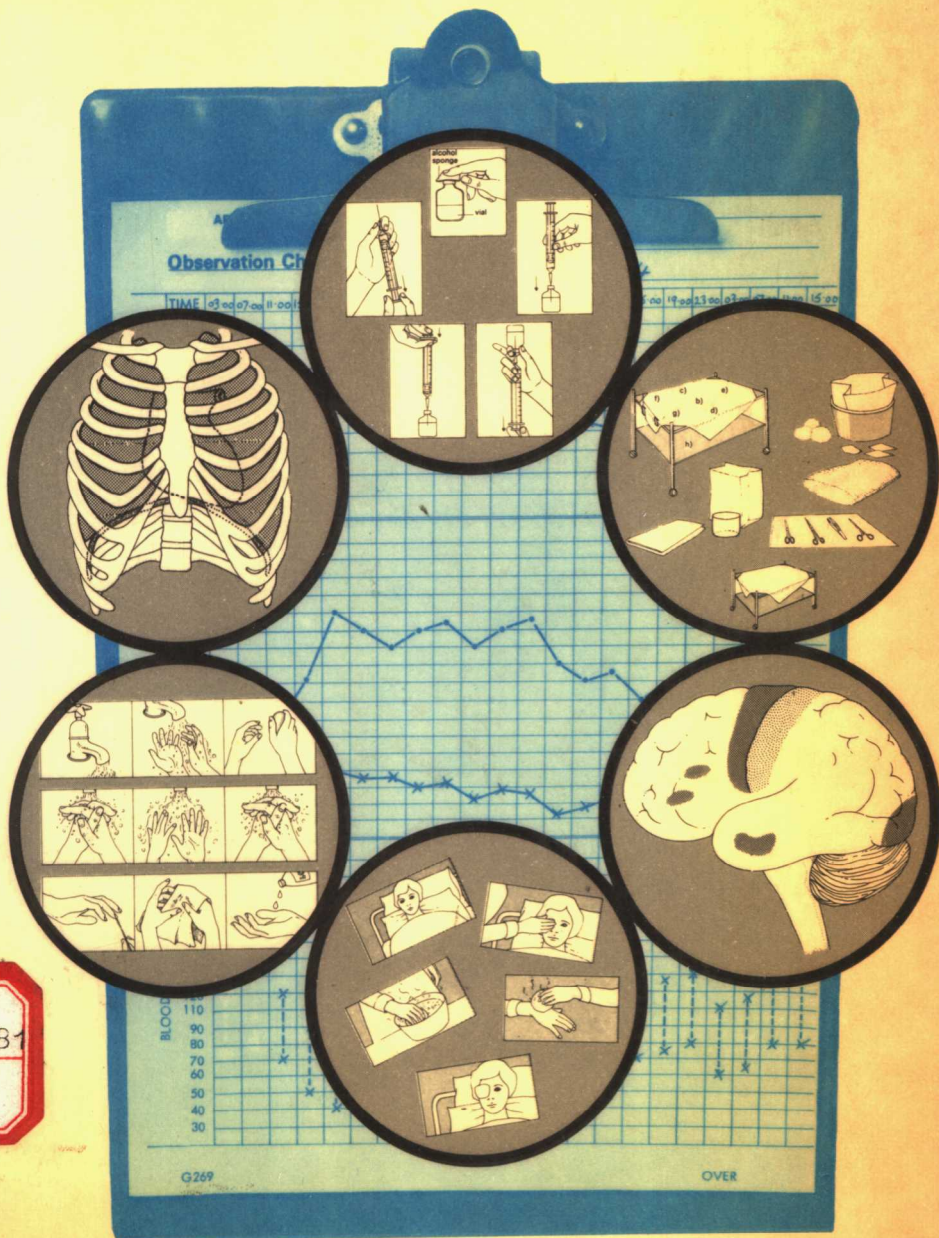


English for Science and Technology



Rosalie Kerr/Jennifer Smith



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NUCLEUS

ENGLISH FOR SCIENCE AND TECHNOLOGY

NURSING SCIENCE

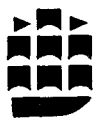
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Unit 1 Properties

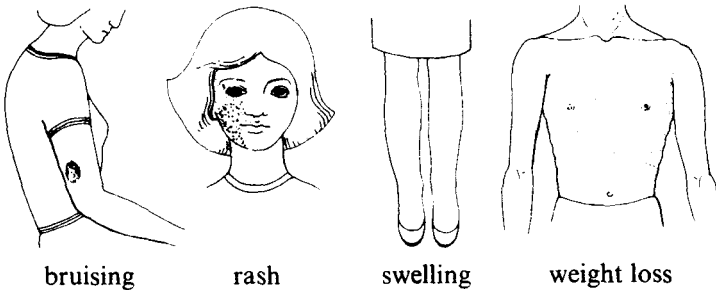
Section 1 Presentation

1. Look and read:

A *sign* of disease is something that a nurse can see or feel for herself. She can observe it.

A *symptom* of disease is something that only the patient knows about. The patient tells the nurse about it.

Here are some common signs:



Some common symptoms are:
nausea, insomnia, all kinds of pain

Now look at these common complaints: some are signs and some are symptoms. Make two lists like the examples below. You can refer to the appendix at the end of the unit.

irregular pulse, dull pain, stomachache, dizziness, haematemesis, hunger, pallor, diarrhoea, jaundice, thirst, dyspnoea, constipation, headache, cyanosis, anorexia, laceration, abrasion, inflammation, shallow pulse, weight gain, shallow respiration, backache

<i>Signs</i>	<i>Symptoms</i>
rapid pulse	sharp pain

Now discuss in class why you think that each one is a sign, or why you think it is a symptom, like these examples:

Why is nausea a symptom and not a sign?
Because the nurse *cannot observe* it. The patient *tells her about* it.

Why is bruising a sign and not a symptom?
Because the nurse *can observe* it. She *can see* it.

Section 2 Development

Some of the terms used here are technical terms used only in medicine. Look at the appendix if you need help when you are doing exercise 2.

2. Complete these sentences:

- a) The technical term for difficulty in breathing is
- b) The technical term for fluid in the tissues is
- c) Blue lips or nails are a sign of
- d) A patient whose face looks yellow has
- e) The technical term for a cut is a
- f) A pulse which is not regular is
- g) The technical term for blood in the vomit is
- h) A pulse which is difficult to feel is
- i) A patient who does not want to eat anything has
- j) If a patient has an injury which leaves a mark on the skin, but the skin is not broken, he has

3. Read this:

A nurse observes a rash on a patient. This is a sign.
So she reports: *'The patient has a rash.'*
She does not observe nausea. This is a symptom. The patient tells her about it.
So she reports: *'The patient complains of nausea.'*

Say what the nurse will report about the following patients:

- a) A patient who says 'I feel very thirsty.'
- b) A patient who says 'I feel sick.'
- c) A patient who says 'I can't sleep.'
- d) A patient whose pulse is beating very quickly.
- e) A patient who says 'I feel dizzy.'
- f) A patient who is breathing with difficulty.
- g) A patient who says 'I've got backache.'
- h) A patient whose vomit contains blood.
- i) A patient who says 'I'm constipated.'
- j) A patient who is passing frequent loose stools.

4. Look at these examples:

The patient *has* diarrhoea.
The patient *feels* sick.
The patient *is* pale.

Now write sentences like the examples using these words:

constipated, cyanosed, a sharp pain, hungry, a laceration, dizzy, oedematous (his right upper arm), an abrasion, a rapid pulse

Section 3 Reading

5. Read this passage:

Writing notes

A nurse observes her patient carefully. She observes what happens to him, and what treatment the doctors give him. She gives information about the patient's health to other members of the medical staff.

Sometimes she must write down information about the patient. When she does this, it must be easy for other nurses and doctors to read it quickly. For this reason she must use clear handwriting and write brief notes.

Some words can be shortened. She can write 'pt.' instead of patient and 'c/o' instead of 'complains of'.

Here are some examples of how to write information down briefly: Instead of 'The patient was sitting in a chair', the nurse can write 'Pt. in chair'.

If she gives a patient some water to drink, but he says 'I don't want it', she writes 'Pt. refused water'.

If a patient has been vomiting a lot, but then he drinks some water and does not vomit, she writes 'Pt. tolerated water'.

Now answer these questions:

- a) Who does a nurse write down information about a patient for?
- b) Why must the notes she writes be clear and brief?

Now write a brief note on each of the following situations:

- c) The patient says he has a headache.
- d) I held an ice-bag to his swollen elbow.
- e) He said 'Nurse, I'm not going to eat this food', when I gave him his lunch.
- f) His pulse is strong and regular.
- g) He drank some water and he didn't vomit.
- h) He says his bowels haven't opened for two days.
- i) His lips and fingernails look blue.
- j) He was walking about this morning, but at three o'clock this afternoon he went to bed.

Section 4 Listening

6. Listen to this information about a patient, and write brief notes under the following headings. The first note is shown in the example.

<i>Hour</i>	<i>Remark</i>
8.30	Pt. in chair Strong and regular pulse

Appendix to Unit 1

bruising (bruise) an injury which makes a mark on the skin (blue or black) but does not break the skin.

rash red spots on the skin. A sign of certain illnesses such as measles.

swelling a part of the body which has become enlarged by disease or injury e.g. a sprained ankle. The adjective is *swollen*. Swollen glands are a sign of mumps.

nausea feeling sick or wanting to vomit. The adjective is *nauseated*.

insomnia inability to sleep

ache an ache is a kind of pain. The term ache cannot be used for a pain in every part of the body, but only some, e.g. backache, earache, stomach-ache, toothache, headache.

irregular pulse or respiration the pulse or respiration rate varies from fast to slow.

dizziness vertigo; the feeling that everything is turning around you, and that you will lose your balance.

haematemesis blood in the vomit

pallor lack of colour in the skin. The adjective is *pale* or *pallid*.

diarrhoea frequent loose stools, passed through the bowels

jaundice the skin and eyes of a patient with jaundice look yellow.

dyspnoea difficulty in breathing.

constipation (constipated) when a patient cannot open his bowels, or only with difficulty, he has constipation or he is *constipated*.

cyanosis blue skin caused by insufficient oxygen in the blood. The adjective is *cyanosed*.

anorexia lack of appetite

laceration a cut with broken edges. The adjective is *lacerated*.

abrasion rubbed or torn skin

inflammation a red, hot, swollen, painful place on the skin. The adjective is *inflamed*.

shallow pulse or respiration a light, faint pulse

respiration breathing

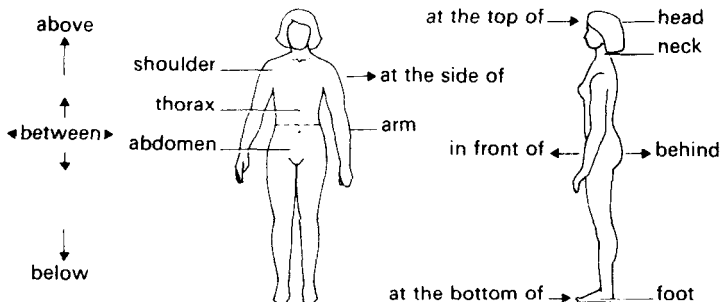
rapid quick

oedema swelling caused by excessive fluid in the tissues

Unit 2 Location

Section 1 Presentation

1. Look and read:



The head is *{located/situated}* *at the top of* the body.

The feet are located *at the bottom of* the body.

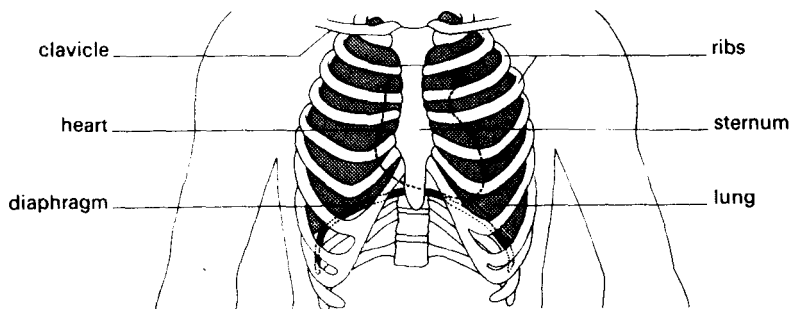
The arms are situated *at the sides of* the body.

The thorax is located *between* the neck and abdomen.

The head is *above* and *between* the shoulders.

The abdomen is situated *below* the thorax.

Now look at this diagram:

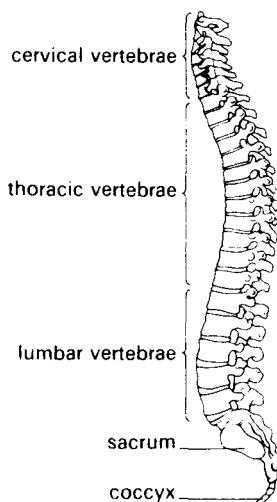


The thorax

Choose the correct word:

- The thorax is situated (between/above) the neck and abdomen.
- The sternum is located (in front of/below) the heart.
- The twelve thoracic vertebrae are found (above/behind) the vital organs of the thorax.
- The ribs are situated (between/at the sides of) the thorax.
- The clavicles are (below/above) the sternum.
- The diaphragm is located (below/at the sides of) the ribs and sternum.

2. Look at this diagram:



The vertebral column

Now complete these sentences:

The vertebral column, or backbone, is the central part of the human skeleton. It consists of twenty-four . . . , the sacrum and the coccyx. The seven . . . vertebrae are at the top of the vertebral The twelve thoracic vertebrae are . . . these, and the five . . . are . . . in the lower back. The sacrum is situated . . . the vertebrae and between the hip bones. The coccyx is . . . of the vertebral column. Between the vertebrae are the intervertebral discs of fibrocartilage.

3. Say whether these statements are true or false. Correct the false statements.

- a) The cervical vertebrae are situated above the thoracic vertebrae.
- b) The sternum is behind the heart.
- c) The coccyx is at the top of the vertebral column.
- d) The diaphragm is below the heart.
- e) The clavicles are located above and on each side of the sternum.

4. Look at this example:

Where are the thoracic vertebrae situated in relation to the vital organs of the thorax?

The thoracic vertebrae *are situated behind* the vital organs of the thorax.

Now write complete answers to these questions:

- a) Where is the sternum located in relation to the clavicles?
- b) What is situated between the lumbar vertebrae and the coccyx?
- c) Where are the lungs situated in relation to the heart?

- d) Which vertebrae are located at the top of the vertebral column?
 e) Where is the thorax situated in relation to the abdomen?

Section 2 Development

5. Look and read:

Here are some of the anatomical terms used to describe positions in the body:

the median plane an imaginary line down the middle of the body.

It cuts a diagram into a right and left half.

medial near to the median plane

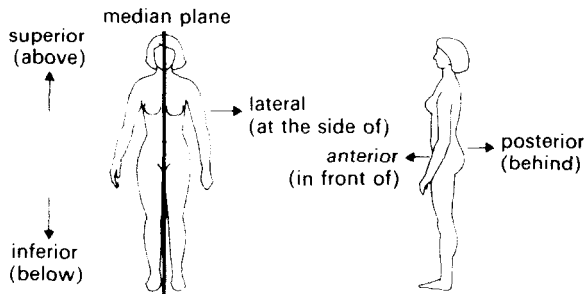
lateral farther from the median plane

anterior at or near the front of the body

posterior at or near the back of the body

superior nearer the head

inferior nearer the feet

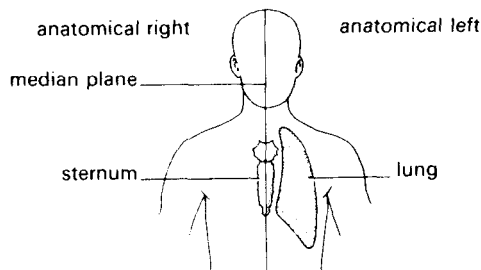


anatomical left the left side of the body in reality, but what is seen on the right-hand side of a diagram in an anatomy book

anatomical right the right side of the body in reality, but what is seen on the left-hand side of a diagram in an anatomy book

Now complete these sentences using the correct word in brackets:

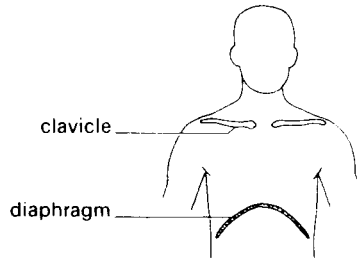
a)



The left lung is (lateral/medial) to the sternum, because it is farther from the median plane than the sternum is. The sternum is (lateral/

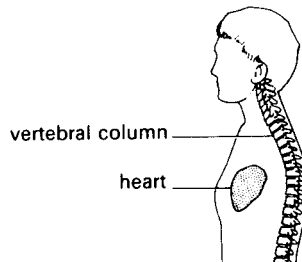
medial) to the left lung because it is nearer to the median plane than the left lung is.

b)



The clavicles are (inferior/superior) to the diaphragm.
The diaphragm is (inferior/superior) to the clavicles.

c)

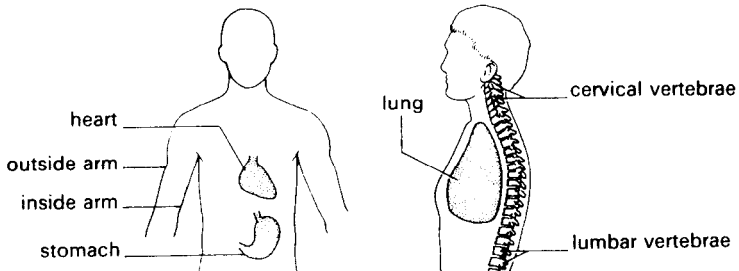


The vertebral column is (posterior/anterior) to the heart.
The heart is (anterior/posterior) to the vertebral column.

Now complete these descriptions:

- d) The left lung is medial to the left arm. Therefore the left arm is . . . to the left lung.
- e) The sternum is anterior to the vertebral column. Therefore the vertebral column is . . . to the sternum.
- f) The abdomen is inferior to the thorax. Therefore the thorax is . . . to the abdomen.

6. Look at these diagrams:



Now write the following descriptions:

- a) Describe the position of the stomach in relation to the heart.
- b) Describe the position of the vertebral column in relation to the lungs.
- c) Describe the position of the outside arm in relation to the inside arm.
- d) Describe the position of the lumbar vertebrae in relation to the cervical vertebrae.

7. Complete this passage:

The thorax is . . . to the neck and . . . to the abdomen. The sternum is . . . to the heart. The vertebral column is . . . to the heart and lungs. The clavicles are . . . and . . . to the sternum. The diaphragm is . . . to the sternum.

Section 3 Reading

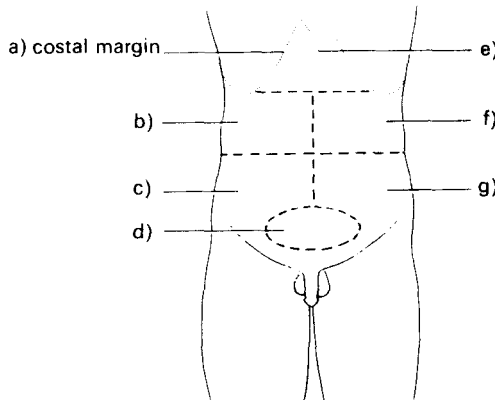
8. Read this passage:

When a nurse describes to a doctor the pain a patient is suffering from, she can describe what kind of pain it is and exactly where it is.

Pains are described as *severe* if they are bad, and *slight* if they are not very bad. A *throbbing* pain beats like a pulse, a *constant* pain is always present, while an *intermittent* pain comes and goes.

The exact location of the pain must be described. The diagram shows the different areas of the abdomen. The *epigastrium* is the area at the top of the diagram, just below the *costal margin*. At the bottom of the diagram is the *supra-pubic area*. Above this are the *left lower quadrant* and *right lower quadrant*. The *right upper quadrant* and *left upper quadrant* are between the lower quadrants and the epigastrium.

Now label the diagram.



The abdomen

9. Rewrite these descriptions using the technical terms given in the passage:

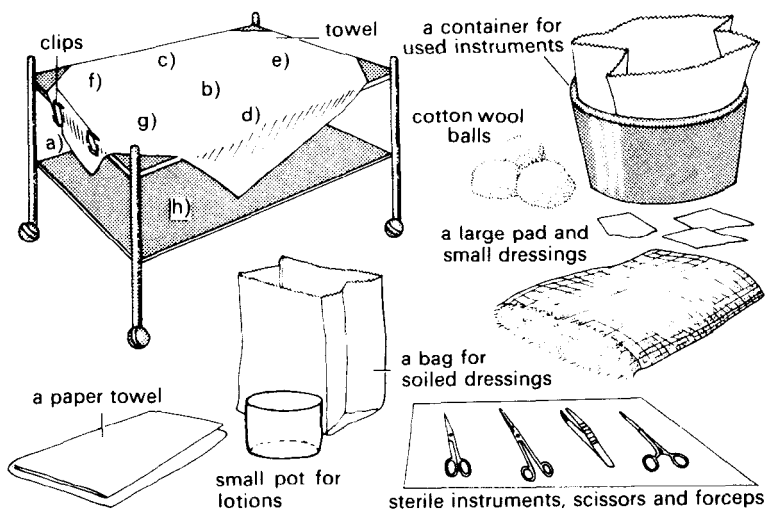
Example: A patient has a pain which comes and goes in the lower part of his abdomen on the left.

Intermittent pain – left lower quadrant

- a) A patient has a bad pain just below the ribs.
- b) He always feels pain in the upper part of his stomach on the right.
- c) He feels a little pain just above the pubic area.
- d) He has a beating pain low in his abdomen on the left side.

Section 4 Listening

10. Look at these diagrams of a trolley and the pieces of equipment which are mentioned in the passage. The letters on the trolley show the positions of the pieces of equipment. When you listen to the passage match the letters with the pictures.



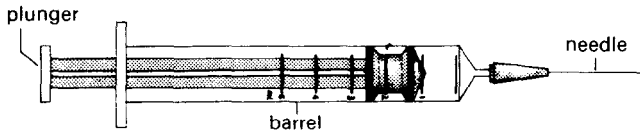
11. Choose the correct answer:

- a) The sterile instruments are on the . . . shelf.
(i) upper (ii) lower
- b) The forceps and scissors are . . . of the pad.
(i) on the left (ii) on the right
- c) There is a large pad . . . of the upper shelf.
(i) at the front (ii) in the middle
- d) Behind the large pad there are
(i) some cotton wool balls
(ii) some small dressings
(iii) some paper towels

Unit 3 Structure

Section 1 Presentation

1. Look and read:



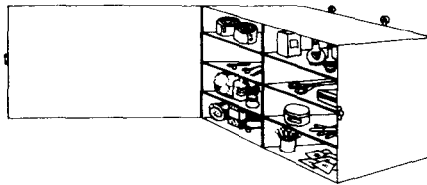
A syringe

A syringe *consists of* a plunger, a barrel and a needle. These are the parts of a syringe.

It *contains* a drug solution. This is what is inside the syringe.

The needle *is fitted into* the barrel.

A syringe *is used for* giving injections.

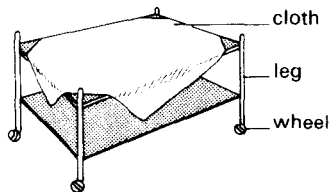


A medicine chest

This medicine chest *is divided into* compartments.

The compartments *contain* medicine.

The chest *is attached to* the wall.



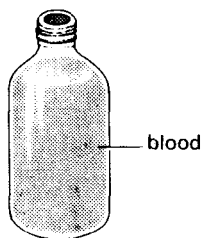
A trolley

A trolley *is supported by* four legs.

It *is covered by* a cloth.

Wheels *are fitted to* the legs.

A trolley *is used for* moving medical equipment from place to place.



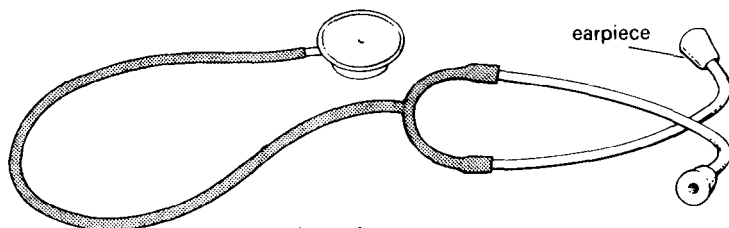
A blood transfusion bottle

The bottle *is made of* glass.

It *contains* blood.

Blood *is coloured* red.

Blood *is composed of* red and white cells and blood platelets which float in a fluid which *is called* plasma. These are the materials from which blood is formed.



A stethoscope

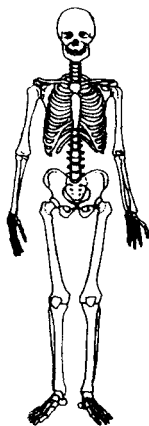
The ends of a stethoscope *are connected by* a tube.

The tube *leads from* the earpieces *to* the patient's chest.

It *is used for* listening to sounds in the patient's chest.

Now look at this diagram and complete the description which follows with the following words:

divided into attached to supported by
connected by consists of covered by



The human skeleton