***Тема занятия***: «Сердечно-сосудистая система. Состав крови»

***Тип занятия*:**Практическое

***Место проведения:***Аудитория

***Материально-техническое обеспечение:***таблицы и схемы (наглядные пособия)

***Учебно-методическое оснащение:***

- «Мухина В.В. Английский язык для медицинских училищ: Учеб. пособие/В.В. Мухина, Н.С. Мухина, П.С. Скрипников.- М.: Высшая школа, 2002. – 141 с.»

- Маслова А.М., Вайнштейн З.И., Плебейская Л.С. учебник английского языка для медицинских вузов. - М.: Нью-Лист, 2002.-336 с.;

**ОРГАНИЦИОННАЯ СТРУКТУРА И СОДЕРЖАНИЯ ЗАНЯТИЯ**

**I Подготовительный этап 1 мин**

1. Постановка учебных целей
2. Актуализация темы **4 мин**

1)Greeting (приветствие)

T: How are you today?

T: So, I am. Let’s check your presence

T: What date is it today?

T: Who will tell me what is the weather like today?

Aim (цель)

Today we will speak about the cardiovascular system of the body. We’ve discussed about the systems of the body in general during our previous lesson.

**II Основной этап**

**1.Lead in (введение в новую тему, мотивация)**

Our theme for today is “Cardiovascular system”. You are future doctor’s assistants, so you should know that the cardiovascular system is responsible for transporting nutrients and removing gaseous waste from the body. This system is comprised of the heart and the circulatory system. Structures of the cardiovascular system include the heart, blood vessels, and blood. The lymphatic system is also closely associated with the cardiovascular system.

**2.Введение новых лексических единиц**

**Read and learn the following words and word combinations**

**contain-**содержать

**plasma-**плазма

**microscopical-**микроскопический

**element-**элемент

**erythrocyte-**эритроцит

**leucocyte-**лейкоцит

**thrombocyte-**тромбоцит

**bone marrow-**костный мозг

**transport-**переносить

**convert-**превращать

**carry-**переносить

**arrive-**пребывать

**expel-**выводить

**catabolism**-катаболизм

**hemoglobin-**гемоглобин

**10 мин**

**3.Чтение и перевод текста**

**a) Read and translate the text.**

**Blood**

Blood contains fluid called plasma plus microscopical cellular elements: erythrocytes, leucocytes and thrombocytes. Erythrocytes are red blood cells of which 4,5-5 million are found in each cubic millimeter. These cells are made in the bone marrow and are important in transporting oxygen from the lungs through the blood stream to the cells all over the body. The oxygen is the used up by body cells in the process of converting food to energy (catabolism). Hemoglobin, containing iron, is an important protein in erythrocytes which helps in carrying the oxygen as it travels through the blood stream. Erythrocytes also carry away carbon dioxide (co2), a waste product of catabolism of food in cells, from the body cells to the lungs. On arriving there it is expelled in the process of breathing.

Leucocytes are white blood cells from 4,000 to 10,000 per cubic millimeter existing in several types: granulocytes and agranulocytes, which are also subdivided into different types.

Granulocytes are cells with granules in their cytoplasm formed in the bone marrow. There are three types of granulocutes: eosinophils, basophils, neutrophils.

agranulocytes are produced in lymph nodes and spleen. There are two types of agranulocytes: lymphocytes and monocytes.

Thrombocytes or platelets are tiny cells formed in the bone marrow. They are necessary for blood clotting. Their number is 400,000 per cubic millimeter. The plasma it the fluid portion before clotting has occurred. The serum is the fluid portion of blood remaining after the coagulation process is completed.

**15 мин**

**b) Post-reading activity**

**Этап проверки понимания текста**

**Exercise 1. Find in the text English equivalents for these words and word combinations:**

1)микроскопические клеточные элементы 2)в каждом кубическом миллиметре 3)через кровоток 4)по всему организму 5)процесс превращения пищи в энергию 6) выводить 7) продукт отхода 8) выталкивать, выбрасывать 9) несколько видов 10) лимфатические узлы 11) крошечные клетки 12) свертываемость крови 13) завершаться

**10 мин**

**Exercise 2. Quote the sentences in which these words and word combinations are used in the text:**

To call, to be found, bone marrow, to be used, to convert, iron, to be expelled, spleen, a fluid portion, coagulation process.

**5 мин**

**Exercise 3. Translate the following word combination:**

The habit of smoking, the way of producing it, the hope of seeing you, the chance of getting, the prize, the method of transporting, the necessity of knowing, the importance, of carrying away waste products, the timeof arriving, the fact of existing.

**10 мин**

**Exercise 4. Answer the questions:**

1.What does blood contain?

2.How many erythrocytes can be found in each cubic millimeter?

3.Where are these cells made?

4.What is their function?

5.What role does hemoglobin play?

6.What are the types of leucocytes?

7.Where are agranulocytes produced?

8.What types of granulocytes do you know?

9.What organ forms thrombocytes?

10.How many platelets are there in one cubic millimeter?

11.What is the difference between the plasma and the serum?

**10 мин**

**4.Чтение и перевод текста. Передача содержания в 4-5 предложениях. Read and translate the text. Sum up the content of the text in 4-5 sentences.**

The body contains about five liters of blood kept at a constant temperature of 37. Blood consist of three different types of cell floating in liquid called plasma. The blood cells are known as red cells, white cells and platelets. Red cells and platelets are unique among body cells in having no nucleus. Blood cells are so small that one cubic millimeter of blood (the size of a pin head) contains about five million red cells, 7,000 white cells and 250,000 platelets.

**Red Cells**

The red blood cells contain a pigment called haemoglobin which gives the blood its red colour. The main function of red cells is to carry oxygen to the body cells.

For its journey from the lungs to the body cells, oxygen combines with the haemoglobin of the red cells. It is then released from the haemoglobin when the body cells are reached. Some people do not have enough haemoglobin in their red cells and are consequently short of oxygen. This condition is called anaemia and such people tire easily, become breathless on exertion and have a pale complexion. They need special care during general anaesthesia.

**White Cells**

The white blood cells defend the body against disease. They do this by attacking germs and repairing damage.

**Platelets**

The function of platelets is to stop bleeding. They do this in two ways: by blocking the cut blood vessels; and by producing substances which help the blood to clot.

**15 мин**

**Speak on the function of blood using the summary.**

Function of blood summary

1)Carriage of oxygen to body cells.

2) Carriage of digested food to body cells.

3) Carriage of carbon dioxide and other waste products away from body cells.

4) Carriage of hormones.

5)Defense against disease and repair of injury.

6)Maintenance of body temperature at 37**°**C.

**5 мин**

**III Заключительный этап**

1.Подведение итогов занятия

2.Задание на дом: новые слова выучить наизусть, р. 26-30 «Английский язык» В.В. Мухина

**5 мин**