CHAPTER 1

Learning the language: terminology

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TEST YOUR PRIOR KNOWLEDGE

1. Can you explain what a prefix is and its role in a medical word?
2. What is the function of a suffix in medical terminology?
3. In what ways can a prefix or suffix change the meaning of a root word?
4. Identify and briefly describe the key anatomical planes.

LEARNING OUTCOMES

On completion of this chapter, the reader will be able to:

1. Explain the meaning of the terms: anatomy, physiology and pathophysiology.
2. Develop a deeper understanding of prefixes and suffixes commonly used in relation to anatomy, physiology and pathophysiology.
3. Demonstrate an understanding of key directional terminology.
4. Describe the anatomical planes, regional divisions of the body and the main body cavities.

Introduction

Scientific language, particularly that used in nursing and medicine, is heavily influenced by Latin and Greek. Latin terms are used to name all parts of the body, while Greek is widely used due to the Greeks being regarded as the pioneers of modern medicine.

Pathophysiology, anatomy and physiology are inextricably linked because a thorough understanding of the human body's normal structure and function is essential to recognising and interpreting what happens when

it becomes diseased or injured. Anatomy describes the physical structure of the body, while physiology explains how those structures function under normal, healthy conditions. Together, they provide the foundational knowledge required by healthcare professionals to understand the complexities of human biology.

Pathophysiology builds upon this foundation by exploring the physiological processes that are disrupted in disease. It focuses on how normal anatomy and physiology are altered by illness or injury, helping practitioners understand the underlying mechanisms of signs, symptoms and clinical manifestations. For example, to understand the impact of heart failure, it is important to first comprehend how a healthy heart functions, how blood is pumped, how oxygen is delivered to tissues and how circulation is maintained. Only then can the changes caused by heart failure, such as reduced cardiac output or fluid retention, be fully understood and managed.

This integrated knowledge is crucial in clinical practice. It enables healthcare professionals to accurately assess patients, recognise deviations from normal, make informed decisions and deliver evidence-based care. Whether monitoring vital signs, interpreting laboratory results or planning interventions, clinicians rely on their understanding of both normal and abnormal processes.

Ultimately, the relationship between anatomy, physiology and pathophysiology is central to safe and effective healthcare delivery. One cannot exist meaningfully without the others, as they collectively provide a complete picture of human health and disease.

Anatomy and physiology

Anatomy is concerned with the study of the structure and location of body parts, and physiology is the study of the function of body parts; these two terms are interlinked. Knowing where the body parts are located can help you understand how they function. McGuiness (2010) explains that thinking of the numerous functions of the heart and the four chambers along with the valves (this is the anatomy) and visualising these various structures can help in comprehending how blood flows through the heart and how the heart beats (this is related to its function and therefore its physiology).

Anatomy

The body map

Learning anatomical terminology is like learning a new language and can help you talk confidently about the body; the anatomical directional terms and body planes present a universally recognised anatomical language. When undertaking the study of anatomy and physiology, it is essential that you have a key or directional terminology in order to give you an accurate description as you or others refer to the precise location of a body part or structure.

All parts of the body are described in relation to other body parts, and a standardised body position that is known as the anatomical position is used in anatomical terminology. The anatomical position is defined using an imaginary line that runs down the centre, or midline, of the body. When in this standard position, the body stands upright and faces forward, with arms resting at the sides, palms facing forward, thumbs pointing outward and feet slightly apart with toes pointing straight ahead.

The standard body 'map' or anatomical position (just like a map) is that of the body standing upright (orientated with north at the top), with the feet at shoulder width and parallel, toes forward (see Figure 1.1); humans are generally bilaterally symmetrical. This position is used to describe the body parts and positions of patients irrespective of whether they are lying down, lying on their side or facing down.

As well as understanding the anatomy and physiology (the structure and function), understanding directional terms and the positions of the various structures is also necessary. Table 1.1 lists common anatomical descriptive terms that you will need to become acquainted with.

Figure 1.2 depicts anatomical positions.

Anatomical planes of the body

A plane is an imaginary two-dimensional surface that passes through the body and is used as a reference point to divide the body into sections. These planes are fundamental in anatomical study and clinical practice as they provide a consistent way to describe the locations and movements of different body parts. There are three planes that are generally referred to in anatomy and healthcare (see Figure 1.3):

- Sagittal
- Frontal
- Transverse

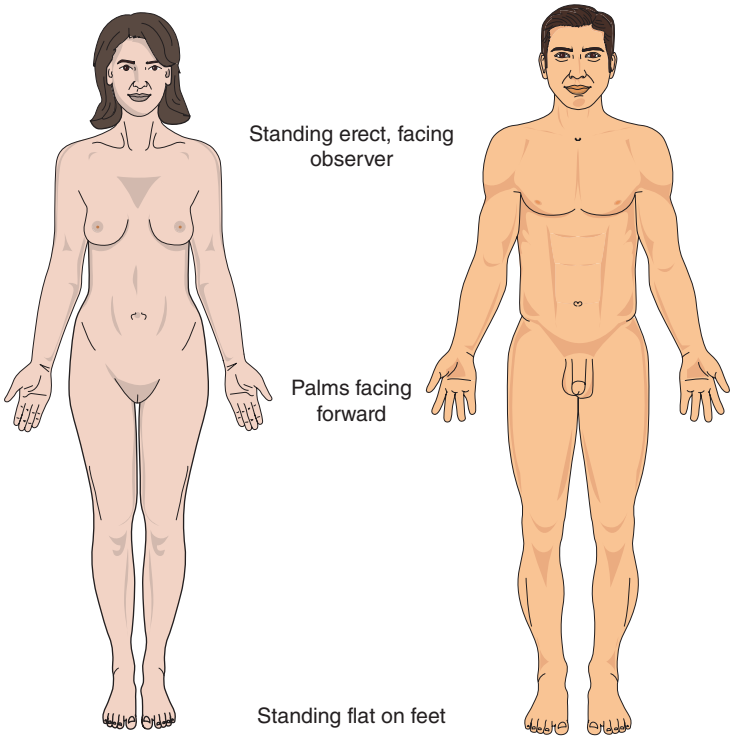


FIGURE 1.1 Standard anatomical position.

TABLE 1.1 **Anatomical descriptive terms.**

Anatomical term	Relationship to the body
Anterior	Front surface of the body or structure
Posterior	Back surface of the body or structure
Deep	Further from the surface
Superficial	Close to the surface
Internal	Nearer the inside
External	Nearer the outside
Lateral	Away from the mid-line
Median	Mid-line of the body
Medial	In the direction of the mid-line
Superior	Located above or towards the upper part
Inferior	Located below or towards the lower part

(*Continued*)

TABLE 1.1 (*Continued*)

Anatomical term	Relationship to the body
Proximal	Nearest to the point of reference
Distal	Furthest away from the point of reference
Prone	Lying face down in a horizontal position
Supine	Lying face up in a horizontal position

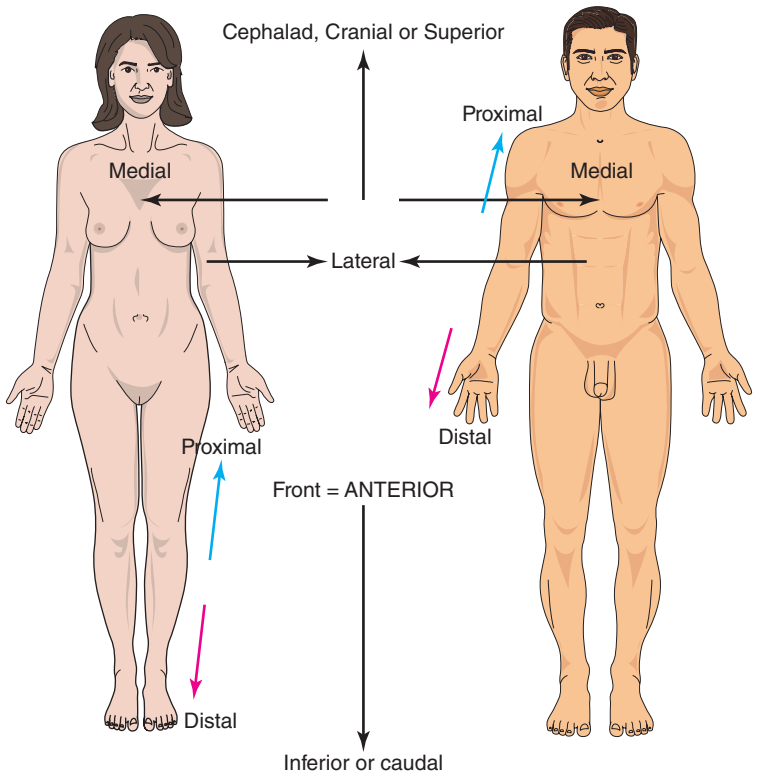


FIGURE 1.2 Directional anatomical positions.

The sagittal plane, the vertical plane, is the plane that divides the body or an organ vertically into the right and left sides. If this vertical plane runs directly down the middle of the body, it is known as the midsagittal, or median, plane. If it divides the body into unequal right and left sides, then it is called a parasagittal plane.

The frontal plane is the plane dividing the body or an organ into an anterior portion and a posterior portion. The frontal plane is often referred to as a coronal plane (the word *corona* is Latin for 'crown').

The transverse plane divides the body or organ horizontally into the upper (superior) and lower (inferior) portions.

Anatomical regions of the body

The body is organised into regions, much like sections on a map. These anatomical regions refer to specific areas of the body, helping to compartmentalise it for clearer description and understanding. This regional division supports accurate communication in both clinical and

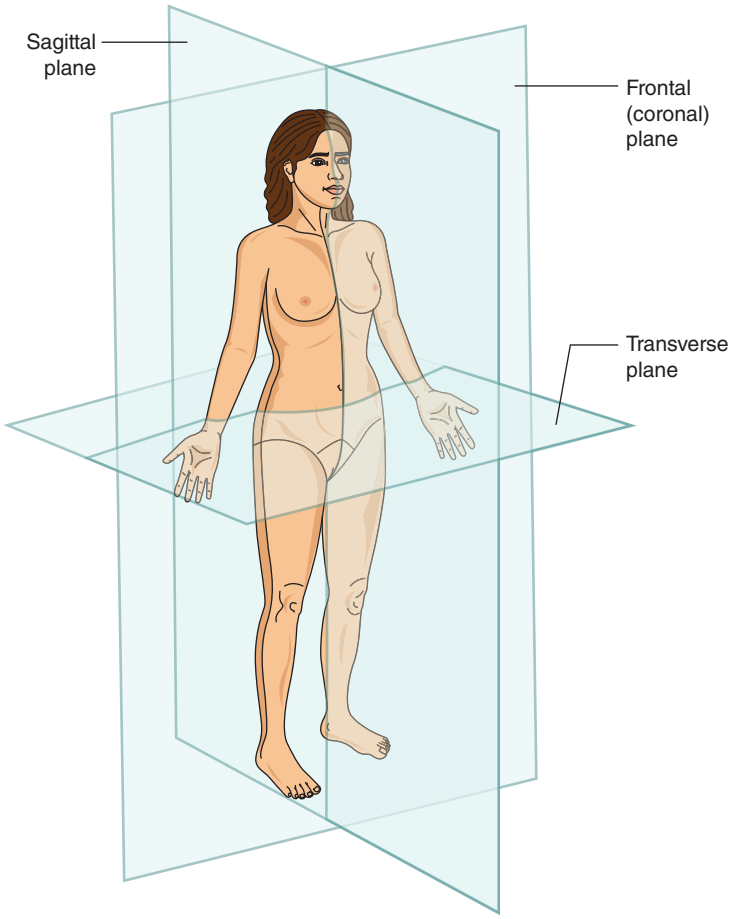


FIGURE 1.3 Anatomical planes.

educational settings. The body is commonly divided into the following regions:

- Head and neck
- Trunk (thorax and abdomen)
- Upper limbs (arms)
- Lower limbs (legs).

Tables 1.2–1.5 present the correct terminology for each region.

Body cavities

Body cavities are hollow spaces within the body that enclose and protect the internal organs, providing them with room to expand, contract and function properly. These cavities help organise the body's structures, separate organs and provide cushioning through the presence of fluids or membranes.

TABLE 1.2 **Anatomical regions of the head and neck.**

Anatomical term	Area of body related to
Cephalic	Head
Cervical	Neck
Cranial	Skull
Frontal	Forehead
Occipital	Back of head
Ophthalmic	Eyes
Oral	Mouth
Nasal	Nose

TABLE 1.3 Anatomical regions of the trunk (thorax and abdomen).

Anatomical term	Area of body related to
Axillary	Armpit
Costal	Ribs
Mammary	Breast
Pectoral	Chest
Vertebral	Backbone
Abdominal	Abdomen
Gluteal	Buttocks
Inguinal	Groin
Lumbar	Lower back
Pelvic	Pelvis/lower part of abdomen
Umbilical	Navel
Perineal	Between anus and external genitalia
Pubic	Pubis

TABLE 1.4 Anatomical regions of the upper limbs.

Anatomical term	Area of body related to
Brachial	Upper arm
Carpal	Wrist
Cubital	Elbow
Forearm	Lower arm
Palmar	Palm
Digital	Fingers (also relates to toes)

The cavity can be filled with air or organs. Minor body cavities are smaller, specialised spaces within the body that house specific structures. These include the oral cavity (mouth), which contains the teeth and tongue; the nasal cavity, involved in breathing and olfaction; the orbital cavity, which encloses and protects the eyes and the middle ear cavity, which contains the small bones essential for hearing. Additionally, the synovial cavities

TABLE 1.5 Anatomical regions of the lower limbs (legs).

Anatomical term	Area of body related to
Femoral	Thigh
Patella	Front of knee
Pedal	Foot
Plantar	Sole of foot
Popliteal	Hollow behind knee
Digital	Toes (also relates to fingers)

are fluid-filled spaces found within synovial joints, such as the knee and shoulder, allowing smooth, friction-free movement between articulating bones. Though smaller than the major body cavities, these minor cavities play crucial roles in protecting delicate structures and enabling vital functions.

There are two main cavities in the body:

1. The dorsal cavity is located in the posterior region of the body.
2. The ventral body cavity occupies the anterior region of the trunk.

The dorsal cavity is subdivided into two cavities:

1. Cranial cavity: Encloses the brain and is protected by the cranium (skull).
2. Vertebral/spinal cavity: Contains the spinal cord and is protected by the vertebrae.

The ventral cavity is subdivided into the following:

1. The thoracic cavity: It is surrounded by the ribs and muscles, the intercostal muscles. The thoracic cavity contains the lungs, heart, trachea, oesophagus and thymus. It is separated from the abdominal cavity by the diaphragm.

The abdominopelvic cavity:

   a. The abdominal cavity: Contains the stomach, spleen, liver, gallbladder, pancreas, small intestine and most of the large intestine. This cavity is protected by the muscles of the abdominal wall and partly by the diaphragm and ribcage
   b. The abdominopelvic cavity: Contains the urinary bladder, some of the reproductive organs and the rectum

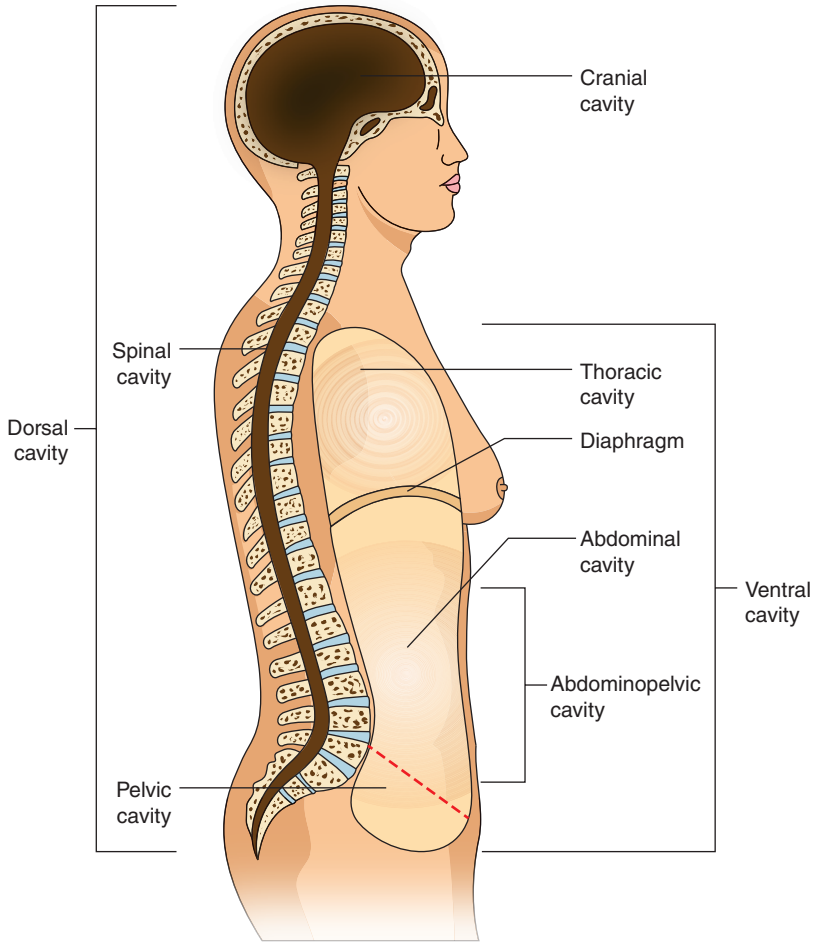


FIGURE 1.4 The cavities of the body.

The pelvic cavity is protected by the bones of the pelvis.

Figure 1.4 depicts the body cavities.

Physiology

Human physiology concerns itself with the study of the body's function. Anatomy and physiology, therefore, are the study of the structure and the function of the human body, respectively.

The human body is organised in the most precise way, whereby atoms combine in appropriate ways forming molecules in the chemical organisation of the body. The molecules combine to form cells and cells organise themselves collectively as functioning masses that are known as tissues and then organs and systems. Chapter 2 describes cells and the organisation of tissues within the body.

Terminology

Already in this chapter, you may have come across some complex terms. It is important to learn the language (the terminology) that is used in the provision of healthcare; this is an important part of safe and effective care. Whilst it is not a pre-course requirement to be proficient in Latin or Greek in order to learn anatomical terminology to become a nurse or healthcare practitioner, it is essential that you understand and are able to use the terminology.

There are three basic parts associated with medical terms; see Table 1.6.

TABLE 1.6 **Basic components.**

Component	Description
Word root	This is usually found in the middle of the word and is its central meaning
Prefix	The prefix comes at the beginning of the word and usually identifies some subdivision or part of the central meaning
Suffix	This comes at the end of the word and modifies the central meaning as to what or who is interacting with it or what is happening to it

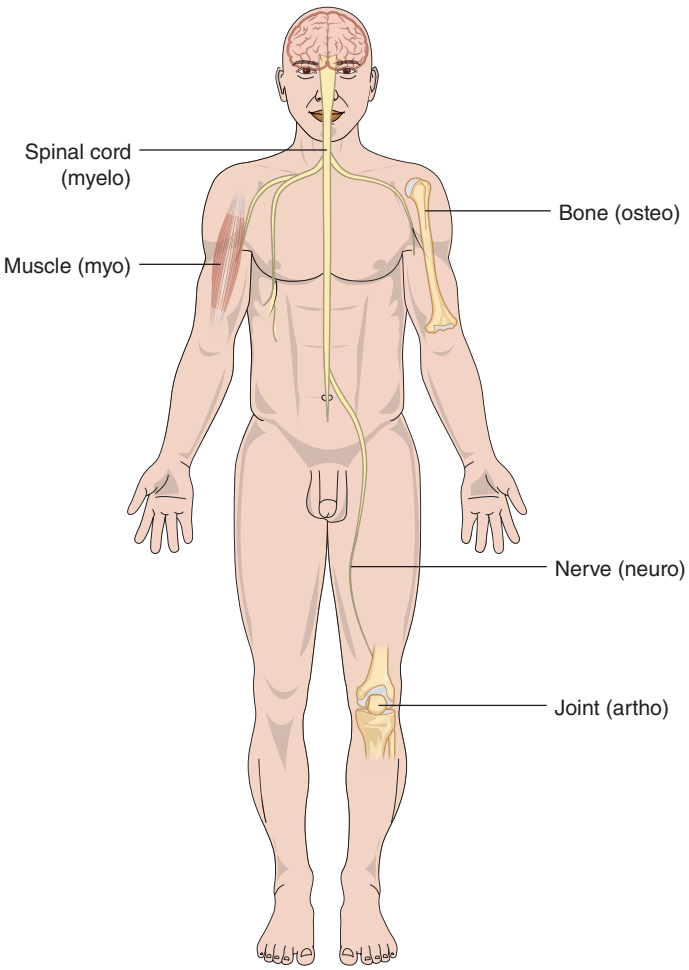


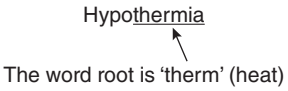
FIGURE 1.5 Word roots are the foundation of most medical terms and describe the part of the body involved.

The word *root* is the core of the word and provides the basic meaning to the subject of the word; the prefixes and the suffixes modify the word. In the word *hepatitis*, for example, the word root is *hepa*, which means liver. When the suffix 'itis' ('itis' means inflammation) is added, then this changes the word root, and it becomes *hepatitis* – inflammation of the liver.

Word roots act as the foundation for most medical terms and often (but not always) describe the part of the body that is involved (see Figure 1.5).

The prefix is added to the beginning of the word root and also changes the meaning of the word. If the root word is *nutrition* and the prefix 'mal' is added (this means bad), then *malnutrition* means bad or poor nutrition.

Look at this example:

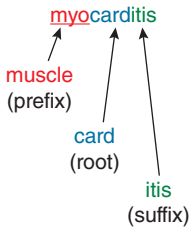


'Hypo' means low (this is the prefix)
Hypothermia = low heat

Take a look at this word:

myocarditis

Now, let us break this up:



myo	card	itis	Inflammation of heart muscle
Muscle	Heart	Inflammation	

The prefix can change the word:

Myocarditis = inflammation of heart muscle
Endocarditis = inflammation of the inner layer of the heart
Pericarditis = inflammation of the outer layer of the heart

The suffix can also alter the word:

Cardiologist = a practitioner specialising in the heart
Cardiomyopathy = damage to heart muscle
Cardiomegaly = enlargement of the heart

In these examples, the prefix and suffix can change the meaning of the word, but the root *cardio* stays the same.

There are many frequently used prefixes and suffixes, and you will already know some of them. See Table 1.7 for a list of some prefixes and suffixes that are used in a number of medical terms.

Learning anatomical terminology, much like acquiring any new language, requires time, effort and ongoing practice. It is important to recognise that fully mastering this vocabulary can be a lifelong journey, as the language of anatomy is complex and continually expands with medical advances. However, as you apply these terms in real-world practice, your understanding will deepen and your confidence will grow. Regular use and repetition help reinforce your knowledge, making the terminology feel more natural and intuitive over time. Remember to be patient with yourself throughout this process. Do not rush, take the time you need to absorb the information and seek clarification whenever something is unclear. This approach will support steady progress and build a strong foundation for your future learning and professional development.

Being familiar with anatomical terms can enhance your understanding of pathophysiological concepts, enabling you to deliver care that is patient-centred, safe and effective.

Pathophysiology

Healthcare professionals across all disciplines use pathophysiology in their daily practice to inform clinical decision-making, guide assessments and interpret signs and symptoms presented by individuals. An understanding of pathophysiology enables practitioners to recognise how normal physiological processes are altered in disease, which is essential for developing effective care plans and delivering appropriate interventions. Whether managing chronic illnesses, responding to acute conditions or providing preventative care, knowledge of pathophysiology underpins safety, evidence-based practice and supports the delivery of person-centred care across a wide range of healthcare settings.

Pathophysiology brings together a blend of pathology and physiology that considers the connection between disordered physiology and disease or illness. Pathology defines the illness itself, and physiology examines how these injuries or diseases change natural biological processes. The study of pathophysiology requires the use of clinical reasoning that is then used to make a diagnosis and prescribe treatment to address the effects of disease. Learning how pathology, physiology and anatomy interconnect can ensure that care provided is appropriate, safe and effective.

A number of terms and definitions are used that are related to pathophysiology (see Table 1.8).

Pathophysiology, according to Singh et al. (2017), is the study of the changes of normal mechanical, physical

TABLE 1.7 **Some prefixes, suffixes, their meaning and examples.**

Prefix/suffix	Meaning	Example
a/an	No, not, without, lack of	Anoxia (without oxygen), anuria (without urine), asepsis (without sepsis) and asymptomatic (without symptoms)
ab	Away from	Abduction (to move away from the mid-line) and abnormal (away from normal)
ad	Towards	Adduction (to move towards the mid-line), adrenal (towards the kidney) and addiction (drawn towards or a strong dependence on a drug or substance)
aemia	Of blood	Leukaemia (cancer of blood cells) and anaemia (lack of red blood cells)
algia	Pain	Cephalgia (headache), mastalgia (breast pain) and myalgia (muscle pain)
ante	Before/in front of	Antepartum (before birth), anterior (to the front of the body) and anteprandial (before meals)
arthro	Joint	Arthroscope (an instrument used to look into a joint), arthritis (joint inflammation) and arthrotomy (incision of a joint)
baro	Pressure/weight	Isobaric (having equal measure of pressure), bariatrics (the field of medicine that offers treatment to people who are overweight) and baroreceptor (a sensor reacting to pressure changes)
brady	Slow/delayed	Bradycardia (slow heart rate), bradykinesia (slowness in movement) and bradylalia (abnormally slow speech)
cyto	Cell	Leucocyte (white blood cell), erythrocyte (red cell) and cytology (study and function of cells)
derm	Skin	Dermatitis (inflammation of the skin), dermatome (a surgical instrument used for cutting slices of the skin) and dermatology (the study of skin)
dys	Difficulty/impaired	Dysphasia (difficulty swallowing), dyspepsia (disordered digestion) and dysuria (difficulty in urination)
ectomy	To cut out	Appendicectomy (removal of the appendix), mastectomy (removal of the breast) and prostatectomy (removal of the prostate)
endo	Inner	Endocardium (lining of the heart), endocarditis (inflammation of the heart) and endotracheal (within the trachea)
erythro	Red	Erythrocyte (red blood cell), erythropenia (reduction in the number of red blood cells) and erythema (reddening of the skin)
haem	Blood	Haematogenesis (the formation of blood), haematology (the study of blood) and haemarthrosis (bleeding within the joint)
hydro	Water	Hydrophobia (abnormal dread of water) and hydrocephalus (accumulation of fluid within the cranium)
hyper	Above/beyond/ excessive	Hypertension (high blood pressure), hyperflexion (movement of a muscle beyond its normal limit) and hyperglycaemia (high blood glucose)
hypo	Below/under/ deficient	Hypotension (low blood pressure), hypothermia (low temperature) and hypoglycaemia (low blood glucose)

Prefix/suffix	Meaning	Example
intra	Within	Intravenous (within the veins), intraocular (within the eye) and intracerebral (within the brain)
ism	Condition/disease	Hirsutism (heavy/abnormal growth of hair) and hyperthyroidism (overactivity of the thyroid gland)
itis	Inflammation	Appendicitis (inflammation of the appendix), mastitis (inflammation of the breast) and myocarditis (inflammation of heart muscle)
macro	Large	Macroscopic (large enough to be seen with the naked eye), macrocytic (an abnormally large cell) and macroglossia (an abnormally large tongue)
mega/megaly	Enlarged	Cardiomegaly (enlarged heart), splenomegaly (enlarged spleen) and hepatomegaly (enlarged liver)
micro	Small	Microscopic (so small can only be seen with a microscope), microcephaly (small brain) and microsomia (small body)
myo	Muscle	Myocardium (heart muscle), myocyte (muscle cell) and myometrium (uterine muscle)
neo	New	Neonate (newborn) and neoplasm (new growth [tumour])
nephro	Kidney	Nephritis (inflammation of the kidneys) and nephrostomy (an incision made into the kidney)
neuro	Nerve	Neuroma (a tumour growing from a nerve), neuralgia (pain felt along the length of a nerve) and neuritis (inflammation of a nerve)
ology	Study of	Dermatology (study of the skin), neurology (study of the nervous system) and cardiology (study of the heart)
oma	Tumour (swelling)	Melanoma (a cancer of melanocytes), carcinoma (a type of cancer) and retinoblastoma (tumour of the eye)
ophth	Eye	Ophthalmology (study of the eye), ophthalmoscope (an instrument used to examine the inside of the eye) and ophthalmotomy (an incision made into the eye)
osteo	Bone	Osteomyelitis (bone infection), osteosarcoma (bone cancer) and osteoarthritis (inflammation of the joints)
ostomy	To make an opening (a mouth)	Colostomy (an opening into the colon) and jejunostomy (an opening into the jejunum)
otomy	To cut into	Tracheotomy (cutting into the trachea), craniotomy (a hole made into the skull) and thoracotomy (cutting into the chest)
oto	Ear	Otology (study of the ear) and otosclerosis (abnormal bone growth inside the ear)
para	Beside/alongside	Parathyroid (adjacent to the thyroid) and paraumbilical (alongside the umbilicus)
patho	Disease	Neuropathy (disease of the nervous system), nephropathy (disease of the kidney) and retinopathy (disease of the retina)
penia	Deficiency	Leucopoenia (deficiency of white cells) and thrombocytopenia (deficiency of thrombocytes)

(*Continued*)

TABLE 1.7 (*Continued*)

Prefix/suffix	Meaning	Example
peri	Around	Pericardium, (the serous membrane around the heart), periosteum, (a covering enveloping the bones) and peritoneum (the serous membrane lining the walls of the abdominal and pelvic cavities)
plasm	Substance	Plasma (liquid part of blood and lymphatic fluid) and cytoplasm (substance of a cell lying outside of the nucleus)
plasty	Repair	Arthroplasty (surgical repair or replacement of a joint) and myoplasty (muscle surgical repair of a muscle)
pneumo	Breathing/air	Pneumonia (a type of chest infection), pneumothorax (a collapsed lung) and pneumograph (a device used for recording respiratory movement)
poly	Many/much	Polycystic (many cysts), polyuria (much urine) and polyarthritis (arthritis affecting more than four joints)
rhino	Nose	Rhinitis (inflammation of the mucous membrane of the nose) and rhinoplasty (surgical repair of the nose)
rrhoea	Discharge	Diarrhoea (frequently discharged faeces), rhinorrhoea (excessive discharge of mucus from the nose) and galactorrhoea (excessive production of breast milk)
sclero	Toughen/hard	Sclera (hard/tough layer of the eyeballs), scleroderma (hardening and contraction of the skin and connective tissue) and sclerosis (abnormal hardening of body tissue)
sub	Under	Sublingual (underneath the tongue), subarachnoid (underneath the arachnoid [layer of the brain]) and submucosa (tissue below mucus membrane)
tachy	Fast/rapid	Tachycardia (fast heart rate) and tachypnoea (fast respiratory rate)
toxo	Poison	Cytotoxic (having a destructive action on cells), toxaemia (blood poisoning resulting from the presence of toxins) and ototoxic (being toxic to the ear)
uria	Urine	Haematuria (presence of blood in the urine), nocturia (passing urine at night) and pyuria (pus in the urine)
vaso	Vessel	Vasoconstriction (narrowing the vessel), vasodilation (widening of the vessel) and vasospasm (sudden contraction of a vessel)

and biochemical functions, caused by a disease or resulting from an abnormal syndrome. The chapters in this text address these key pathophysiological concepts. Medical terminology is used to express and describe the various pathophysiological concepts.

Pathophysiology is a key component of practice, enabling the healthcare practitioner to take on a number of important responsibilities, such as understanding and ordering diagnostic tests, caring for and treating people with acute and chronic illnesses, managing medications and managing general health and well-being, as well as disease prevention for patients and their families. Nurses and other healthcare practitioners who can recognise the pathophysiological signs and symptoms of the conditions of those whom they offer care to will be able to provide a higher quality of safer and effective care. Asking questions such as 'why is the person experiencing this?' helps understand what is going on in a person's body at the cellular level, helping you decide how to help them.

Pathophysiology is used to understand the progression of disease so as to identify the disease and implement treatment options for patients. Information gathered is used to identify the next course of the disease so that

TABLE 1.8 **Terms and definitions related to pathophysiology.**

Term	Definition
Pathology	Study of structural alterations in cells, tissues and organs that helps to identify the cause of disease
Pathogenesis	Pattern of tissue changes that are associated with the development of disease
Aetiology	Study of the cause(s) of disease and/or injury
Idiopathic	These are diseases with no identifiable cause
Iatrogenic	Diseases and/or injury that occur as a result of medical (or nursing) intervention
Clinical manifestations	Also known as signs and symptoms
Nosocomial	Diseases that are acquired as a consequence of being in a hospital environment
Diagnosis	The naming or identification of a disease
Prognosis	Expected outcome of a disease
Acute disease	Sudden appearance of signs and symptoms that last a short time
Chronic disease	Develops more slowly, lasting a long time or a lifetime
Remissions	Periods when clinical manifestations disappear or diminish significantly
Exacerbations	Periods when clinical manifestations become worse or more severe
Sequelae	Any abnormal conditions that follow on and are the result of a disease, treatment or injury

the most suitable course of action can be provided to the patient with the appropriate care they need. The medical procedures and medications that are administered to patients will depend very much on the nature of the disease. The main objectives when understanding pathophysiology are to assist you to:

- Use critical thinking to understand the pathophysiological principles for care provision.
- Analyse and explain the effects of disease processes at a systemic and cellular level.
- Discuss the many variables that may be at play affecting the healing of the organ and tissue systems.
- Analyse the environmental risks of the progression and development of particular diseases.
- Explain how compensatory mechanisms can be used to make a response to physiological alterations.
- Compare and contrast the effects of culture, ethics and genetics and how these can have an impact on disease progression, treatment and health promotion as well as disease prevention.
- Evaluate and review diagnostic tests and determine if the evaluation and review have any relationship to the signs and symptoms that the patient is experiencing.

The determinants of health

Whilst it is important to understand the pathophysiological changes that a patient may be experiencing, those who offer care and support to people must also appreciate the socio-economic and cultural factors that can impact patient outcomes. These 'non-medical' factors are as important as whether the most appropriate test or diagnostic tool is being used or treatment prescribed. It is important to understand the molecular and genetic determinants of disease; however, the non-biological factors have potential influence on interactions with patients and their families.

Many factors come together to influence the health of individuals and communities. Whether a person is

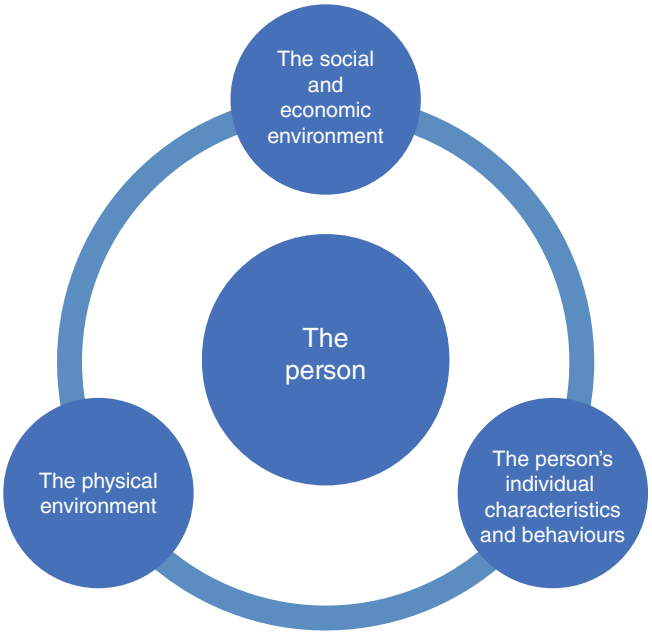


FIGURE 1.6 The determinants of health.
Source: Adapted from World Health Organization, 2024.

healthy or not, their health is largely shaped by their circumstances and environment. Elements such as where a person lives, the condition of their surroundings, genetics, income, education and relationships with their family and friends all play a significant role in determining health. In contrast, factors more commonly focused on, such as access to and use of healthcare services, may have a smaller impact.

The social determinants of health are depicted in Figure 1.6. The determinants of health include political, social, economic, environmental and cultural factors which shape the conditions in which we are born, grow, live, work and age. Creating a healthy population requires greater action on these factors, not simply on treating ill-health.

Using a nursing/medical dictionary: hints and tips

Developing the skill to effectively use a nursing or medical dictionary, along with other reference materials, whether electronic or printed, is crucial for mastering the correct use of the vast array of medical terms. These resources serve as valuable tools for clarifying meanings, improving communication and enhancing your overall understanding of medical language.

When you first start using a new resource, it is important to spend some time exploring its user guide or instructions. Familiarising yourself with the layout, search functions, abbreviations and features of the dictionary or reference tool will save you time and frustration in the long run. This initial investment allows you to navigate the resource efficiently, making it easier to quickly locate and comprehend unfamiliar terms as you encounter them in your studies or clinical practice.

Consistently using these tools not only builds your vocabulary but can also boost your confidence when discussing medical concepts, ultimately supporting safer and more effective patient care. Taking a patient and proactive approach to learning these resources will greatly benefit your professional development.

Accuracy in spelling medical terms is extremely important. Changing just one or two letters has the potential to completely change the meaning of a word, and the consequences of this can be grave. Some frequently used terms and word parts are confusing because they look and sound alike; however, their meanings are very different (see Table 1.9). Beware, you may encounter alternative spellings used in England, Australia, Canada and the United States.

TABLE 1.9 **Confusing terminology. *Source:* Stansfield et al., 2015/Jones & Bartlett Learning.**

Term/word	Means	Comments
arteri/o	Artery	*Endarterial* means pertaining to the interior or lining of an artery ('end-' means within, *arteri* means artery, and '-al' means pertaining to)
ather/o	Plaque or fatty substance	An atheroma is a fatty deposit within the wall of an artery (*ather* means fatty substance, and '-oma' means tumour)
arthr/o	Joint	*Arthralgia* means pain in a joint or joints (*arthr* means joint, and '-algia' means pain)
-ectomy	Surgical removal	An appendicectomy is the surgical removal of the appendix (*append* means appendix, and '-ectomy' means surgical removal)
-ostomy	Surgical creation of an artificial opening to the body surface	A colostomy is the surgical creation of an artificial excretory opening between the colon and the body surface (*col* means colon, and '-ostomy' means the surgical creation of an artificial opening)
-otomy	Cutting or a surgical incision	A colotomy is a surgical incision into the colon (*col* means colon, and '-otomy' means a surgical incision)

If you know how to spell the word

- With the first letter of the word, start in the appropriate section of the dictionary. Look at the top of the page for clues (there may be catch words there). The top left word is the first term on the page, and the top right word is the last term on that page.
- Now, search alphabetically for words that begin with the first and second letters of the word you are searching for. Continue looking through each letter until you have found the term that you are looking for.
- When you think you have found it, be sure to check the spelling, letter by letter, working from left to right. Terms with similar spellings have very different meanings (for example, prostrate and prostate).
- When the term has been located, carefully check all of the definitions.

If you do not know how to spell the word

Listen carefully to the term and then write it down. If you cannot find the word on the basis of your spelling, begin to look for alternative spellings based on the beginning sound; for example, F can sound like F but, the word may begin with Ph (such as pharynx, phlegm), K can sound like K, but the word may begin with Ch (cholera, for example) or C (crepitus). Psychologist begins with P, but it sounds as though it should begin with an S.

Look under categories

Medical dictionaries may use categories such as diseases and syndromes so as to group disorders with these terms in their titles:

- Venereal disease would be found under Disease, venereal.
- Fetal alcohol syndrome would be found under Syndrome, fetal alcohol.

Multiple-word terms

When searching for a term that includes more than one word, begin the search with the last term. If you do not find it there, then move forward to the next word. Congestive heart failure, for example, is sometimes listed under heart failure, congestive.

Searching for definitions on the internet and hand-held devices

Internet search engines are helpful resources in locating definitions and details about medical conditions and terms. It is important, however, that you use websites such as the National Institute for Health and Care Excellence or Scottish Intercollegiate Guidelines Network, which are known to be reputable information sources.

Beware of suggested search terms. If you do not spell a term correctly, a website might take a guess at what it is that you are searching for. Be sure to double-check that the term you are defining is the term intended.

Conclusion

Medical terminology can often appear intimidating and complex because many terms used in nursing and medicine originate from Latin and Greek. To understand these terms, it is important to break them down into their individual parts, much like connecting the carriages of a train. When interpreting medical terminology, it is crucial to recognise the word root, the core of the term, which may be combined with prefixes and suffixes.

Effective and safe communication among healthcare professionals depends heavily on using consistent and precise language, which helps to minimise the risk of errors and misunderstandings. Developing proficiency in this specialised language requires regular practice and experience, as well as a commitment to continual learning.

Beyond clear communication, it is essential to have a thorough understanding of the pathophysiological changes a patient may be undergoing. This knowledge enables healthcare providers to assess conditions accurately and deliver care interventions that are tailored to the patient's specific needs, improving the chances of positive health outcomes.

However, providing holistic care also means recognising that health is influenced by more than just biological factors. Socio-economic conditions, cultural background and other 'non-medical' factors play a significant role in shaping a patient's health and recovery. Understanding these influences allows healthcare professionals to address potential barriers, provide culturally sensitive care and support patients in ways that extend beyond traditional medical treatment. By integrating both medical and social considerations, care can be more comprehensive, patient-centred and effective.

Activities

Here are some activities and exercises to help test your learning. For the answers, refer to the MCQ answer section at the end of the book.

Multiple-choice questions

1. A vagotomy is:
   A. The surgical removal of the vagina
   B. A surgical procedure that cuts one or more branches of the vagus nerve
   C. A medical procedure that causes menopause
   D. A specific test to determine the type of deafness
2. Lymphadenopathy refers to:
   A. Radical removal of all lymph glands
   B. Removal of lymph glands in the axilla
   C. Any disorder of the lymph nodes or lymph vessels
   D. Infection of the lymph nodes
3. True or false:
   Haemostasis is the same as homeostasis.
4. What is the difference between the word prostate and prostrate?
5. The term affect means:
   A. Loss of memory
   B. Lack of feelings
   C. The feeling experienced in connection with an emotion
   D. None of the above

6. The dorsal cavity is located in the:
   A. Lower aspect of the brain
   B. Anterior region of the trunk
   C. Posterior region of the body
   D. None of the above
7. The term cubital relates to:
   A. The foot
   B. The head
   C. The abdomen
   D. The elbow
8. The abdominal cavity contains:
   A. The stomach, spleen, liver, gall bladder, pancreas, small intestine and most of the large intestine
   B. The stomach, spleen, liver, urinary bladder, pancreas, small intestine and most of the large intestine
   C. The stomach, spleen, liver, gall bladder, pancreas, ovaries, small intestine and most of the large intestine
   D. The stomach, spleen, liver, gall bladder, pancreas, testes, small intestine and most of the large intestine
9. The abdominopelvic cavity contains:
   A. The gall bladder, some of the reproductive organs and the rectum
   B. The urinary bladder, the stomach, some of the reproductive organs and the rectum
   C. The urinary bladder, some of the reproductive organs and the rectum
   D. The urinary bladder, spleen, some of the reproductive organs and the rectum
10. True or false:
    The pelvic cavity is protected by the vertebrae.
11. Chronic disease is said to:
    A. Develop more slowly and lasts for a long time
    B. Is incurable
    C. Appears suddenly and lasts a short time
    D. Is only associated with the older person
12. The term hepatomegaly refers to:
    A. An enlarged brain
    B. Enlarged spleen
    C. An enlarged kidney
    D. An enlarged liver
13. An arthroplasty is:
    A. Surgical repair of an artery
    B. Surgical repair or replacement of a joint
    C. Another term for a coronary artery bypass
    D. Surgical intervention used to relieve arterial obstruction
14. True or false:
    The frontal plane is the plane dividing the body or an organ into an anterior portion and a posterior portion.
15. True or false:
    The prefix comes at the beginning of the word.

References

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Stansfield, P., Hui, Y.H., & Cross, N. (2015). *Essential Medical Terminology*, 4th edn. Chicago, IL: Jones and Bartlett.

World Health Organization (2024). *Determinants of Health*. www.who.int/news-room/questions-and-answers/item/determinants-of-health (Accessed May 2025).

Further resources

Health Education England e-Learning for Healthcare (e-LfH) www.e-lfh.org.uk: Provides a range of modules including anatomy, physiology, and medical terminology.

Khan Academy www.khanacademy.org/science/health-and-medicine/human-anatomy-and-physiology/: A range of free resources including practise exercises, instructional videos, and a personalized learning dashboard.

National Health Service (2022). Abbreviations you may find in your health records www.nhs.uk/nhs-app/nhs-app-help-and-support/health-records-in-the-nhs-app/abbreviations-commonly-found-in-medical-records/ (Accessed May 2025).

National Institute for Health and Care Excellence (NICE) www.nice.org.uk.

Scottish Intercollegiate Guidelines Network (SIGN) www.sign.ac.uk.