

ENGLISH LANGUAGE I

COMBINING FORMS

Combining Form	Meaning	Terminology	Meaning
aden/o	gland	adenoma <u>tumor of a gland</u> The suffix <i>-oma</i> means tumor or mass.	adenitis _____ The suffix <i>-itis</i> means inflammation.
arthr/o	joint	arthritis _____	
bi/o	life	biology _____ The suffix <i>-logy</i> is composed of the root <i>log</i> (study) and the final suffix <i>-y</i> (process or condition).	biopsy _____ The suffix <i>-opsy</i> means process of viewing. Living tissue is removed from the body and viewed under a microscope.
carcin/o	cancerous, cancer	carcinoma _____ A carcinoma is a cancerous tumor. Carcinomas grow from epithelial (surface or skin) cells that cover the outside of the body and line organs, cavities, and tubes within the body.	
cardi/o	heart	cardiology _____	
cephal/o	head	cephalic _____ (sĕ-FAL-ĭk) The suffix <i>-ic</i> means pertaining to. If an infant is born with the head delivered first, it is a cephalic presentation.	
cerebr/o	cerebrum (largest part of the brain)	cerebral _____ The suffix <i>-al</i> means pertaining to. A cerebrovascular accident (CVA) occurs when damage to blood vessels (<i>vascul/o</i> means blood vessels) in the cerebrum causes injury to nerve cells of the brain. This condition also is called a stroke.	
cis/o	to cut	incision _____ The prefix <i>in-</i> means into, and the suffix <i>-ion</i> means process.	excision _____ The prefix <i>ex-</i> means out.
crin/o	to secrete (to form and give off)	endocrine glands _____ The prefix <i>endo-</i> means within; endocrine glands (e.g., thyroid, pituitary, and adrenal glands) secrete hormones directly within (into) the bloodstream. Other glands, called exocrine glands, secrete chemicals (e.g., saliva, sweat, tears) through tubes (ducts) to the outside of the body.	
cyst/o	urinary bladder; a sac or a cyst (sac containing fluid)	cystoscopy _____ (sĭs-TŌS-kō-pĕ) The suffix <i>-scopy</i> means process (<i>y</i>) of visual examination (<i>scop</i>).	
cyt/o	cell	cytology _____	
derm/o dermat/o	skin	dermatitis _____ hypodermic _____ The prefix <i>hypo-</i> means under, below.	

electr/o	electricity	<u>electrocardiogram</u> <i>The suffix -gram means record. Abbreviated ECG (or sometimes EKG).</i>
encephal/o	brain	<u>electroencephalogram</u> <i>Abbreviated EEG.</i>
enter/o	intestines (usually the small intestine)	<u>enteritis</u> <i>The small intestine is narrower but much longer than the large intestine (colon)</i>
erythr/o	red	<u>erythrocyte</u> <i>The suffix -cyte means cell. Erythrocytes carry oxygen in the blood.</i>
gastr/o	stomach	<u>gastrectomy</u> <i>The suffix -ectomy means excision or removal. All or, more commonly, part of the stomach is removed.</i>
		<u>gastrotony</u> <i>The suffix -tomy means incision or process (y) of cutting (tom).</i>
gnos/o	knowledge	<u>diagnosis</u> <i>The prefix dia- means complete. The suffix -sis means state or condition of. A diagnosis is made after sufficient information has been obtained about the patient's condition. Literally, it is a "state of complete knowledge."</i>
		<u>prognosis</u> <i>The prefix pro- means before. Literally "knowledge before," a prognosis is a prediction about the outcome of an illness, but it is always given after the diagnosis has been determined.</i>
gynec/o	woman, female	<u>gynecology</u>
hemat/o	blood	<u>hematology</u>
hem/o		<u>hematoma</u> <i>In this term, -oma means a mass or collection of blood, rather than a growth of cells (tumor). A hematoma forms when blood escapes from blood vessels and collects as a clot in a cavity, organ, or under the skin.</i>
		<u>hemoglobin</u> <i>The suffix -globin means protein. Hemoglobin carries oxygen in red blood cells.</i>
hepat/o	liver	<u>hepatitis</u>
iatr/o	treatment, physician	<u>iatrogenic</u> <i>The suffix -genic means pertaining to producing, produced by, or produced in. Iatrogenic conditions are adverse side effects that result from treatment or intervention by a physician.</i>
leuk/o	white	<u>leukocyte</u> <i>This blood cell helps the body fight disease.</i>
nephr/o	kidney	<u>nephritis</u>
		<u>nephrology</u>
neur/o	nerve	<u>neurology</u>

onc/o	tumor	<u>oncology</u> <u>oncologist</u> <i>The suffix -ist means one who specializes in a field of medicine (or other profession).</i>
ophthalm/o	eye	<u>ophthalmoscope</u> <i>(ōf-THĀL-mō-skōp) The suffix -scope means an instrument for visual examination. (To help with spelling, notice that just as there are two eyes, there are two "h"s in this term.)</i>
oste/o	bone	<u>osteitis</u> <u>osteoarthritis</u> <i>This condition is actually a degeneration of bones and joints that occurs with aging. It often is accompanied by inflammation.</i>
path/o	disease	<u>pathology</u> <u>pathologist</u> <i>A pathologist examines biopsy samples microscopically and examines a dead body to determine the cause of death.</i>
ped/o	child	<u>pediatric</u> <i>Notice that ped/o is also in the term orthopedist. Orthopedists once were doctors who straightened (orth/o means straight) children's bones and corrected deformities. Nowadays, orthopedists specialize in disorders of bones and muscles in people of all ages.</i>
psych/o	mind	<u>psychology</u> <u>psychiatrist</u>
radi/o	x-rays	<u>radiology</u> <i>Low-energy x-rays are used for diagnostic imaging.</i>
ren/o	kidney	<u>renal</u> <i>Ren/o (Latin) and nephro (Greek) both mean kidney. Ren/o is used with -al (Latin) to describe the kidney, whereas nephro is used with other suffixes such as -osis, -itis, and -ectomy (Greek) to describe abnormal conditions and operative procedures.</i>
rhin/o	nose	<u>rhinitis</u>
sarc/o	flesh	<u>sarcoma</u> <i>This is a cancerous (malignant) tumor. A sarcoma grows from cells of "fleshy" connective tissue such as muscle, bone, and fat, whereas a carcinoma (another type of cancerous tumor) grows from epithelial cells that line the outside of the body or the inside of organs in the body.</i>
sect/o	to cut	<u>resection</u> <i>The prefix re- means back. A resection is a cutting back in the sense of cutting out or removal (excision). A gastric resection is a gastrectomy, or excision of the stomach.</i>
thromb/o	clot, clotting	<u>thrombocyte</u> <i>Also known as platelets, these cells help clot blood. A thrombus is the actual clot that forms, and thrombosis (-osis means condition) is the condition of clot formation.</i>
ur/o	urinary tract, urine	<u>urology</u> <i>A urologist is a surgeon who operates on the organs of the urinary tract and the organs of the male reproductive system.</i>

SUFFIXES

Suffix	Meaning	Terminology	Meaning
-ac	pertaining to	cardiac _____	
-al	pertaining to	neural _____	
-algia	pain	arthralgia _____ neuralgia _____	
-cyte	cell	erythrocyte _____	
-ectomy	excision, removal	nephrectomy _____	
-emia	blood condition	leukemia _____ <i>Literally, this term means "a blood condition of white (blood cells)." Actually, it is a condition of blood in which cancerous white blood cells proliferate (increase in number).</i>	
-genic	pertaining to producing, produced by, or produced in	carcinogenic _____ <i>Cigarette smoke is carcinogenic.</i> pathogenic _____ <i>A virus or a bacterium is a pathogenic organism.</i> iatrogenic _____ <i>In this term, -genic means produced by.</i>	
-globin	protein	hemoglobin _____	
-gram	record	electroencephalogram _____	
-ic, -ical	pertaining to	gastric _____ neurologic _____ <i>Log/o means study of.</i>	
-ion	process	excision _____	
-ist	specialist	gynecologist _____	
-itis	inflammation	cystitis _____	
-logy	process of study	endocrinology _____	
-oma	tumor, mass, swelling	hepatoma _____ <i>A hepatoma (hepatocellular carcinoma) is a malignant tumor of the liver.</i>	
-opsy	process of viewing	biopsy _____ <i>Biopsy specimens are viewed under a microscope.</i>	
-osis	condition, usually abnormal (slight increase in numbers when used with blood cells)	nephrosis _____ leukocytosis _____ <i>This condition, a slight increase in normal white blood cells, occurs as white blood cells multiply to fight an infection. Don't confuse leukocytosis with leukemia, which is a cancerous (malignant) condition marked by high levels of abnormal, immature white blood cells.</i>	

-pathy	disease condition	enteropathy _____ (ĕn-tĕ-RŌP-ă-thĕ)
		adenopathy _____ (ă-dĕ-NŌP-ă-thĕ)
-scope	instrument to visually examine	endoscope _____ <i>End- means within. A cystoscope is an endoscope.</i>
-scopy	process of visually examining with an endoscope	endoscopy _____ (ĕn-DŌS-kŏ-pĕ)
-sis	state of; condition	prognosis _____
-tomy	process of cutting, incision	osteotomy _____ (ŏs-tĕ-ŌT-tŏ-mĕ)
-y	process, condition	gastroenterology _____

PREFIXES

Prefix	Meaning	Terminology	Meaning
a-, an-	no, not, without	<u>anemia</u> _____ <i>Anemia is a decreased number of erythrocytes or an abnormality of the hemoglobin (a chemical) within the red blood cells. This results in decreased delivery of oxygen to cells of the body. Anemic patients look so pale that early physicians thought they were literally "without blood."</i>	
aut-, auto-	self, own	<u>autopsy</u> _____ <i>This term literally means "process of viewing by oneself." Hence, an autopsy is the examination of a dead body with one's own eyes to determine the cause of death and nature of disease.</i>	
dia-	through, complete	<u>diagnosis</u> _____	
end-, endo-	within	<u>endoscopy</u> _____ <u>endocrinologist</u> _____	
epi-	above, upon	<u>epigastric</u> _____ <u>epidermis</u> _____ <i>This outermost layer of skin lies above the middle layer of skin, known as the dermis.</i>	
ex-	out	<u>excision</u> _____	
exo-	outside of, outward	<u>exocrine glands</u> _____	
hyper-	excessive, above, more than normal	<u>hyperglycemia</u> <input checked="" type="checkbox"/> _____ <i>The combining form glyco means sugar.</i> <u>hyperthyroidism</u> <input checked="" type="checkbox"/> _____ <i>The suffix -ism means process or condition.</i>	
hypo-	deficient, below, under, less than normal	<u>hypogastric</u> _____ <i>When hypo- is used with a part of the body, it means below.</i> <u>hypoglycemia</u> _____ <i>In this term, hypo- means deficient.</i>	

in-	into, in	<u>incision</u> _____
peri-	surrounding, around	<u>pericardium</u> _____ <i>The suffix -um means a structure. The pericardium is the membrane that surrounds the heart.</i>
pro-	before, forward	<u>prostate gland</u> _____ <i>This exocrine gland "stands" (-state) before or in front of the urinary bladder (see Figure 1-1). It produces semen, which contains fluid and sperm cells.</i>
re-	back, backward, again	<u>resection</u> _____ <i>This is an operation in which tissue is "cut back" or removed. The Latin "resectio" means a trimming or pruning.</i>
retro-	behind	<u>retrocardiac</u> _____
sub-	below, under	<u>subhepatic</u> _____
trans-	across, through	<u>transhepatic</u> _____



EXERCISES

1. Underline the suffix in each term and then give the meaning of the term.

1. ophthalmoscopy _____
2. ophthalmoscope _____
3. oncology _____
4. osteitis _____
5. psychosis _____
6. thrombocyte _____
7. renal _____
8. nephrectomy _____
9. osteotomy _____
10. resection _____
11. carcinogenic _____
12. sarcoma _____

2. Match the English term in Column I with its combining form in Column II. Write the correct combining form in the space provided.

Column I
English Term

Column II
Combining Form

1. kidney _____
2. disease _____
3. eye _____
4. to cut _____
5. nose _____
6. flesh _____
7. mind _____
8. urinary tract _____
9. bone _____
10. x-rays _____
11. clotting _____
12. tumor _____

- onc/o
- ophthalm/o
- oste/o
- path/o
- psych/o
- radi/o
- ren/o
- rhin/o
- sarc/o
- sect/o
- thromb/o
- ur/o

3. Match the suffix in Column I with its meaning in Column II. Write the correct meaning in the space provided.

Column I
Suffix

Column II
Meaning

1. -algia _____
2. -ion _____
3. -emia _____
4. -gram _____
5. -scope _____
6. -osis _____
7. -ectomy _____
8. -genic _____
9. -pathy _____
10. -tomy _____
11. -itis _____
12. -cyte _____

- abnormal condition
- blood condition
- cell
- disease condition
- incision, process of cutting into
- inflammation
- instrument to visually examine
- pain
- pertaining to producing, produced by, or produced in process
- record
- removal, excision, resection

4. Select from the listed terms to complete the following sentences.

anemia
biopsy
diagnosis
leukemia
nephrologist
neuropathy

oncogenic
oncologist
osteoarthritis
pathogenic
prognosis

psychiatrist
psychologist
thrombocyte
thrombosis
urologist

1. Seventy-two-year-old Ms. Crick suffers from a degenerative joint disease that is caused by the wearing away of tissue around her joints. This disease, which literally means "inflammation of bones and joints," is _____.
2. The _____ sample was removed during surgery and sent to a pathologist to be examined under a microscope for a proper diagnosis.
3. A (an) _____ performed surgery to remove Mr. Simon's cancerous kidney.
4. Ms. Rose has suffered from diabetes with hyperglycemia for many years. This condition can lead to long-term complications, such as the disease of nerves called diabetic _____.
5. A virus or a bacterium produces disease and is therefore a (an) _____ organism.
6. Jordan has a disease caused by abnormal hemoglobin in his erythrocytes. The erythrocytes change shape, collapsing to form sickle-shaped cells that can become clots and stop the flow of blood. His condition is called sickle cell _____.
7. Dr. Max Shelby is a physician who treats carcinomas and sarcomas. He is a (an) _____.
8. Bill had difficulty stopping the bleeding from a cut on his face while shaving. He knew his medication caused him to have decreased platelets, or a low _____ count, and that probably was the reason his blood was not clotting very well.
9. Dr. Susan Parker told Paul that his condition would improve with treatment in a few weeks. She said his _____ is excellent and he can expect total recovery.
10. After fleeing the World Trade Center on September 11, 2001, Mrs. Jones had many problems with her job, her husband, and her family relationships. She went to see a _____, who prescribed drugs to treat her depression.

Medical ethics

A

GMC guidelines

care = protecting and looking after someone

professional competence = level of specialized knowledge and skills

confidential = private, secret

prejudice = have a negative influence on

risk = possibility of something bad happening

fit to practise = in a suitable condition to work

The duties of a doctor registered with the General Medical Council include:

- 1 Make the **care** of your patient your first concern.
- 2 Treat every patient politely and considerately.
- 3 Give patients information in a way they can understand.
- 4 Keep your professional knowledge and skills up to date.
- 5 Recognize the limits of your **professional competence**.
- 6 Be honest and trustworthy.
- 7 Respect and protect **confidential** information.
- 8 Make sure that your personal beliefs do not **prejudice** your patients' care.
- 9 Act quickly to protect patients from **risk** if you have good reason to believe that you or your colleague may not be **fit to practise**.

Note: For a full list of the guidelines, see www.gmc-uk.org

B

Bioethical issues

Euthanasia

Should the medical profession help the terminally ill to end their lives when they choose?

Genetic engineering

Should we permit an embryo to be cloned – copied exactly – to replace a child who has died? Should parents be able to select the genetic makeup of their children to produce so-called designer babies?

Human fertility

IVF – in vitro fertilization – has made it possible for infertile women to have children, but should this include women long past the normal age of childbearing?

Embryos can be frozen and implanted in the mother at a later date but should this require the consent or permission of both parents if the marriage has broken down?

What are the rights of a surrogate mother, one who carries a child for a woman who is unable to do so, over that child?

Transplant surgery

Who should give consent for the removal of body parts for transplant surgery?

C

Assisted dying

A medical student has made some language notes on a journal article.

A 53-year old woman with **incurable** muscular dystrophy flew to Switzerland to end her life. **Assisted dying** is legal in Switzerland but illegal in the UK. Opponents of euthanasia, or 'mercy killing', argue that legalization would lead to abuse and call for doctors who participate to be **struck off**. What Britain needs, they claim, is better **palliative care** and more **hospices** for the **terminally ill** to allow such patients to die with dignity.

This follows a recent US case where the husband of a woman who had been in a **persistent vegetative state** for 16 years was successful in having artificial feeding withdrawn in spite of opposition from his wife's parents.

struck off = removed from the GMC register and banned from practising medicine in the UK

palliative care = treatment to relieve, rather than cure symptoms

hospice = facility providing care for terminally ill patients

terminally ill = not expected to live

persistent vegetative state = unable to speak or follow simple commands; does not respond in any psychologically meaningful way

- 45.1 Which of the GMC guidelines in A opposite is breached in each of these cases?
- a A GP falls asleep regularly during consultations. His colleagues do nothing.
 - b A doctor is aware that a patient has a history of violence against women. She informs a friend whose daughter has just become engaged to this man.
 - c A doctor attempts to dissuade a patient from having an abortion as this procedure is against his religious beliefs.
 - d A doctor refers a patient to a medical textbook for an explanation of his pancreatic cancer.
 - e A doctor fails to complete the number of days of professional development training advised annually.
 - f A doctor tells a seriously overweight patient who has ignored his advice to diet that she deserves any ill effects that might result from her obesity.

45.2 Match each headline to an opening line from a newspaper report. Look at B and C opposite to help you.

- | | | | |
|---|--|---|--|
| 1 | 66-year-old becomes oldest mother | 5 | Using body parts without consent |
| 2 | Frozen embryo case to go to Europe | 6 | UK full face transplant search on |
| 3 | Surrogate mother sued by couple | 7 | 'Designer baby' rules are relaxed |
| 4 | Embryo cloning - where will it take us? | 8 | Doctors back infant mercy killing |

- a A woman of 30 who agreed to bear a child for a childless couple then refused to part with the child has been ...
- b A surgeon has been accused of removing organs from patients without their knowledge ...
- c Three-quarters of Belgian doctors are willing to assist in the death of critically ill babies to end their suffering.
- d A woman hoping to stop the destruction of six embryos created with her eggs and her ex-partner's sperm launched a case at the European Court of Human Rights ...
- e A woman has given birth in Romania following IVF treatment.
- f Consultant plastic surgeon Dr Peter Butler has been given the go-ahead by a hospital ethics committee to find a patient who meets selection criteria for a full face transplant.
- g If your favourite pet dies, it is technically possible to produce exact replicas – but what about humans?
- h It is now legal to select embryos to provide blood cell transplants for sick siblings.

Over to you



What are your views on assisted dying?

1

Patient admissions

- talk about hospital jobs and personnel
- talk about hospital departments and facilities
- handle admissions
- check in a patient



Hospital jobs and personnel

- Vocabulary** 1 Look at the picture and match the job titles a-i with the hospital personnel 1-9.
- | | | |
|---|--|--|
| a) <input type="checkbox"/> charge nurse / sister | d) <input type="checkbox"/> paramedic | g) <input type="checkbox"/> surgeon |
| b) <input type="checkbox"/> cleaner | e) <input type="checkbox"/> porter | h) <input type="checkbox"/> triage nurse |
| c) <input type="checkbox"/> consultant | f) <input type="checkbox"/> receptionist | i) <input type="checkbox"/> scrub nurse |

- 2 Read and choose the best description 1-9 for each job in 1.
- 1 I'm responsible for keeping the patient rooms clean.
 - 2* I give emergency treatment to accident victims and then transport them to hospital by ambulance.
 - 3 I deal with patient details and check their hospital records.
 - 4 I am a senior doctor and I specialise in a certain area of medicine.
 - 5 I'm responsible for making sure the most urgent cases are treated by the doctor as quickly as possible.
 - 6 I look after patients during surgery and after their operations.
 - 7 I assist the medical staff by transporting patients from one department to another.
 - 8 I am responsible for running a ward. I deal with budgets and with employing staff.
 - 9 I carry out operations on patients. I usually specialise in a particular type of surgery.

Language

Present simple v present continuous

We use the present simple to talk about routines and things that are permanent or happen all the time.	<i>She works on the children's ward.</i> <i>Auxiliaries don't administer medication.</i>
We use the present continuous to talk about things that take place at the time of speaking and are not permanent.	<i>I'm studying for my nursing diploma.</i> <i>We aren't running the clinic at the moment.</i>


Reading 3 Read the interview with a practice nurse and underline the correct verb forms.

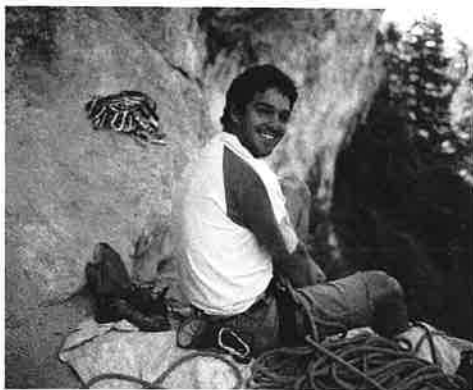


Reena Chaudry: *practice nurse*

AGE: 33 years old HOME: Hyderabad, India

'I ¹*work / 'm working* as a practice nurse in a big doctor's surgery. This is my first job since graduation. I ²*like / 'm liking* the fact that every day is different. Practice nurses ³*carry out / are carrying out* a lot of routine procedures; they ⁴*change / are changing* dressings and ⁵*treat / are treating* wounds, etc. I ⁶*am / am being* also responsible for giving health checks and advising patients; I ⁷*give / 'm giving* them advice on healthy eating, for example and on health conditions such as asthma or diabetes. At the moment, with a colleague, we ⁸*run / are running* a clinic for patients with diabetes. It's very interesting, and I ⁹*learn / 'm learning* a lot about how to deal with this condition. Like most nurses, I ¹⁰*don't have / 'm not having* a lot of free time, but I ¹¹*like going / 'm liking going* to the cinema when I can. I also ¹²*play / 'm playing* the sitar in a classical music group.'

Listening 4  02 You're going to hear an interview with Carlos da Silva. Listen and answer this question.



Carlos da Silva: *agency nurse*

AGE: 35 years old HOME: Auckland, New Zealand

What area of nursing does he specialise in?

- a) renal care
- b) paediatrics
- c) emergency medicine

5 Listen again. Copy and complete the sentences about Carlos.

- | | |
|--------------------------------------|---|
| 1 He specialises in ... | 5 This week, he's ... |
| 2 At the moment, he's working in ... | 6 In his job, he likes / doesn't like ... |
| 3 He's looking after ... | 7 In the future, he hopes to ... |
| 4 Every day, he ... | 8 In his free time ... |

Speaking 6 Work in pairs. Take turns to choose one of the sentences in 5 and ask your partner questions. Then introduce your partner to the class.

Hospital departments and facilities

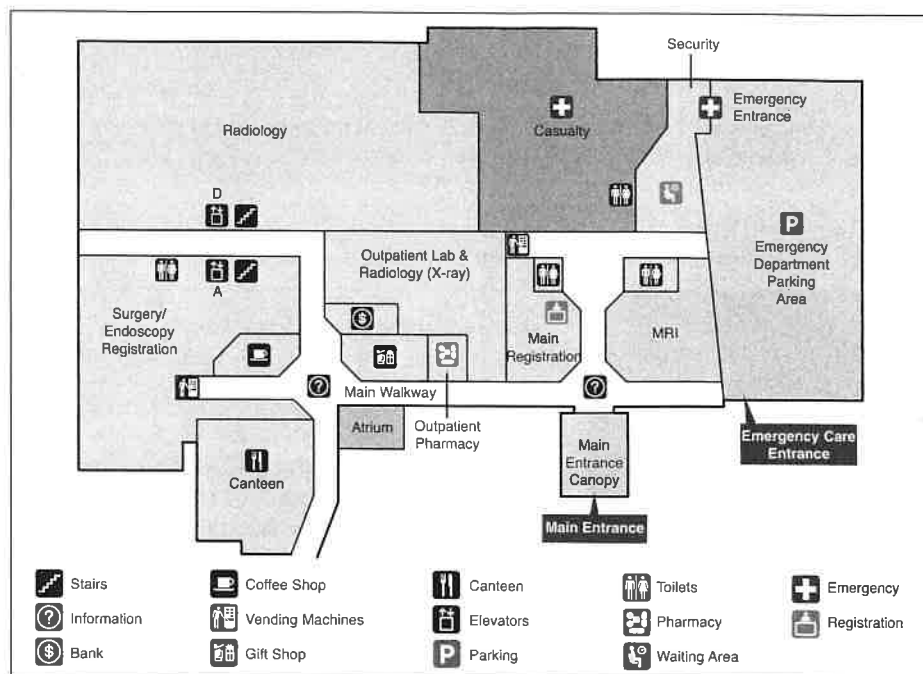
4th – 8th Floors:
Patient Rooms
 4th fl Rooms: 1–50
 5th fl Rooms: 51–100
 6th fl Rooms: 101–150
 7th fl Rooms: 151–200
 8th fl Rooms: 201–250

3rd Floor: Cardiology
 Orthopaedics
 Pathology

2nd Floor: Dermatology
 Neurology
 Geriatrics

1st Floor: Paediatrics
 Maternity Unit
 Renal Unit

Ground Floor:
 Surgery
 Casualty
 Radiology



Vocabulary 1 Use the words in the box to complete the definitions of these hospital departments.

babies children elderly emergency cases exercises heart kidney nervous system operations skin disorders test results X-rays

- Casualty** is the place where they treat _____.
- Surgery** is where surgeons carry out _____.
- Medical staff in the **Renal** Unit specialise in _____ diseases.
- The **Dermatology** Department is where they deal with _____.
- Specialists in **Geriatrics** treat problems related to the _____.
- Pathology** is where they analyse patient _____.
- Midwives deliver _____ in the **Maternity** Unit.
- Paediatrics** is where they treat _____.
- Patients with _____ disease visit **Cardiology**.
- The **Radiology** Department is where they take _____.
- Disorders of the _____ are treated in the **Neurology** Department.
- In the **Physiotherapy** Department, patients learn special _____ to help them recover.

Pronunciation 2 03 Put the words in bold from 1 into the correct box according to their stress pattern. Then listen and check your answers. Listen again and repeat.

•••	••••	•••••	••••••	•••••••	••••••••
	Surgery			Dermatology	

Speaking 3 Work in pairs. Take turns to ask and answer questions about the location of other places in the hospital. Use questions like these.

Excuse me; I'm looking for the ...

Sorry, where is / are the ...?

Do you know where the ... is / are?

- Vocabulary 4** A Senior Staff Nurse is explaining the layout of the hospital. Choose the correct prepositions in italics to complete the explanations 1–6.
- The Dermatology Department is *between / at* the Neurology Department *at / and / in* Geriatrics.
 - Room 246 is *at / in / on* the eighth floor, just on *in front of / the left of* the lift.
 - You can find the Renal Unit *at / in / on* the first floor, *opposite / at* Paediatrics.
 - Your wife is *at / in / on* the Maternity Unit *at / in / on* the end of the corridor.
 - The Geriatrics Department is *next to / between* the Dermatology Department *at / in / on* the second floor.
 - I think that Mrs Nguyen is sitting over there, *between / in front of* the vending machine.

- 5** Match the symbols a–i with the facilities 1–9.



- | | | |
|---------------------|----------------|-------------|
| 1 canteen | 4 pharmacy | 7 cashpoint |
| 2 registration desk | 5 waiting area | 8 toilets |
| 3 vending machine | 6 coffee shop | 9 gift shop |

- Listening 6** 04 You are going to hear people giving directions to different hospital facilities. Listen and complete the instructions.

- Visitor: Excuse me; I'm looking for the canteen. Can you help me?

Nurse: Yes of course. Go _____ and it's in _____ you, _____ the _____ of the corridor.
- Visitor: Excuse me, do you know where the Maternity Unit is?

Nurse: It's on the _____ floor. Turn _____ here, go straight on, and when you get to the information desk, _____ right. At the end _____ the corridor, _____ again and take elevator A. The Maternity Unit is the first door on the left.
- Visitor: Hello. Do you know if there's a shop in the building? We want to buy some magazines.

Nurse: Sure. Just _____ here and _____ down the corridor, there's a gift shop _____ the pharmacy. You can buy magazines there, I think.

- 7** 05 Look at the hospital plan on page 6. Listen to the directions from this nurse and follow the plan with your finger. Then circle the correct answer.

- The visitor is looking for the *coffee shop / main entrance / canteen*.
- The visitor is on the *1st / 3rd / 4th* floor.

- 8** Look at audio script 5 on page 70 and check your answers.

Admissions

- Reading 1** Read the extract from a patient information leaflet from the Central Hospital in Phoenix, Arizona in the USA. What is the average waiting time ...
- 1 for a patient in ER in Central Hospital?
 - 2 for a patient in ER in the State of Arizona?

Central Hospital

What to Expect

Highly skilled and experienced emergency medical staff are on hand 24 hours a day, seven days a week to provide essential emergency care at the Central Hospital Emergency Room (ER).

The Triage Process

At the ER, we treat patients whose lives are in danger first. A special nurse 'sorts' the other patients and puts them in order according to how bad their symptoms are. This is called triage.

When you arrive, this is usually what happens:

You check in at the ¹ _____.

You give your name, address and ² _____, etc.

You wait in a ³ _____.

A ⁴ _____ carries out some basic tests (pulse, heart rate, etc.)

He / She asks you some questions and makes an initial ⁵ _____ of your condition.

He / She decides the ⁶ _____ of care of all the patients in his / her charge.

The doctor visits you in the ⁷ _____ as soon as he / she is available.

The Order of Care

We treat patients in order of priority:

Emergency (life-threatening) conditions, e.g. ⁸ _____.

Urgent problems, e.g. ⁹ _____.

Non-urgent problems, e.g. ¹⁰ _____.

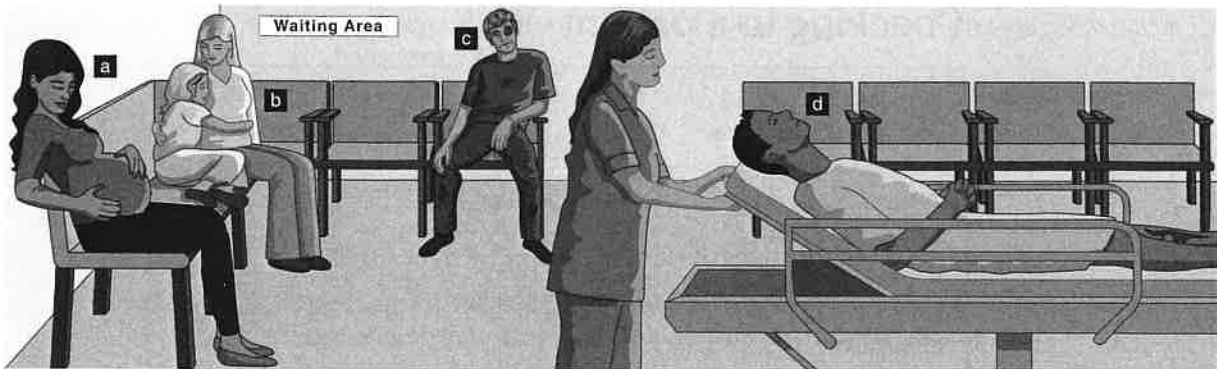
Waiting Times in ER

If your condition is not serious, you may have to wait before seeing a doctor in ER. However, our policy is to give quality care as soon as possible to all our patients. That is why at Central Hospital patients typically spend two hours less waiting in ER than the state average of 4.5 hours.

- 2** Read the leaflet again. Complete the gaps 1–7 in the 'When you arrive' section with the words in the box.

assessment cubicle (x2) date of birth priority reception desk triage nurse

- 3** Look at these medical problems a–c. Which are the most serious? Match them to gaps 8–10 in the 'Order of care' section. Compare your answers with a partner.
- a) problems with breathing, a broken bone
 - b) earache, sore throat
 - c) heart attack, stopped breathing.



Listening 4 06 Listen to a triage nurse talking to four new patients. Decide which patient a–d above is speaking.

Patient 1 _____ Patient 3 _____
 Patient 2 _____ Patient 4 _____

5 Listen again and complete the sentences with the words in the box.

baby bleeding eye hurts leg worried

- 1 He has problems with his left _____.
- 2 Her head is _____ a lot.
- 3 My head _____.
- 4 I'm _____ about the _____.
- 5 My _____ hurts.

6 Work in pairs. Put the patients in order of priority to see the doctor. Compare your ideas with another pair.

7 Match the sentence halves to make six requests.

1 Could you take a seat in _____	a) lie back and try to relax?
2 Could you fill in _____	b) your head?
3 Could you _____	c) a few questions, please?
4 Could you tell me _____	d) this form, please?
5 Could you show me _____	e) the waiting room, please?
6 Could I just ask you _____	f) what happened?

8 Listen again to the dialogue and choose one of the requests from 7 for each patient a–d. Compare your ideas with a partner.


Pronunciation 9 07 Can you pronounce the letters of the alphabet in English? Complete the groups with letters that have the same sound. Listen and check your answers.

B	C	D	_	_	_	_	_	_	_	F	L	_	_	_	_
A	_	J	_	Q	U	_	_	I	_	O	R	_	_	_	_

10 Write down the names of four people you know. Work in pairs. Take turns to spell the names to each other.

Checking in a patient

Vocabulary



Patient Details

Title: First name(s): Surname:

Gender: M F Marital status:

DOB: Country of origin:

Occupation:

Address: *53 Coalport Ave, Tipton, Birmingham B32 9AH*

Tel: (home) (work) *020 832 9400* (mobile) *0779 003 5491*

GP: *Dr Alice White* Tel: *020 612 1398*

Next of kin: Relationship to patient: *husband*


Tel: (home) *020 831 9476* (mobile)

Smoking intake: *n/a* Allergies:

Reason for admission: *7 months pregnant, possible ...*

1 Find the words in the admissions form with these meanings.

- 1 family name _____
- 2 job _____
- 3 Mr / Mrs / Ms / Dr _____
- 4 family doctor _____
- 5 the name the patient wants the medical staff to use _____
- 6 closest relative _____
- 7 country where patient was born _____
- 8 male or female _____
- 9 married / single / divorced / widowed _____
- 10 why the patient is visiting hospital _____
- 11 date of birth _____
- 12 the amount of something you drink / eat, etc. regularly _____
- 13 a bad reaction to, for example, food or medicine _____

Listening 2  **08** You are going to hear the nurse interview a patient from 4 on page 9. Listen. Which patient is she talking to? Listen again and fill in the admissions form for the patient.

3 Listen again and complete the nurse's questions.

- 1 Can you give me your full _____ please?
- 2 Can you _____ that, please?
- 3 What would you like us to _____ you?
- 4 What is your _____ of _____ ?
- 5 What is your _____ ?
- 6 Do you have any _____ ?

4 Write questions for these answers. Look at audio script 8 on page 70 to check your answers.

- 1 Where _____ ?
I'm originally from Catagne, in Sicily.
- 2 What's _____ ?
I'm married.
- 3 Who _____ ?
That's Daniel, my husband.

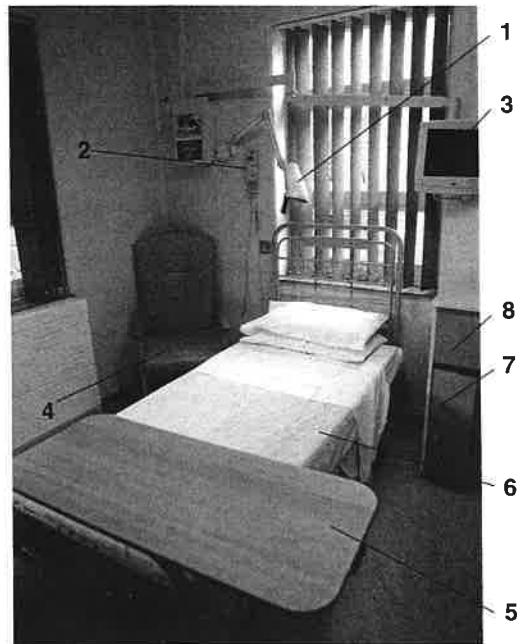
Vocabulary 5 The doctor decides that Rosanna is going to stay in hospital for observation. Look at her room. Label the picture with the words in the box.

bed	buzzer	chair	drawer
light	locker	table	TV

Listening 6  09 Listen and write the names of the objects from 5 that you hear.

7 Listen again. Then look at the photo and complete the information about the facilities in the room and hospital.

- 1 The buzzer is next to the _____ above the _____.
- 2 The _____ is next to the window, on the right.
- 3 The _____ is above the locker.
- 4 The gift shop is between the _____ and the _____.
- 5 The gift shop is on the _____ floor.
- 6 The public phone is down the _____, on the left after the _____.



Speaking 8 Work in pairs. Take turns playing the role of a patient and of the nurse who admits the patient to hospital. Invent an identity for your patient, including the details below. Copy a blank patient admissions form like the one on page 10. Interview your patient and complete their details in the form. Then show the patient to their bed and explain the facilities in the room.

- | | |
|---------------------------|------------------------|
| • full name and address | • marital status |
| • family and next of kin | • smoking intake |
| • date and place of birth | • allergies |
| • occupation | • reason for admission |

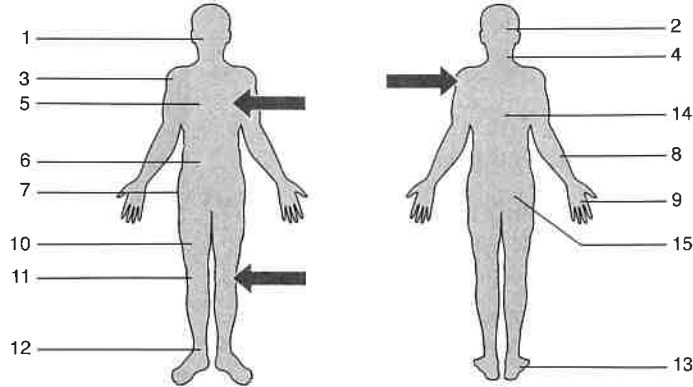
2

Pain

- locate and describe pain
- assess pain
- communicate successfully
- talk about pain relief

Locating and describing pain

Vocabulary 1 Label the pain map using the words in the box

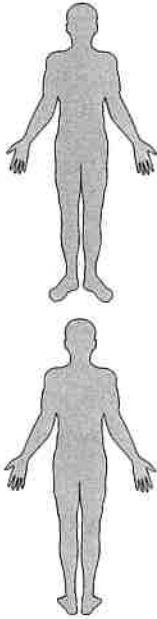


ankle arm back buttocks chest face
 foot hand head hip knee leg neck
 shoulder stomach

Verb	Noun	Adjective
<i>My head hurts.</i>		
<i>My head aches.</i>	<i>I've got a headache.</i>	
	<i>I've got a pain in my head.</i>	<i>It's painful.</i>
		<i>His head is sore.</i>

- 2** Rewrite sentences 1–6 so they have the same meaning, but use different words from the table in 1.
- I've got a terribly sore throat and I think I've got a temperature.
 - I hurt my ankle this morning, running up the stairs. It's still very painful.
 - Have you got a headache? You don't look very well.
 - Ah, poor thing. Her gums really hurt. Her teeth are coming through.
 - He's got stomach ache. I don't think that chicken was properly cooked.
 - I've got a pain in my lower back and it's really aching. It's from carrying my computer.
- 3** Write at least one sentence for each red arrow in 1 to answer the question: How do you feel?

Listening



4 **10** Where do the patients feel pain? Put a cross (X) on the pain map for each patient.

- 1 James _____ 2 Godfrey _____ 3 Alma _____

5 Complete these expressions to give the exact location of the pain and the question that the nurse asks to get this information.

- 1 James: It's _____ the chest and the _____ .
 2 Godfrey: It's on the _____ side, just _____ the eye.
 3 Alma: It's at the _____ of the _____ and then shoots _____ the leg.
 4 Nurse: _____ do you _____ the pain?

6 Put these words in order to make sentences that patients can use to describe how their pain changes.

- 1 pain / The / much / is / now / better ↗ _____
 2 better / I / today / feel ↗ _____
 3 than / worse / yesterday / It's ↘ _____
 4 my leg / worse / in / is / The / much / pain ↘ _____

Language

Comparatives and superlatives

We use comparative adjectives to compare two people or things.

We use superlative adjectives to compare a person or thing with a number of other people or things.

	Adjective	Comparative (+ than)	Superlative
one syllable and most two-syllable adjectives	strong	stronger	the strongest
longer adjectives	severe, painful	more severe, more painful	the most severe, the most painful
irregular adjectives	good, bad	better, worse	the best, the worst

My backache is **more painful** today **than** yesterday.

I feel **better** now **than** I did this morning.

7 Use the adjectives in the table above to complete the patient's descriptions of their pain.

- 1 It always begins with a pain on the left side of my head, which gets stronger and ¹_____ and then I start to feel nauseous. I have to take painkillers and lie down in a darkened room. I start to feel ²_____ after about an hour or so and by the next day I'm generally ³_____. For me the ⁴_____ case ever lasted for seventy-two hours. On a scale of nought to ten, it's a ten. It's ⁵_____ pain I know.
- 2 I get this pain all around my forehead and behind my cheekbones. The problem is ¹_____ when I have a cold, so it's worse in the winter than the summer, but the ²_____ was last year when I was pregnant. I find the ³_____ treatment is a nasal spray, but I also feel ⁴_____ if I use a warm face pack.

8 Choose the correct medical problem for each patient description in 7.

- 1 a) food allergies b) migraine c) sinusitis d) backache
 2 a) food allergies b) migraine c) sinusitis d) backache

Pain assessment



1 Mr Turner

2 Abdul

3 Shazia

4 Mrs Chen

5 Karin

Listening 1 11 Listen to five patients talking about their pain. Write down the area where each patient feels the pain.

2 Listen again. Complete the sentences the patient uses to describe the pain with the words in the box.

burning dull shooting stabbing tingling throbbing

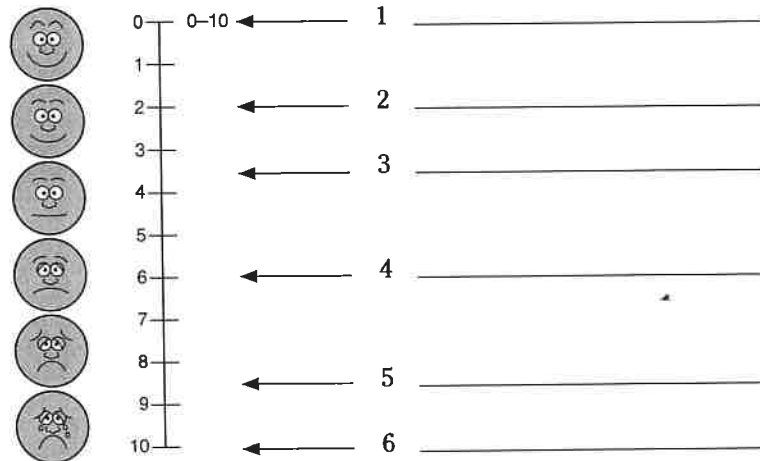
- 1 I still have a headache. It's like a drum, a real _____ pain.
- 2 There's a _____ ache in my lower back. It's quite a mild pain, but sometimes I can feel a _____ pain, like an electric shock.
- 3 I get this _____ feeling two or three hours after food and sometimes it's very sore.
- 4 It's a kind of _____ feeling, like pins and needles. I get it in my feet as well, but it's better than last week
- 5 Yes, it's a _____ pain, like a knife. It's a severe pain. It really hurts a lot.

Vocabulary 3 Match the adjective phrases 1–8 with the descriptions a–h.

Adjective	Description
1 a burning sensation	a) It feels like someone is beating a drum.
2 a dull ache	b) It feels like someone is hurting me with a knife or something sharp.
3 a shooting pain	c) It feels like I want to scratch.
4 a stabbing pain	d) It feels like a bee is stinging me.
5 a tingling feeling	e) It feels very hot.
6 a throbbing pain	f) It feels like someone is pushing lots of small needles in your skin.
7 a stinging sensation	g) It's a sudden pain that moves quickly from one place to another.
8 not a pain, but itchy	h) It's a mild pain that is continuous.

4 Match the expressions in the box with the faces and the numbers on the chart.

mild pain moderate pain no pain severe pain unbearable pain
very severe pain



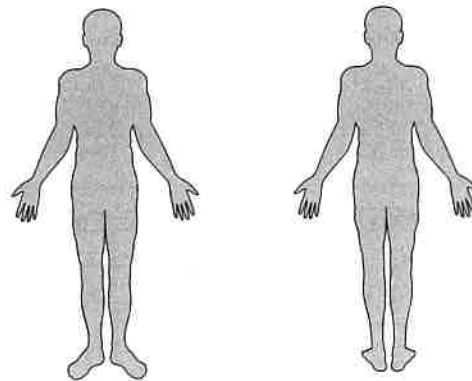
Speaking 5 Add a Wh- question word to 1–8 to form pain assessment questions.

- | | |
|----------------------------------|----------------------------------|
| 1 _____ does it hurt? | 5 _____ is the pain? |
| 2 _____ long does the pain last? | 6 _____ does the pain move to? |
| 3 _____ did it start? | 7 _____ does the pain feel like? |
| 4 _____ do you feel? | 8 _____ do you have pain? |

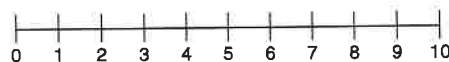
6 Work in pairs. Student A, look at the information below. Student B, turn to page 68. Student A, you are the patient Tony / Antonia Bates. Student B will interview you about your pain. When you have finished, swap roles. Interview Student B and complete the pain map and pain scale below.

Patient case

You are Tony / Antonia Bates and you are suffering from stabbing pains in the middle of your chest that started at 10am today. The pain was unbearable (9 / 10 on the pain scale). It moves across the chest to the right arm. It feels as though you are being stabbed with a knife. You feel better now (7 / 10) than at 10am.



0–10 Pain scale




No pain

Worst pain


7 Work in different pairs. What kind of pain do you think the conditions below might cause? Discuss the location and the severity of the pain. Compare your ideas with another pair.

- | | |
|-------------------|-------------------|
| 1 labour | 4 broken shoulder |
| 2 appendicitis | 5 kidney stones |
| 3 severe migraine | 6 tonsillitis |

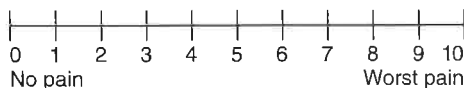
Successful communication

Listening 1  **12** Practice Nurse David Taylor is assessing Dina Guyader, age 28. Listen to Part 1 of the pain assessment and answer the questions.

- 1 Where is the pain?
- 2 What sort of pain is it? Describe it.

2  **13** Listen to Part 2 of the assessment and put a cross and a letter on the pain scale to indicate:

- 1 how Dina feels now (N).
- 2 how Dina feels in the morning (M).



3 Listen again and choose the correct answers.


- 1 How many children does Dina have?
 - a) one
 - b) two
 - c) three
- 2 What is Dina's employment situation?
 - a) She works full time.
 - b) She works part time.
 - c) She is unemployed.
- 3 What does Nurse Taylor learn about Dina's husband?
 - a) He is unemployed.
 - b) He travels abroad a lot.
 - c) He lives abroad.

Writing 4 Nurses often use an initial pain assessment tool to help them assess their patients' pain. Look at the extract below and complete 1-3.

- 1 Rewrite question 5 with the verb *to make better*.
- 2 Rewrite question 6 with the verb *to make worse*.
- 3 Match the symptoms in the box with the correct sections in question 7.

anger can't climb stairs easily can't do sports can't eat
can't stand even for short periods crying insomnia ~~nausea~~ suicidal feelings

INITIAL PAIN ASSESSMENT TOOL	Patient name: <i>Dina Guyader</i>
5 What relieves the pain?	_____
6 What increases the pain?	_____
7 Effects of pain	_____
Accompanying symptoms e.g. <i>nausea</i>	_____
Sleep e.g.	_____
Appetite e.g.	_____
Physical activity e.g.	_____
Emotions e.g.	_____

Listening 5  **14** Listen to Part 3 of Dina's assessment and complete the initial pain assessment tool with her details. Work in pairs and compare your ideas.





Speaking 6 Look at the pictures and discuss in pairs. Which patient is happier? What is the nurse doing or not doing to facilitate communication with the patient?

Reading 7 Complete the description of good communication practice using the words in the box.

eye ease friendly name open quickly
 questions (x2) relaxed smile sit

Putting your Patient at Ease

Good communication with your patient is essential. Imagine the patient is a close family member or friend and treat him or her as you wish to be treated yourself. Always try to put your patient at ¹_____ and make them feel ²_____. If possible, ³_____ at the same level as the patient. The expression on your face is important, so ⁴_____ and maintain ⁵_____ contact with your patient. When you talk, don't rush the patient or speak too ⁶_____ and always use a ⁷_____, open tone of voice. Take an interest in your patient, use their ⁸_____ and ask them general ⁹_____ about their life. It is also important to use an ¹⁰_____ posture, i.e. don't fold your arms, as this can look aggressive. Finally, check it is OK to ask ¹¹_____ and tell them roughly how long the interview will last.

Pronunciation 8 15 Listen and tick (✓) if these nurses sound friendly or unfriendly when greeting their patients.

	Friendly	Unfriendly		Friendly	Unfriendly
Nurse 1	✓		Nurse 3		
Nurse 2			Nurse 4		

9 16 Complete the 'rule' then listen and repeat the pattern you hear.

A friendly welcome usually uses:

... an intonation pattern that rises and falls.
 ... a flat intonation.

Speaking 10 Read audio scripts 12, 13 and 14 on pages 71–72. Find and underline these examples of how the nurse tries to put Dina at ease. Write what he says in each case.

- 1 He uses the patient's name.
- 2 He asks about the baby's health.
- 3 He checks the baby is OK.
- 4 He gives Dina the time she needs.
- 5 He shows empathy / understanding.
- 6 He checks it is OK to ask questions.

Pain relief

Speaking 1 Work with a partner. How many types of pain relief can you think of for a patient with lower back pain? Make a list. Which do you think are the most effective and the least effective? Why?

Reading 2 Read and complete this article from a health website with the words in the box.

anti-inflammatory comfortable position heat patches
hot-water bottle ice pack muscles painkillers pillow
shower swimming

Lower back pain

Follow this treatment and most lower back pain will improve:

- 1 Rest in a ¹ _____ for the first 1–2 days. You can lie on your side with a ² _____ between your knees, or on your back on the floor with it under your knees. Take a ³ _____ (10–20 minutes) every 2–3 hours, then rest in a comfortable position.
- 2 Take ⁴ _____ such as paracetamol, or an ⁵ _____ such as ibuprofen. These medicines usually work best if you take them regularly and not when the pain is serious.
- 3 Use a ⁶ _____ for 15–20 minutes, every 2–3 hours. You could also buy ⁷ _____ that last for a maximum of eight hours. Or you could try an ⁸ _____ for 10–15 minutes every 2–3 hours.
- 4 Return to normal activities as soon as possible. It is important that you don't stay in bed for more than 1–2 days, as your ⁹ _____ become weak and this worsens the problem.
- 5 The best exercise for the lower back is walking, beginning with 5–10 minutes a day. Another good form of exercise for lower back pain is ¹⁰ _____ in shallow water.

3 Write *Do* or *Don't* to complete the advice for the patient.

Example: 1 *Don't stay in the same position too long.*

- 1 _____ stay in the same position too long.
- 2 _____ take pain medication before the pain becomes really bad.
- 3 _____ use heat or ice to help reduce the pain.
- 4 _____ stay in bed for more than two days.
- 5 _____ go for short walks.

Speaking -4 Work in pairs. Take turns asking and responding to these questions.

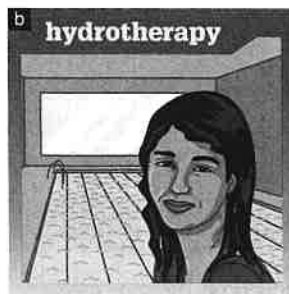
- 1 Heat patches are expensive. What can I use instead?
- 2 I don't like walking. Can you suggest another exercise for me?
- 3 I still have back pain after two weeks. What can I do?

5 Work in small and groups and discuss this question.

Do you find the article in 2 helpful for patients? Why / why not?



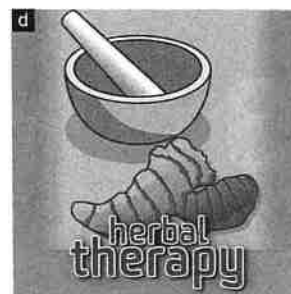
a Hypnotherapy



b hydrotherapy



c aromatherapy



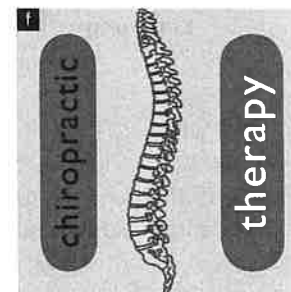
d

Vocabulary 6 Some patients choose to use complementary and alternative medicine (CAM) to treat their pain. Match the different examples of CAM a–f with the descriptions 1–6.


- 1 The therapist uses sound to help relax the muscles and improve the patient's mental well-being. _____
- 2 This therapy uses natural oils to help control pain, sometimes through massage. _____
- 3 The therapist gives advice on underwater exercise to help treat pain and injury. _____
- 4 This therapy uses herbs and plants to help treat medical problems including muscle ache and pain. _____
- 5 The therapist manipulates the bones in the spine to help treat pain. _____
- 6 The therapist talks to the patient when he or she is 'asleep' to influence their feelings about pain. _____



e



f

Listening 7  **17** You are going to hear Angie and Carlos talking about their experiences using CAM. As you listen, tick (✓) the examples of CAM that you hear.

- | | |
|---|--|
| 1 <input type="checkbox"/> aromatherapy | 4 <input type="checkbox"/> hydrotherapy |
| 2 <input type="checkbox"/> chiropractic therapy | 5 <input type="checkbox"/> hypnotherapy |
| 3 <input type="checkbox"/> herbal therapy | 6 <input type="checkbox"/> music therapy |

8 Listen again. Are these sentences *true* (T) or *false* (F)? Correct the false statements.

- 1 Angie only takes medication when the pain is really strong. (T / F)
- 2 Carlos knows that ginger can be used for pain relief. (T / F)
- 3 Angie agrees that swimming is a good way to relieve pain. (T / F)
- 4 Angie wants to try chiropractic therapy. (T / F)
- 5 Carlos believes CAM is only effective for chronic pain. (T / F)

Vocabulary 9 Complete these definitions. Give two more examples for each.

- 1 Chronic pain _____. It can be caused by lower back pain, _____ and _____.
- 2 Acute pain _____. Examples include: dental work, _____ and _____.

Speaking 10 In small groups, discuss these questions.

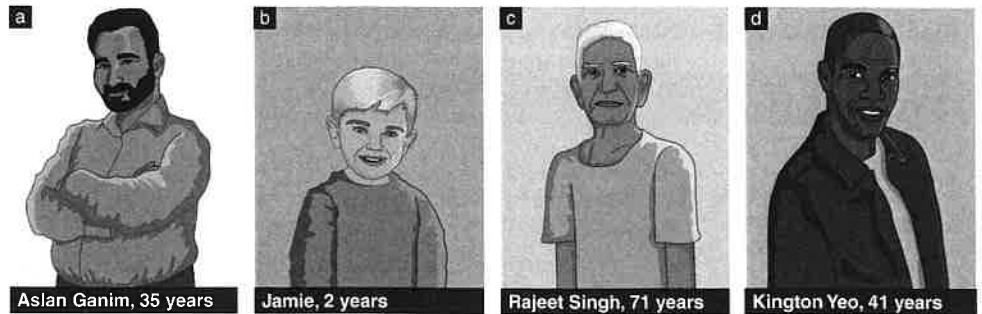
- 1 How are CAM viewed in your country / place of work?
- 2 What is your experience of CAM – either as a patient or as a nurse?

3

Vital signs

- describe statistics and vital signs
- describe readings
- take vital signs
- talk about circulation and the heart

Statistics and vital signs



Listening 1 18 Listen to a practice nurse weighing and measuring her patients. Circle the correct number.

- | | | |
|-------------------|----------------------|----------------------|
| 1 1.16 m / 1.60 m | 3 1.34 m / 1.24 m | 5 22.25 kg / 22.5 kg |
| 2 72 kg / 62 kg | 4 89.95 kg / 89.5 kg | 6 1.14 m / 1.40 m |

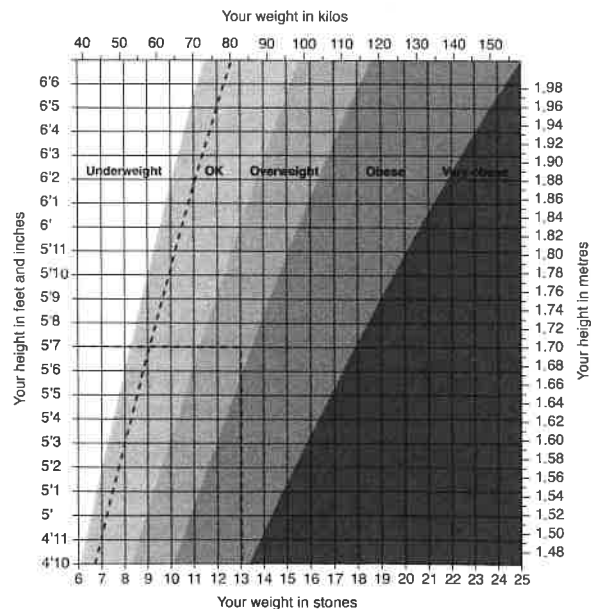
2 19 Nurse McMaster is weighing and measuring patients in Admissions. Listen and match the dialogues 1–4 with the patients a–d.

3 Listen again and plot the height and weight of patients 1–3 on the chart. Label each patient as obese, overweight, underweight or normal weight.

4 Complete the nurse's questions. If necessary, listen again to check.

- 1 _____
empty your bladder _____?
- 2 How tall _____?
_____?
- 3 What's your _____
in metres?
- 4 Can you just _____
on the _____ for
me, please?
- 5 How _____ do you
_____ normally?

5 Work in pairs. Take it in turns to weigh and measure each other. Swap partners and weigh and measure another student in the class.



- 1 cm = 0.393 inches
- 1 m = 3.28 feet
- 1 kg = 2.20 pounds or 0.157 stone

- Vocabulary 6** Match these vital signs 1–4 with the correct definitions a–d.
- | | |
|-----------------------|--|
| 1 blood pressure | a) how many times a person breathes per minute |
| 2 pulse | b) how hot the body is |
| 3 rate of respiration | c) how many times the heart beats per minute |
| 4 temperature | d) the force with which blood travels round the body |

- 7** Label the pictures of medical equipment with the words in the box. What is each piece of equipment used to measure? Write sentences.

A stethoscope is used to measure ...

digital blood pressure monitor pulseoximeter
sphygmomanometer stethoscope thermometer



- Pronunciation 8** Listen and check your answers to 7. Which syllables are stressed? Underline the stressed syllables in each word.

- | | |
|----------------------------------|--------------------|
| 1 digital blood pressure monitor | 4 stethoscope |
| 2 thermometer | 5 sphygmomanometer |
| 3 pulse oximeter | |

- 9** Listen again and repeat.

- Speaking 10** Work in pairs. Match the abbreviations on the chart with the words in the box. Which instruments from 7 are used to take these measurements? Explain the abbreviations to your partner.

Example: *RR stands for / means ... We use a ... to measure / record this.*

blood pressure kilograms oxygen oxygen saturation percentage
pulse respiration rate temperature weight

Patient name: <i>Alberto Riviera</i>							
Date/Time	BP	P	RR	T	Wt	O ₂ Sats	Signature
<i>14.10.11</i>	<i>130/80</i>	<i>75</i>	<i>15</i>	<i>37</i>	<i>71 kg</i>	<i>96%</i>	<i>R. Perez</i>

- Vocabulary 11** Complete the summary with the words in the box. Compare your answers with a partner.

high low monitor observation chart record sign take vital signs

Nurses usually ¹_____ the patient's ²_____ several times a day. We ³_____ the information on the ⁴_____ and ⁵_____ it. Medical staff then use this information to ⁶_____ the patient. If there are any changes, a ⁷_____ temperature (fever), for example, or a ⁸_____ blood pressure count, we have to inform the Senior Staff Nurse immediately.

Describing readings

Vocabulary 1 Match the statistics with the vital signs. Put a tick (✓) in the correct column.

	RR	BP	P	T
130 / 85				
36.8				
79				
20				

2 Complete the descriptions of the vital signs with the words in the box.

at one over per (x2) point

- BP is _____ thirty _____ eighty-five.
- Resps are _____ twenty breaths _____ minute.
- Temperature is thirty-six _____ eight.
- Pulse is seventy-nine beats _____ minute.


Listening 3  21 Listen and complete the readings you hear.

1

Patient name: <i>Mr Eric Jamieson</i>				Date of birth: <i>19.02.53</i>		
BP	P	RR	T	Wt	O ₂ Sats	Signature
<i>120/80</i>				<i>93 kg</i>	<i>94%</i>	<i>Y. Leaming</i>

2

Patient name: <i>Mr Daniel Samson</i>				Date of birth: <i>10.08.71</i>		
BP	P	RR	T	Wt	O ₂ Sats	Signature
				<i>75 kg</i>	<i>95%</i>	<i>J. Arrighi</i>

4  22 Listen to a reading with some mistakes in it. Correct the mistakes you hear.

Patient name: <i>Arja Wellington</i>				Date of birth: <i>21.11.2002</i>		
BP	P	RR	T	Wt	O ₂ Sats	Signature
<i>98/65</i>	<i>100</i>	<i>23</i>	<i>37.2</i>	<i>32 kg</i>	<i>98%</i>	<i>B. GUZMAN</i>

Speaking 5 Put the words in the box in the correct column in the table. Discuss the ways in which each of these factors can affect a patient's vital signs.

age anxiety anger caffeine gender humidity infection
lifestyle stress temperature tobacco

Environmental	Social	Psychological	Physical
	<i>lifestyle</i>		<i>age</i>



Davina, 10 years



Rose, 53 years



Pilar, 47 years

Listening 6 **23** At the shift change in ER, Staff Nurse Debbie updates her team. Listen. Write the correct patient name on each chart a–c.

Chart a _____

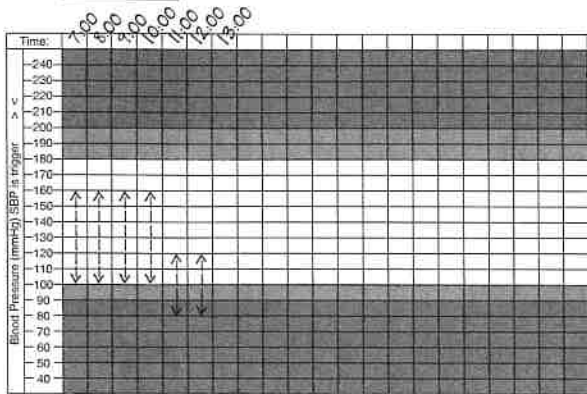


Chart b _____

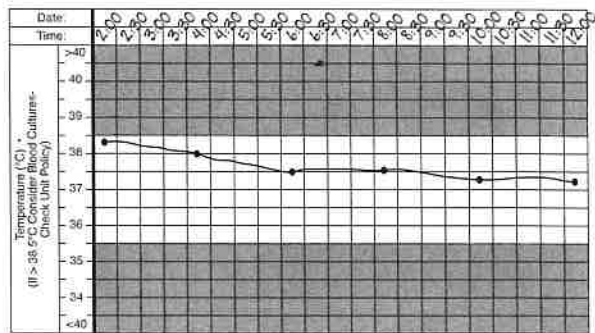
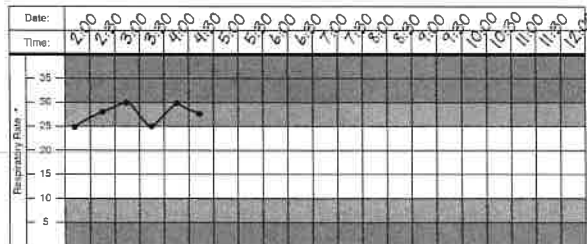


Chart c _____



7 Listen again. Write D (Davina), P (Pilar), or R (Rose) next to each sentence. Complete the sentences with the correct form of the words in the box.


and down stable up up and down vary

- 1 Her Resps are still _____.
- 2 Her BP is _____ from 160 / 100 to 120 / 80. R
- 3 Her Resps _____ between 25 _____ 30.
- 4 Her temperature was _____ to 38.2.
- 5 Her temperature's _____ now.

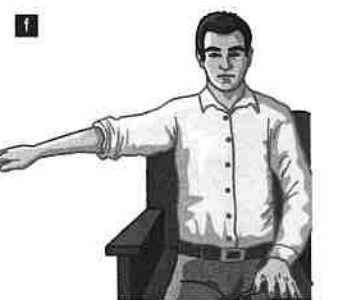
- 1 ↗ increase / rise / go up
- 2 ↘ decrease / fall / go down
- 3 ⤴ go up and down / vary between ... and
- 4 — be stable
- 5 ⤴ go up and down

Vocabulary 8 Draw the correct arrow from 1–5 above next to each sentence in 7.

Taking vital signs


Listening 1  **24** Match the instructions 1–6 to the images a–f. Write the correct piece of equipment and the vital sign(s) next to each instruction. Then listen and repeat the instructions using the correct intonation pattern.

- 1 Could you just open your mouth for me, please?
- 2 Can you put your head on one side?
- 3 Can you just roll up your sleeve for me?
- 4 Can you give me your right hand, please?
- 5 Could you relax and breathe normally for me?
- 6 Could you hold your arm out straight?



2 Charge Nurse Stefano takes Mr Daniels' pulse rate. Put the words in order to form sentences. Then put these sentences into the correct order 1–4.

- a) give me / can you / your palm / please _____
- b) per minute / ninety-five beats / that's _____
- c) pulse now / if I can / Mr Daniels / I'll take your _____
- d) I'll put / your wrist / my fingers on _____

3  **25** Listen and check. Why does the nurse need to take the patient's pulse twice?

4  **26** Stefano then takes Cameron's pulse. Listen and answer the questions. Work in pairs and compare your answers.

- 1 What method does the nurse use to take this patient's pulse?
- 2 What is the patient's pulse rate?
- 3 How old do you think the patient is? How do you know?

Language

Will + infinitive for future

We use **will** + infinitive to make predictions for the future and to talk about decisions.


Prediction: **You'll (you will) feel better soon.**

Decision: **I'll (I will) take your temperature now.**

- 5 Complete these examples from Stefano's conversations with Mr Daniels and Cameron. Use *will* and the verbs in the box. Listen and check.

be clip hurt put take write

- 1 I _____ my fingers on your wrist.
- 2 I _____ a second reading.
- 3 I _____ just _____ this little meter to your finger.
- 4 _____ it _____ ?
- 5 No, it _____. It _____ very quick, I promise.
- 6 I _____ just _____ this down.

- Listening 6  27 Ana Leogardo, 32, is a patient on the Cardiology Ward. The staff nurse is doing her rounds before breakfast. Listen and answer these questions.

- 1 How does Ana feel?
- 2 How does the nurse take Ana's pulse?
- 3 How does the nurse feel about Ana's temperature?



- 7 Complete what the nurse says to Ana as she takes her blood pressure. Use *will* and the correct form of the verbs in the box.

be eat feel hold put roll see take wrap

I¹ _____ your sleeve up a little. That's good. We² _____ a pillow on your lap. Can you³ _____ your arm out straight for me? You can rest it on the pillow. I⁴ _____ the cuff round your arm. Just relax, that's right. You⁵ _____ any pain; it⁶ _____ a bit tight around your arm. OK? That's 130 / 85. I⁷ _____ the cuff off now and then you can⁸ _____ your breakfast in peace! I'll⁹ _____ you later.

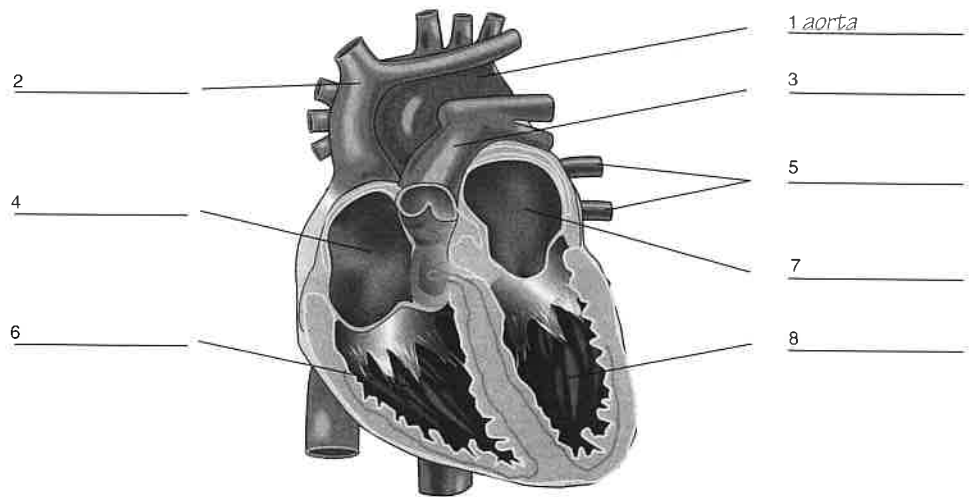
- 8  28 Listen. Complete Ana's vital signs and check your answers to 7.

Patient name: Ms Ana Leogardo				Date of Birth: 22.07.79	
BP	P	RR	T	O ₂ Sats	Signature
				98%	S. Renneke


- Writing 9 Choose one piece of equipment from 7 on page 21 and write five lines to explain how to take one of the vital signs. Then work in pairs and practise explaining to your partner.

Circulation and the heart

Vocabulary 1 Label the diagram of the heart with the words in the box.



aorta left atrium left ventricle pulmonary artery pulmonary vein
right atrium right ventricle vena cava

Pronunciation 2  29 Which syllables are stressed? Underline the stressed syllables. Listen, check and repeat.

1 aorta 3 vena cava 5 ventricle
2 artery 4 atrium 6 pulmonary

Reading 3 Read and complete the information about the function of the heart. Use the words in the boxes.

WHAT THE DOES HEART DO?

The heart is a muscle that ¹_____ blood around the body. The blood ²_____ through to the other organs and takes food and oxygen to them. The blood then ³_____ to the heart via the veins.

circulates pumps returns

THE CHAMBERS OF THE HEART

Inside the heart there are four chambers. The two upper chambers are called the ⁴_____. They receive and collect blood. The two lower chambers of the heart are called the ⁵_____. They pump blood out of the heart into the ⁶_____ to other parts of the body.

atria circulatory system ventricles

THE BLOOD FLOW

Blood enters the right atrium of the heart from the superior and inferior ⁷_____. The heart then pumps blood into the right ventricle. From there the blood goes into the lungs through the ⁸_____, where it is filled with oxygen. The oxygen-rich blood then returns to the heart through the pulmonary veins into the left atrium. From there the blood is pumped into the left ventricle which then pumps it into the rest of the body through the ⁹_____.

aorta pulmonary artery vena cava

Speaking 4 Work in pairs. Cover the text. Use the diagram and the words in the boxes to explain how the heart works.

Smoking and cardiovascular disease

Smoking is a major risk factor for getting cardiovascular (heart and blood vessel) disease. The more you smoke, the greater your risk. Did you know that nicotine and carbon monoxide from cigarettes have a significant effect on your heart and blood vessels? When you smoke, your heart rate increases and your blood pressure rises. At the same time, your arteries narrow and blood flow decreases.



Giving up smoking – what are the real benefits?

Your risk of heart disease begins to decrease almost immediately after you stop smoking.

In 20 minutes: your blood pressure and heart rate fall to their normal level.

In eight hours: your level of oxygen rises to its normal rate and your carbon dioxide level drops.

In 24 hours: your chance of a heart attack starts to go down.

In 12 months: your risk of a heart attack falls by more than 50%.

After several years: your risk of heart disease could be similar to that of someone who has never smoked at all.

Give up smoking – it's never too late!

- Reading 5** Read the patient leaflet. Why is smoking bad for the heart?
- 6** Are these sentences *true* (T) or *false* (F)? Correct the false statements.
- 1 Your risk of cardiovascular disease is greater if you smoke. (T / F)
 - 2 Nicotine will increase your blood flow and decrease your blood pressure. (T / F)
 - 3 Heart rate returns to normal less than half an hour after stopping smoking. (T / F)
 - 4 Even ex-smokers remain high risk for heart disease. (T / F)
 - 5 It is sometimes too late to stop smoking. (T / F)
- 7** Cover the text. Complete a summary of the main points.
- 1 The risk of heart disease _____ the more you smoke.
 - 2 Chemicals in cigarettes can block the arteries. The heart rate _____ and blood pressure _____.
 - 3 As soon as you stop smoking, the risk of heart disease _____.
 - 4 After eight hours, your oxygen level _____ and the level of carbon-dioxide _____.
 - 5 The risk of a heart attack _____ by 50 percent within 12 months.
- Speaking 8** Work in pairs. You are going to advise a patient who is a heavy smoker. Take turns to play the role of the patient and the nurse. Follow these instructions.
- 1 Welcome your patient.
 - 2 Explain the procedures for taking vital signs.
 - 3 Take your patient's vital signs.
 - 4 Explain the risks of smoking on the heart. (Use the correct stress pattern when pronouncing cardiology terms.)
 - 5 Respond to your patient's questions about the benefits of giving up smoking.

4

Symptoms

- describe symptoms and injuries
- ask about symptoms and injuries
- give instructions in an asthma emergency
- talk about SOAP notes

Symptoms and injuries

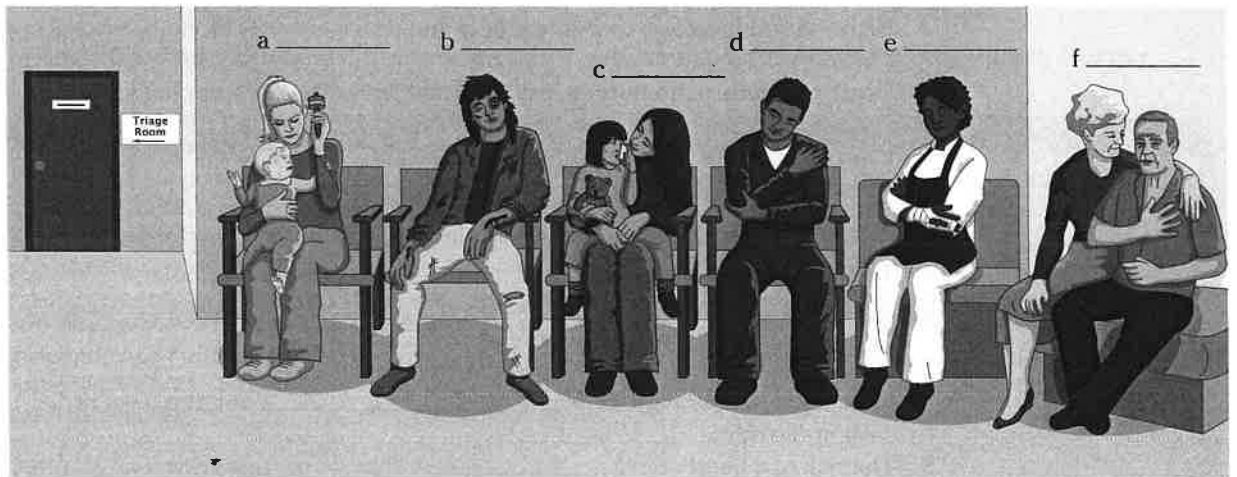
Vocabulary 1 Complete the text about emergency rooms with the words in the box.

abdominal chest contusion injury respiratory sprain

Why do people visit ER? The most common reason is for an ¹ _____, in most cases a strain, ² _____ or ³ _____. The second most common reason on the list is signs and symptoms of either ⁴ _____ or ⁵ _____ pain. People are also frequently brought into ER with ⁶ _____ problems.

2 Look at the patients a–f in the Emergency Room and discuss.

- 1 Why do you think each patient has come to the Emergency Room? What health problems do they have?
- 2 Which order do you think the triage nurse should see the patients?



Listening 3 30 Listen to the six patients describing their problems. Label the pictures a–f in the order you hear them 1–6.

4 Listen again and write the description of the problem next to the person.

asthma black eye bleeding broken wrist colic
 contusion heart problem infection nausea

Vocabulary 5 Complete the sentences about the patients' injuries and symptoms with the correct form of the words in the box.

bleed breathe bruise cough dizzy (x2) infect pain (x2) sickness swell

- 1 Aisha is _____ a lot and having difficulty _____.
- 2 Sandip has _____ in his chest and feels _____.
- 3 Desiree is _____ heavily from a bad cut and is worried about _____.
- 4 Jasmine has a bad stomach _____. Twice I gave her milk, but she was _____ almost immediately.
- 5 Winston' shoulder and wrist are very _____ and painful. He banged his head hard and still feels _____ and nauseous.
- 6 Jason fell off his bike and has cuts and _____ on his right arm.

6 Complete the table with the correct word forms. Which nouns are synonyms for more formal medical words?

Noun	Verb	Adjective
blood	to ¹ _____	bloody
breathlessness	to be short of breath	² _____
³ _____	to bruise	bruised
cough	to ⁴ _____	
dizziness		⁵ _____
infection	to ⁶ _____	infected
⁷ _____		painful
swelling	to ⁸ _____	swollen
sickness	to feel / to be ⁹ _____	

Language

Past simple v past continuous

We use the **past simple** tense to talk about finished actions in the past.

*I **started** taking gentle exercise and my asthma symptoms **improved**.*

We use the **past continuous** to talk about continuous or uninterrupted actions in the past.

*You **were coughing** all night – I heard you.*


7 Complete the sentences with the correct form of the verb in brackets.

- 1 My son _____ (play) soccer in the park with his dad and he _____ (fall over) and _____ (pull) a muscle in his leg.
- 2 My wife _____ (cough) all night so I _____ (phone) the medical helpline. They _____ (tell) me to make an appointment with her GP.
- 3 Kira _____ (run) a high temperature when the ambulance services _____ (bring) her in.
- 4 My headaches _____ (not / stop) immediately. The tablets I _____ (take) _____ (no / be) strong enough.
- 5 The patient _____ (present) to ER at 11pm. He _____ (suffer) from serious vomiting.
- 6 Can you tell me what you _____ (do) when your asthma attack _____ (start)?
- 7 My father _____ (have) difficulties walking and he _____ (trip) and _____ (fall) in the street.
- 8 I _____ (not think) and I _____ (give) him the wrong dose of aspirin. He's only three. What should I do? I'm really worried.

Asking about symptoms and injuries



- Speaking** 1 Look at the patient in this photo. Work in pairs and discuss these questions.
- 1 What are the patient's symptoms?
 - 2 What do you think the patient is suffering from?
 - 3 What do you think he was doing when his problem started?

- Listening** 2  31 Listen to the nurse interviewing Mr Daniels and check your answers in 1.
- 3 Listen again and complete the patient record.

medTRUST hospital

Patient Record

Mr Daniels is 54. He has pains in the ¹_____ and is suffering from ²_____ of breath. The pain is located in the ³_____ of the chest and radiates down his left ⁴_____ and up into his ⁵_____. The pain usually lasts for around ⁶_____ minutes.

The pain began when he ⁷_____ at his work place. The patient works in a supermarket. The patient has suffered from the attacks for ⁸_____ months. This is his ⁹_____ attack. He is also suffering from problems with his ¹⁰_____.

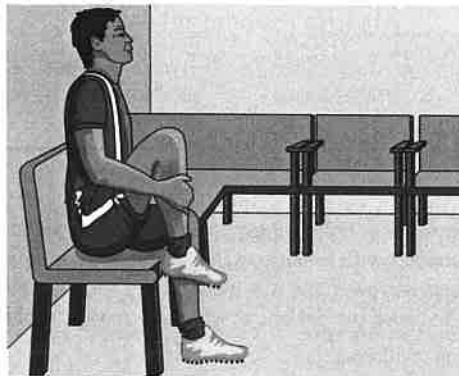
The pain improves when he takes painkillers. He is ¹¹_____ about his condition. He thinks stress makes his condition ¹²_____.

- Vocabulary** 4 Match the beginnings 1–8 and the endings a–h to complete the nurse's questions.
- | | |
|-----------------------------|--------------------------------------|
| 1 How would you describe | a) how bad was the pain? |
| 2 Can you | b) move at all? |
| 3 On a scale of one to ten, | c) me how it started? |
| 4 Does the pain | d) the pain in your chest? |
| 5 How long | e) makes it worse? |
| 6 Can you tell | f) about your condition, Mr Daniels? |
| 7 Anything that | g) explain where exactly? |
| 8 How do you feel | h) did the pain last this time? |
- 5 Turn to audio script 31 on page 74 to read all the nurse's questions and check your answers in 4. Answer these questions.
- 1 Circle all the closed questions (questions with only one possible answer). Underline all the open questions (questions that invite the patient to express their own ideas).
 - 2 What are the advantage and disadvantages of asking open questions?
 - 3 What are the advantages and disadvantages of asking closed questions?

6 Decide if these questions are Open (O) or Closed (C). Imagine the situation and write a possible answer for each question


- 1 How are you feeling this morning? O
- 2 What happens when you get angina?
- 3 When did James start feeling ill?
- 4 Does it hurt when I press your abdomen just here?
- 5 How bad is the pain?
- 6 Tell me, what were you doing when the symptoms appeared?
- 7 Were you taking your medication?
- 8 Can you describe the symptoms to me?
- 9 Tell me how it happened.
- 10 Are you still in pain?

7 Compare your answers with a partner. Which questions do you think are more useful in a nurse to patient situation?



8 These patients have common sports injuries. Complete the dialogues with the nurse treating them in ER. Use the question forms from 4 and 6 to help you.

- 1
Nurse: Can you tell me ¹ _____ ?
Ahmed: I don't know. I was playing really well and then ² _____ .
Nurse: How many times ³ _____ ?
Ahmed: This is the first time.
Nurse: Does it hurt when ⁴ _____ ?
Ahmed: Arrgh, yes, it's ⁵ _____ .
Nurse: On a scale ⁶ _____ ?
Ahmed: ⁷ _____ .
- 2
Nurse: Ooo, that looks painful. Tell me ⁸ _____ .
Vicky: ⁹ _____ .
Nurse: Do you have any other symptoms?
Vicky: I'm not sure. What do you mean?
Nurse: ¹⁰ _____ , for example.
Vicky: ¹¹ _____ .

Speaking 9  **32** Listen and check. Did you ask the same questions? Work in pairs and practise the dialogues.

Asthma emergency – giving instructions

Speaking 1 You are going to read some information from the WHO (World Health Organization) about asthma. What are the symptoms and causes of asthma? Work in pairs and discuss.

Vocabulary 2 Match the words 1–6 with the definitions a–f.

- | | | | |
|---|------------|----|--|
| 1 | breathless | a) | to make part of the body feel sore |
| 2 | irritate | b) | a fine powder produced by flowers |
| 3 | mucus | c) | having problems breathing |
| 4 | pollen | d) | to stop the feeling of pain |
| 5 | relieve | e) | to breathe noisily and with difficulty |
| 6 | wheeze | f) | a thick liquid produced in parts of the body |

Reading 3 Read the text and check your answers to 1. Label the diagram with the words in the box.

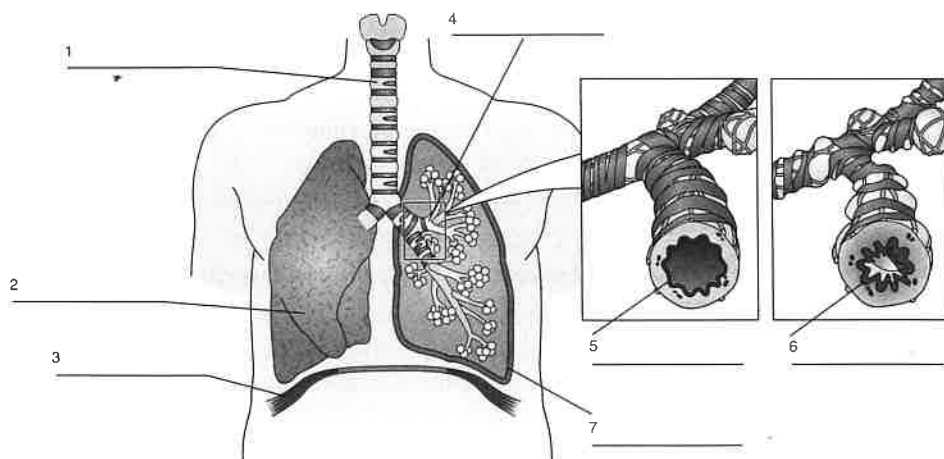
asthmatic bronchiole	bronchial tubes	diaphragm	left lung
normal bronchiole	right lung	windpipe	


Asthma – a global problem

Asthma is a chronic respiratory disease. The symptoms are a 'tight', chest, coughing, wheezing and difficulty in breathing. When a person with asthma comes into contact with something that irritates their airways, the lining of the bronchial tubes starts to swell. This makes the airways narrower and it is more difficult for air to get in and out of the lungs. Sometimes mucus is also produced. All of these cause the patient to wheeze, cough and become breathless.

- Asthma is the most common chronic disease among children.
- Asthma is a major public health problem for many countries in the world.
- The country with the highest level of asthma is the United Kingdom, followed by New Zealand.
- Over 80% of asthma deaths happen in low and lower-middle income countries.
- The causes of asthma are not completely understood. It is hereditary (it runs in family and is passed from parent to child) and is linked with allergies. Things that cause allergic reactions include:
 - indoor allergens (e.g. dust, pet hair) ▫ chemicals in the workplace
 - outdoor allergens (e.g. pollens) ▫ air pollution.
 - tobacco smoke

Although there is no cure for asthma, it is possible to control the symptoms and enjoy a good quality of life.



Listening 4  **33** Kyle Jenkins is attending an asthma clinic run by Nina, a practice nurse. Listen to the dialogue. Are these sentences *true* (T) or *false* (F)? Correct the false sentences.

- 1 The patient has suffered two asthma attacks this week.
- 2 The patient was playing tennis with his cousin when he had the last attack.
- 3 The patient's attack lasted about ten minutes.
- 4 The patient's best friend is also asthmatic.
- 5 The patient is going to practise how to use his inhaler correctly.



- 5** Put these words in order to form sentences. Then put sentences a–e in order 1–5 to form a set of instructions for using an inhaler.
- a) don't breathe / on your / Take a puff / inhaler at the same time / but / out immediately _____
 - b) your breath / the inhaler / Remove / for 10 seconds / hold / and _____
 - c) the mouthpiece / as possible / as deeply / Place / breathe in / and / between your lips _____
 - d) if necessary / Breathe / and / repeat / out slowly _____
 - e) back slightly / tilt your head / gently / and / Breathe out 1

Language

The imperative

We use **imperatives** to give clear, simple instructions to a patient.

Take your time.
Don't lie down.


We can use **staging words**, e.g. *first, then, next, finally* followed by a short pause to make it easier for the patient to understand the instructions.

First, breathe out. Then, blow into the mouthpiece.

- 6** Use the verbs in the box to complete the instructions the practice nurse gives Kyle in an emergency.

call continue lean lie down put repeat sit take

- 1 _____ down at a table. Don't 2 _____, 3 _____ forward slightly and 4 _____ your arms on the table.
- 5 _____ up to six puffs of your inhaler.
- 6 _____ an ambulance after six minutes if your symptoms don't improve.
- 7 _____ to take your inhaler every six minutes, for a maximum of six puffs.
- 8 _____ these steps, if your symptoms begin again.

- Speaking 7**  **34** Rewrite the instructions in 6 to include staging words. Work in pairs and take turns to practise reading them aloud. Pause slightly after each staging word. Then listen and check.

SOAP notes

Patient Name: Kyle Jenkins
DOB: 06.04.2001
Record No: TT-5810 fl133
Subjective: 'My chest feels all tight.'
Objective: RR 28, wheezing, SOB, abdominal exertion
Assessment: breathing pattern r/t asthma
Plan: 1) position pt in High Fowlers
2) administer meds via nebulizer

Reading 1 Look at the SOAP note that Nina wrote about Kyle. Then read the text about SOAP notes. Complete the text with the words in the box.

documents help measure summary symptoms treat

SOAP notes are ¹ _____ that nurses use to record information about a patient. A SOAP note has four parts – Subjective, Objective, Assessment and Plan.

The Subjective is what the patient says about his or her problem. It is the ² _____ the patient (or the patient's family) describes.

The Objective is what the nurse sees or observes at the time. It is the symptoms that the nurse can see, feel, hear, touch and ³ _____.

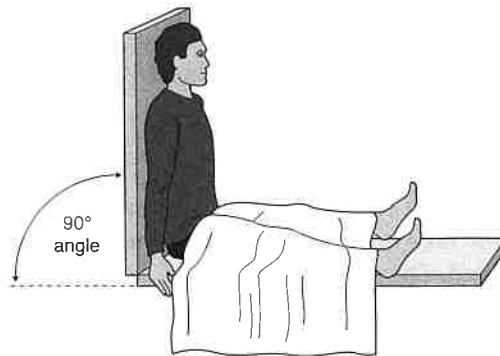
The Assessment is the nurse's ⁴ _____ of what the patient's immediate medical problems are.

The Plan is what the nurse plans to do to ⁵ _____ the patient's symptoms and ⁶ _____ with the problem.

Vocabulary 2 Read Kyle's SOAP note again and find the expressions or abbreviations in the note which mean the following.

- 1 medicine or medication
- 2 patient
- 3 related to
- 4 short of breath
- 5 his abdomen is working hard because he is having problems breathing
- 6 give
- 7 respiratory rate
- 8 a piece of equipment that administers medication that the patient breathes in

Speaking 3 What is High Fowler's? How does High Fowler's help an asthmatic patient? Explain how to position a patient into the High Fowler's position.



Reading 4 Look at the SOAP notes for the two patients below and answer these questions.

Who ...

- 1 ... suffers from arthritis?
- 2 ... would like to lose weight?
- 3 ... will see their old school friends a year from now?
- 4 ... will have their next appointment in three months?
- 5 ... doesn't suffer from drug allergies?
- 6 ... has to write down their feelings in a diary as part of their treatment?

Patient Name: Nancy Suzman
DOB: 14.10.62

Record No. FM-967-PPK

S 'I've been overweight since the birth of my twin daughters in 2001 and I get frustrated trying to diet. My 25-year reunion is next year and I'd really like to lose some weight.' NKDA, NKA.

O Wt = 95 kg Ht = 1m 60 IBW = 115 kg Chol = 255
BP = 120 / 75

A Obese at 183% IBW, hypercholesterolemia

P Long Term Goal: Change lifestyle habits to lose at least 27 kg over a 10-month period.

Short Term Goal: Client to begin a 1500 calorie diet with walking 30 minutes per day.

Instructed Pt on lower fat food choices and smaller food portions.

Client will keep a daily food and mood record to review next session.

Follow-up in one week.

Signature: *Nina Farmer*



Patient Name: Massimo
Geraldo

DOB: 17.05.1957

Record No. YF- 556-Uli68

S 'I've had this pain in my right knee for four months; its worse when I walk or do any exercise.' NKDA.

O Wt. 69 kg, Ht. 1m 67, normal ROM both knees no redness or swelling

A Possible osteoarthritis; R/O rheumatoid arthritis

P (1) blood work—sed rate
rheumatoid factor
(2) X-ray R knee PA and lateral
(3) ibuprofen 400 mg t.i.d. p.o.
(4) recheck in 3 months.

Signature: *Nina Farmer*



Vocabulary

Abbreviations key:		
IBW = ideal body weight	BS = blood sugar	b. i. d. = twice a day
Chol = cholesterol	UA = urine analysis	ABC = airways, breathing, circulation
ROM = range of motion	R = right	IBP = ineffective breathing pattern
R/O = rule out	L = left	O ² = oxygen
PA = posterior/anterior	mg = milligram	p.r.n. = as required
NKDA = no known drug allergies	t.i.d. = three times a day	hr = hour
NKA = no known allergies	p.o. = by mouth	
	IAC = ineffective airway clearance	

5 Work in pairs. Practise saying these abbreviations as complete words.

Speaking 6 Work in pairs. Student A, look at the information below. Student B, turn to page 68.

sed rate: a blood test that can show inflammatory activity in the body

Dictate the nursing terms to your partner, who will write the abbreviation. Add two more of your own examples. When you have finished, swap roles.

- | | | |
|---------------|--------------------------------|---------------------|
| 1 by mouth | 4 milligram | 7 ideal body weight |
| 2 cholesterol | 5 no known allergies | 8 urine analysis |
| 3 rule out | 6 ineffective airway clearance | |