milk, mouthrinses, gels, varnish, etc.

Toothbrushing is the process used to mechanically remove and control ... the dental biofilm to help prevent caries and oral diseases. Recommendations ... toothbrushing and the use ... fluoride toothpaste including the choice ... concentration, the frequency ... toothbrushing and the amount ... toothpaste can vary. Toothbrushing is usually carried ... using a manual or powered toothbrush and a fluoride toothpaste, ... 2 minutes twice daily. Toothbrushing ... fluoride toothpaste is by far the most common form ... caries control, and fluoride toothpaste use is commonly linked ... the decline ... caries prevalence ... many countries.

There is an argument that the effects ... fluoride toothpaste are underestimated in “short-term” clinical trials (*of, per, in*) 2 ... 3 years duration. It is reasonable to assume that a greater cumulative effect is conferred (*to, over, on*) time as fluoride toothpastes are used (*in, during, throughout*) ... life. In addition, some argue that the use ... fluoride toothpaste in areas ... community water fluoridation offers more protection than either of them alone.

However, concern has been expressed that dental fluorosis, enamel defects caused by young children chronically ingesting excessive amounts ... fluoride during the period ... tooth formation (... to the age of 6 years), is increasing in both fluoridated and non-fluoridated communities, and the early use ... fluoride toothpaste ... young children may be an important risk factor.

XVI. Answer the questions.

1. What are the methods of fluoride delivery?
2. Does the choice of toothpaste significantly influence the prevalence of caries?
3. Are there any concerns associated with the use of fluoride toothpastes?

XVII. Read the text. Form derivatives to complete the text.

The formulation and fluoride concentration of toothpaste is diverse, with a (*various*) of fluoride compounds used (*single*) and in (*to combine*) including sodium fluoride, sodium monofluorophosphate, amine fluoride and (*stannum*) fluoride, and, according to each manufacturer’s specifications, these must be (*compatibility*) with other (*base*) ingredients, especially (*abrasion/adjective*) systems (which account for almost half of the entire toothpaste formulation).

Fluoride toothpaste must be differentiated from fluoride (*prophylaxis*) pastes, since their fluoride concentrations, methods and (*frequent*) of (*to apply*) differ, as well as amounts of abrasives in their formulation (abrasives account for almost the entire (*to contain*) of a prophylactic paste).

In addition, although some kinds of toothpastes are available in the translucent form of a gel, they differ from fluoride gels, which have higher fluoride levels, no abrasives and are applied much less (*frequent*), usually by a (*profession*).

The usual (*to concentrate*) of fluoride in toothpaste ranges from 1000 to 1500 parts per million (ppm); toothpaste with (*high*) and (*low*) than conventional fluoride levels are available in many countries. There is no (*to restrict*) on the minimum fluoride concentration, but the maximum (*to permit*) fluoride concentration for a toothpaste varies according to (*local*) and age.

Higher (*to concentrate*) are classed as a prescription-only medicine. In the UK, 2800 ppm sodium fluoride toothpaste can be prescribed to high caries-risk patients (*age*) 10 years and over, those with caries present, orthodontic (*to apply*), or who have a highly cariogenic diet

or medication. 5000 ppm toothpaste can be prescribed to high caries-risk patients (*age*) 16 years and over, with present or potential for root caries, dry mouth, orthodontic (*to apply*), overdentures, or those with highly (*“caries”+“genesis”/adjective*) diet or medication.

XVIII. Say if the sentences are true or false.

1. All fluoride pastes have the same properties.
2. There is no restriction on the maximum fluoride concentration in prophylactic toothpastes.
3. Fluoride gels have a higher content of abrasive components than fluoride toothpastes.
4. Toothpastes with fluoride concentration over 1500 p.p.m. have a curative effect.
5. In the UK patients with severe dental disorders, as well as patients undergoing orthodontic treatment or those wearing dentures and having a high risk of caries can be prescribed 2800-5000 p.p.m. toothpastes.
6. To take care of teeth while wearing braces a 15-year-old patient should use 5000 p.p.m. toothpaste.
7. In the UK toothpastes with fluoride concentration of 2800 p.p.m. are available over the counter.
8. High fluoride concentration toothpastes should be used only if administered by the dentist.

XIX. a) Read the text using the verbs in the brackets in the necessary form. Say what problem the text deals with.

Toothpaste (*to contain*) higher concentrations of fluoride may (*to provide*) greater protection against caries but (*to increase*) the risk of fluorosis (enamel defects (*to cause*) by chronic ingestion of excessive amounts of fluoride during the period of tooth formation). Chronic ingestion of fluoride from toothpaste in young children (*to be*) common and despite the large variation in the amount swallowed, the younger children (*to be*), the more likely they (*to be*) to swallow larger amounts, which often (*to represent*) a substantial part of the total daily fluoride intake and can (*to be*) enough to cause fluorosis.

Although the precise amount of fluoride (F) (*to ingest*) beyond which fluorosis may (*to occur*) is not known, a threshold of 0.05 mg F/kg to 0.07 mg F/kg body weight has been suggested. A child-sized toothbrush (*to cover*) with a full strip of toothpaste holds approximately 0.75 g to 1.0 g of toothpaste, and each gram of fluoride toothpaste, (*to contain*) approximately 1.0 mg of fluoride; children aged less than 6 years may (*to swallow*) an estimated 0.3 g of toothpaste per brushing (0.3 mg of fluoride) and can inadvertently (*to swallow*) as much as 0.8 g. As a result, it is generally recommended that children of 6 years of age and under (*to supervise*) when (*to brush*) their teeth with fluoride toothpaste and only a “pea-sized” amount of toothpaste (*to use*).

The frequency of toothpaste use along with the method of (*to rinse*) after toothbrushing are other factors influencing the effectiveness and safety of fluoride toothpaste. (*To brush*) twice a day or more, or (*to rinse*) less thoroughly or not (*to rinse*) at all would provide greater caries reduction than (*to brush*) once a day or less, or (*to rinse*) with larger volumes of water after toothbrushing. Although acute toxicity is rare, young children are particularly at risk of (*to ingest*) toxic doses of fluoride from a standard toothpaste tube of 125 g, (*to contain*) 1100 ppm F (1.1 mg F/g paste). As the probable toxic dose is around 5 mg F/kg body weight, the accidental (*to swallow*) of one- or two-thirds (45 g to 90 g) of a toothpaste tube is potentially life-threatening for a 1-year-old (10 kg) or

for a 5 to 6-year-old (20 kg) respectively. For this reason, it (*to recommend*) that a fluoride toothpaste (*to keep*) out of the reach of young children.

b) Make a summary of this text in 3–5 sentences.

XX. Complete the text with the words from the box.

<i>remineralisation</i>	<i>topical</i>	<i>deposited</i>
<i>loss</i>	<i>acid</i>	<i>structure</i>
<i>maintained</i>	<i>effect</i>	<i>surface</i>
<i>varnishes</i>	<i>enamel</i>	<i>mouthrinse</i>

The most important anti-caries 1) _____ of fluoride results from its local action on the tooth through the promotion of 2) _____ of early caries lesions and reduction in tooth 3) _____ solubility.

The presence of fluoride at the time of the 4) _____ attack markedly reduces enamel demineralization (mineral 5) _____), and fluoride enhances mineral gain and provides a more resistant enamel 6) _____.

This occurs with all forms and concentrations of fluoride, although to a variable extent. With high-concentration topical fluoride vehicles such as 7) _____ and gels, calcium fluoride is precipitated on the enamel 8) _____ and in the plaque. This calcium fluoride acts as a fluoride reservoir, which is released when the oral pH falls.

The amount of fluoride 9) _____ in the subsurface lesion is greater after 10) _____ application with high-concentration fluoride vehicles. Regular use of fluoride toothpaste or 11) _____ (topical fluoride vehicles of relatively low concentration) results in sustained elevated fluoride concentrations in oral fluids during the demineralisation-remineralisation cycle, as small amounts are 12) _____ constantly in the mouth.

XXI. Say if the sentences are true or false.

1. Preventive dentistry is the dental surgeon's contribution.
2. Toothbrushing is more important for caries prevention than dietary discipline.
3. Prevention of caries in children should be started during pregnancy and breastfeeding.
4. All strains of bacteria metabolize sugar and form acid which causes caries.
5. In well-formed teeth caries progresses as rapidly as in teeth of poorer structure.
6. If the amount of fluoride in water is 1 p. p. m., it completely reduces the incidence of caries.

XXII. Complete the sentences.

1. Dental health education is a public ... measure.
2. Oral hygiene consists of removing plaque deposits which lead to caries, ... and ultimately
3. One of the most effective public health measures is fluoridation of water
4. While cleaning the gum margin you should avoid ... of the tooth necks.
5. Dentists recommend brushing not more than
6. Toothbrushing should be followed by ... and mouth rinsing.
7. Mouth rinsing expels food debris dislodged
8. Raw fibrous fruit and vegetables require much ... and scour the teeth clean of food

9. Dental X-rays are taken for early ... of caries.
10. To prevent caries, children should wear orthodontic devices for ... teeth.
11. Expectant mothers should follow a diet rich in
12. The amount of fluoride remaining in the subsurface lesion proves to be greater with regular use of fluoride toothpaste than after topical application of high-concentration fluoride gels.

XXIII. Discuss the following questions.

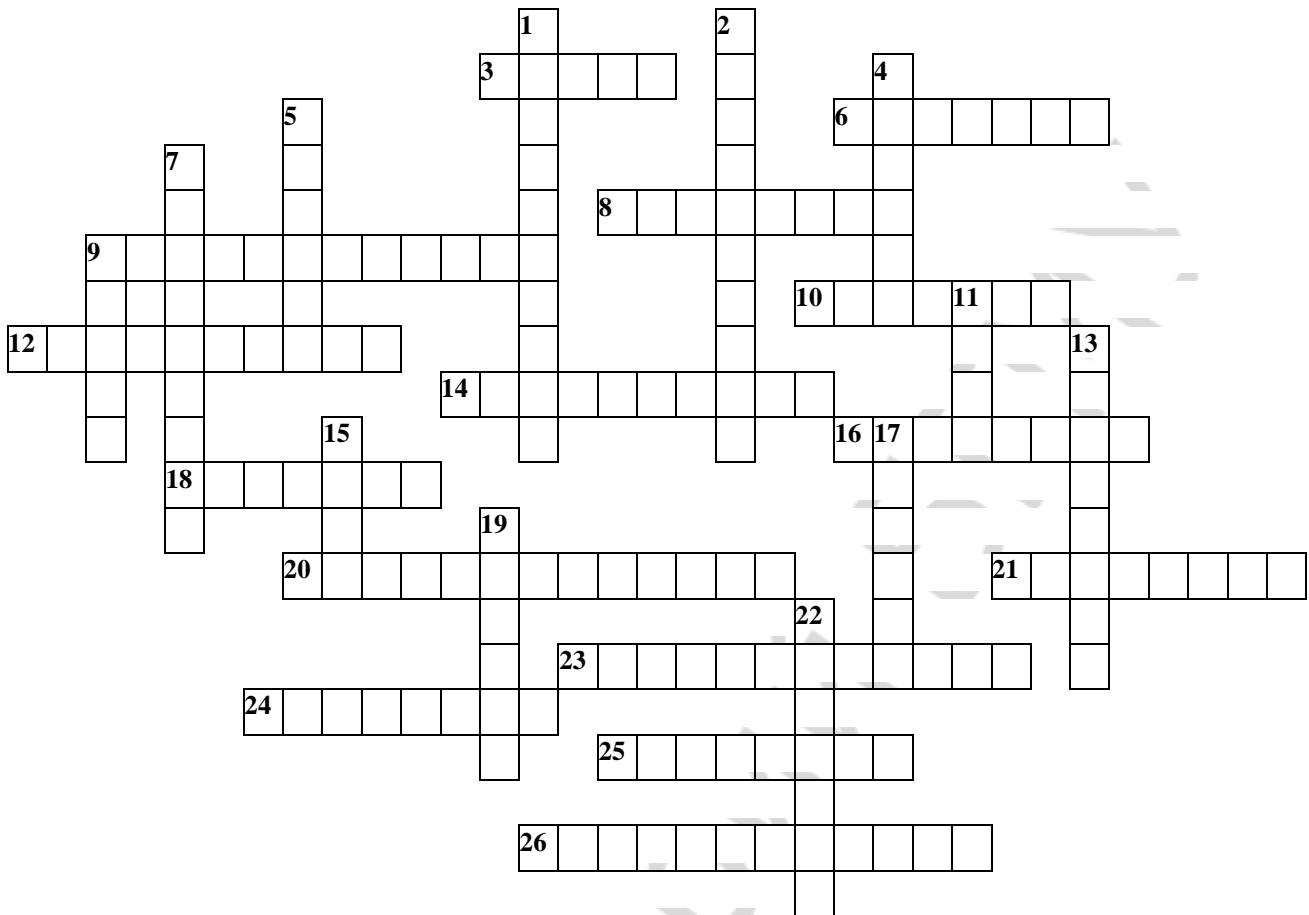
Preventive Dentistry

1. How can dental health education of the population be provided?
2. What is a convincing way to demonstrate to patients the efficiency of their toothbrushing?
3. If you were a dentist, what aspects of oral hygiene would you explain to your patients?
4. Provided that prevention is better than cure, what preventive procedures should patients undergo twice a year / once a year?
5. Why should dental X-rays be taken?
6. What measures to make teeth more resistant to caries can be taken?
7. In what ways can fluoride be delivered to the enamel?
8. Which way of fluoridation is most effective?
9. How is topical fluoridation performed?
10. What are the benefits of topical fluoridation?
11. Why is taking fluoride tablets described as a method not suitable for the general public?
12. What patients may get prescriptions for 2800 and 5000 p.p.m. toothpastes?

Public Health Measures

1. What population groups are in more urgent need of advice on dental care?
2. Who can help to provide dental health education of the population besides dentists?
3. How can children be made cooperative dental patients?
4. How can young teenagers realize the importance of regular dental inspections?
5. What issues concerning dental care should be made clear to the parents of little children?
6. If you were a dentist how would you make information concerning good oral health maintenance, dietary discipline, strict oral hygiene and regular dental inspection more available and clear to patients?
7. How is a person's diet associated with oral health? What diet is most beneficial for proper formation of teeth?
8. Does environment influence oral health? If so, in what way?
9. What microelements are vital for the health of teeth?
10. Does fluorine produce any adverse effects on teeth?
11. What is the optimal concentration of fluoride in the water?
12. Prove the effect of water fluoridation on tooth enamel.
13. Does fluoridated water produce any adverse effects on general health?
14. Is it possible to prevent caries and periodontal disease?

XXIV. Do the crossword puzzle.



Down:

1. Measures taken to decrease the chance of getting some disease or condition.
4. Associated with teeth (... diseases, ... examination, ... surface).
5. The most wide-spread disease of civilization.
7. A liquid containing an antiseptic to kill harmful bacteria that can live between teeth and on the tongue.
9. A soft filament (often waxed and minted) used to remove food debris and dental plaque from interdental areas.
11. A mineral contained in eggs, seafood, red meats, breads and green leafy vegetables that helps to keep red blood cell counts at their appropriate levels and helps fight against gum disease and oral infections.
15. The use of specific foods to maintain health; nutrition.
17. The same as calculus.
19. A sticky, colorless or pale yellow film constantly forming on the teeth.
22. The practice of keeping one's mouth clean and free of bacteria to prevent oral diseases and bad breath.

Across:

3. A dental instrument used for detecting tooth cavities.
6. A thin, plastic coating painted on the chewing surfaces of teeth forming a protective shield over the enamel of each tooth to prevent tooth decay.

8. A single sheet of paper with educational information printed on both sides and folded in half, in thirds, or in fourths.
9. Adding fluoride to water, milk, mouthrinses etc.
12. A thick viscous fluid used to brush teeth and maintain their aesthetics and health.
14. An oral hygiene tool used to clean the teeth, gums, and tongue.
18. Professional tooth cleaning that reaches below the gumline to remove plaque and calculus.
20. Any process that removes, kills, or deactivates microorganisms.
21. The ... of a toothbrush can be hard, medium and soft; smooth and rippled. Soft ... provide gentle care for children's teeth and gums. Rippled ... effectively remove food debris from hard-to-reach interdental areas.
23. The class of nutrients turned by bacteria into acid and causing tooth decay.
24. Solidified stagnation that can be observed above and below the gumline.
25. Dental fluorosis is unsightly ... of enamel.
26. The branch of dentistry that deals with the correction of malpositioned teeth and contributes to prevention of caries and periodontal diseases.

2 Down and 10 Across: Two most important minerals that play a vital role in the formation and maintenance of healthy teeth and jaws.

16 Across and 13 Down: A colorless inorganic compound of tin and fluorine used for topical fluoridation of teeth.

THE SELECTED TEXTS ARE BASED ON THE FOLLOWING WEBSITES

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