

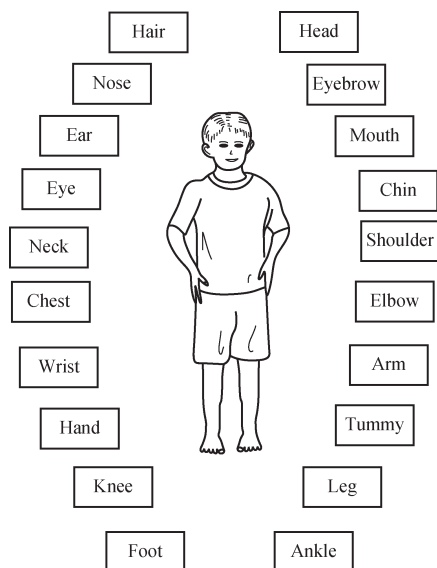


# Part 1

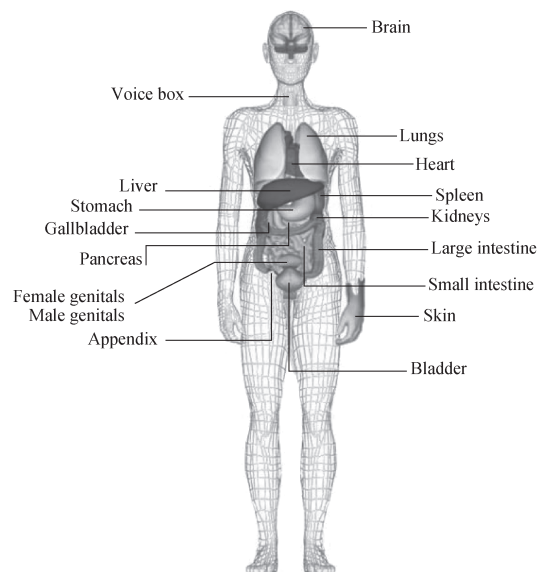
## Unit 1 Human Body

### A Parts of the body

A human body includes the entire structure of a human being and comprises head, neck, trunk (which includes the thorax and abdomen), arms and hands, legs and feet. Every part of the body is composed of various types of cells, the fundamental units of life.



Parts of the body diagram



Organs anatomy diagram

## **B** *Organs of the body and their functions*

Two or more organs working together in the execution of a specific body function form an organ system, also called a biological system or body system. The functions of organ systems often share significant overlap. For instance, the nervous system and the endocrine system both operate via a shared organ, the hypothalamus. For this reason, the two systems are combined and studied as the neuroendocrine system. The same is true for the musculoskeletal system because of the relationship between the muscular system and the skeletal system.

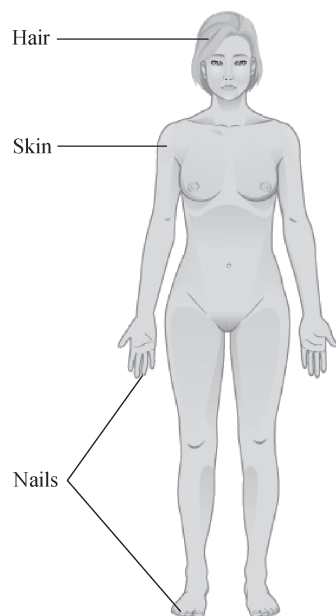
**Mammals such as humans have a variety of organ systems. These specific systems are also widely studied in human anatomy.**

- **Integumentary system:** skin, hair and nails.
- **Skeletal system:** structural support and protection with bones, cartilage, ligaments and tendons.
- **Muscular system:** movement with muscles.
- **Nervous system:** collecting, transferring and processing information with brain, spinal cord and nerves.
- **Endocrine system:** communication within the body using hormones made by endocrine glands such as hypothalamus, pituitary gland, pineal body or pineal gland, thyroid, parathyroid and adrenals, i.e., adrenal glands.
- **Cardiovascular system:** pumping and channeling blood to and from the body and lungs with heart, blood and blood vessels.
- **Lymphatic System:** structures involved in the transfer of lymph between tissues and the blood stream; including lymph and lymph nodes and lymph vessels. The lymphatic system performs functions including immune responses and development of antibodies.
- **Respiratory system:** the organs used for breathing, pharynx, larynx, trachea, bronchi, lungs and diaphragm.
- **Digestive system:** digestion and processing food with salivary glands, esophagus, stomach, liver, gallbladder, pancreas, intestines, colon, rectum and anus.

brain	[breɪn]	n. 头脑, 智力; 脑袋
lung	[lʌŋ]	n. 肺; 呼吸器
heart	[hɑ:t]	n. 心脏
liver	['lɪvə]	n. 肝脏
spleen	[spli:n]	n. 脾脏
stomach	['stʌmək]	n. 胃; 腹部; 胃口
kidney	['kɪdnɪ]	n. [解剖] 肾脏
gallbladder	['gɔ:l,blædə]	n. [解剖] 胆囊
pancreas	['pæŋkrɪəs]	n. [解剖] 胰腺
genitals	['dʒenɪtəlz]	n. 生殖器; 外阴部
appendix	[ə'pendɪks]	n. 阑尾
skin	[skɪn]	n. 皮肤; 外皮
bladder	['blædə]	n. 膀胱
voice box		n. 喉头
small intestine		n. [解剖] 小肠
large intestine		n. [解剖] 大肠

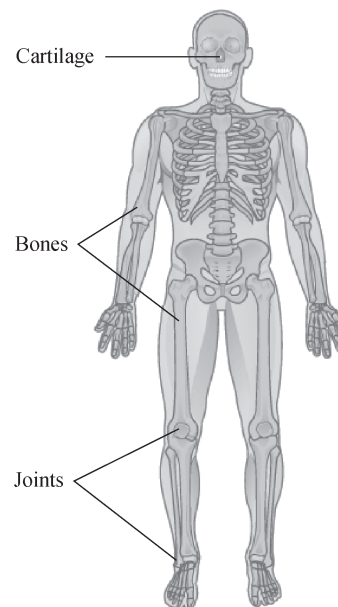
• **Urinary system:** kidneys, ureters, bladder and urethra involved in fluid balance, electrolyte balance and excretion of urine.

• **Reproductive system:** the sex organs such as ovaries, fallopian tubes, uterus, vagina, mammary glands, testes, vas deferens, seminal vesicles, prostate and penis.



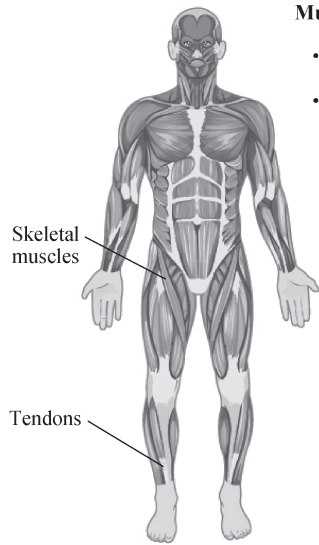
**Integumentary System**

- Encloses internal body structures
- Site of many sensory receptors



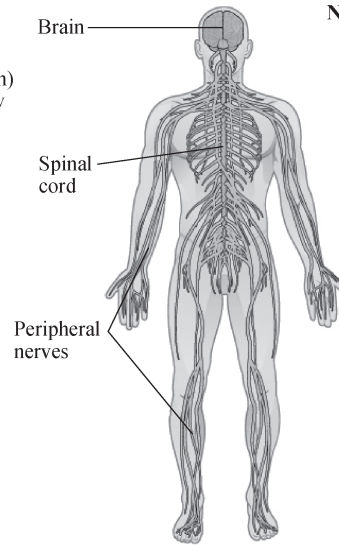
**Skeletal System**

- Supports the body
- Enables movement (with muscular system)



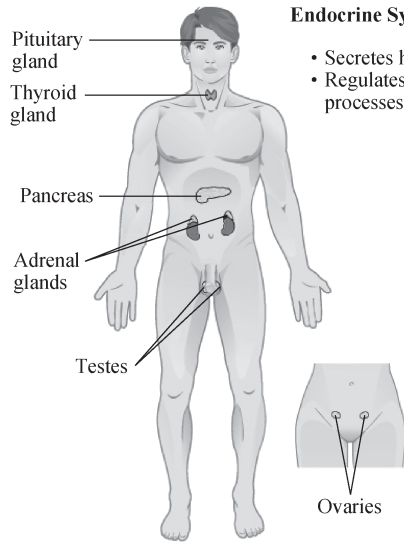
### Muscular System

- Enables movement (with skeletal system)
- Helps maintain body temperature



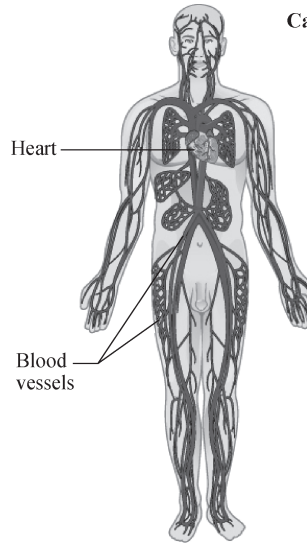
### Nervous System

- Detects and processes sensory information
- Activates bodily responses



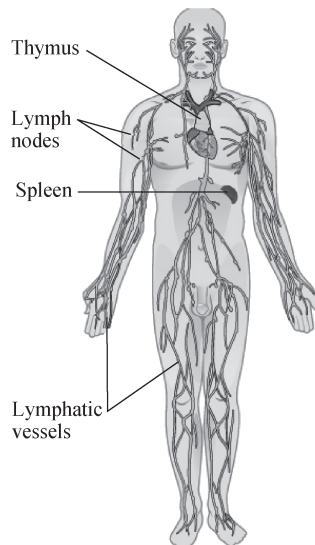
### Endocrine System

- Secretes hormones
- Regulates bodily processes



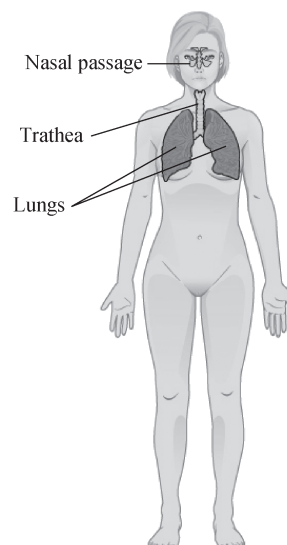
### Cardiovascular System

- Delivers oxygen and nutrients to tissues
- Equalizes temperature in the body



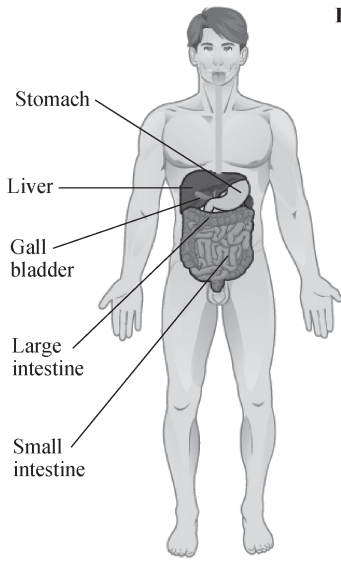
### Lymphatic System

- Returns fluid to blood
- Defends against pathogens



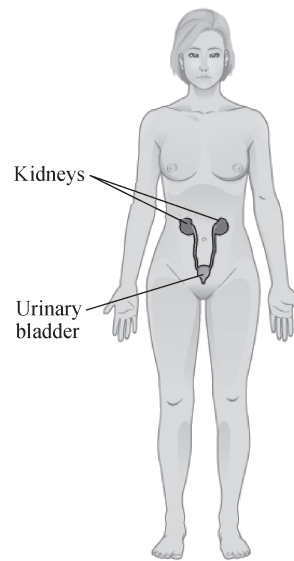
### Respiratory System

- Removes carbon dioxide from the body
- Delivers oxygen to blood



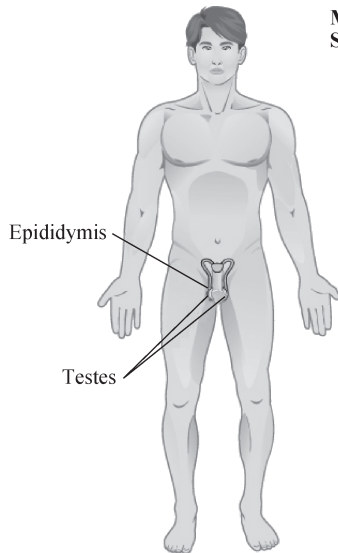
**Digestive System**

- Processes food for use by the body
- Removes wastes from undigested food



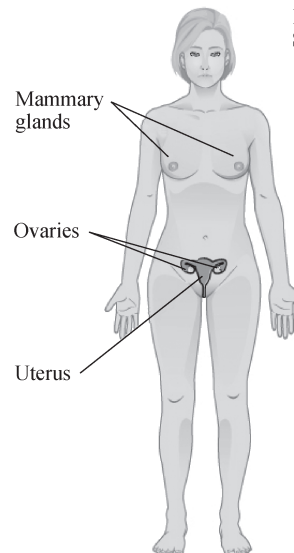
**Urinary System**

- Controls water balance in the body
- Removes wastes from blood and excretes them



**Male Reproductive System**

- Produces sex hormones and gametes
- Delivers gametes to female



**Female Reproductive System**

- Produces sex hormones and gametes
- Supports embryo/ fetus until birth
- Produces milk for infant

 **EXERCISES**

**1. Fill in the blanks in the sentences using the following organ systems.**

nervous system, respiratory system, cardiovascular system, digestive system, endocrine system, urinary system, integumentary system, muscular system, reproductive system, skeletal system

1). \_\_\_\_\_ carries blood throughout the body to help bring nutrients to various other organs. It includes the heart, blood, and blood vessels.

2). \_\_\_\_\_ includes all the organs needed for reproduction. Unlike the rest of the organ

systems, the reproductive system is different in males and females.

3). \_\_\_\_\_ provides support and protection for the rest of the organ systems. It is made up of bones, ligaments, tendons, and cartilage.

4). \_\_\_\_\_ is responsible for carrying messages from brain to various parts of the body. It includes the brain, spinal cord, and nerves.

5). \_\_\_\_\_ uses hormones to regulate many functions throughout the entire body such as growth, mood, metabolism, and reproduction. Major organs in the endocrine system include glands such as pituitary, thyroid, and adrenal glands.

6). \_\_\_\_\_ is made up of all the muscles in our bodies. It is controlled by the nervous system.

7). \_\_\_\_\_ processes food into substances that different parts of the body can use for energy and nutrients. It includes organs such as stomach, gallbladder, intestines, liver, and pancreas.

8). \_\_\_\_\_ helps your body to get rid of food and toxins that it doesn't need. It includes organs such as kidneys and bladder.

9). \_\_\_\_\_ protects the body from the outside world. It includes skin, hair, and nails.

10). \_\_\_\_\_ is responsible for breathing. It transfers oxygen into the blood stream and removes carbon dioxide. It includes lungs, larynx, and airways.

## 2. Fill in the blanks in the sentences using the words below.

brain, blood, skull, heart, intestine, kidneys, liver, lungs, oxygen, skin, stomach

1). Perhaps the most important organ in our body is the \_\_\_\_\_.

2). It is here where we think, feel emotions, make decisions, and control the rest of the body. It is protected by a thick \_\_\_\_\_ and fluid.

3). \_\_\_\_\_ are major organs that bring much needed \_\_\_\_\_ into our blood stream.

4). The \_\_\_\_\_ performs all sorts of vital functions in our bodies from helping us to break down food in digestion to rid our bodies of toxins.

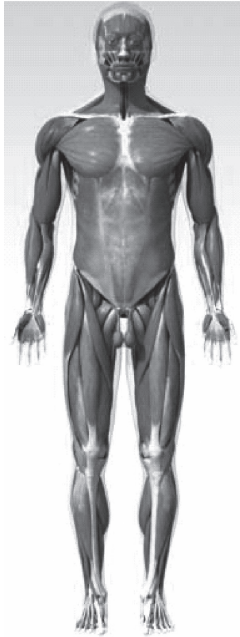
5). The \_\_\_\_\_ holds our food when we first eat it and secretes enzymes that help to break down our food before it goes to the small \_\_\_\_\_.

6). The \_\_\_\_\_ help to keep our bodies clean from toxins and other waste products. Without them our \_\_\_\_\_ would quickly become poisoned.

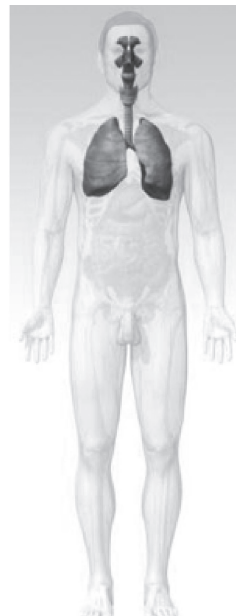
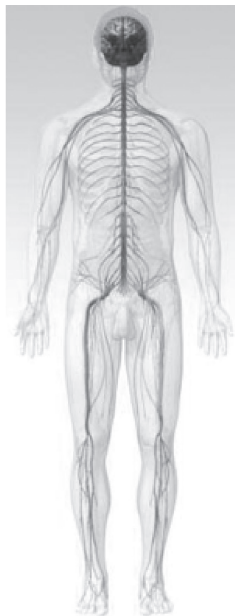
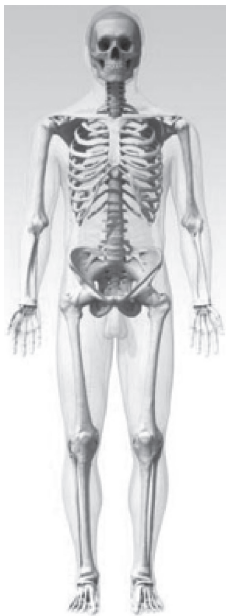
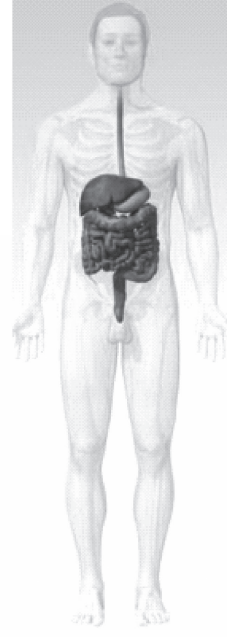
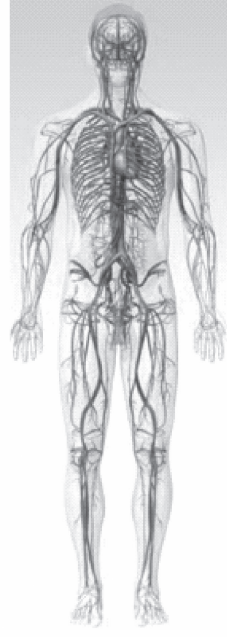
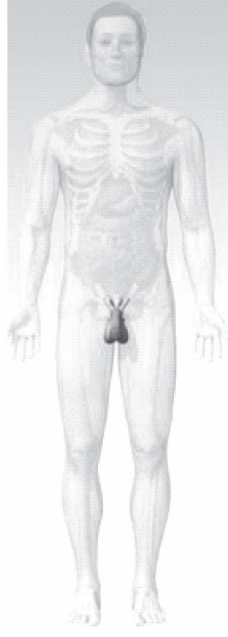
7). The \_\_\_\_\_ is considered by many to be the center of life. Keeping it healthy helps to keep the rest of the organs and body healthy as well.

8). The \_\_\_\_\_ is a major organ that covers our entire body. It also provides feedback to the brain through the sense of touch.

3. Give titles to images below. The first and the last ones are given as examples.

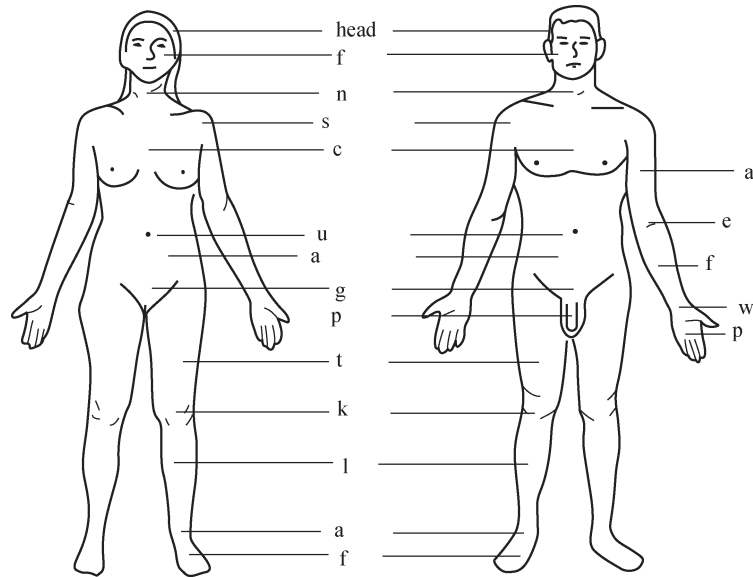


Muscular System



Integumentary System

4. Work with a partner. Name the body parts in the picture below.



5. Fun facts of organs. Fill in the blanks in the sentences using the words in the box.

fats, skin, blood, infection, sugar, damage, toxins, drying, liver

- 1). Your \_\_\_\_\_ is the largest organ in your body. It accounts for about 16% of your body weight.
- 2). Skin covers your body protecting it from \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ out.
- 3). Your \_\_\_\_\_ is your largest internal organ. One of its functions is to get rid of \_\_\_\_\_ found in your blood.
- 4). Your liver produces bile which breaks down \_\_\_\_\_ in the food you eat.
- 5). Your liver plays a vital role in regulating \_\_\_\_\_ levels in your blood.
- 6). Your spleen filters \_\_\_\_\_ to keep it clean and protect against infection.



## Unit 2 Health and Illness

### A What are symptoms? What are signs?

In medicine a symptom is generally subjective while a sign is objective. Any objective evidence of a disease, such as blood in stool and skin rash, is a sign. It can be recognized by doctor, nurse, family member and the patient. However, stomachache, lower-back pain or fatigue, for example, can only be detected or sensed by the patient. Others only know about it when the patient tells them.

#### Some common symptoms and signs

ache	疼痛 [eɪk]	a pain that is continuous and unpleasant, but usually not very strong <i>There was a dull ache in his stomach.</i>
abrasion	擦伤 [ə'breɪʒn]	a damaged area of the skin where it has been rubbed against something hard and rough <i>She walked away from the auto accident with only minor abrasions.</i>
anorexia	厌食症 [,ænə'reksɪə]	loss of appetite especially when prolonged <i>Anorexia is a serious illness that makes you want to stop eating.</i>
bruise	挫伤 [bru:z]	a blue, brown or purple mark that appears on the skin after somebody has fallen, been hit, etc. <i>He had a bad bruise on his knee.</i> <i>He bruised his knee badly after he fell.</i>
bruised	挫伤的 [bru:zd]	Apply the gel onto your bruised skin.
constipation	便秘 [,kɒnstɪ'peɪʃn]	being unable to get rid of waste material from the bowels easily <i>A side effect of the drug is constipation.</i>
constipated	便秘的 [,kɒnstɪ'peɪtɪd]	This newborn has been constipated for two days.

diarrhea	腹泻 [ˌdaɪəˈrɪə]	pass waste from your body very frequently and in liquid rather than solid form <i>I was taken with severe diarrhea while attending the conference.</i>
dizzy	眩晕的 [ˈdɪzi]	feeling as if everything is spinning around you and that you are not able to balance. <i>She felt dizzy and had to sit down.</i> <i>Possible side effects include dizziness, headache, fatigue, and</i>
dizziness	眩晕 [ˈdɪzɪnɪs]	a lowering of blood pressure.
insomnia	失眠 [ɪnˈsɒmniə]	a medical condition in which you have difficulty sleeping <i>It's very good bedtime reading if you suffer from insomnia.</i>
inflammation	炎症 [ɪnfləˈmeɪʃn]	an area on your body that is swollen, red, and painful because of an infection or injury <i>Steroid creams help to reduce inflammation on your skin.</i>
laceration	撕裂伤 [ˌlæsəˈreɪʃn]	a deep cut in someone's flesh <i>He had lacerations to the index finger on his left hand.</i>
nausea	恶心 [ˈnɔːsiə]	the feeling that you are going to vomit <i>Early pregnancy is often accompanied by nausea.</i>
swell	肿胀 [swel]	to become larger than normal because of liquid collecting inside My ankles tend to swell when I travel by air.
swelling	肿胀处 [ˈswelɪŋ]	<i>A large swelling had come up on my ankle.</i> An ice pack should help reduce swelling.
swollen	肿起的 [ˈswɒlən]	<i>a swollen hand/knee/foot</i>

## **B** *Medical specialties & hospital departments*

Specialties in medicine are branches of medical practice. After completing medical school, physicians or surgeons usually further their medical education in a specific specialty of medicine by completing a multiple year residency to become a medical specialist. Many specialties are based mainly around a set of techniques such as radiology, which is originally based around X-rays. Others are organ-based. Many symptoms and diseases come from particular organs, including:

Neurology (Brain & Nerves)  
 Orthopedics (Bones)  
 Oncology (Cancer)  
 Pediatrics (Children)  
 Otorhinolaryngology (Ear, Nose & Throat)  
 Ophthalmology (Eyes)  
 General Surgery  
 Cardiovascular (Heart & Vascular)  
 Endocrinology (Hormone Disorder)  
 Renal Medicine (Kidneys)  
 Respiratory Medicine (Lungs)  
 Gastroenterology (Stomach & Digestive System)  
 Transplant & Cellular Therapy  
 Urology (Urinary & Reproductive System)  
 Obstetrics & Gynecology (Women)

There are many hospital departments, staffed by a wide variety of healthcare professionals, with some crossover between each other. Some of these units work very closely together, and may even be combined into one larger department. Each department tends to be overseen by senior physicians or surgeons in that specialty with a team of junior medical staff under them who are also interested in that specialty. Below is a list of the main departments you'll come across when you visit a hospital.

Department of Anesthesiology	麻醉科
Department of Cardiology	心内科
Department of Cardiothoracic Surgery	心胸外科
Department of Dentistry	牙科
Department of Dermatology	皮肤科
Department of Dietetics	营养科
Department of ENT Head & Neck Surgery	耳鼻喉头颈外科
Department of Endocrinology	内分泌科
Department of Gastroenterology	消化内科
Department of General surgery	普通外科
Department of Geriatrics	老年病科
Department of Gynecology	妇科
Department of Hematology	血液科
Department of Infectious Diseases	感染内科
Department of Internal Medicine	普通内科
Department of Intensive Care Unit	重症医学科

Department of Laboratory Medicine	检验科
Department of Liver Surgery	肝脏外科
Department of Medicine	内科
Department of Microbiology	微生物学科
Department of Medical Imaging	医学影像
Department of Nephropathy	肾内科
Department of Neurology	神经内科
Department of Neurosurgery	神经外科
Department of Nuclear Medicine	核医学科
Department of Obstetrics & Gynecology	妇产科
Department of Oncology	肿瘤内科
Department of Ophthalmology	眼科
Department of Orthopedic Surgery	骨科
Department of Otorhinolaryngology	耳鼻喉科
Department of Orthopedics & Traumatology	矫形及创伤外科
Department of Pathology	病理科
Department of Pediatrics	儿科
Department of Psychiatry	精神科
Department of Physical Medicine & Rehabilitation	康复医学科
Department of Plastic & Reconstructive Surgery	整形外科
Department of Radiology	放射科
Department of Radiotherapy	放射治疗科
Department of Respiratory Diseases	呼吸内科
Department of Rheumatology	风湿免疫科
Department of Surgery	外科
Department of Traditional Medicine	中医科
Department of Urology	泌尿科
Emergency Department	急诊科

## C Instruments used in general medicine

A good knowledge of medical English of signs, symptoms, specialties and hospital departments will be invaluable in your professional life. You will also find it useful to know the common items that are used in everyday job routine.

Instruments	Uses
stethoscopes	used to hear sounds from movements within the body, like heart beats, intestinal movement, breath sounds, etc.
measuring tape	for size measurements
weight scale	to record the weight
tongue depressor	for use in oral examination
kidney dish	as a tray for instruments, gauze, tissue, etc.
bedpan	for patients who are unconscious or too weak to even sit up or walk to the toilet to defecate
thermometer	to record the body temperature
gas cylinders	supply of oxygen, nitrous oxide, carbon dioxide, etc.
oxygen mask or tubes	delivering gases up to the nostrils to assist in oxygen intake or to administer aerosolized or gaseous drugs
vaporizer	to produce vapors
sterilizers	to sterilize instruments
nebulizer	to produce aerosols of drugs to be administered by respiratory route
dialyzer	to remove toxic materials from blood that are generally removed by the kidneys; used in case of renal failure
rubber catheter	to drain and collect urine directly from bladder (primary use); also to act as a makeshift oxygen tube, etc.
syringe	to inject and aspirate blood or fluid from the body
cannula	a kind of needle that is used to create a permanent pathway to a vein (or artery) for the purpose of repeated injections or infusion of intravenous fluids
transfusion sets	used to transfuse blood and blood products
sucker	to suck up blood or secretions

Instruments	Uses
bandage	to cover and protect certain areas of the body such as recent injury
pipettes or droppers	to measure out doses of liquid, specially in children
graduated spoons	to measure out doses of liquids
linen	for dressing and draping
enema set	to passively evacuate feces of rectum

## **D** *Some common illnesses*

There are many different common illnesses that adults and children may experience or come down with every year. Here we have provided a list of examples.

Asthma	哮喘
Bladder Infections (UTI)	膀胱炎
Bronchitis	支气管炎
Burns	烧伤
Cuts and Scrapes	割伤、擦伤
Diabetes	糖尿病
Depression & Anxiety	抑郁、焦虑
Gout	痛风
Hemorrhoid	痔疮
Hypertension	高血压
Hypotension	低血压
Prostatitis	前列腺炎
Respiratory Infection	呼吸道感染
STD's (sexually transmitted disease)	性病
Sprains & Strains	扭伤、拉伤
Thyroidism	甲亢
Ulcers	溃疡

**EXERCISES****1. Classify the following signs and symptoms in the appropriate column.**

sharp pain, dull pain, bruise, constipation, backache, weight loss, insomnia, shallow respiration, rapid pulse, nausea, fainting, dizziness, swelling

Signs

Symptoms

**2. Fill in the blanks in the sentences using the following medical specialties.**

internal medicine, infectious diseases, anesthesiology, dentistry, dermatology, geriatric medicine, hematology, nuclear medicine, oral and maxillofacial surgery, pathology, psychiatry, plastic surgery, public health, rheumatology

1). \_\_\_\_\_ is the branch of medicine concerned with general anesthetics to induce reversible sleep, such as when you have surgery or some medical tests, to prevent pain and discomfort. This enables medical procedures to be done that otherwise would not be possible.

2). \_\_\_\_\_ is the specialty concerned with diagnosis and treatment of diseases through the use of radioactive materials. The doses of radioactive materials used are usually small.

3). \_\_\_\_\_ is the branch of medicine concerned with your teeth and mouth. This specialty involves repair or removal of decayed teeth, straightening and adjustment of teeth, and design, manufacture, and fitting of false teeth and other devices.

4). \_\_\_\_\_ is the specialty concerned with treatment of conditions of your face, mouth and jaw. This includes repair of cleft lip/palate, facial trauma and surgery for cancer.

5). \_\_\_\_\_ is the branch of medicine concerned with diagnosis, treatment and prevention of diseases of your skin hair, nails, mouth and genitals. This can also include cosmetic care.

6). \_\_\_\_\_ is the specialty concerned with looking at tissues and cells through a microscope to diagnose your illness, and improve our treatment and understanding of diseases.

7). \_\_\_\_\_ is the specialty concerned with diagnosis, treatment and prevention of diseases of old age, and social aspects of illness in older people. This specialty is also called “care of the elderly”.

8). \_\_\_\_\_ is the specialty concerned with repair of missing or damaged tissue and skin due to surgery, illness, injury or birth abnormality. This can also include cosmetic surgery.

9). \_\_\_\_\_ is the specialty concerned with diagnosis, treatment and monitoring of disorders of your blood and bone marrow. This specialty also supports the blood transfusion service.

10). \_\_\_\_\_ is the specialty concerned with diagnosis, treatment and prevention of mental health conditions. Psychiatrists use communication as therapy, but can also prescribe medicines.

11). \_\_\_\_\_ is the specialty concerned with diagnosing and treating diseases caused by micro-organisms, for example, bacteria or viruses. This specialty is also involved in preventing the spread of infection from one person to another.

12). \_\_\_\_\_ is the specialty concerned with preventing disease, promoting health and prolonging life among a specific population.

13). \_\_\_\_\_ is the specialty concerned with the prevention, diagnosis and treatment of adult diseases by non-surgical techniques. This specialty is also called general medicine, and the doctors in this area of medicine are sometimes known as physicians or internists.

14). \_\_\_\_\_ is the specialty concerned with diagnosing and treating arthritis and rheumatic diseases. These conditions affect joints, muscles and bones.

### 3. A patient is describing his or her hospital visit. Can you put the sentences in the correct order?

I told the doctor it hurt whenever I coughed.

I've got a sore throat and went to see the doctor.

When he had finished he gave me a prescription for some medicine.

He asked me questions about my medical history and symptoms.

Then he closely checked my mouth and tongue.

### 4. Can you tell if the following sentences are said by a medical professional or a patient?

1). It's a kind of sharp pain.

2). Any vomiting?

3). Across here.

4). Ouch, that really hurts.

5). Does it hurt when I press here?

6). Is it continuous or does it occur just now and then?

7). It's a bit difficult to describe.



- 8). Have you had similar conditions before?  
 9). And here?  
 10). Yes, a little.

**5. What are the English words for the following things?**



(a)



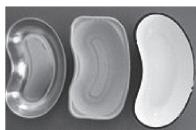
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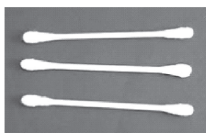
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(h)



(i)



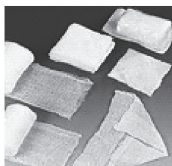
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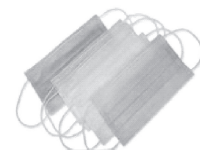
(m)



(n)



(o)



(p)

**6. Match the medical word or expression from the left column with the equivalent laymen's term in the right column.**

1) upper respiratory tract infection	A. high blood pressure
2) hypertension	B. coughs, colds, flu, etc.
3) degenerative joint disease	C. arthritis
4) otitis	D. ear infection
5) paresthesia	E. sleeplessness
6) dyspepsia	F. breathlessness

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7) dyspnea	G. swelling
8) urinary tract	H. chest pain
9) insomnia	I. cramp
10) myocardial infarction	J. indigestion
11) edema	K. coughing up phlegm
12) anorexia	L. heart attack
13) claudication	M. off one's food
14) productive cough	N. pins and needles
15) angina	O. waterworks