Государственное бюджетное профессиональное образовательное учреждение

Московской области

«Московский областной медицинский колледж №1»

Красногорский филиал

Специальность 34.02.01 «Сестринское дело»

**Дисциплина:** ОГСЭ. 03 «Иностранный язык» курс 2, 1 семестр

**Методическая разработка**

**практического занятия**

**по теме**



«Vitamins»

Автор (разработчик): преподаватель – Проценко Анжелика Алексеевна

2017 год

Специальность: «Лабораторная диагностика»

Разработчик: преподаватель – Проценко А. А.

ГБОУ СПО МО «Московский областной медицинский колледж № 1» Красногорский филиал

|  |  |
| --- | --- |
| |  | | --- | |  | |

Методическая разработка предназначена как для студентов 2 курса по специальности 34.02.01 «Сестринское дело» как в качестве раздаточного материала, так и для преподавателей в качестве методического обеспечения практического (комбинированного) занятия. В методической разработке для студентов содержатся: словарь новой лексики, тексты для чтения уровня А и В (по степени сложности), презентация с видеороликами соответствующей тематики на английском языке для аудирования, задания к тексту (соответственно уровням), кроссворд и тесты (соответственно уровням).

Для преподавателей приводятся: методы обучения и педагогические технологии, используемые на занятии; перечень необходимого оснащения занятия; технологическая карта занятия; информационные источники; задание для самостоятельной работы студентов и эталоны ответов к заданиям к текстам, кроссворду и тестам.

**ОГЛАВЛЕНИЕ**

1. Пояснительная записка 4-5
2. Актуальность темы 6
3. Цели занятия 6
4. Форма занятия 6
5. Методы обучения 6
6. Педагогические технологии 6
7. Оснащение 6
8. Технологическая карта занятия 7
9. Литература 8
10. Самостоятельная внеаудиторная работа 8
11. Словарь 8-9
12. Текст 9-13
13. Задания к тексту 13-15
14. Презентация папка № 4
15. Кроссворд 16-17
16. Тесты 18-19
17. Эталоны ответов 20-21

**Пояснительная записка**

Методическая разработка по теме **«Vitamins»** разработана на основе рабочей программы ОГСЭ.03 «Английский язык»по специальности: 34.02.01 «Сестринское дело»

***Цель изучения данной темы*** – знакомство студентов с витаминами, с их содержанием в продуктах питания, с нормами потребления витаминов для нормального функционирования организма, а также с болезнями, вызванными авитаминозом и гипервитаминозом.

***Основной задачей преподавателя***является формирование и развитие у студентов фонетических, грамматических и лексических ЗУН по английскому языку, обучение студентов технике перевода специальных научно-популярных статей медицинской направленности, а также расширение их кругозора с точки зрения медицинской проблематики. Изложение темы основано на знании ранее изученных студентами смежных дисциплин: «Анатомия и физиология человека», «Химия», «Патология», «Терапия», «Фармакология».

***Методическая разработка*** содержит словарь, тексты для чтения (текст уровня А (повышенной трудности) и текст уровня В), задания к текстам и итоговых заданий в тестовой форме с эталонами ответов, предназначенных для студентов для последующей самопроверки или для преподавателей в качестве методической помощи для подготовки к занятию при изучении данной темы. Кроме того, к методической разработке прилагается презентация с видеороликами на английском языке для аудирования.

В качестве внеаудиторной самостоятельной работы студенты могут подготовить с помощью дополнительных источников сообщение на тему «Памятка о витаминах, необходимых всем ежедневно».

Разработка используется на комбинированном занятии, индивидуально - групповая форма организации учебной деятельности.

**Пояснительная записка к презентации**

Данная презентация на английском языке является частью методической разработки по дисциплине ОГСЭ.03 «Английский язык»,разработанной на основе рабочей программы ОГСЭ.03 «Английский язык»по специальности 34.02.01 «Сестринское дело» **«Vitamins/ Витамины».** Презентация предназначена для работы на уроке со студентами третьего курса для освоения нового материала по теме «Vitamins». Презентация состоит из 38 слайдов и знакомит студентов с витаминами, их химическими формулами, их характеристиками и продуктами питания, в которых они находятся, а также дозировкой витаминов в ежедневном рационе человека для нормального функционирования организма и болезнями, обусловленными авитаминозом или гипервитаминозом.

В презентации используются видеоролики по соответствующей тематике на английском языке для аудирования.

Продолжительность презентации – 25-30 минут.

**Содержание презентации:**

1. Что такое витамины?
2. Витамины и их влияние на организм
3. Типы витаминов
4. Витамины и их характеристики:
5. Витамин А
6. Витамин В1
7. Витамин В2
8. Витамин В1
9. Витамин В3
10. Витамин В5
11. Витамин В6
12. Витамин В7
13. Витамин В9
14. Витамин В12
15. Витамин С
16. Витамин D
17. Витамин E
18. Витамин K
19. Справочные материалы по витаминам
20. Справочные материалы по содержанию витаминов в пищевых продуктах
21. Справочные материалы по ежедневной дозировке витаминов
22. Информационные источники

**ТЕМА: «Vitamins/ Витамины»**

**Актуальность темы:** Витамины необходимая часть ежедневного рациона человека. Благодаря витаминам в организме человека происходят биологические и биохимические процессы, которые помогают поддерживать иммунитет и жизненные силы человека. Витамины могут содержаться в продуктах питания или приниматься по назначению врача в виде лекарств или витаминных комплексов. Недостаток или передозировка витаминов могут привести к нарушениям в организме человека или даже болезням, поэтому необходимо знать, сколько и каких витаминов необходимо человеку в день для поддержания своего здоровья.

**Цели занятия:** после изучения темы студент должен

**уметь: -** переводить научно-популярную статью, распознавать новую лексику в тексте и при аудировании, ориентироваться в содержании текста; воспринимать английскую речь на слух; применять навыки работы с большим объемом информации и применять тайм-менеджмент в своей деятельности на занятии;

**знать: -** новую лексику по данной теме, глоссарий по медицинской терминологии, фонетические и лексико - грамматические особенности английского языка, технику перевода научно-популярных статей и основные понятия из области фармакологии и терапии относительно витаминов, их сочетаемости и их влияние на организм человека.

**Компетенции:**

**ОК 4.** Осуществлять поиск и использование информации, необходимой для эффективного выполнения профессиональных задач, профессионального и личностного развития;

**ОК 5.** Использовать информационно-коммуникационные технологии в профессиональной деятельности;

**ОК 8.** Самостоятельно определять задачи профессионального и личностного развития, заниматься самообразованием, осознанно планировать повышение квалификации.

**ПК 1.1.** Проводить мероприятия по сохранению и укреплению здоровья населения, пациента и его окружения.

**ПК 1.2.** Проводить санитарно-гигиеническое воспитание населения.

**ПК 1.3.** Участвовать в проведении профилактики инфекционных и неинфекционных заболеваний.

**ПК 2.1.** Представлять информацию в понятном для пациента виде, объяснять ему суть вмешательств.

**Форма занятия:** комбинированное занятие, индивидуально - групповая форма организации учебной деятельности.

**Методы обучения:** грамматико-переводной, объяснительно-иллюстративный, рецептивный.

**Педагогические технологии:** игровая технология (Никитин Б.П.), информационно - компьютерные (Скинер Б.Ф.), технология организации самостоятельного обучения (Гарунов М.В.), технология уровневой дифференциации (Фирсов В.В.).

**Оснащение:**  раздаточный материал для работы с представленным материалом, ноутбук, мультимедийный плеер с экраном/ моноблок.

**Технологическая карта занятия: - 90минут**

|  |  |  |  |
| --- | --- | --- | --- |
| **Этапы занятия** | **Деятельность преподавателя** | **Деятельность студентов** | **Время** |
| **Организационный**  **момент** | Проверяет посещаемость и готовность студентов занятию | Записывают тему | 5мин. |
| **Контроль исходного**  **уровня знаний** | Проводит опрос -  технология организации  самостоятельного  обучения  (Гарунов М.В.) и работа с текстом - технология уровневой дифференциации  (Фирсов В.В.)  Приложение № 1,2 | Отвечают: читают и переводят текст письменно или устно | 25-30мин. |
| **Изложение нового**  **материала:** | Введение новой лексики  Мотивация и  актуальность темы  Рассказывает с  демонстрацией презентации информационно –  компьютерные технологии  (Скинер Б.Ф.)  Приложение № 4 | 1. Слушают 2. Записывают 3. Запоминают 4. Читают и переводят 5. Отвечают на вопросы 6. Выполняют задания | 25-30мин. |
| **Закрепление материала** | Выполнение заданий  к тексту, решение кроссворда -  игровая (Никитин Б.П.) Приложения № 3,5 | Разгадывают кроссворд - письменно | 20-25мин. |
| **Подведение итогов.**  **Домашнее задание** | Пояснения по теме  Приложение № 6, 7  Анализ урока  Объяснение домашнего задания. | Обращают внимание на ошибки  Записывают домашнее задание | 5мин. |

**Литература:**

для преподавателя: Берзегова Л.Ю. «Essential reading in medicine», «ГЭОТАР-Медиа», Москва, 2013, стр. 436-448.

для студентов: Берзегова Л.Ю. «Essential reading in medicine», «ГЭОТАР-Медиа», Москва, 2013, стр. 436-448.

**Интернет-ресурсы:**

**http://**[**www.english-text.ru**](http://www.english-text.ru/) **последний вход 12.03.2016**

**http://**[**www.evitamins.com**](http://www.evitamins.com/) **последний вход 22.03.2016**

**http://**[**www.yandex.ru**](http://www.yandex.ru/) **последний вход 02.04.2016**

**http://**[**www.youtube.com**](http://www.youtube.com/) **последний вход 15.04.2016**

**http://**[**www.schools-wikipedia.org**](http://www.schools-wikipedia.org/) **последний вход 18.04.2016**

**Самостоятельная внеаудиторная работа:**

* Работа с учебной и дополнительной литературой
* Работа с Интернет-ресурсами

Приложение № 1

**Vocabulary**

amount – количество, значение

carnivorous – хищный

clotting factors – свертывающие факторы

conjunction – соединение, сочетание

crack – перелом, трещина

to cross – поражение сетчатки

deficiency – недостаточность

to deplete – уменьшать, убавлять

essential – обязательный, главный

to flatten – выравнивать

foodstuff – продукт питания, еда

to fortify – укреплять

herbivorous – травоядный

to impair – нарушать, ослаблять

malnutrition – неполноценное питание, истощение

neuropathy – нейропатия

numb – онемение, окоченение

to peel – шелушиться

to preserve – сохранять, оберегать, поддерживать

pins-and-needle sensation – чувство покалывания

prey – добыча

to promote – способствовать, помогать

retinopathy – поражение сетчатки

to recur – повторяться

to replenish – пополнять, восполнять

to resolve – устранять

rickets – рахит

scurvy – цинга

soluble – растворимый

to substitute – замещать

supervision – контроль

sterility – бесплодие

supplement – добавка, приложение

tingling – бредовое состояние

widespread – широко распространенный

Приложение № 2

**A - Level’s text**

**Vitamins**

Vitamins are a group of organic substances required in our diets in small amounts for growth and nutrition. They are usually found in foodstuffs or taken as supplements. Yet vitamins probably present a wider gap between myth and reality in the layman’s understanding than almost any other area of our diet. Most people have recognition that Vitamin C prevents scurvy, that Vitamin A is found in fish liver oils, or that Vitamin D is found in dairy products; many people believe that Vitamin E preserves youth and prevents sterility or that Vitamin C can present colds and cancer. Beyond this, however, there is still considerable ignorance and widespread myth. The reality behind the common practice of taking vitamin supplements is less dramatic, although vitamins do represent an important component of the necessary human diet.

The word vitamin was formed from the Latin word «vita» («life») and the Greek word «amine», because 19th century scientists believed that they were formed only from amino acids. Amino acids are the twenty essential code elements which arrange themselves in varied sequences or chains to form complex proteins, the basic foodstuff of life. These organic acids (containing the essential ingredient NH2), in conjunction with the nucleic acids (DNA material being composed of the four bases adenine, guanine thymine and cytosine), «translate» the genetic instructions from the DNA of the chromosome to the RNA transcript, and in turn transfer these instructions from the transcript to proteins. If proteins are the building blocks of life, then amino acids are the building blocks of proteins. Plant cells form amino acids from the compounds which the plant draws up from the ground, such as the nitrates and ammonia salts. Animals, however, can’t perform this conversion of simple inorganic substances to amino acids, so they must ingest them in the form of food — with herbivorous animals consuming plant proteins in vegetables and carnivorous animals consuming animal proteins in the bodies of their prey. Vitamins are essential aids in many body processes, converting food the energy, building and maintaining cells and other functions.

Vitamins can thus be looked at as a crucial ingredient in the long-term maintenance of health. Vitamins come in two main forms — water soluble and fat soluble. The fat soluble vitamins, including A, D, E and K, are absorbed by the body with the aid of fat and then stored in body fat. Because they are stored in this way, we do not need to take these vitamins daily and it is usually possible to maintain adequate amounts in the body through a normal, well-balanced diet. But for the same reason, it is possible to overdose on these vitamins by taking too many as supplements, in which case they can build up to toxic levels and actually cause harm to the person taking them.

The water soluble vitamins, including Vitamin C and all of the B complex vitamins, are used up quickly or excreted in urine and perspiration; they are not stored and should be consumed daily. They break down quickly and can be partially lost through premature harvesting, long and improper storage, processing, overcooking, and cooking in water. The high amounts of both water soluble and fat soluble vitamins found in raw vegetables and fruits are often lost when they are processed, with a few exceptions such as carrots, which actually gain in vitamin A by being cooked. The best sources of the different vitamin groups are now well-known. Vitamin A, including retinol and «provitamin caretenoids,» is found in liver, butter, whole milk, cheese and egg yolks and in carrots, leafy greens, sweet potatoes, pumpkins, cantaloupes and so on (provitamin caretenoids). Vitamin A is extremely important formation and maintenance of skin and mucous membranes, in visual functions and in bone and tooth development. A deficiency of Vitamin A can cause impaired growth, nigh blindness, diarrhea and increased mortality in the worst cases. Experiments in giving large Vitamin A supplements for malnourished children have had mixed results; some reported a reduction in infant and child mortality, but a recent study of Sudanese children between 9 and 72 months found little difference in a test group that was given megadoses of A (200,000 units) and a placebo group that was given only small amounts of Vitamin E.

Vitamin D (calciferol) found mostly in fortified dairy products but also in fish oils egg yolks, is particularly important for hardening of bones and teeth, and aiding in the intestine’s absorption of calcium. Deficiencies of D can cause rickets in children and more rarely, oseomalacia in adults; overdoses are known to cause retarded growth, kidney damage and calcium deposits in the soft tissues. Vitamin E (Tocopherol) is found in vegetable oil, green leafy vegetables, wheat germ, egg yolk, butter and liver. It functions as an «antioxidant» for other vitamins, preventing C and A and other fatty acid proteins from being burnt up prematurely; in this way it helps prevent cell membrane damage. Most experts believe that Vitamin E deficiency can only occur in extreme causes of malnutrition, but this doesn’t mean that supplements might not be useful. One recent study found that Vitamin E rich blood helped to prevent angina (cardiovascular distress), for reasons not yet understood.

The B vitamin group is very important. B1 or thiamin found in meats, whole grains and nuts, serves in carbohydrate metabolism and production of ribose for RNA and DNA. B2 or Riboflavin, in liver, milk, cheese, meat and fortified grains, functions as a coenzyme to help cells use oxygen to get energy from food. B6 or pyroxidine, found in meats, shellfish, whole grains and vegetables, also serves as a coenzyme in protein metabolism. B12, found in the same foods and in milk products, serves as a coenzyme in nucleic acid synthesis and development of red blood cells. Deficiencies of the B group can cause anemia, skin problems and other diseases.

Other vitamins include niacin, folacin (folic acid), biotin and pantothenic acid, all of which serve as coenzymes to help synthesize fat, form vital chemicals in the life processes, or assist in energy metabolism for the body processes. Some typical symptoms of deficiency are fatigue, depression or anemia. Recently, it has been found that Vitamin K, a fat soluble substance, is essential in the blood-clotting process and it is hoped that it can be applied to treatment of hemophilia, wound or surgery recovery and other medical problems.

As a group, vitamins are often confused with the many hundreds of minerals that are also need for basic growth and maintenance functions of the body. Like vitamins, most minerals can also be found in foods, but shortages of minerals are also possible. There have also been unproven claims for vitamins in general, such as that supplements increase children’s IQ. Probably the greatest confusion exists about Vitamin C (ascorbic acid), a substance found in many vegetables and fruits, and needed for holding body cells together, healing wounds and broken bones, and resisting infection. Many extravagant claims, such as curing cancer and preventing common colds, have been made for Vitamin C. While some evidence exists of side benefits, long term studies have failed to give conclusive evidence that C can produce miracles. Like other water soluble vitamins, however, C is easily depleted from the body, and any diet without sufficient C from fresh fruits and vegetables will need supplements.

**B - Level’s text**

**Vitamins**

A vitamin is an organic compound and a vital nutrient that an organism requires in limited amounts.An organic chemical compound (or related set of compounds) is called a vitamin when the organism can’t synthesize the compound in sufficient quantities and it must be obtained through the diet; thus, the term "vitamin" is conditional upon the circumstances and the particular organism. For example, ascorbic acid is a vitamin for humans, but not for most other animal organisms. Supplementation is important for the treatment of certain health problems, but there is little evidence of nutritional benefit when used by otherwise healthy people. By convention the term **vitamin**includes neither other essential nutrients, such as dietary minerals, essential fatty acids or essential amino acids nor the great number of other nutrients that promote health and are required less often to maintain the health of the organism. Thirteen vitamins are universally recognized at present. Vitamins are classified by their biological and chemical activity, not their structure. Thus, each "vitamin" refers to a number of vitamer compounds that all show the biological activity associated with a particular vitamin. Such a set of chemicals is grouped under an alphabetized vitamin "generic descriptor" title, such as "vitamin A", which includes the compounds retinal, retinol and four known carotenoids. Vitamers by definition are convertible to the active form of the vitamin in the body and are sometimes inter-convertible to one another, as well. Vitamins have diverse biochemical functions. Some, such as vitamin D, have hormone-like functions as regulators of mineral metabolism, or regulators of cell and tissue growth and differentiation. Others function as antioxidants. The largest number of vitamins, the B complex vitamins, functions as precursors for enzyme cofactors that help enzymes in their work as catalysts in metabolism. In this role, vitamins may be tightly bound to enzymes as part of prosthetic groups/ they may also be less tightly bound to enzyme catalysts as coenzymes, detachable molecules that function to carry chemical groups or electrons between molecules. Although these roles in assisting enzyme substrate reactions are vitamins' best known function, the other vitamin functions are equally important. Until the mid-1930s, when the first commercial yeast extract vitamin B complex and semisynthetic vitamin C supplement tablets were sold, vitamins were obtained solely through food intake, and changes in diet usually greatly altered the types and amounts of vitamins ingested.

However, vitamins have been produced as commodity chemicals and made widely available as inexpensive semisynthetic and synthetic source multivitamin dietary and food supplements and additives, since the middle of the 20th century. Study of structural activity, function and their role in maintaining health is called vitaminology. Humans must consume vitamins periodically but with differing schedules, to avoid deficiency. The human body's stores for different vitamins vary widely; vitamins A, D and B12 are stored in significant amounts in the human body, mainly in the liver and an adult human's diet may be deficient in vitamins A and D for many months and B12 in some cases for years, before developing a deficiency condition. However, vitamin B3 is not stored in the human body in significant amounts, so stores may last only a couple of weeks. For vitamin C, the first symptoms of scurvy in experimental studies of complete vitamin C deprivation in humans have varied widely, from a month to more than six months, depending on previous dietary history that determined body stores.

Deficiencies of vitamins are classified as either primary or secondary. A primary deficiency occurs when an organism does not get enough of the vitamin in its food. A secondary deficiency may be due to an underlying disorder that prevents or limits the absorption or use of the vitamin, due to a "lifestyle factor", such as smoking, excessive alcohol consumption or the use of medications that interfere with the absorption or use of the vitamin. People who eat a varied diet are unlikely to develop a severe primary vitamin deficiency. In contrast, restrictive diets have the potential to cause prolonged vitamin deficits, which may result in often painful and potentially deadly diseases. Well-known human vitamin deficiencies involve thiamine (beriberi), niacin (pellagra), vitamin C (scurvy) and vitamin D (rickets).   In large doses, some vitamins have documented side effects that tend to be more severe with a larger dosage. The likelihood of consuming too much of any vitamin from food is remote, but overdosing (vitamin poisoning) from vitamin supplementation does occur. At high enough dosages, some vitamins cause side effects such as nausea, diarrhea and vomiting. The doses of vitamins differ because individual tolerances can vary widely and appear to be related to age and state of health.

Приложение № 3

**Tasks to the A - Level’s text:**

* 1. **Match the half-sentences to make correct and complete sentences:**

|  |  |
| --- | --- |
| 1. Some typical symptoms of deficiency  are … | A. …the Latin word «vita» («life») and  the Greek word «amine». |
| 2. B12, found in the same foods and in milk products, serves … | B. … absorbed by the body with the aid  of fat and then stored in body fat. |
| 3. A deficiency of Vitamin A can cause  … | C. … as a coenzyme in nucleic acid synthesis and development of red blood cells. |
| 4. Vitamin D is particularly … | D. … fatigue, depression or anemia. |
| 5. The water soluble vitamins, including Vitamin C and all of the B complex vitamins, are … | E. …only occur in extreme causes of malnutrition, but this doesn’t mean that supplements might not be useful. |
| 6. The word vitamin was formed from … | F. … angina (cardiovascular distress), for reasons not yet understood. |
| 7. Vitamin E rich blood helped to  prevent … | G. … the twenty essential code elements. |
| 8. The fat soluble vitamins, including A,  D, E and K, are … | H. … used up quickly or excreted in  urine and perspiration; they are not  stored and should be consumed daily. |
| 9. Most experts believe that Vitamin E deficiency can … | I…. impaired growth, nigh blindness, diarrhea and increased mortality in the worst cases. |
| 10. Amino acids are … | J. … important for hardening of bones  and teeth, and aiding in the intestine’s absorption of calcium. |

* 1. **Make up sentences:**

1. maintenance, a, can, of, vitamins, health, thus, looked, crucial, in, the, at, long-term, be, as, ingredient.

2. or, supplements, found, are, in, usually, foodstuffs, taken as they.

3. are, of, the, of, building, life, amino, then, blocks, acids are, the, if, building, proteins, blocks, proteins.

4. of, B, the, can, group, anemia, and, other, skin, diseases, deficiencies, cause, problems.

5. considerable, myth, beyond, there, still, ignorance, widespread, this, and, is, however.

* 1. **Match the names of vitamins with the synonyms:**

|  |  |
| --- | --- |
| 1)tocopherols | a) Vitamin A |
| 2)pyridoxine | b) Vitamin B12 |
| 3)biotin | c) Vitamin K |
| 4) pantothenic acid | d) Vitamin B6 |
| 5)cyanocobalamin | e) Vitamin B5 |
| 6)phylloquinone | f) Vitamin B9 |
| 7)retinol | g) Vitamin E |
| 8)folic acid | h) Vitamin B7 |

**Tasks to the B - Level’s text:**

* 1. **Match the half-sentences to make correct and complete sentences:**

|  |  |
| --- | --- |
| 1. A secondary deficiency may be due to  … | A. … vitaminology. |
| 2. Humans must consume vitamins periodically but … | B. … convertible to the active form of the vitamin in the body, and are sometimes inter-convertible to one another, as well. |
| 3. However, vitamin B3 is not stored … | C. … as either primary or secondary. |
| 4. The doses of vitamins differ because individual tolerances can vary widely  and … | D. … with differing schedules, to avoid deficiency. |
| 5. Deficiencies of vitamins are classified  … | E. …an underlying disorder that  prevents or limits the absorption or use  of the vitamin. |
| 6. Well-known human vitamin deficiencies involve … | F. … neither other essential nutrients, nor the great number of other nutrients. |
| 7. Supplementation is important for … | G. … in the human body in significant amounts. |
| 8. By convention the term vitamin  Includes … | H. … the treatment of certain health  problems. |
| 9. Vitamers by definition are … | I. … thiamine, niacin, vitamin C and  vitamin D. |
| 10. Study of structural activity, function and their role in maintaining health is called … | J. … appear to be related to age and state of health. |

**2. Make up sentences:**

1. by, structure, and, vitamins, not, biological, chemical, activity, are, their, classified.

2. stores, widely, vitamins, human, for, body's, different, the, vary.

3. an, food, primary, a, vitamin, deficiency, does, occurs, enough, in, get, when, organism, not, of, the, its.

4. vomiting, some, side, such, vitamins, nausea, as, cause, and, effects, diarrhea.

5. title, a, generic, set, chemicals, alphabetized, grouped, such, under, is, vitamin, of, an, descriptor.

**3.** **Match the names of vitamins with the synonyms:**

|  |  |
| --- | --- |
| 1) thiamine | a) vitamin D |
| 2) niacin | b) vitamin C |
| 3) cholecalciferol | c) vitamin B1 |
| 4) ascorbic acid | d) vitamin B3 |

**4. To complete the table in the correct order to the chapter «Vitamins»:**

|  |  |  |  |
| --- | --- | --- | --- |
| Fat soluble vitamin | Water soluble vitamin | Vitamin deficiency | Diseases |
| \* | - | Vitamin A | Night blindness, xerphthalmia, keratomalacia,severe acne, psoriasis |
|  |  | Vitamin E | Hemorytic anemia, hemorrhage |
| \* |  | Vitamin D | Osteomalacia, rickels |
|  | \* | Vitamin B6 | Dermatitis, rheumalold arthritis, Wilson’s disease |
|  | \* | Vitamin C | Scurvy |
|  | \* | Vitamin B12 | Pernicious anemia |
|  | \* | Vitamin B1 | Korsakoff’s syndrome, Wernicke—Korsakoll syndrome |
|  |  | Vitamin K | Bleeding, thrombosis |

Приложение № 5

**Crossword**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **16** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | **17** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **6** |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | **3** |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | **5** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **18** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **9** |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | **4** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **12** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | **14** |  |  |  |  |  |  |  |  | **2** |  |  |  |  |  |  |  |  | **10** |  |  |  |  |  |  |  |  |
|  |  |  | **13** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **8** |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | **1** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **11** |  |  |  |  |  |  |  |  |
| **7** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | **15** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | **19** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Questions to crossword:**

**Horizontally:**

**1.** A disorder of infancy and early childhood caused by a deficiency of vitamin D, causing soft bones.

**4.** Any of a specific group of organic compounds essential in small quantities for healthy human growth, metabolism, development and body functions.

**5.** An insufficiency, especially of something essential to health.

**7.** The act of supplementing.

**8.** A condition in which the sufferer has frequent and watery bowel movements.

**10.** A disease caused by insufficient intake of vitamin C leading to the formation of livid spots on the skin, spongy gums, loosening of the teeth and bleeding into the skin and from almost all mucous membranes.

**11.** One of the constituents of vitamin B complex, found in meat, yeast and bran, that is necessary for the metabolism of carbohydrates.

**13.** Any small molecule that is necessary for the functioning of an enzyme.

**15.** A lack of adequate nourishment.

**17.** A sugar, starch, or cellulose that is a food source of energy for an animal or plant; a saccharide.

**18.** A medical condition in which the capacity of the blood to transport oxygen to the tissues is reduced, either because of too few red blood cells, or because of too little hemoglobin, resulting in pallor and fatigue.

**19.** A disease, with skin lesions and mental confusion, primarily caused by a niacin deficiency.

**Vertically:**

**2.** Actions performed to keep some machine or system functioning or in service.

**3.** The act of joining, or condition of being joined.

**6.** In nutrition, one of a group of vitamins that act against the effects of free radicals.

**9.** The act or process of absorbing or of being absorbed in living organisms.

**12.** A naturally occurring pentose sugar, which is a component of the nucleosides and nucleotides that constitute the nucleic acid biopolymer, RNA.

**14.** An instance of material which may be used as food.

**16.** Constituent of vitamin D2.

Приложение № 6

**Test to the A - Level’s text:**

**1.** … have hormone-like functions as regulators of mineral metabolism.

1. vitamin E
2. vitamin K
3. vitamin D

**2.** Deficiencies of … can cause rickets in children and oseomalacia in adults.

1. vitamin E
2. vitamin D
3. vitamin K

**3.** Most people have recognition that … prevents scurvy.

1. vitamin A
2. vitamin B
3. vitamin C

**4.** … is found in vegetable oil, green leafy vegetables, wheat germ, egg yolk, butter and liver.

1. vitamin E
2. vitamin D
3. vitamin A

**5.** …isfound in meats, whole grains and nuts, serves in carbohydrate metabolism and production of ribose for RNA and DNA.

1. vitamin B5
2. vitamin B2
3. vitamin B1

**6.** …isfound in the same foods and in milk products, serves as a coenzyme in nucleic acid synthesis and development of red blood cells.

1. vitamin B7
2. vitamin B12
3. vitamin B9

**7.** … isfound in liver, milk, cheese, meat and fortified grains, functions as a coenzyme to help cells use oxygen to get energy from food.

1. vitamin B1
2. vitamin B2
3. vitamin B5

**8.** … is essential in the blood-clotting process and it is hoped that it can be applied to treatment of hemophilia, wound or surgery recovery and other medical problems.

1. vitamin K
2. vitamin E
3. vitamin D

**9.** … is found in meats, shellfish, whole grains and vegetables, also serves as a coenzyme in protein metabolism.

1. vitamin B5
2. vitamin B7
3. vitamin B6

**10.** …is extremely important formation and maintenance of skin and mucous membranes, in visual functions and in bone and tooth development.

1. vitamin E
2. vitamin D
3. vitamin A

**Test to the B - Level’s text:**

**1.** Vitamins are classified by their biological and chemical activity, not their …

1. effect
2. structure
3. function

**2.** … is not stored in the human body in significant amounts, so stores may last only a couple of weeks.

1. vitamin B1
2. vitamin B2
3. vitamin B3

**3.** Deficiency of … causes pellagra.

1. thiamine
2. niacin
3. biotin

**4.** Deficiency of … causes beriberi.

1. thiamine
2. niacin
3. biotin

**5.** Deficiency of … causes scurvy.

1. vitamin A
2. vitamin B
3. vitamin C

**6.** Deficiency of … causes rickets.

1. vitamin D
2. vitamin E
3. vitamin A

**7.** … is stored in significant amounts in the human body, mainly in the liver.

1. vitamin K
2. vitamin C
3. vitamin A

**8.** Deficiency of … causes night blindness.

1. tocopherol
2. retinol
3. calciferol

**9.** … is an antioxidant and protects cell against damage by free radicals.

1. vitamin K
2. vitamin D
3. vitamin E

**10.** … is essential for the formation of bone and connective tissue.

1. vitamin C
2. vitamin D
3. vitamin A

Приложение № 7

**Answer’s standards to tasks to the A - Level’s text:**

**1.** 1. – D, 2. – C, 3. – I, 4. – J, 5. – H, 6. – A, 7. – F, 8. – B, 9. – E,

10. – G.

**2.**

1. Vitamins can thus be looked at as a crucial ingredient in the long-term maintenance of health.

2. They are usually found in foodstuffs or taken as supplements.

3. If proteins are the building blocks of life, then amino acids are the building blocks of proteins.

4. Deficiencies of the B group can cause anemia, skin problems and other diseases.

5. Beyond this, however, there is still considerable ignorance and widespread myth.

**3.**

1) – g), 2) – d), 3) – h), 4) – e), 5) – b), 6) – c), 7) – a), 8) – f).

**Answer’s standards to tasks to the B - Level’s text:**

**1.**  1. – E, 2. – D, 3. – G, 4. – J, 5. – C, 6. – I, 7. – H, 8. – F, 9. – B,

10. – A.

**2.**

1. Vitamins are classified by their biological and chemical activity, not their structure.

2. The human body's stores for different vitamins vary widely.

3. A primary deficiency occurs when an organism does not get enough of the vitamin in its food.

4. Some vitamins cause side effects such as nausea, diarrhea and vomiting.

5. Such a set of chemicals is grouped under an alphabetized vitamin generic descriptor title.

**3.**

1) – c), 2) – d), 3) – a), 4) – b).

**Answer’s to crossword:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | **16** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | **17** | c | a | r | b | o | h | y | d | r | a | t | e |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | a |  |  |  |  |  |  |  |  |  |  |  | **6** |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | l |  |  |  |  |  |  |  |  | **3** |  |  | a |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | c |  |  |  | **5** | d | e | f | i | c | i | e | n | c | y |  |  |  |  |  |  |  |  |
| **18** | a | n | e | m | i | a |  |  |  |  |  |  |  | o |  |  | t |  |  | **9** |  |  |  |  |  |  |  |
|  |  |  |  |  | f |  | **4** | v | i | t | a | m | i | n |  |  | i |  |  | a |  |  |  |  |  |  | **12** |
|  |  |  |  |  | e |  |  |  |  |  |  |  |  | j |  |  | o |  |  | b |  |  |  |  |  |  | r |
|  | **14** |  |  |  | r |  |  |  |  | **2** |  |  |  | u |  |  | x |  | **10** | s | c | u | r | v | y |  | i |
|  | f |  | **13** | c | o | e | n | z | y | m | e |  |  | n |  |  | i |  |  | o |  |  |  |  |  |  | b |
|  | o |  |  |  | l |  |  |  |  | a |  |  |  | c |  | **8** | d | i | a | r | r | h | e | a |  |  | o |
|  | o |  |  |  |  |  |  | **1** | r | i | c | k | e | t | s |  | a |  |  | p |  |  |  |  |  |  | s |
|  | d |  |  |  |  |  |  |  |  | n |  |  |  | i |  |  | n |  | **11** | t | h | i | a | m | i | n | e |
| **7** | s | u | p | p | l | e | m | e | n | t | a | t | i | o | n |  | t |  |  | i |  |  |  |  |  |  |  |
|  | t |  |  |  |  |  |  |  |  | e |  |  |  | n |  |  |  |  |  | o |  |  |  |  |  |  |  |
|  | u |  |  |  |  |  |  |  |  | n |  |  |  |  |  |  |  |  |  | n |  |  |  |  |  |  |  |
|  | f |  |  |  |  |  |  |  |  | a |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | f |  |  |  |  | **15** | m | a | l | n | u | t | r | i | t | i | o | n |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | c |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | **19** | p | e | l | l | a | g | r | a |  |  |  |  |  |  |  |  |  |  |  |

**Answer’s standards to test to the A - Level’s text:**

1. – c,2. – b,3. – c,4. – a, 5. – c, 6. – b, 7. – b, 8. – a, 9. – c, 10. – c.

**Answer’s standards to test to the B - Level’s text:**

1. – b, 2. – c, 3. – b, 4. – a, 5. – c, 6. – a, 7. – c, 8.- b, 9. – c, 10. – a.