

PHẦN BA



DẠY VÀ HỌC TIẾNG ANH Y KHOA

(TRAU ĐỒI KỸ NĂNG ĐỌC HIỂU - NGHE -
NÓI TIẾNG ANH TRONG Y KHOA)

- Unit 1: **Các ngăn trong cơ thể**
- Unit 2: **Các nguồn năng lượng**
- Unit 3: **Giải phẫu tổng quát phần thân**
- Unit 4: **Biểu mô**
- Unit 5: **Nghiên cứu cấu trúc tế bào**
- Unit 6: **Tim**
- Unit 7: **Hệ thần kinh**
- Unit 8: **Tóm tắt và các bài tập mở rộng**

UNIT 1:

THE COMPARTMENTS OF THE BODY

CÁC NGĂN TRONG CƠ THỂ

I. READING AND COMPREHENSION

The body has three compartments. The first of these consists of active tissue, which is also known as cell mass. This does most of the chemical work of the body.

The second compartment consists of supporting tissue. This is composed of bone minerals, extracellular proteins, and the internal environment, or the extracellular fluid in the blood and lymph.

The third compartment is the energy reserve. This consists of fat, which lies round the principal internal organs and in adipose tissue.

Study the following statements carefully and decide whether they are true or not true according to the information in the reading passage above. Then check your answers by referring to the solutions at the end of the passage.³

- (a) *The first compartment of the body consists of cell mass.*
- (b) *The second compartment of the body is composed of bone minerals.*
- (c) *The internal environment is composed of the extracellular fluid in the blood and lymph.*
- (d) *The energy reserve is composed of adipose tissue and fat which lies round the principal internal organs.*

These compartments cannot be separated by physical dissection, but it is possible to measure them indirectly. This may be done using methods such as the dilution technique.

Cơ thể có 3 ngăn. Ngăn đầu bao gồm mô hoạt tính cũng được biết là khối tế bào. Mô này thực hiện hầu hết công việc có liên quan đến phản ứng hoá học của cơ thể.

Ngăn thứ hai bao gồm mô nâng đỡ. Mô nâng đỡ này gồm có các chất khoáng xương, các protein ngoại bào và môi trường bên trong hoặc dịch ngoại bào trong máu và bạch huyết.

Ngăn thứ ba là phần dự trữ năng lượng. Ngăn này bao gồm mỡ bao quanh các cơ quan nội tạng chính và trong mô mỡ.

Hãy nghiên cứu các câu dưới đây một cách cẩn thận và quyết định liệu chúng có đúng hay sai theo thông tin của đoạn văn trên. Sau đó kiểm tra câu trả lời của bạn bằng cách tham khảo lời giải ở cuối trang.

Các ngăn này không thể tách bằng phẫu thuật, nhưng có thể đo chúng một cách gián tiếp. Điều này có thể thực hiện được bằng cách sử dụng các phương pháp như kỹ thuật pha loãng.

¹¹ The size of each compartment varies according to the age, sex and health of the individual. ¹²In a healthy young man the total body weight is divided approximately: 55% cell mass, 30% supporting tissue, and 15% energy reserve. ¹³A healthy young woman has normally twice as much fat.

Kích thước của mỗi ngăn thay đổi theo tuổi tác, giới tính và sức khỏe của từng người. Đối với thanh niên khỏe mạnh, toàn bộ trọng lượng cơ thể được chia xấp xỉ 55% khối tế bào, 30% mô nâng đỡ và 15% dự trữ năng lượng. Đối với một người phụ nữ khỏe mạnh bình thường có lượng mỡ nhiều gấp đôi.

- (e) The compartments of the body are measurable.
- (f) The dilution technique is the only method of measuring the compartments of the body
- (g) The sum of the sizes of the compartments = the total body weight.
- (h) The energy reserve of a healthy young woman is approximately 30% of her total body weight.

Solutions

(a) active tissue, which is also known as cell mass (2)

i.e. active tissue = cell mass

The first compartment of the body consists of active tissue.

∴ The first compartment of the body consists of cell mass.

(b) This is composed of bone minerals, extracellular fluid, and the internal environment (5)

this = the second compartment

The second compartment of the body is composed of bone minerals AND OTHER THINGS.

∴ It is NOT TRUE that the second compartment of the body is composed of bone minerals (only).

(c) the internal environment, OR the extracellular fluid in the blood and lymph (5)

i.e. the internal environment = the extracellular fluid in the blood and lymph

The internal environment is composed of the extracellular fluid in the blood and lymph.

(d) fat, which lies round the principal internal organs and in adipose tissue (7)

= fat, which lies round the principal internal organs AND fat which lies in adipose tissue

(adipose tissue is composed of fat and other things)

The energy reserve is composed of fat, which lies in adipose tissue and round the principal internal organs.

∴ The energy reserve is NOT composed of adipose tissue and fat which lies round the principal internal organs

(e) it is possible to measure them (8)

= it is possible to measure the compartments of the body.

The compartments of the body are measurable

(f) *methods SUCH AS the dilution technique (9)*

= *methods LIKE, FOR EXAMPLE, the dilution technique*

i.e. *The dilution technique is ONE EXAMPLE of the methods of measuring the compartments of the body.*

∴ *The dilution technique is NOT the only method of measuring the compartments of the body.*

(g) *the total body weight is divided approximately: 55% cell mass, 30% supporting tissue, and 15% energy reserve (11)*

$$55\% + 30\% + 15\% = 100\%$$

The sum of the sizes of the compartments = the total body weight.

(h) *A healthy young woman has normally twice as much fat. (12)*

twice as much fat = twice as much energy reserve (see 6, 7)

twice as much energy reserve (as a healthy young man)

= 2 x approximately 15% of the total body weight (see 11)

The energy reserve of a healthy young woman is approximately 30% of her total body weight.

EXERCISE A: Contextual reference

Viết lại các câu dưới đây vào quyển vở của bạn và hoàn tất chúng sau khi nghiên cứu bài văn đọc.

Write the following sentences in your notebook, and complete them after studying the reading passage.

Vi dụ:

'This' in sentence 5 refers to the second compartment (OR supporting tissue).

1. *'these' in sentence 2 refers to*

2. *'this' in sentence 3 refers to*

3. *'this' in sentence 7 refers to*

EXERCISE B: Rephrasing

Viết lại các câu dưới đây, thay thế các từ in không nghiêng bằng các mệnh đề từ đoạn văn có cùng nghĩa.

Rewrite the following sentences, replacing the words printed in italics with expressions from the reading passage which have the same meaning.

Fat is located round the principal internal organs.

= *Fat lies round the principal internal organs. (lies: from sentence 7)*

1. *In a healthy young man, approximately 55% of the total body weight consists of cell mass.*

2. *The energy reserve consists of fat.*

3. *The supporting tissue consists partly of the extracellular fluid in the blood and lymph.*

4. *The compartments are not separable by physical dissection.*

The compartments of the body consist of active tissue, or cell mass, supporting tissue, and the energy reserve

- (a) Supporting tissue
- (b) The energy reserve
- (c) The internal environment

Write the sentences again, this time using the verb be composed of
Ví dụ:

The compartments of the body are composed of active tissue, or cell mass supporting tissue, and the energy reserve.

3. Viết lại các câu sau đây vào quyển vở của bạn bằng cách sử dụng biểu đồ đã hoàn tất để hoàn thành chúng, sử dụng từ "form".

Write the following sentences in your notebook, using the completed diagram to finish them. Use the verb form.

Ví dụ:

Fat, which lies in adipose tissue and round the principal internal organs forms the energy reserve.

- (a) The extracellular fluid in the blood and lymph
- (b) Active tissue, supporting tissue, and the energy reserve
- (c) Bone minerals, extracellular proteins and the internal environment

Write the sentences again this time using the verb make up
Ví dụ

The fat which lies in adipose tissue and round the principal internal organs makes up the energy reserve.

4. Viết các câu sau đây vào quyển vở của bạn, bằng cách dùng biểu đồ và các động từ "consist of", "be composed", "form" và "make up"

Write the following sentences in your notebook, using the diagram and the verbs consist of, be composed of, form and make up.

Ví dụ:

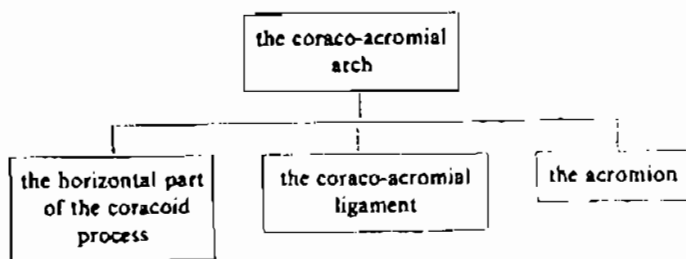
The compartments of the body are composed of active tissue, or cell mass, supporting tissue, and the energy reserve

- (a) ... consists of bone minerals, ...
- (b) The extracellular fluid in ... the internal environment
- (c) The energy reserve is
- (d) Active tissue, and the energy reserve ...
- (e) The internal environment consists of ...
- (f) Bone minerals,

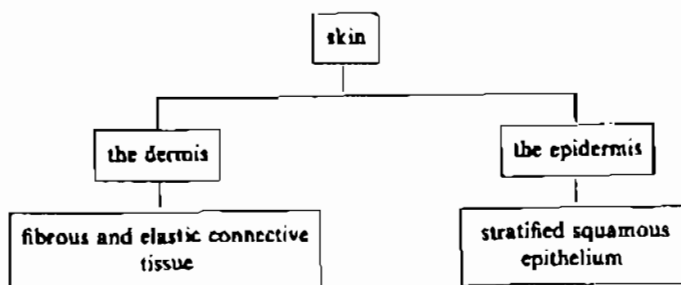
5. Sử dụng bản đồ sau đây để viết ra những mô tả ngắn gọn của

Use the following diagrams to write brief descriptions of

- (a) the structure of the coraco-acromial arch (1 sentence), and
 (b) the structure of skin (3 sentences).



(a) The structure of the coraco-acromial arch



(b) The structure of skin

EXERCISE B: Defining and non defining relative clauses

Hãy xem những câu dưới đây:

Look at the following sentences.

- (a) The large intestine extends from the ileum to the anal canal
 (b) The large intestine is about five feet long.

These two sentences can be combined as follows

- (c) The large intestine, which is about five feet long, extends from the ileum to the anal canal.

The use of commas with relative clauses

Look at the following sentences:

- (d) The inguinal canal, which is an intermuscular slit, lies above the inguinal ligament
 (e) Endocrine glands, which secrete into the blood, are found in various parts of the body
 (f) Glands which secrete into the blood are known as endocrine glands.
 (g) The amount of oxygen which is consumed by the body can be calculated using laboratory techniques.

(h) *The pleura has a squamous lining, which allows the organs inside to slide over each other.*

(i) *The pleura has a squamous lining which allows the organs inside to slide over each other.*

In sentence (d) and in sentence (e), the relative clause is separated from the rest of the sentence by commas. These relative clauses are called non-defining relative clauses. The information in a non-defining relative clause is not essential to the understanding of the rest of the sentence. The non-defining relative clause only adds extra information to the sentence.

In sentence (f) and sentence (g), the relative clause is not separated from the rest of the sentence by commas. The information in the relative clauses is essential to the correct understanding of the rest of the sentence. (Read the sentences again, omitting the relative clauses, and you will see how necessary the relative clauses are.) These are called defining relative clauses.

Sometimes a relative clause can be treated either as defining or as nondefining. This depends largely on whether the writer wishes to present the information as essential or additional. Sentence (h) might occur in any paragraph describing the contents of the thorax. Sentence (i) might occur when there is particular emphasis on the function of the pleura: i.e. it might follow a description of the mobility of the organs in the thorax.

As a general rule, when a choice can be made between defining and non-defining, the non-defining relative clause, with commas, is the more usual choice in medical writing.

Remember, however, that in sentences like sentences (d), (e), (f), and (g), no choice is possible. The relative clauses in sentences (d) and (e) must be non-defining and must have commas; the relative clauses in sentences (f) and (g) must be defining and must not have commas.

Nối mỗi cặp câu dưới đây thành một câu đơn. Chuyển câu thứ hai thành một mệnh đề quan hệ và chèn chúng vào vị trí thích hợp trong câu thứ nhất. Dùng dấu phẩy khi cần thiết (ví dụ: khi mệnh đề quan hệ là không xác định).

Combine each of the following pairs of sentences into a single sentence. Make the second sentence into a relative clause and insert it into the first sentence in the appropriate place. Use commas when necessary (i.e. when the relative clause is non-defining).

Ví dụ:

The posterior tibia artery divides into two branches in the foot. The posterior tibia artery runs through the muscle down behind the tibia.

= The posterior tibial artery, which runs through the muscle down behind the tibia, divides into two branches in the foot.

1. The pinna is composed of elastic cartilage covered with skin. The pinna is the part of the ear lying outside the head.

2. Glucose is stored in the body as glycogen. Glycogen is reconverted into glucose when it is needed for energy.

3. *The energy reserve is composed of fat. Fat lies round the principal internal organs and in adipose tissue*
4. *Valves are found in most veins. Valves direct the blood flow proximally*
5. *The bone is called the femur. The bone extends from the hip-bone to the knee*
6. *The centre of a tooth consists of pulp. The pulp is surrounded by dentine*
7. *The veins of the legs can be divided into two groups, superficial and deep. The two groups, superficial and deep, are joined at intervals by communicating veins.*
8. *The renal arteries supply the kidneys. The renal arteries arise immediately below the superior mesenteric artery.*
9. *Ducts and secretory units are surrounded by connective tissue. The connective tissue acts as a supporting framework*
10. *Osteoclasts send out processes. The processes erode bone*
11. *Synovial membrane secretes a lubricating fluid. Synovial membrane lines joints*
12. *Short bones consist of cancellous bone covered with a thin layer of compact bone. Short bones are cuboid in shape*
13. *Round the branches of the splenic artery there may be found aggregates of lymphocytes. These aggregates of lymphocytes are known as Malpighian corpuscles.*
14. *Bile is stored in the gall-bladder. Bile is excreted by the liver*
15. *The surface of the body is covered by a layer of skin. A layer of skin protects the body tissues.*
16. *The fluid makes up the internal environment. The fluid is contained in the blood and lymph*
17. *One compartment of the body is active tissue. Active tissue is also known as cell mass.*
18. *The lacrimal gland is continually secreting fluid. The fluid keeps the eye moist and free from dust particles*

EXERCISE C: Relative clauses with prepositions

Trong văn viết y khoa có nhiều mệnh đề quan hệ có giới từ trước which. Những mệnh đề như thế được thành lập theo cách dưới đây:

In medical writing there are many relative clauses with a preposition before which. Such clauses are formed in the following way

(a) Connective tissue is a matrix.

(b) More highly organized tissues are embedded in this matrix

= Connective tissue is a matrix in which more highly organized tissues are embedded.

Nối mỗi cặp câu sau đây thành một câu đơn chứa mệnh đề quan hệ bắt đầu với một giới từ + "which". Dùng dấu phẩy khi mệnh đề là mệnh đề không xác định.

Combine each of the following pairs of sentences into a single sentence containing a relative clause beginning with a preposition + which. Use commas when the clause is a non-defining one.

1. The cerebellum is the centre for reflexes. Muscles are co-ordinated and balance is maintained by these reflexes
2. The ear has a central part, the vestibule. From the vestibule three canals and the cochlea are given off.
3. The muscle is known as the mylo-hyoid. The hyoid bone is connected to the mandible by the muscle.
4. There are little branching tubes in dentine. Nutritive material is conveyed from the bloodstream through the little branching tubes in dentine.
5. The cranium is a large, bony case. The brain is protected by this large, bony case.
6. In the epidermis there are different strata. In the different strata, the cells have distinctive anatomical features.
7. Strands of Schwann cells provide surfaces. The growing axons cling to these surfaces.
8. The stomach is attached to the abdominal wall by its mesentery. Through its mesentery run blood vessels, lymphatics and nerves.
9. Some motor fibres enter the medulla oblongata. They form two pyramidal tracts in the medulla oblongata.
10. Endocrine glands have lost their connection with the alimentary cavity. They were derived from the alimentary cavity.
11. The pre-vertebral fascia provides a foundation. The pharynx and the oesophagus can slide upon this foundation.
12. The bone is pierced by many openings, or foramina. The vessels and nerves pass through the openings, or foramina.
13. There are small veins in the palms and fingers. The superficial and deep palmar arches are formed from the small veins in the palms and fingers.
14. The capsule of a lymph node is made up of fibrous tissue. There is a certain amount of plain muscle in the fibrous tissue.
15. The walls of the capillary and the alveolus fuse to make a very thin wall. The interchange of gases takes place through this very thin wall.

III. INFORMATION TRANSFER

Nghiên cứu các hình minh họa sau đây và những đoạn văn dưới chúng. Viết các đoạn văn vào quyển vở của bạn và sau đó tham khảo các hình minh họa để hoàn chỉnh chúng.

Study the following illustrations and the paragraphs beneath them. Write the paragraphs in your notebook and complete them with reference to the illustration.