

Medical Terminology Guide



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Medical terminology is a language used to describe anatomical structures, processes, conditions, medical procedures, and treatments. It is used in the field of medicine and is the means for healthcare professionals to confer on the intricacies of the human body, both in states of health and states of injury or disease. Medical terminology comprises the lexicon of labels for all known anatomical features, physiological processes, and medical interventions.

Understanding medical terminology can make all the difference in critical health situations and while understanding medical language is serious business, learning medical terminology can actually be a thought-provoking, interesting crash course in the history and development of language and parts of speech.

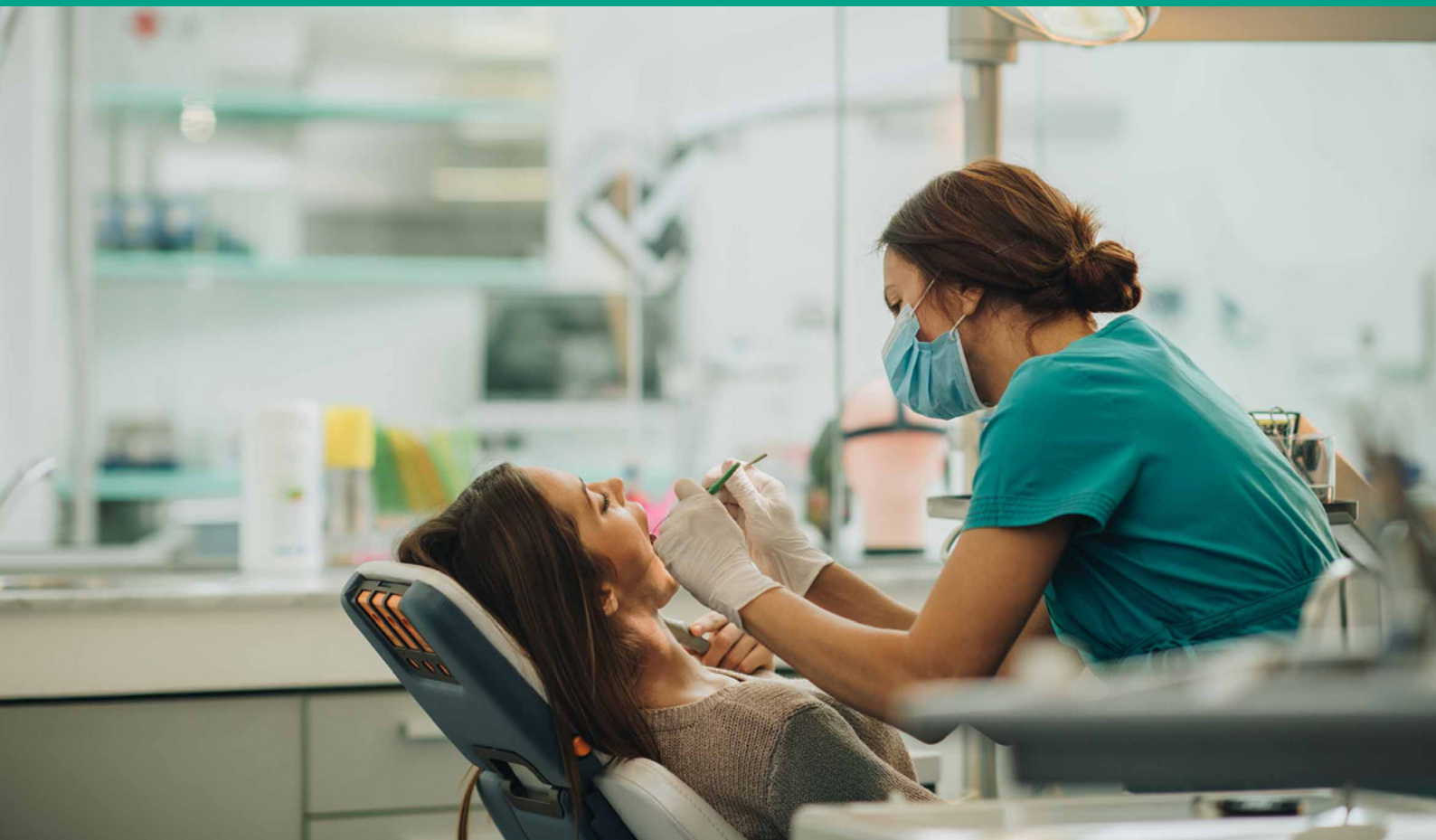
For those who are new to, or are looking to enter the medical field, having a firm grasp on medical verbiage, roots and meanings can give you a leg up as you continue to progress in your career.

Disclaimer:

This book provides information on medical terminology and definitions for educational and informational purposes only. It is not intended to serve as medical advice, diagnosis, or treatment.



Dental



Type of Dentists

Endodontists: Deal with the dental pulp and peri-radicular tissues which are the blood vessels, tissues, and nerves surrounding a tooth's roots. Highly trained to perform root canals and dental pulp diseases surgeries.

General Dentistry: Overall health of teeth and oral hygiene. Wisdom teeth removal, tooth extraction, cavity fillings, cosmetic dentistry

Oral & Maxillofacial surgery: Oral surgeons specialize in treating the aesthetic and functional features of the oral and maxillofacial region. Accidental injury (e.g. gunshot, MVA) trauma, disease, deformities, tooth loss and general caries.

Orthodontists: Specialize in malocclusion and teeth straightening. Malocclusions can lead to an improper bite, such as an overbite or underbite. They provide treatment that corrects an individual's bite and realigns teeth over time

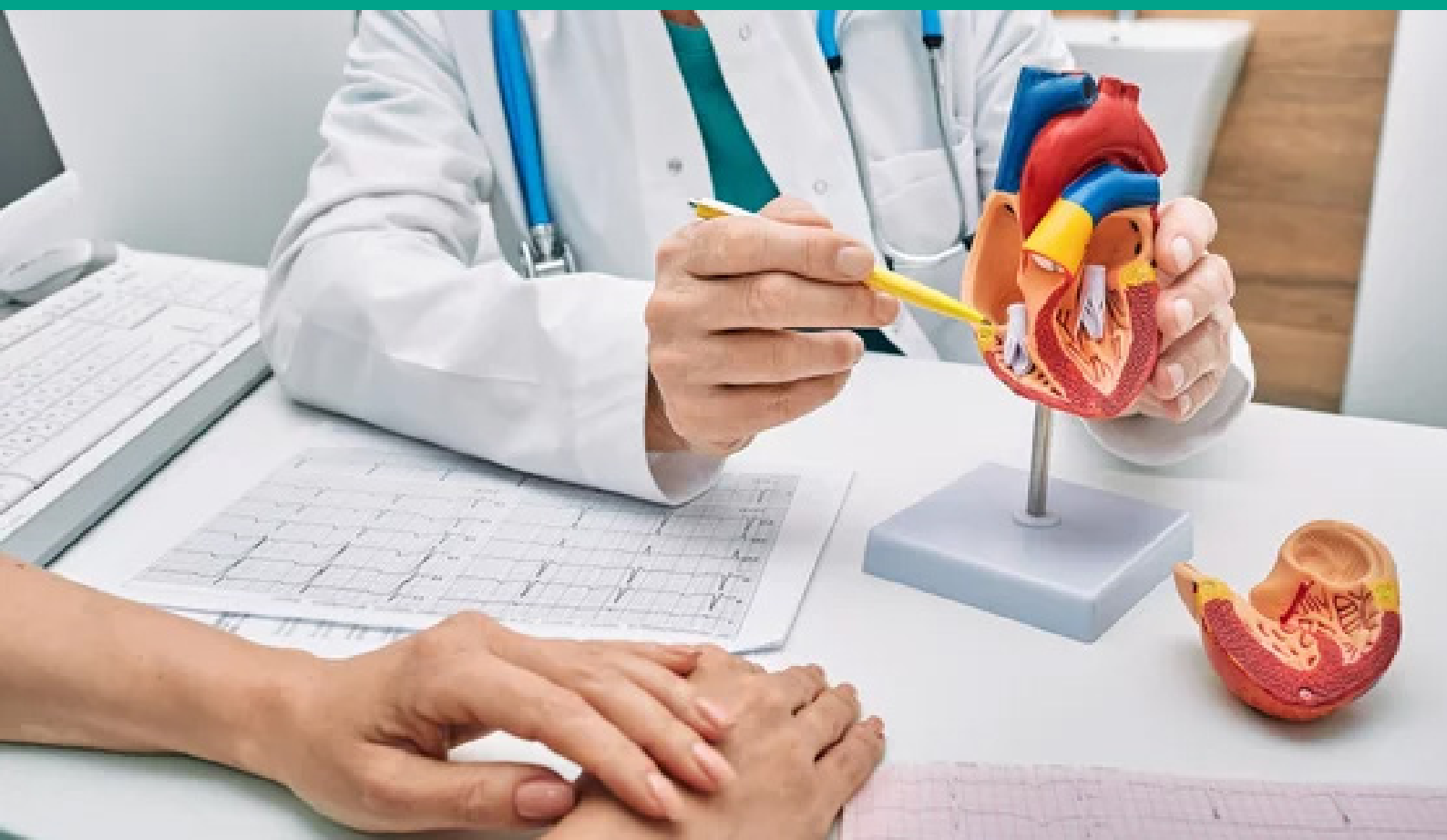
Periodontists: The prevention, diagnosis, and treatment of diseases affecting the supporting structures of teeth. Gum health specialists.

Prosthodontist: The primary role of a prosthodontist is to diagnose and restore missing or damaged oral tissues to proper function. Tooth Restoration; Decayed & damaged teeth

Common Terminology

Abscess:	Localised inflammation
Abrasion:	Tooth wear
Amalgam:	Cavity Filling
Apicoectomy:	Surgical procedure to remove the tip of the tooth root
Bicuspid:	A tooth with two cusps
Dental Avulsion:	Tooth separation
Bruxism:	Teeth grinding
Calculus:	Hard plaque
Caries:	Tooth decay
Cementum:	Root covering
Cusp:	Chewing surface
Diastema:	Space between teeth
Gingivitis:	Inflammation of the gums
Malocclusion:	Misaligned teeth
Maxilla:	Upper jaw
Mandible:	Lower jaw
Palate:	Roof of mouth

Cardiology



CARDIOLOGY

A cardiologist is a healthcare provider who specializes in the treatment of the cardiovascular system, which includes the heart and blood vessels. They diagnose, treat, and work to prevent diseases of the heart, such as coronary artery disease, heart rhythm abnormalities, and congenital heart disease. They can also treat chest pain, high blood pressure, and heart failure, as well as problems with heart valves, blood vessels, and other heart and vascular issues. They can order tests like electrocardiograms, echocardiograms and CT's to find out what is wrong.

Cardiologists can treat a wide range of heart and vascular problems, including:

- Atherosclerosis.
- High blood pressure. Systolic and Diastolic
- High cholesterol.
- Angina (chest pain).
- Cardiac arrest.
- Heart failure/Heart attack
- Blood clots.
- Atrial fibrillation and other heart rhythm disorders.
- Endocarditis.
- Cardiogenic shock.
- Heart valve problems and abnormalities
- Cardiomyopathy.
- Myocarditis.
- Issues with your pericardium, like pericarditis.
- Congenital (present at birth) conditions.
- Problems with your aorta, like aneurysm or stenosis (narrowing).
- Problems with your arteries (peripheral artery disease, subclavian artery disease, renal artery disease, coronary artery disease).
- Stroke

Common Terminology

Ablation	The removal, isolation, or destruction of cardiac tissue or conduction pathways involved in arrhythmias.
Algorithm	A set of precise rules or procedures programmed into a pacemaker or defibrillator that are designed to solve a specific problem.
Angina or angina pectoris	Chest pain that occurs when diseased blood vessels restrict blood flow to the heart.
Antiarrhythmic Drugs	Medicine that corrects irregular heartbeats and slows down heartbeats that beat too fast.
Anti-tachycardia Pacing (ATP)	Short, rapid, carefully controlled sequences of pacing pulses delivered by an ICD and used to terminate a tachycardia in the atria or ventricles.
Aorta	The largest artery in the body and the main vessel to supply blood from the heart.



Arrest (Cardiac)	Failure of the heart to pump blood through the body. If left untreated, it is dangerous and life-threatening
Arrhythmia (or dysrhythmia)	An abnormal heartbeat.
Atherosclerosis	Artery narrowing process.
Atrial fibrillation (AF)	Very fast, a disorganized heart rhythm that starts in the atria.
Atrial Flutter (AFL)	Fast, organized atrial rhythm.
Atrial Tachycardia (AT)	A rapid heart rate that starts in the atria (includes AF, and AFL)
Atrioventricular (AV) Node	A section of specialized neuromuscular cells that are part of the normal conduction pathway between the atria and the ventricles. (A junction that conducts electrical impulses from the atria to the ventricles of the heart.)
Atrioventricular (AV) Synchrony	The normal activation sequence of the heart in which the atria contract and then, after a brief delay, the ventricles contract. AV Synchrony optimizes the heart's output of blood and produces the greatest efficiency of the cardiovascular system.
Atrium	The heart is divided into four chambers. Each of the two upper chambers is called an atrium. (Atria is the plural form of the atrium.) Either of the two upper chambers of the heart, above the ventricles, receive blood from the veins and communicates with the ventricles through the tricuspid (right) or mitral (left) valve.
Bacterial endocarditis	A bacterial infection of the lining of the heart's chambers (called the endocardium) or of the heart's valves.
Balloon catheter	A long tube-like device with a small balloon on the end that can be threaded through an artery. Used in angioplasty or valvuloplasty.
Balloon valvuloplasty	A procedure to repair a heart valve. A balloon-tipped catheter is threaded through an artery and into the heart. The balloon is inflated to open and separate any narrowed or stiffened flaps (called leaflets) of a valve.
Beta-blocker	An antihypertensive medicine that limits the activity of epinephrine, a hormone that increases blood pressure.
Blalock-Taussig procedure	A shunt between the subclavian and pulmonary arteries used to increase the supply of oxygen-rich blood in "blue babies".
Bradycardia (Bradyarrhythmia)	A heart rate that is abnormally slow; commonly defined as under 60 beats per minute or a rate that is too slow to physiologically support a person and their activities.
Capillaries	Microscopically small blood vessels between arteries and veins that distribute oxygen-rich blood to the body's tissues.
Cardiac Arrest	Failure of the heart to pump blood through the body. If left untreated, it is dangerous and life-threatening.
Cardiac amyloidosis	A disorder caused by deposits of an abnormal protein (amyloid) in the heart tissue, which make it hard for the heart to work properly. Also called "stiff heart syndrome."
Cardioversion	The process of restoring the heart's normal rhythm by applying a controlled electric shock to the exterior of the chest.
Cardiomyopathy	Abnormal heart condition
Cerebral thrombosis	Formation of a blood clot in an artery that supplies part of the brain.
Cerebrovascular	Pertaining to the blood vessels of the brain.
Cerebrovascular accident	Also called cerebral vascular accident, apoplexy, or stroke. Blood supply to some part of the brain is slowed or stopped, resulting in injury to brain tissue.



Cerebrovascular occlusion	The blocking or closing of a blood vessel in the brain.
Cholesterol	An oily substance that occurs naturally in the body, in animal fats and in dairy products, and that is transported in the blood. Limited amounts are essential for the normal development of cell membranes. Excess amounts can lead to coronary artery disease.
Chronic lead	A pacemaker or ICD lead that has been implanted in the past.
Chronotropic incompetence	The inability of the heart to increase its rate appropriately in response to increased activity or metabolic need, e.g., exercise, illness, etc.
Coronary artery disease (CAD)	A narrowing of the arteries that supply blood to the heart. The condition results from a buildup of plaque and greatly increases the risk of a heart attack.
Cyanosis	Blueness of the skin caused by a lack of oxygen in the blood.
Cyanotic heart disease	A birth defect of the heart that causes oxygen-poor (blue) blood to circulate to the body without first passing through the lungs.
Defibrillation	The Process in which an electronic device sends an electric shock to stop an extremely rapid or irregular heartbeat, and restore the normal heart rhythm.
Defibrillator	A device that helps restore a normal heart rhythm by delivering an electric shock.
Diabetes (diabetes mellitus)	A disease in which the body doesn't produce or properly use insulin. Insulin is needed to convert sugar and starch into the energy used in daily life.
Diastolic blood pressure	The lowest blood pressure measured in the arteries. It occurs when the heart muscle is relaxed between beats.
Dual-Chamber Pacemaker	A pacemaker with two leads (one in the atrium and one in the ventricle) to allow pacing and/or sensing in both chambers of the heart to artificially restore the natural contraction sequence of the heart.
Dysarthria	A speech disorder resulting from muscular problems caused by damage to the brain or nervous system.
Dyspnoea	Shortness of breath.
Ejection Fraction	A measure of the output of the heart with each heartbeat.
Electrocardiogram (ECG)	A printout from an electrocardiography machine used to measure and record the electrical activity of the heart.
Electromagnetic Interference (EMI)	Equipment and appliances that use magnets and electricity have electromagnetic fields around them. If these fields are strong, they may interfere with the operation of the ICD.
Electrophysiology (EP) Study	The use of programmed stimulation protocols to assess the electrical activity of the heart to diagnose arrhythmias.
Embolus	Also called embolism; a blood clot that forms in a blood vessel in one part of the body and travels to another part.
Endarterectomy	Surgical removal of plaque deposits or blood clots in an artery.
Endocardium	The smooth membrane covering the inside of the heart. The innermost lining of the heart.
Endothelium	The smooth inner lining of many body structures, including the heart (endocardium) and blood vessels.
Endocarditis	A bacterial infection of the heart's inner lining (endothelium).
Fibrillation	A chaotic and unsynchronised quivering of the heart during which no effective pumping occurs. Fibrillation may occur in the atria or the ventricles.



Fusiform aneurysm	A tube-shaped aneurysm that causes the artery to bulge outward. Involves the entire circumference (outside wall) of the artery.
Hematocrit	A measure of the percentage of red blood cells in a given amount (or volume) of whole blood.
Hemochromatosis	A disease in which too much iron builds up in your body (iron overload). Too much iron in the heart can cause irregular heartbeats (arrhythmias) and heart failure. Too much iron in the pancreas can lead to diabetes.
Hemodynamics	The forces involved in circulating blood through the cardiovascular system. The heart adapts its hemodynamic performance to the needs of the body, increasing its output of blood when muscles are working and decreasing output when the body is at rest.
Holter monitoring	A technique for the continuous recording of electrocardiographic (ECG) signals, usually over 24 hours, to detect and diagnose ECG changes. (Also called ambulatory monitoring.)
Homocysteine	An amino acid (one of the building blocks that makes up a protein) normally found in small amounts in the blood.
Hypertension	High blood pressure.
Hypertrophic obstructive cardiomyopathy (HOCM)	An overgrown heart muscle that creates a bulge into the ventricle and impedes blood flow.
Hypertrophy	Enlargement of tissues or organs because of increased workload.
Hyperventilation	Rapid breathing usually caused by anxiety. People feel like they can't get enough air, so they breathe heavily and rapidly, which can lead to numb or tingling arms and legs, or fainting.
Hypoglycemia	Low levels of glucose (sugar) in the blood.
Hypokinesia	Decreased muscle movement. In relation to the heart, hypokinesia refers to decreased heart wall motion during each heartbeat. It is associated with cardiomyopathy, heart failure, or heart attack. Also called hypokinesis.
Hypotension	Abnormally low blood pressure.
Hypoxia	Less than normal content of oxygen in the organs and tissues of the body.
Impedance plethysmography	A non-invasive diagnostic test used to evaluate blood flow through the leg.
Infarct	The area of heart tissue permanently damaged by an inadequate supply of oxygen.
Infective endocarditis	An infection of the heart valves and the innermost lining of the heart (the endocardium), caused by bacteria in the bloodstream.
Inferior vena cava	The large vein returning blood from the legs and abdomen to the heart.
Inotropes	Positive inotropes: Any medicine that increases the strength of the heart's contraction. Negative inotropes: Any medicine that decreases the strength of the heart's contraction and the blood pressure in the vessels.
Internal mammary artery	A durable artery in the chest wall often used as a bypass graft in coronary artery bypass surgery.
Intravascular echocardiography	A combination of echocardiography and cardiac catheterization. A miniature echo device on the tip of a catheter is used to generate images inside the heart and blood vessels.
Ischaemia	Insufficient blood flow to tissue due to blockage in the blood flow through the arteries.



Left ventricular dysfunction	A heart condition in which the heart is unable to maintain normal cardiac output due to a deficiency in the left ventricle.
Mitral stenosis	A narrowing of the mitral valve, which controls blood flow from the heart's upper left chamber to its lower left chamber. May result from an inherited (congenital) problem or from rheumatic fever.
Mitral valve	The structure that controls blood flow between the heart's left atrium (upper chamber) and left ventricle (lower chamber).
Mitral valve prolapse	A condition that occurs when the leaflets of the mitral valve between the left atrium and left ventricle bulge into the atrium and permit backflow of blood. The condition can be associated with progressive mitral regurgitation.
Myocardial infarction	Death of a portion of the heart muscle tissue due to a blockage or interruption in the supply of blood to the heart muscle.
Myocardium	The middle and the thickest layer of the heart wall, composed of cardiac muscle.
Nitro-glycerine	A medicine that helps relax and dilate arteries; often used to treat cardiac chest pain (angina).
Paroxysmal supraventricular tachycardia (PSVT)	An occasional rapid heart rate (150-250 beats per minute) that is caused by events triggered in areas above the heart's lower chambers (the ventricles). See also supraventricular tachycardia (SVT).
Pericardium	membrane encasing heart
Platelets	One of the three types of cells found in blood; they aid in the clotting of blood.
Postural orthostatic tachycardia syndrome (POTS)	A disorder that causes an increased heart rate when a person stands upright.
Premature atrial contraction (PAC)	A contraction in the atrium which is initiated by an ectopic focus and occurs earlier than the next expected normal sinus beat.
Premature ventricular contraction (PVC or VPD)	A contraction in the ventricle which is initiated by an ectopic focus and occurs earlier than the next expected normal sinus or escape rhythm beat.
Pulmonary embolism	A condition in which a blood clot that has formed elsewhere in the body travels to the lungs.
Pulmonary valve	The heart valve between the right ventricle and the pulmonary artery that controls blood flow from the heart into the lungs.
Pulmonary vein	The blood vessel that carries newly oxygenated blood from the lungs back to the left atrium of the heart.
Radionuclide ventriculography	A diagnostic test used to determine the size and shape of the heart's pumping chambers (the ventricles).
Saccular aneurysm	a round aneurysm that bulges out from an artery.
Septal defect	a hole in the wall of the heart separating the atria or in the wall separating the ventricles.
Sinoatrial (SA) Node	The heart's natural pacemaker located in the right atrium. Electrical impulses originate here and travel through the heart, causing it to beat.
Supraventricular tachycardia (SVT)	A rapid heartbeat originating from above the ventricles.
Syncope	Fainting, loss of consciousness, or dizziness which may be due to a change in cardiac rhythm (arrhythmia) or other causes.



Tachycardia (Tachyarrhythmia)	Rapid beating of either or both chambers of the heart, usually defined as a rate over 100 beats per minute.
Valvuloplasty	Reshaping of a heart valve with surgical or catheter techniques
Vascular	pertains to the blood vessels
Vasodilators	Any medicine that dilates (widens) the arteries
Ventricle	One of the two lower chambers of the heart. (See Atrium)
Ventricular Fibrillation (VF)	Very fast, chaotic, quivering heart contractions that start in the ventricles. During VF, the heart does not beat properly. This often results in fainting. If left untreated, it may result in cardiac arrest. Blood is not pumped from the heart to the rest of the body. Death will occur if defibrillation is not initiated within 6 minutes from the onset of VF.
Ventricular Tachycardia (VT)	A rapid heart rate that starts in the ventricles. During VT, the heart does not have time to fill with enough blood between heartbeats to supply the entire body with sufficient blood. It may cause dizziness and light-headedness.



Dermatology



A dermatologist is a medical doctor who specializes in diagnosing and treating conditions that affect the skin, hair, and nails. They have extensive training and education in the diagnosis and medical or surgical treatment of thousands of conditions affecting the skin, hair, or nails.

Common Terminology

Basal Cell Carcinoma	The most common form of skin cancer
Carotenoderma	Yellow/orange skin hue due to excessive circulating beta-carotene (vitamin a precursor derived from yellow/orange coloured vegetables and fruit); tends to be pronounced on palms and soles, and does not affect the sclera.
Erythema	Redness of the skin
Erythroderma	Intense and widespread reddening of the skin due to inflammatory disease
Excoriation	Also called a scratch mark, is a loss of epidermis and a portion of the dermis due to scratching. An excoriation may be linear or punctate. A loss of the epidermis and a portion of the dermis due to scratching or an exogenous injury. It may be linear or punctate.
Fissure	A split, crack, erosion or narrow ulceration of the skin.
Fungating	Refers to a large malignant tumour that is erupting like a mushroom or fungus:
Granuloma	A localised cluster of immune cells in response to chronic inflammation
Hyperpigmentation	Darkened skin compared to normal; it can be localised or generalised.
Hypopigmentation	Skin colour that is paler than normal.
Jaundice	Yellowing of the skin and the whites of the eye and is due to a buildup of bile pigments in the blood; this is usually due to biliary or liver disease.
Keratosis	Seborrheic or Actinic
Lesions	Annular, Linear, Nummular
Melanoma	A type of skin cancer that develops when melanocytes, the cells responsible for producing skin pigment (melanin), grow uncontrollably. It is considered the most invasive skin cancer and has the highest risk of death.
Psoriasis	Scaling of the skin surface.
Purpura	Bleeding into the skin, either as petechiae (small red, purple or brown spots) or ecchymoses (bruises); purpura does not blanch with pressure (diascopy)
Rosacea	Persistent facial redness
Seborrhoeic	A common, chronic or relapsing form of eczema/dermatitis that mainly affects the sebaceous gland-rich regions of the scalp, face, and trunk.
Solar Keratoses	Skin spots caused by sun exposure
Squamous Cell Carcinoma	Skin cancer caused by overexposure to UV rays.
Telangiectasia	Prominent cutaneous blood vessels they are red or purple.
Vitiligo	An acquired, chronic, depigmenting disorder of the skin, in which pigment-producing cells (melanocytes that determine the colour of skin, hair, and eyes are progressively lost. It appears as milky-white patches of skin (leukoderma) and can be cosmetically very disabling, particularly in people with dark skin, It is currently widely accepted that vitiligo is the result of autoimmune destruction of melanocytes.

Skin Surface

Scaling or hyperkeratosis: An increase in the dead cells on the surface of the skin (stratum corneum).

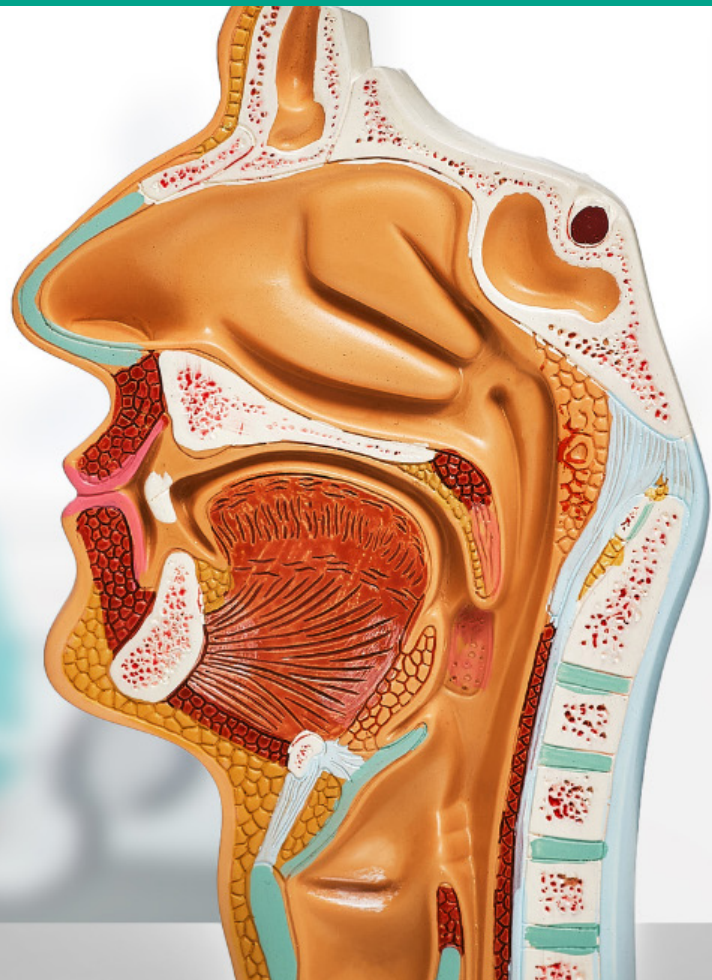
Descriptive terms for scale include:

- Desquamation,
- Lichenoid (apparent scale is tightly adherent to the skin surface,
- Psoriasiform, Pityriasiform (branny powdery scale),
- Keratotic (horny scale), Exfoliation (peeling skin),
- Maceration (moist peeling skin), Verrucous (warty).



ENT

(Ear, Nose, Throat +
Head and Neck)



An otolaryngologist is a doctor specializing in treating conditions that affect the ears, nose, and throat, as well as head and neck surgery. Specialists in otolaryngology (sometimes also called otorhinolaryngology) have been organized since 1896, making it the oldest medical specialty. In addition to being a medical doctor, an otolaryngologist is also a surgeon.

That means that they can perform operations to help treat conditions affecting the delicate tissues of the ears, nose, and throat. Otolaryngologists can treat a wide variety of conditions. Examples include chronic or fungal sinusitis, hearing loss, oropharyngeal cancer, and obstructive sleep apnoea. What does an otolaryngologist do? Let's take a look at the parts of the body an otolaryngologist focuses on.

Ears

Our ears are important not only for hearing, but also for maintaining our balance. Ear conditions that otolaryngologists can treat include:

- chronic ear infections/ear pain/impacted ear wax
- dizziness or vertigo
- tinnitus (ringing of the ears)
- hearing loss/ruptured eardrum
- inner ear conditions, such as Meniere's disease
- ear tumours
- eustachian tube dysfunction
- middle ear fluid – Insertion of grommets
- otosclerosis
- temporal bone fractures
- hearing loss (work-related, activity related, (loud noise/shooting, Military) age-related.
- audiologist performs an AUDIOGRAM

Nose

We use our noses for breathing as well as to take in different smells from our surroundings. Nasal conditions that an otolaryngologist treats include:

- allergies/rhinitis/smell disorders
- sinusitis/post-nasal drip/ nasally obstructed breathing
- Cosmetic deformity of the nose (Rhinoplasty)
- nosebleeds & fractured noses
- nasal polyps
- deviated septum (Septoplasty)

Throat

The tissues of our throats help us to breathe, speak, and swallow. Throat conditions that an otolaryngologist treats include:

- hoarseness/sore throat/throat tumours



- gastroesophageal reflux disease (GORD)
- swallowing disorders/vocal cord disorders
- laryngitis
- conditions affecting the tonsils and adenoids – (Removal)
- snoring/sleep apnoea
- airway issues like subglottic stenosis

Head and Neck

In addition to treating conditions of the ears, nose, and throat, otolaryngologists can also help with conditions impacting the head and neck. These can include:

- infections of the head or neck/ tumours in the head or neck
- cancer of the throat
- facial injuries or deformities, including reconstructive or plastic surgery
- thyroid conditions/congenital neck masses
- free flap reconstruction

Common Terminology

ABR	Auditory Brainstem Response test
Acoustic neuroma	A tumour, usually benign, which may develop on the hearing and balance nerves and can cause gradual hearing loss, tinnitus, and/or dizziness.
Anaemia	A condition in which the blood is deficient in red blood cells, in haemoglobin, or in total volume.
Adenoid	Lymphoid tissue located behind the nose.
Ageusia	Loss of the sense of taste.
Albinism	Lack of normal pigment in the skin, eyes, and hair.
Ankyloglossia	A foreshortened or tethered lingual frenulum commonly known as “tongue-tie” in which the tongue is tethered to the floor of mouth.
Anosmia	The absence of the sense of smell.
Aphonia	The complete loss of voice.
Apraxia	The inability to execute a voluntary movement despite being able to demonstrate normal muscle function.
Articulation disorder	The inability to correctly produce speech sounds (phonemes) because of imprecise placement, timing, pressure, speed, or flow of movement of the lips, tongue, or throat.
Audiogram:	Hearing test. Audiologist: A health care professional who is trained to evaluate hearing loss and related disorders, including balance (vestibular) and tinnitus, and to rehabilitate individuals with hearing loss and related disorders. An audiologist uses a variety of tests and procedures to assess hearing and balance function and to fit and dispense hearing aids and other assistive devices for hearing.
Auditory nerve	The eighth cranial nerve that connects the inner ear to the brainstem and is responsible for hearing and balance.
Auditory perception	The ability to identify, interpret, and attach meaning to sound.
Auditory prosthesis	A device that substitutes or enhances the ability to hear.



Balance disorder	Disruption in the labyrinth, the inner ear organ that controls the balance system, which allows individuals to know where their bodies are in the environment. The labyrinth works with other systems in the body, such as the visual and skeletal systems, to maintain posture.
Barotrauma	Injury to the middle ear caused by a reduction of air pressure.
Brainstem Implant	An auditory prosthesis that bypasses the cochlea and auditory nerve. This type of implant helps individuals who cannot benefit from a cochlear implant because the auditory nerves are not working.
Branchial	A term used to describe cysts or sinus tracts that are derived from indentations in the foetus. The word means pertaining to, or resembling, gills of a fish. There are typically four possible branchial anomalies in children that start up near the ear and end down near the collarbone.
Benign paroxysmal positional vertigo	A balance disorder that results in sudden onset of dizziness, spinning, or vertigo when moving the head.
Benign tumour	A tumour that is not malignant; it is not a cancer.
Blepharospasm	A movement disorder involving excessive eye blinking.
BPPV	Benign paroxysmal positional vertigo.
Cerebrovascular accident	Lack of blood to the brain, resulting in the sudden loss of speech, language, or the ability to move a body part and, if severe enough, death. Also known as stroke.
Cerumen	Earwax.
Choanal atresia	A birth defect in which there is no opening in the back of the nose to connect it to the breathing tube. Babies with this problem are unable to breathe through their noses.
Cholesteatoma	Skin (epithelium) growing in areas it does not belong, can be destructive due to enzymes produced by the skin and pressure necrosis. Commonly used to refer to skin growing in the middle ear and mastoid, causing significant infection and erosion.
Cilia	Small hairs that move mucous in the nose, sinus and windpipe.
Cleft palate	A birth defect resulting in opening in the roof of the mouth that may or may not involve the upper lip and/or nose.
Cochlea	A snail-shaped structure in the inner ear, which is the essential organ of hearing. This tube is filled with tiny hair cells, which help transmit sound into the brain.
Cochlear implants	An electronic device that restores partial hearing to the deaf. It is surgically implanted in the inner ear and activated by a device worn outside the ear. It bypasses damaged structures in the inner ear and directly stimulates the auditory nerve, allowing some deaf individuals to learn to hear and interpret sounds and speech.
Cognition	Thinking skills that include perception, memory, awareness, reasoning, judgment, intellect, and imagination.
Conductive Hearing Impairment	Hearing loss caused by dysfunction of the outer or middle ear.
CPAP	continuous positive airway pressure
Decibel	The unit that measures the intensity or loudness of sound.
Dermoid	A cyst which may be found associated with the nose, eyebrow or neck which sometimes has connections into the brain. This cyst and its possible tract are formed during foetal development.



Deviated septum	Leaning of the septum to one side or the other of the nose; may create blockage of a nostril.
Dizziness	Physical unsteadiness, imbalance, and light headedness associated with balance disorders.
Dysarthria	A group of speech disorders caused by disturbances in the strength or coordination of the muscles of the speech mechanism as a result of damage to the brain or nerves.
Dysfluency	Disruption in the smooth flow or expression of speech.
Dysgeusia	Distortion or absence of the sense of taste.
Dyslexia	Learning disability characterized by reading difficulties. Some individuals may also have difficulty writing, spelling, or working with numbers.
Dysphagia	Difficulty swallowing.
Dysphonia	Any impairment of the voice or speaking ability.
Dyspraxia of Speech	Partial loss of the ability to consistently pronounce words in individuals with normal muscle tone and speech muscle coordination.
Dystonia	Abnormal muscle tone of one or more muscles.
Ear drum	A translucent, fibrous drum which separates the external ear canal from the middle ear and is directly attached to the ear bones (ossicles). This structure helps conduct sound waves to mechanical energy that results in stimulation of the inner ear.
Endoscopy	Surgery using a telescope to visualize internal organ through a small incision.
Epiglottis	A small flap-like valve made of cartilage that closes over the voice box (larynx) during swallowing so that food goes down the oesophagus.
Epistaxis	Nosebleed.
Ethmoid	Sinuses located between the eyes.
Eustachian tube	The tube connecting the middle ear to the throat.
External otitis	Infection of the external ear canal commonly known as “swimmer’s ear.”
Frenulum	The membrane of tissue connecting the middle of the tongue to the floor of the mouth.
Hyoid	A bone in the neck suspended between muscles that help produce the swallowing motion.
Hyperplasia	Excessive growth of normal cells of an organ.
Hypogeusia	Diminished sensitivity to taste.
Hyposmia	Diminished sensitivity to smell.
Incus	Middle ear bone between the malleus and the stapes, commonly referred to as the “anvil.”
Inner ear	The part of the ear that contains both the organ of hearing (the cochlea) and the organ of balance (the labyrinth).
Labyrinth	The organ of balance located in the inner ear. The labyrinth consists of three semicircular canals and the vestibule.
Labyrinthitis	Viral or bacterial infection or inflammation of the inner ear that can cause dizziness, loss of balance, and temporary hearing loss.
Laryngeal neoplasms	Abnormal growths in the larynx (voice box) that can be cancerous or noncancerous.
Laryngeal nodules	Noncancerous, callous-like growths on the inner parts of the vocal folds (vocal cords); usually caused by vocal abuse or misuse.



Laryngeal paralysis	Loss of function or feeling of one or both of the vocal folds caused by injury or disease to the nerves of the larynx.
Laryngectomy	Surgery to remove part or all of the larynx (voice box).
Laryngitis	A hoarse voice or the complete loss of the voice because of irritation to the vocal folds (vocal cords).
Laryngomalacia	A term used to describe floppiness of the valves over the voice box that creates a noise as the child breathes in which is usually high-pitched and is especially heard during feeding.
Laryngoscopy	Looking into the larynx with a lighted telescope.
Larynx	A term used to identify the voice box, which contains the vocal cords and structures which help produce sound. This structure also separates the airway from the breathing tube while swallowing by closing. Voice or other sounds are produced when the vocal cords meet in the middle.
Lymphadenectomy	Removal of the lymph glands in the area near a tumor in order to determine if they are involved with cancer and to remove any cancer located within them.
Lymphadenopathy	Enlargement of lymph nodes usually associated with inflammation or infection, commonly known as “swollen glands.”
Malleus	The ear bone that directly connects the other ossicles to the tympanic membrane, also commonly referred to as the “hammer” bone.
Mandible	The “jaw bone” to which the lower teeth are attached.
Maxilla	The bone to which the upper teeth are attached.
Maxillary sinuses	Sinuses located behind the cheeks.
Mastoid	The skull bone behind the ear.
Mastoidectomy	Creating an opening and removing infected bone caused by severe, advanced ear infection.
Mastoiditis	Infection of the mastoid bone due to severe, advanced ear infection.
Meniere’s Disease	An inner ear disorder that can affect both hearing and balance. It can cause vertigo, hearing loss, tinnitus, and the sensation of fullness in the ear.
Nasopharyngoscopy	Looking into the nose and throat and inspecting the vocal cords using a flexible telescope.
Neuropraxia	Temporary decrease of nerve function.
Obstructive sleep apnoea	Obstruction of breathing by the palate, tongue and/or nose during sleep.
Odorant	A substance that stimulates the sense of smell.
Olfaction	The act of smelling.
Olfactometer	A device for estimating the intensity of the sense of smell.
Oromandibular dystonia	Involuntary movements of the jaw muscles, lips, and tongue.
OSA	Obstructive sleep apnoea
Ossicle	A general term for any of the three ear bones.
Ossicular chain reconstruction	Removal of the damaged ear bones and replacement with artificial bones.
Otitis media	Infection of the middle ear, the area behind the eardrums.
Otitis externa	Inflammation of the outer part of the ear extending to the auditory canal, commonly called “swimmer’s ear.”



Otoplasty	(COSMETIC) Surgery to improve the appearance of the ears, usually attaching the ears more closely to the head when they stick out more than the person would like or if they are uneven.
Otorrhoea	Discharge from the ear.
Otosclerosis	Abnormal growth of bone causing fixation of the ear bones in the middle ear, typically involving the stapes or “stirrup” bone. This prevents structures within the ear from working properly and causes hearing loss. For some people with otosclerosis, the hearing loss may become severe. This condition may involve the cochlea causing nerve hearing loss.
Ototoxic drugs	Drugs such as a special class of antibiotics, aminoglycoside antibiotics, that can damage the hearing and balance organs located in the inner ear for some individuals.
Outer ear	The external portion of the ear, consisting of the pinna, or auricle, and the ear canal.
Palate	Roof of the mouth.
Parathyroid	Tiny glands located in the neck, which produce a hormone known as parathyroid hormone that regulates the level of calcium in the blood. There are usually two glands on each side of the neck behind the thyroid but they may be in other locations in the neck and even in the chest.
Parathyroid hormone	A hormone produced by the parathyroid gland when the level of calcium in the blood gets low. Disorders of the parathyroid result in excessive production of parathyroid hormone and high levels of calcium in the blood.
Parathyroidectomy	Removal of one or more of the parathyroid glands.
Paresis	Partial paralysis, may be temporary
Parosmia	Any disease or perversion of the sense of smell, especially the subjective perception of odours that do not exist.
Parotid	One of the three major salivary glands that supply saliva to the mouth. These glands are located in front of the ears on both sides of the face and produce mucous that travels through a glands and empties into the mouth just opposite the upper teeth on each side. These glands swell up when a patient has viral infections (i.e. mumps).
Parotidectomy	Removal of part or all of the parotid gland.
Presbycusis	The loss of hearing that gradually occurs because of changes in the inner or middle ear in individuals as they grow older.
Rhinitis	Inflammation of the nasal lining which can be caused by infection, allergies, foreign body, abnormal nerve input, or other inflammatory agents.
Rhinoplasty	(COSMETIC) Surgery to improve the appearance of the nose.
Rhinorrhoea	Discharge from the nose.
Salivary glands	Glands are found in and around the mouth and throat. The major salivary glands are the parotid, submandibular, and sublingual glands. They all secrete saliva into your mouth, the parotid through tubes that drain saliva, called salivary ducts, near your upper teeth, submandibular under your tongue, and the sublingual through many ducts in the floor of your mouth.
Sensorineural hearing loss	Hearing loss caused by damage to the sensory cells and/or nerve fibres of the inner ear.
Septal deviation	Leaning of the septum to one side or the other of the nose; may create blockage of a nostril.
Septum	The cartilage and skin that separates the two nostrils.



Septoplasty	Reconstruction of the septum to correct septal deviation.
Sinus	A connection from one cavity to another or a cavity that is connected to another cavity; usually refers to the air spaces in the skull that connect to the back of the nose.
Sinusitis	Infection involving one or more of the sinuses.
Sleep apnoea	Obstruction of breathing by the palate, tongue and/or nose during sleep; also called obstructive sleep apnoea.
Stapes	Smallest of the three middle ear bones that connect the tympanic membrane with the inner ear. Commonly referred to as the “stirrup” bone.
Stapedectomy	Removal of the stapes bone when it is not functioning, and replacing it with an artificial stapes.
Stridor	A term used to describe noisy breathing associated with inflammation or narrowing of the voice box or breathing tube (trachea).
Stoma	Opening from an organ to the outside such as the tracheal stoma that is present after a tracheotomy.
Temporomandibular joint	(TMJ) The connection of the jaw bone to the skull, movement of this joint opens and closes the mouth. “clicking”
Thyroid	Organ in the neck surrounding the area of the windpipe where the voice box is located. This organ helps regulate metabolism. This gland requires iodine for production of hormones, thyroxine and
Thyroidectomy	Removal of the thyroid gland.
Thyroplasty	A surgical technique to improve voice by altering the cartilages of the larynx, which houses the vocal folds (vocal cords), in order to change the position or length of the vocal folds. Also known as laryngeal framework surgery.
Tinnismus	Inability to completely open the mouth.
Tinnitus	The sensation of a ringing, roaring, or buzzing sound in the ears or head. It is often associated with many forms of hearing impairment and noise exposure.
TM	Tympanic membrane
Tonsillitis	Infection of the tonsils. Tonsillectomy: Removal of one or both tonsils.
Tourette Syndrome	A neurological disorder characterized by recurring movements and sounds (called tics).
Trachea	Windpipe, breathing tube, the structure that connects the back of the mouth with the lungs.
Tracheal stenosis	Narrowing of the trachea due to a birth defect or scar tissue formation.
Tracheoesophageal puncture	An opening that is created between the swallowing tube and the breathing tube to allow people who have had their voice boxes removed to create speech-like sounds.
Tracheostomy	A surgically created opening into the trachea (windpipe) to help someone breathe who has an obstruction or swelling in the larynx (voice box) or upper throat or who have their larynx surgically removed.
Tracheotomy	Creation of an opening through the neck into the breathing tube (trachea) in order to bypass the mouth and throat. Commonly used when significant obstruction exists above the level of the voice box or when the voice box is removed due to cancer.
Turbinate	Structure inside the nose that humidifies and filters air.
Tympanic membrane	Ear drum. Tympanic membrane perforation: Hole in the ear drum.



Tympanoplasty	Repair of the ear drum using a patch usually made up of tissue taken from a nearby muscle.
Usher Syndrome	A hereditary disease that affects hearing and vision and sometimes balance.
Uvula	Small “punching bag” of muscle that hangs down in the back of the throat, helps close the mouth from the nose during speech.
Uvulopalatoplasty	Shortening the palate and removal of the uvula to decrease snoring and sleep apnoea.
Vertigo	The illusion of movement; a sensation as if the external world were revolving around an individual (objective vertigo) or as if the individual were revolving in space (subjective vertigo).
Vestibular neuronitis	An inflammation of the vestibular nerve.
Vestibular system	The system in the body that is responsible for maintaining balance, posture, and the body’s orientation in space. This system also regulates locomotion and other movements and keeps objects in visual focus as the body moves.
Vestibule	The bony cavity of the inner ear.
Olfactometer	A device for estimating the intensity of the sense of smell.
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Vestibule	The bony cavity of the inner ear.



Hand/ Wrist Surgeon

(Can be Orthopaedic) or Plastic & Reconstructive



HAND/WRIST SURGEON (CAN BE ORTHOPAEDIC) OR PLASTIC & RECONSTRUCTIVE

The human hand is made up of the wrist, palm, and fingers and consists of 27 bones, 27 joints, 34 muscles, over 100 ligaments and tendons, and many blood vessels and nerves.

Bones

The wrist is comprised of 8 carpal bones. These wrist bones are attached to the radius and ulna of the forearm to form the wrist joint. They connect to 5 metacarpal bones that form the palm of the hand. Each metacarpal bone connects to one finger at a joint called the metacarpophalangeal joint or MCP joint. This joint is also commonly referred to as the knuckle joint.

The bones in our fingers and thumb are called phalanges. Each finger has 3 phalanges separated by two interphalangeal joints, except for the thumb, which only has 2 phalanges and one interphalangeal joint. The first joint close to the knuckle joint is called the proximal interphalangeal joint or PIP joint. The joint closest to the end of the finger is called the distal interphalangeal joint or DIP joint. The MCP joint and the PIP joint act like hinges when the fingers bend and straighten.

Soft tissues

Our hand bones are held in place and supported by various soft tissues. These include: articular cartilage, ligaments, muscles and tendons.

- Articular cartilage is a smooth material that acts as a shock absorber and cushions the ends of bones at each of the 27 joints, allowing smooth movement of the hand.
- Muscles and ligaments function to control the movement of the hand.
- Ligaments are tough rope-like tissue that connect bones to other bones, holding them in place and providing stability to the joints. Each finger joint has two collateral ligaments on either side, which prevents the abnormal sideways bending of the joints. The volar plate is the strongest ligament in the hand. It joins the proximal and middle phalanx on the palm side of the joint and prevents backwards bending of the PIP joint (hyperextension).

Muscles

Muscles are fibrous tissues that help produce movement. Muscles work by contracting. There are two types of muscles in the hand, **intrinsic** and **extrinsic** muscles.

Intrinsic muscles are small muscles that originate in the wrist and hand. They are responsible for fine motor movement of the fingers during activities such as writing or playing the piano.

Extrinsic muscles originate in the forearm or elbow and control the movement of the wrist and hand. These muscles are responsible for gross hand movements. They position the wrist and hand while the fingers perform fine motor movements.

Each finger has six muscles controlling its movement: three extrinsic and three intrinsic muscles. The index and little finger each have an extra extrinsic extensor.

Tendons

Tendons are soft tissues that connect muscles to bones. When muscles contract, tendons pull the



bones causing the finger to move. The extrinsic muscles attach to finger bones through long tendons that extend from the forearm through the wrist. Tendons located on the palm side help in bending the fingers and are called flexor tendons, while tendons on top of the hand help in straightening the fingers, and are called extensor tendons.

Nerves

Nerves of the hand carry electrical signals from the brain to the muscles in the forearm and hand, enabling movement. They also carry the senses of touch, pain and temperature back from the hands to the brain. The three main nerves of the hand and wrist are the ulnar nerve, radial nerve and median nerve. All three nerves originate at the shoulder and travel down the arm to the hand. Each of these nerves has sensory and motor components.

- **Ulnar Nerve:** The ulnar nerve crosses the wrist through an area called Guyon's canal and branches to provide sensation to the little finger and half of the ring finger.
- **Median Nerve:** The median nerve crosses the wrist through a tunnel called the carpal tunnel. The median nerve provides sensation to the palm, thumb, index finger, middle finger, and part of the ring finger.
- **Radial Nerve:** The radial nerve runs down the thumb side of the forearm and provides sensation to the back of the hand from the thumb to the middle finger.

Blood Vessels

Blood vessels travel beside the nerves to supply blood to the hand. The main arteries are the ulnar and radial arteries, which supply blood to the front of the hand, fingers, and thumb.

- The ulnar artery travels next to the ulnar nerve through the Guyon's canal in the wrist.
- The radial artery is the largest artery of the hand, traveling across the front of the wrist, near the thumb. Pulse is measured at the radial artery.

Other blood vessels travel across the back of the wrist to supply blood to the back of the hand, fingers, and thumb.

Bursae

Bursae are small fluid filled sacs that decrease friction between tendons and bone or skin. Bursae contain special cells called synovial cells that secrete a lubricating fluid.

Common Terminology

Arthritis of the Hand	Arthritis is damage to the cartilage between bones caused by excessive use, and is very common in the hands.
Basal Thumb Arthritis	The joint of the thumb is particularly susceptible to arthritic damage. This can be very serious, as the mobility of the thumb is important to hand function.
Biceps Tendinitis	When the tendon that attaches the biceps muscle to the radius becomes injured or inflamed, that is tendinitis. Repetitive wrist motion, particularly associated with athletic activity, is the most common cause of this condition.
Boutonniere Finger	This condition is caused when the tendon running along the top of the finger becomes injured, which causes the finger to bend in a characteristic formation. This can be caused by trauma or by rheumatoid arthritis.



Carpal Tunnel Syndrome	Carpal tunnel syndrome is one of the most common injuries to the upper extremity. The sheath of nerves that carry signals from the brain to the hand becomes inflamed and rubs against the nerve inside, leading to numbness, tingling, and pain.
Carpals	The eight bones that make up the wrist are known as the carpals. They form the connection between the long bones of the forearm and the metacarpals, which form the main body of the hand. They are as follows: lunate, capitate, hamate, triquetrum, trapezium, trapezoid, and scaphoid. Fractures to these individual bones are addressed in the list discussed earlier.
Metacarpals	The metacarpal bones are the long, thin bones that make up the hand. Along with the tendons and fascia that connect them, the large area of the hand that includes the palm is built around these bones.
Phalanges	The phalanges, or finger bones, are separated into three parts. The proximal phalanges are closest to the hand, the intermediate phalanges are one step removed, and the distal phalanges are the tips of the fingers. The bones of the hand are connected to one another by a series of ligaments: the ulnar collateral, the radial collateral, and the annular ligaments.
Cartilage and Ligament Tears of the Wrist	Cartilage and ligaments in the wrist hold the small delicate bones in place and allow for function of the hand. Injuries to these connective tissues can be caused by trauma, as with the bones, and must be treated or they can cause lasting problems.
Colles Fracture	In a Colles fracture, the head of the radius, one of the two long bones in the forearm, is fractured and comes away from the rest of the bone. This type of injury is very common and is caused almost exclusively by a fall onto an outstretched hand.
Complex Regional Pain Syndrome	CRPS is a little-understood constellation of nervous symptoms that lead to pain and discomfort throughout various limbs, particularly the upper extremities. It can be brought on either by a traumatic injury, which is most common, or by idiopathic inflammation of the nervous pathways.
Cubital Tunnel Syndrome	Cubital tunnel syndrome is akin to carpal tunnel syndrome, where the nerve is trapped within a swollen tunnel, but this time the cubital tunnel rather than the carpal tunnel.
De Quervains Stenosing Tenosynovitis	De Quervain's is caused when the tendons at the base of the thumb become constricted as the result of trauma or repetitive motion injury. This type of injury can greatly affect grip strength and restrict use of the thumb and hand.
Dupuytren's Contracture	Is a congenital condition that affects the fascia, or subcutaneous tissue, of the hand. It causes the flexor tendons of the hand to pull inward, making the fingers claw towards the palm. Most commonly, the little and ring fingers are affected, but in severe cases all fingers can be affected.
Extensor carpi radialis longus	This muscle is integral to the movement of the wrist. The muscles of the hand are all very delicate and important to the function of that extremity, and include the following: Abductor pollicis longus, Extensor carpi radialis longus, Extensor pollicis longus, Extensor carpi radialis brevis, Extensor pollicis brevis, Extensor indicis, Extensor digiti minimi, Extensor carpi ulnaris, and Extensor digitorum communis.
Extensor Tendon Injuries	Extensor tendons run from the top of the forearm along the hand to the fingers and are integral in the motion of extending the fingers. Injuries to these tendons can take many different forms but can be very debilitating in any form.
Flexor Tendon Injuries	The counterpart of extensor tendons, flexor tendons run along the underside of the forearm and the palm and fingers. They are responsible for the flexion, or drawing in of the fingers.



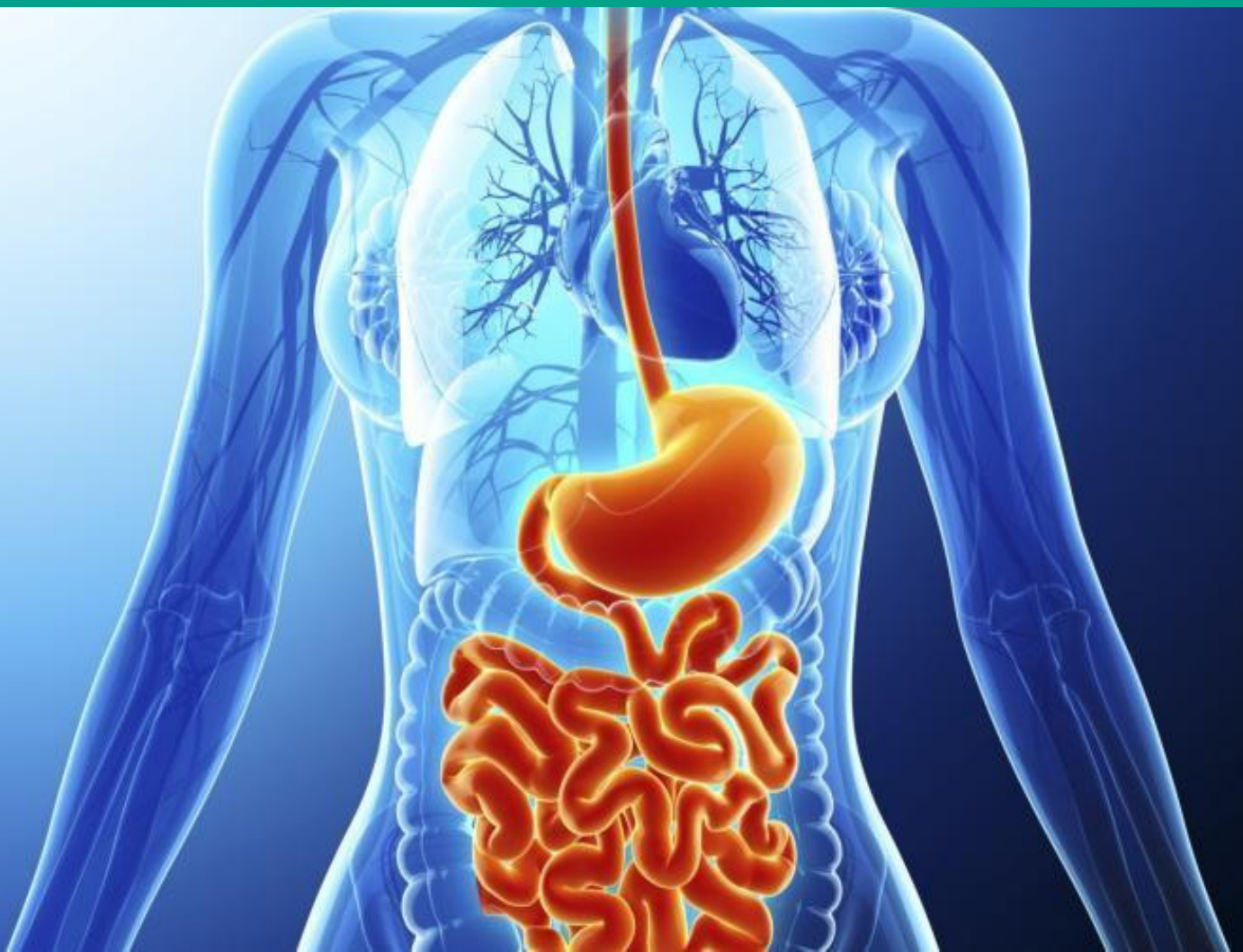
Forearm Fractures	The radius and the ulna are the two bones that make up the forearm, and while they are strong and can stand up to a lot of wear and tear, it is not uncommon to see injuries in one or both. They are more common in children, whose bones are not at their adult hardness, but even some adults can undergo trauma sufficient to fracture and or displace these bones.
Ganglion Cyst	Similar to a digital cyst, ganglion cysts occur at the wrist joint, and the diagnosis, structure, and treatment is the same. Draining of the cyst is most common, but not a guaranteed solution, as the fluid may not be entirely drained, and the cyst can grow back.
Golfer's Elbow	Medial epicondylitis is an injury to the medial epicondyle tendon of the elbow, caused by violent rotation of the joint, which creates small tears in the tendon. It got its name because the motion of hitting a golf ball is the most common type of movement that causes this injury.
Humerus	Also known as the “funny bone” the humerus is the longest and most robust bone in the arm. It is the bone of the upper arm, and connects the shoulder to the elbow.
Kienbocks Disease	Is a condition that affects the lunate bone, which is right in the middle of the wrist. As a result of the condition, the blood supply of the bone is cut off and the bone tissue dies, which means that the only way to repair the damage is for the bone to be replaced with a special piece of technology that serves the same purpose as the dead bone.
Mallet Finger	Mallet finger occurs when the extensor tendon on the finger becomes severed from the outermost bone of the finger, the distal phalanx, causing the joint to go limp, and the fingertip to droop, resembling a mallet. It can be caused by trauma, such as a crush injury, but is most common as a repetitive use injury, and is easily reparable with splinting, although surgery may be necessary if the injury that caused the tear is severe.
Metacarpal Boss	Metacarpal bosses occur when the connective tissue of the metacarpal joints is worn away by repetitive use or trauma. This causes a “boss” or a bony growth, which is the body's attempt to defend itself from irritation, but which has the opposite effect, and must be handled by steroid injection or surgical removal.
Medial Ulnar Collateral Ligament Injury at the Elbow	The elbow is a complex joint, hinge-like in structure, and the tendons that comprise it are susceptible to injury and trauma, particularly the elbows of athletes, who overuse their joints to a great extent. MUC ligament injury is associated with overhead throwing motion, and causes pain, numbness, and calcification. Like many elbow injuries, it can be treated conservatively, but sometimes surgery is necessary.
Metacarpal Fractures	Metacarpal fractures come in many different varieties, such as the boxer's fracture, but other injuries known as Bennet's or Rolando's fractures, which describe different types of break, may also occur. The type of fracture determines the type of treatment, which can range from simple casting to more invasive treatment requiring metal pins.
Mucoid Cysts	Digital mucoid cysts are benign growths that occur when the fluid between the phalanges of the fingers becomes irritated and leaks out of its proper location and develops into a round growth on a stalk. These cysts can impede regular function of the finger and cause unsightly bumps and can usually be lanced and drained unless surgical removal is indicated.
Olecranon Bursitis	A bursa is a fluid-filled sac that protects soft tissues from bones, and in this case, the skin of the elbow from the olecranon process, which is the bony prominence at the elbow. Bursitis occurs when the fluid in the sac becomes irritated or infected, causing the sac to swell and rub against the tissues in the area, which can cause irritation or sometimes pain.



Osteochondritis Deseicans	This is a condition similar to Panner's Disease but it occurs in more mature individuals whose growth plates have become ossified into true bone, and as a result, is a more serious condition that can have lasting damage.
Overuse Injuries of the Elbow	The elbow is a complex and very heavily used part of the arm, and as a result, injuries to this joint are very commonplace. The most common elbow injuries, such as Tennis Elbow and Golfer's Elbow, are discussed above, and their names indicate that these athletic activities are most commonly associated with overuse of the elbow.
Radial Tunnel Syndrome	Radial Tunnel syndrome is related to carpal and cubital tunnel syndrome but is the least common of the three. As a result of some trauma to the tissue of the elbow, the radial nerve becomes trapped and cannot transmit information from the brain to the hand and back.
Radius	The radius is one of two bones that make up the forearm. The radius runs along the inner, thumb-side of the forearm, and so this part of the arm and its associated components are referred to as "radial."
Rheumatoid Arthritis	A genetic condition that predisposes an individual to arthritic damage in the cartilage of the joints. It cannot be predicted genetically but can be managed by doctors.
Scaphoid Fracture	The scaphoid is a small bone in the wrist that can be injured by a fall onto the outstretched hand. If the fracture is severe enough to cut off the blood supply to the bone, it cannot rebuild itself and may require more advanced treatment.
Tennis Elbow	Inflammation. When the outside tendons that connect the forearm muscles to the elbow become inflamed, that is known as tennis elbow. Despite its name, this condition can be caused by any number of repetitive motion activities, ranging from leisure to business activities.
Thoracic Outlet Syndrome	Thoracic outlet symptom occurs when a complex series of nerves is compressed within a tight passageway in the shoulder/armpit. Thoracic outlet is one of the more serious conditions of the upper extremity, and surgical treatment, although often necessary, carries risks.
Trigger Finger	Trigger finger occurs when the flexor tendons of the fingers develop nodules that keep them from smoothly sliding in and out of the pulleys that connect them to the phalanges. These nodules can trap the fingers in a flexed position, which gives the condition its name.
Ulna	The counterpart of the radius is the ulna, which makes up the other, outer half of the forearm. All of the tendons and nerves and processes that pertain to this bone, and to the outside of the arm, are referred to as "ulnar."
Ulnar Nerve	The Ulnar nerve is the nerve responsible for the humerus's reputation as the "funny bone," that sensation that one feels in their arm when they hit their funny bone is actually the ulnar nerve. Like the radial nerve, it extends from the shoulder to the hand, but in this case, it is along the ulnar or outside of the arm and enervates the outermost fingers.
Median Nerve	The median nerve is the third and central nerve of the arm. It is of particular importance because it is the nerve associated with carpal tunnel syndrome.
Radial Nerve	One of three nerves that enervate the arm and hand, the radial nerve is responsible for the function of the biceps, and runs along the radial side of the humerus, the radius itself, and into the thumb side of the hand.



Gastroen- terology



GASTROENTEROLOGY (GIT)

A **gastroenterologist** is a medical doctor who **specializes in conditions affecting the digestive system**. They diagnose and treat a range of gut-related illnesses, perform routine procedures such as colonoscopies, and focus on issues related to the gastrointestinal (GI) tract and liver.

Common Terminology

Abdomen	Area between the chest and the hips that contains the stomach, small intestine, large intestine, liver, gall bladder, pancreas, and spleen.
Achalasia	Failure of the lower Oesophageal sphincter, a valve that separates the stomach and the Oesophagus, to open.
Anal fissure	A cut in the anal canal.
Anastomosis, intestinal	Reattachment of two portions of the bowel together.
Antispasmodics	Drugs that inhibit smooth muscle contraction in the gastrointestinal tract.
Anus	The opening of the rectum.
Barium	A metallic, chemical, chalky liquid used to coat the inside of organs so that they will show up on an x-ray.
Bile	Secretions of the liver that aid in digestion and absorption, and stimulate peristalsis.
Biliary tract	Gall bladder and the bile ducts.
Borborygmi	Audible rumbling abdominal sounds due to gas gurgling with liquid as it passes through the intestines.
Celiac disease	An allergic reaction of the lining of the small intestine in response to the protein gliadin (a component of gluten). Gliadin is found in wheat, rye, barley, and oats. Celiac disease is also called celiac sprue, and gluten intolerance.
Colectomy	Removal of part or the entire colon.
Colitis	Inflammation of the colon.
Colon	The large intestine.
Colonoscopy	Colonoscopy is a fiberoptic (endoscopic) procedure in which a thin, flexible, lighted viewing tube (a colonoscope) is threaded up through the rectum for the purpose of inspecting the entire colon and rectum and, if there is an abnormality, taking a tissue sample of it (biopsy) for examination under a microscope, or removing it.
Colostomy	A surgically created opening of the colon to the abdominal wall, allowing the diversion of faecal waste.
Crohn's disease	A form of inflammatory bowel disease.
Diarrhoea	Passing frequent and loose stools that can be watery. Acute diarrhea goes away in a few weeks and becomes chronic when it lasts longer than 4 weeks.
Diverticulitis	Occurs when a diverticulum becomes infected or irritated.
Diverticula (diverticulosis)	Small pouches in the colon.
Duodenum	The first part of the small intestine.



Dysphagia	The sensation of food sticking in the oesophagus.
Enteritis	An irritation of the small intestine.
Enterocolitis	Inflammation of the intestines ganglion: A mass of nerve cells.
Eosinophilic gastroenteritis	A rare disease characterized by food-related reactions, infiltration of certain white blood cells (eosinophils) in the GI tract, and an increase in the number of eosinophils in the blood.
Epithelium	The inner and outer tissue covering digestive tract organs.
Oesophagitis	An irritation of the oesophagus.
Oesophagus	The organ that connects the mouth to the stomach.
Fistula	An abnormal passage between two organs or between an organ and the outside of the body.
Gastritis	An inflammation of the stomach lining.
Gastroenteritis	An infection or irritation of the stomach and intestines.
Gastroparesis	Nerve or muscle damage in the stomach leading to delayed gastric emptying.
GORD (gastroesophageal reflux disease)	Also called acid reflux, a condition where the contents of the stomach regurgitate (or backs up) into the Oesophagus (food pipe), causing discomfort and sometimes Oesophageal injury.
Helicobacter pylori (H. pylori)	A bacterium that can damage stomach and duodenal tissue, causing ulcers and stomach cancer.
Haemorrhoids	Veins around or inside the anus or lower rectum that are swollen and inflamed.
Hepatic	Related to the liver.
Hiatal hernia	A small opening in the diaphragm that allows a part of the stomach to move up into the chest.
Ileostomy	A surgically created opening of the abdominal wall to the ileum, allowing the diversion of faecal waste.
Ileum	The lower third of the small intestine, adjoining the colon.
Inflammatory bowel disease (IBD)	A set of chronic diseases characterized by irritation and ulcers in the gastrointestinal tract. The most common disorders are ulcerative colitis and Crohn's disease.
Intestines	Also known as the bowels, or the long, tube-like organ in the human body that completes digestion or the breaking down of food. They consist of the small intestine and the large intestine.
In vitro	In the laboratory (outside the body). The opposite of in vivo (in the body).
In vivo	In the body. The opposite of in vitro (outside the body or in the laboratory).
Ischaemic colitis	Colitis caused by decreased blood flow to the colon.
Laparoscopy	The insertion of a thin, lighted tube (called a laparoscope) through the abdominal wall to inspect the inside of the abdomen and remove tissue samples.
Lymphocyte	A type of white blood cell. Lymphocytes have a number of roles in the immune system, including the production of antibodies and other substances that fight infection and diseases.
Peptic ulcer	A sore in the lining of the oesophagus, stomach, or duodenum, usually caused by most commonly by the bacterium <i>Helicobacter pylori</i> (H. pylori) or use of NSAID medications. An ulcer in the stomach is a gastric ulcer; an ulcer in the duodenum is a duodenal ulcer.
Perineum	The area of the body between the anus and the vulva in females, and between the anus and the scrotum in males.



Polyp	A benign growth involving the lining of the GI tract (noncancerous tumours or neoplasms). Can occur in several locations in the gastrointestinal tract but are most common in the colon. Vary in size from less than a quarter of an inch to several inches in diameter. They look like small bumps growing from the lining of the bowel and protruding into the lumen (bowel cavity). They sometimes grow on a “stalk” and look like mushrooms.
Rectum	The lower end of the large intestine, leading to the anus.
Sigmoid colon	The S-shaped section of the colon that connects to the rectum.
Sigmoidoscopy	Examination of the inside of the sigmoid colon and rectum using an endoscope, a thin, lighted tube (sigmoidoscope). Samples of tissue or cells may be collected for examination under a microscope. Also called proctosigmoidoscopy.
Sphincter	Ring of muscle that opens and closes and acts as a valve in various “check points” of the GI tract.
Ulcerative colitis	A form of inflammatory bowel disease that causes ulcers and inflammation in the inner lining of the colon and rectum.



Neurologist



A neurologist is a physician specializing in neurology and trained to investigate, diagnose and treat neurological disorders. Neurologists diagnose and treat myriad neurologic conditions, including stroke, epilepsy, movement disorders such as Parkinson's disease, brain infections, autoimmune neurologic disorders such as multiple sclerosis, sleep disorders, brain injury, headache disorders like migraine, tumours of the brain and dementias such as Alzheimer's disease. Neurologists may also have roles in clinical research, clinical trials, and basic or translational research. Neurology is a nonsurgical specialty, its corresponding surgical specialty is **neurosurgery**.

Common Terminology

Agnosia	Agnosia is the inability to recognise and identify objects or persons using one or more of the senses. It is caused by damage to the brain from strokes, brain injuries, dementia, or other neurological conditions. The inability to recognise something familiar does not necessarily mean that the person has problems with vision or thinking ability.
Allodynia	Allodynia is the term for when something that previously was not painful to a person (light touch, for example) now causes pain.
Anaemia	A condition in which a person's blood does not produce enough healthy red blood cells which provide oxygen to body tissues. This can cause weakness and fatigue.
Aphasia	The loss of ability to speak or understand speech, usually caused by damage to the brain.
Apraxia	The loss of the ability to perform skilled movements and gestures. For example, a person may no longer be able to wink, lick their lips, or complete the steps required to bathe or dress themselves.
Atrophy	The process of wasting away or deteriorating in cells, tissues, and organs.
Atrial fibrillation	A rapid, irregular, weak beating of the left atrium or upper chamber of the heart. It can cause blood clots and is a major risk factor for ischaemic stroke.
Autonomic Nervous System	The autonomic nervous system is the part of the nervous system that controls involuntary functions such as breathing and heartbeat.
Axon	The axon is the part of the neuron that carries signals from the body of the neuron to the axon terminal, where the signal travels to other cells.
Cephalocele	A condition that arises as the brain is developing in which part of the brain and central nervous system protrude outside of the skull.
Cerebral	A term used to describe the principal part of the brain, the cerebrum.
Cerebral atrophy	Involves neurons being injured and dying, connections between networks of neurons breaking down, and the gradual shrinking of brain regions.
Cerebral hypoxia	A condition in which the brain doesn't get enough oxygen to function normally, even though blood flow is normal.
Cerebrospinal fluid	A fluid that surrounds and fills the brain and spinal cord. It protects the brain, provides nourishment for cells, and removes waste.

Chorea	A movement disorder that causes sudden, unintended, and uncontrollable jerky movements of the muscles in the face, arms, or legs. It is a symptom of many conditions and diseases and is caused by overactivity of the chemical dopamine in the brain.
Clonus	A reflex response that includes involuntary and rhythmic muscle contractions. It is seen in some neurological conditions.
Coma	A coma is a long, deep state of unconsciousness. People in a state of coma are alive but unable to move or respond to their surroundings.
Corpus Callosum	The corpus callosum is the bundle of nerve cells that connect the two hemispheres (halves) of the brain.
Dendrites	Dendrites are the part of the neuron that receive signals from other nerve cells.
Dyskinesia	Refers to involuntary movements, such as twisting and writhing. Tics, shaking, and tremor can also occur.
Dysautonomia	Happens when there is a problem in the autonomic nervous system, which controls involuntary functions like breathing, heartbeat, and blood pressure, which normally happen without thinking.
Dysgraphia	A term used to describe a variety of challenges and disabilities related to writing.
Dyslexia	A learning disorder that includes difficulty reading, particularly caused by challenges relating speech sounds to letters and words.
Dysphagia	The medical term for difficulty swallowing.
Dystonia	A medical term for involuntary muscle contractions or flexing. It can cause slow repetitive movements or abnormal postures that can be painful.
EMG Studies	Electromyography (EMG) studies are diagnostic procedures used to assess the health of muscles and the nerve cells that control them. They help diagnose conditions such as carpal tunnel syndrome, muscular dystrophy, and other neuromuscular disorders.
Encephalitis	Inflammation of the brain.
Encephalopathy	A decrease in blood flow or oxygen to the brain.
Enzymes	Proteins that help speed up chemical reactions in the body (called metabolism).
Fasciculations	The medical term for twitching muscles.
Fibromuscular dysplasia (FMD)	The abnormal development or growth of cells in the walls of arteries that can cause the vessels to narrow or bulge.
Hydromyelia	An abnormal widening of the spinal cord's central canal in which cerebrospinal fluid can build up and damage nerve cells and their connections.
Hypersomnia	A medical term for excessive tiredness or sleepiness. It is different from feeling tired from lack of sleep at night and can result from an injury or problem in the brain.
Hypertonia	A medical term for too much muscle tone. It can make arms or legs stiff and difficult to move and often happens when part of the brain or spinal cord is damaged.
Hypotonia	A medical term for decreased muscle tone and can happen when the brain, spinal cord, nerves, or muscles are damaged.
Immunoglobulins	Natural antibodies produced by the immune system.
Intravenous immunoglobulin (IVIg)	A common treatment for peripheral neuropathy caused by autoantibodies.



Lipidoses (also known as lipid storage disease or disorders)	A group of inherited metabolic disorders in which harmful amounts of lipids build up in the body.
Lipids	Fatty materials in the body that include oils, fatty acids, waxes, and steroids (such as cholesterol and oestrogen). They make up part of the cell membranes that help control what enters and leaves cells and help with storing energy, absorbing vitamins, and making hormones.
Meninges	Refers to the three layers of the membranes that protect the brain and spinal cord. The three layers are the pia mater (innermost), arachnoid (middle), and dura mater (tough outer layer).
Multi-infarct dementia	A common cause of memory loss in older people and is caused by multiple strokes which damage brain tissue.
Myelin	A fatty molecule that provides insulation for the axon and helps nerve signals travel faster and farther. The myelin sheath is the insulating layer surrounding the axon, the message sender of the nerve cell.
Myelitis	An inflammation of the spinal cord. It can damage the myelin that covers the fibres of the nerve cell.
Myotonia	An impairment in a person's ability to relax a muscle or group of muscles.
Neurons	Also called nerve cells, are the primary communication cells that send messages from the brain all over the body.
Neuropathy	An umbrella term that refers to damage or disease in the nerves, which can cause numbness or weakness.
Neurosarcoidosis	A chronic inflammatory disorder in the nervous system. Sarcoidosis primarily affects the lungs but can impact almost every other organ and system in the body.
Neurotransmitters	Chemicals that send messages between and among neurons and other cells. They can turn on actions (excitatory), turn off actions (inhibitory), or change actions (modulatory) that neurons can take.
Neurotoxicity	Happens when exposure to toxic substances affects the normal activity of the nervous system.
Orthostatic hypotension	A medical term that refers to a sudden drop in blood pressure when a person stands up.
Paralysis	An inability to move parts of the body. It may be accompanied by a loss of sensation in that part of the body.
Paraesthesia	Refers to a burning, itching, tingling, or prickling sensation that is usually felt in the hands, arms, legs, or feet.
Peripheral nervous system	Refers to the nerves that branch out from the brain and spinal cord to reach all other parts of the body.
Plasmapheresis	A procedure in which blood is removed, immune system cells and antibodies are taken out, and the blood is separated into plasma and blood cells. The blood is then returned to the body.
Platelets	Cell fragments in the blood that form clots to stop or prevent bleeding.
Prosopagnosia	Also known as face blindness or facial agnosia, is a neurological disorder characterized by the inability to recognise faces.
Spasticity	A medical term for an unexpected increase in muscle tone or stiffness which can interfere with movement and speech and cause discomfort or pain.



Synapse	The synapse is a gap between two nerve cells through which signals pass via a neurotransmitter.
Syncope	Syncope is a medical term for fainting or “passing out,” wherein a person becomes unconscious, goes limp, and quickly recovers.
Tardive dyskinesia	Causes repetitive, involuntary movements, such as grimacing and eye blinking. It is often caused by long-term use of antipsychotic medications.
Transcutaneous electrical nerve stimulation (TENS)	A noninvasive intervention which involves attaching electrodes to the skin at the site of pain or near associated nerves and administering a gentle electrical current.
Tremor	A medical term for shaking in the hands, arms, legs, vocal cords, or other parts of the body.
White matter	Brain tissue made up of bundles of nerve fibres (axons) covered and protected by myelin. Myelin gives white matter its colour. White matter is found in deep brain tissues and helps exchange information and facilitate communication between different areas of the brain.



Neuro- surgeon



NEUROSURGEON

A **neurosurgeon** is a medical doctor who specializes in diagnosing and treating conditions related to the **brain, spine, and nervous system**. They perform a variety of surgical and non-surgical procedures to address issues such as brain tumours, spinal cord injuries, and neurological disorders.

1. Vascular neurosurgery includes clipping of aneurysms and performing carotid endarterectomy (CEA).
2. Stereotactic neurosurgery, functional neurosurgery, and epilepsy surgery (the latter includes partial or total corpus callosotomy – severing part or all of the corpus callosum to stop or lessen seizure spread and activity, and the surgical removal of functional, physiological and/or anatomical pieces or divisions of the brain, called epileptic foci, that are operable and that are causing seizures, and also the more radical and rare partial or total lobectomy, or even hemispherectomy – the removal of part or all of one of the lobes, or one of the cerebral hemispheres of the brain; those two procedures, when possible, are also very, very rarely used in oncological neurosurgery or to treat very severe neurological trauma, such as stab or gunshot wounds to the brain)
3. Oncological neurosurgery also called neurosurgical oncology; includes paediatric oncological neurosurgery; treatment of benign and malignant central and peripheral nervous system cancers and pre-cancerous lesions in adults and children (including, among others, glioblastoma multiforme and other gliomas, brain stem cancer, astrocytoma, pontine glioma, medulloblastoma, spinal cancer, tumours of the meninges and intracranial spaces, secondary metastases to the brain, spine, and nerves, and peripheral nervous system tumours)
4. Skull base surgery
5. Spinal neurosurgery
6. Peripheral nerve surgery
7. Paediatric neurosurgery (for cancer, seizures, bleeding, stroke, cognitive disorders or congenital neurological disorders)

Common Terminology

Acoustic neuromas	Benign tumour of the hearing nerve (eighth nerve).
Acromegaly	A disorder marked by progressive enlargement of the head, face, hands, feet, and thorax, due to the excessive secretion of growth hormone.
Adenoma	A benign growth formed of glandular tissue.
Agnosia	Absence of the ability to recognise the form and nature of persons and things.
Agraphia	Inability to write due either to muscular coordination issues or to an inability to phrase thought.
Anastomosis	A communication, direct or indirect: a joining together. In the nervous system, a joining of nerves or blood vessels.
Anencephaly	Absence of the greater part of the brain, often with skull deformity.
Aneurysm	Dilation of an artery, formed by a circumscribed enlargement of its wall.
Angiogram	A medical imaging report that shows the blood vessels leading to and in the brain, obtained by injecting a dye or contrast substance through a catheter.



Angiography	Radiography of blood vessels using the injection of material opaque to x-rays to give better definition to the vessels.
Apoplexy	Often used as equivalent to stroke, this is a condition in which there is bleeding into an organ or blood flow to an organ has ceased.
Arachnoid	The middle layer of membranes covering the brain and spinal cord.
Arachnoiditis	Inflammation of the arachnoid membrane, most commonly seen around the spinal cord and cauda equina.
Area (cortical)	A part of the brain having a special function, such as motor – the cortical portion of the brain controlling movement, sensory – the cortical portion controlling sensation.
Arteriography	See angiography.
Arteriosclerosis	Thickening and calcification of the arterial wall with loss of elasticity and contractility.
Arteriovenous	Relating to both arteries and veins.
Arteriovenous malformation	Collection of blood vessels with one or several abnormal connections between arteries and veins, which may cause haemorrhage or seizures.
Astrocyte	Cell that supports the nerve cells (neurons) of the brain and spinal cord.
Astrocytoma	Tumour within the substance of the brain or spinal cord made up of astrocytes; often classified from grade 1 (slow growing) to grade 3 (rapid growing).
Ataxia	A loss of muscular coordination, abnormal clumsiness.
Athetosis	A condition in which there is a succession of slow, writhing, involuntary movements of the fingers and hands, and sometimes of the toes and feet.
Avascular	Non-vascular, not provided with blood vessels.
Bell's palsy	Paralysis of facial muscles (usually one side) due to facial nerve dysfunction of unknown cause.
Carotid artery	Large artery on either side of the neck that supplies most of the cerebral hemisphere.
Carotid sinus	Slight dilatation on the common carotid artery at its bifurcation containing nerve cells sensitive to blood pressure. Stimulation can cause slowing of the heart, vasodilatation and a fall in blood pressure.
Carpal tunnel	Space under a ligament in the wrist through which the median nerve enters the palm of the hand.
CT scan	(Computed tomography scan) A diagnostic imaging technique in which a computer reads x-rays to create a three-dimensional map of soft tissue or bone.
Catheter	A small tube used to inject a dye to see the blood vessels, similar to that used for looking at vessels in the heart. May also be used to facilitate drainage.
Cauda equina	The bundle of spinal nerve roots arising from the end of the spinal cord and filling the lower part of the spinal canal.
Caudate nucleus	Part of the basal ganglia, which are brain cells that lie deep in the brain.
Cerebellum	The lower part of the brain that is beneath the posterior portion of the cerebrum. It regulates unconscious coordination of movement.
Cerebrospinal fluid	Water-like fluid that circulates around and protects the brain and spinal cord.
Cerebrum	The principal portion of the brain, which occupies the major portion of the interior of the skull and controls conscious movement, sensation and thought.
Choroid plexus	A vascular structure in the ventricles of the brain that produces cerebrospinal fluid.



Coccyx	The small bone at the end of the spinal column, formed by the fusion of four rudimentary vertebrae. The “tail bone”.
Contusion	A bruise; cerebral contusions often involve blood vessels that leak into brain tissue.
Coronal suture	The line of junction of the frontal bones and the parietal bones of the skull.
Cortex	The external layer of grey matter covering the hemispheres of the cerebrum and cerebellum.
Cranium	The part of the skull that holds the brain.
Craniectomy	Excision of a portion of the skull.
Craniopharyngioma	Tumour arising from the embryonic duct between the brain and pharynx.
Cranioplasty	The operative repair of a defect of the skull.
Craniosynostosis	Premature closure of cranial sutures, limiting or distorting the growth of the skull.
Craniotomy	Opening of the skull, usually by creating a flap of bone.
CSF	Cerebrospinal fluid.
Depressed skull fracture	A break in the bones of the head in which some bone is pushed inward, possibly pushing on or cutting into the brain.
Disc	The intervertebral disc – cartilaginous cushion found between the vertebrae of the spinal column. It may bulge beyond the vertebral body and compress the nearby nerve root, causing pain. The terms “slipped disc”, “ruptured disc” and “herniated disc” are often used interchangeably even though there are subtle differences.
Dome	The round balloon-like portion of the aneurysm which usually arises from the artery from a smaller portion called the neck of the aneurysm.
Doppler	A non-invasive study that uses sound waves to show the flow in a blood vessel and can be used to determine the degree of narrowing (percent stenosis) of the vessel. A wand is placed on the skin over the vessel that is to be imaged. This study has no risks and is not painful.
Dura mater	A tough fibrous membrane that covers the brain and spinal cord, but is separated from them by a small space. It is the outermost layer of the three membranes.
Dysesthesia	A condition in which ordinary touch, temperature or movement produces a disagreeable sensation.
Dysphasia	Difficulty in the use of language due to a brain lesion without mental impairment.
Dystonia musculorum deformans	An affliction, occurring especially in children, marked by muscular contractions producing distortions of the spine and hips.
Electroencephalography (EEG)	The study of the electrical currents set up by brain actions; the record made is called an electroencephalogram.
Electromyography (EMG)	A method of recording the electrical currents generated in a muscle during its contraction.
Endarterectomy	Removal of fatty or cholesterol plaques and calcified deposits from the internal wall of an artery.
Ependyma	The membrane lining the cerebral ventricles of the brain and central canal of the spinal cord.
Ependymoma	A growth in the brain or spinal cord arising from ependymal tissue.
Epidural	Immediately outside the dura mater. Same as extradural. Also a form of local analgesia and anaesthesia often injected into the outer section of the spinal canal.



Epidural hematoma	A blood clot between the dura mater and the inside of the skull.
Epilepsy	A disorder characterised by abnormal electrical discharges in the brain, causing abnormal sensation, movement or level of consciousness.
Falx (cerebri)	An extension of dura between the right and left hemispheres of the brain.
Fontanelle	Normal openings in the skull of infants; the largest of these is the anterior fontanel or “soft spot” in the middle of the head.
Foraminotomy	Surgical opening or enlargement of the bony opening traversed by a nerve root as it leaves the spinal canal.
Fusiform aneurysm	A sausage-like enlargement of the vessel.
GCS	Glasgow Coma Scale - the most widely used system of classifying the severity of head injuries or other neurological diseases.
Glia (also termed neuroglia)	The major support cells of the brain. These cells are involved in the nutrition and maintenance of the nerve cells.
Glioma	A tumour formed by glial cells.
Glioblastoma	A rapidly growing tumour composed of primitive glial cells, mainly arising from astrocytes.
Globus pallidus	Part of the basal ganglia, which are brain cells that lie deep in the brain.
Haemangioma	An aggregation of multiple, dilated, blood vessels.
Haemiplegia	Paralysis of one side of the body.
Haemorrhage	Bleeding due to the escape of blood from a blood vessel.
Hydrocephalus	A condition, often congenital, marked by abnormal and excessive accumulation of cerebrospinal fluid in the cerebral ventricles. This dilates the ventricles and, in infants and young children, causes the head to enlarge.
Hydromyelia	Expansion of the spinal cord due to increased size of the central canal of the cord, which is filled with CSF.
Hyperacusis	Abnormal acuteness of hearing or auditory sensation.
Hyperaesthesia	Excessive sensibility to touch, pain or other stimuli.
Hypertension	High blood pressure.
Hypothalamus	A collection of specialised nerve cells at the base of the brain that controls the anterior and posterior pituitary secretions, and is involved in other basic regulatory functions such as temperature control and attention.
Infundibulum	A stalk extending from the base of the brain to the pituitary gland.
Intra-aortic balloon counterpulsation device	A pump inserted into the main vessel of the body (the aorta) to help the heart deliver blood to critical organs such as the brain or kidneys.
Intra-arterial catheterisation angiography	An invasive study in which a catheter (a small tube) is placed in the artery and contrast material is injected to make the blood vessels visible on an x-ray image.
Intracerebral haematoma	A blood clot within the brain.
Intracranial pressure (ICP)	The overall pressure inside the skull.
Intraoperative Cisternography	Administration of a contrast dye into the ventricles, which are chambers in the brain that contain brain fluid.
Ischaemia	Inadequate circulation of blood generally due to a blockage of an artery.
Jugular veins	The major veins on each side of the neck draining blood from the head towards the heart.
Laminectomy	Excision of one or more laminae of the vertebrae.



Laminotomy	An opening made in a lamina.
Leptomeninges	Two thin layers of fine tissue covering the brain and spinal cord: the pia mater and arachnoid.
Leptomeningitis	Inflammation of the membranes covering the brain and spinal cord.
Leukodystrophy	Disturbance of the white matter of the brain.
Leukoencephalitis	An inflammation of the white matter of the brain.
Lipoma	A benign fatty tumour, usually composed of mature fat cells.
Lordosis	Curvature of the spine with the convexity forward.
MRI - Magnetic resonance angiography	A non-invasive study that is conducted in a magnetic resonance imager (MRI). The magnetic images are assembled by a computer to provide an image of the arteries in the head and neck.
Medulloblastoma	Tumour composed of medulloblasts, which are cells that develop in the roof of the fourth ventricle (medullary velum).
Meninges	The three membranes covering the spinal cord and brain termed dura mater, arachnoid mater and pia mater.
Meningioma	A firm, often vascular, tumour arising from the coverings of the brain.
Meningitis	An infection or inflammation of the membranes covering the brain and spinal cord.
Meningocele	A protrusion of the coverings of the spinal cord or brain through a defect in the skull or vertebral column.
Meningoencephalitis	An inflammation or infection of the brain and meninges.
Meningoencephalocele	A protrusion of both the meninges and brain tissue through a skull defect.
Myelogram	An x-ray of the spinal canal following injection of a contrast material into the surrounding cerebrospinal fluid spaces.
Myelopathy	Any functional or pathologic disturbance in the spinal cord.
Myelomeningocele	A protrusion of the spinal cord and its coverings through a defect in the vertebral column.
Neuralgia	A paroxysmal pain extending along the course of one or more nerves.
Neurectomy	Excision of part of a nerve.
Neuritis	Inflammation of a nerve; may also be used to denote non-inflammatory nerve lesions of the peripheral nervous system.
Neuroblastoma	Tumour of the sympathetic nervous system, found mostly in infants and children.
Neurofibroma	A tumour of the peripheral nerves due to an abnormal collection of fibrous and insulating cells.
Neurofibromatosis	A familial condition characterised by developmental changes in the nervous system, muscles and skin, marked by numerous tumours affecting these organ systems.
Neurohypophysis	The posterior lobe of the pituitary gland.
Neurolysis	Removal of scar or reactive tissue from a nerve or nerve root.
Neuroma	A tumour or new growth largely made up of nerve fibres and connective tissue.
Neuropathy	Any functional or pathologic disturbance in the peripheral nervous system.
Nystagmus	Involuntary rapid movement of the eyes in the horizontal, vertical or rotary planes of the eyeball.
Occiput	The back part of the head.



Oligodendroglia	Non-nerve cells (see glia) forming part of the supporting structure of the central nervous system.
Oligodendroglioma	A growth of new cells derived from the oligodendroglia.
Paraplegia	Paralysis of the lower part of the body including the legs.
Porencephaly	Abnormal cavity within brain tissue, usually resulting from outpouching of a lateral ventricle.
Pseudotumor cerebri	Raised intracranial pressure, usually causing only headache and papilledema. No clear underlying structural abnormality.
Quadriplegia	Paralysis of all four limbs.
Rachischisis	Abnormal congenital opening of the vertebral column.
Saccular aneurysm	A balloon-like outpouching of a vessel (the more common type of aneurysm).
Spina bifida	A congenital defect of the spine marked by the absence of a portion of the spine.
Spondylolisthesis	Forward displacement of one vertebra on another.
Spondylosis	Degenerative bone changes in the spine usually most marked at the vertebral joints.
Stenosis	Narrowing.
Subarachnoid haemorrhage	Blood in, or bleeding into, the space under the arachnoid membrane, most commonly from trauma or from rupture of an aneurysm.
Subdural hematoma	A collection of blood (clot) trapped under the dura matter, the outermost membrane surrounding the brain and spinal cord.
Syringomyelia	A fluid-filled cavity in the spinal cord.
Thalamus	Brain cells which lie in the upper part of the brainstem.
Tic douloureux	(See trigeminal neuralgia.)
Transsphenoidal approach	Operative method of reaching the pituitary gland or skull base traversing the nose and sinuses.
Trigeminal neuralgia	Paroxysmal pain in the face. Pain may be so severe that it causes an involuntary grimace or "tic." Also called tic douloureux.
Ventriculostomy	An opening into the ventricles of the brain, achieved by inserting a small, thin, hollow catheter. Serves as a means to relieve pressure from the brain and spinal cord.
Ventricular drainage	Insertion of a small tube into the ventricles to drain cerebrospinal fluid, usually performed when pressure is increased.
Vermis	Middle part of the cerebellum between the two hemispheres.
Vertebra	Any of the 33 bones of the spinal column.
Vertigo	An abnormal sensation of rotation or movement of one's self or the environment.



Ophthalmology



An ophthalmologist is a medical doctor who specializes in eye care, including the diagnosis and treatment of eye diseases and vision problems. They can perform eye exams, prescribe medications, suggest vision correction aids (like glasses or contacts), and perform eye surgery. Ophthalmologists are trained to handle a wide range of eye conditions, from routine eye exams to complex surgical procedures.

Common Terminology

Amblyopia	Also known as “lazy eye”, as it manifests as decreased function in one or both eyes.
Anisocoria	Inequality of pupil size.
Anterior chamber	This is the fluid-filled space between the cornea and iris.
Aphakia	Absence of the lens, usually surgical.
Aqueous	Watery fluid filling the front chamber.
Astigmatism	This is an irregularly-shaped or football-shaped cornea which causes light to refract ineffectively. Vision irregularities depend on the exact nature of the astigmatism.
Blepharitis	Inflammation of the eyelid margin.
Buphthalmos	A form of glaucoma found in childhood when the eye tends to enlarge.
Canthus	Inner or outer angle of the eyelids.
Cataract	This is a cloudy or opaque portion of the eye’s crystalline lens that can block vision.
Choroid	This is the thin layer of major blood vessels that lies between the retina and sclera. The choroid supplies the retina with vital oxygen and nutrients. It thickens at the front of the eye to form the ciliary body.
Ciliary body	This is the ring of muscle fibres that holds the lens of the eye. It also helps control intraocular pressure.
Ciliary muscle	This is the smooth muscle portion of the ciliary body that is responsible for controlling the lens’ shape as it narrows or thickens to focus on images at different distances.
Ciliary injection	Redness of the blood vessels on the eyeball near the margin of the cornea. Chemosis swelling due to collection of fluid beneath the conjunctiva.
Colloid bodies	Pale lesions within the retina, usually a sign of ageing.
Cones	The receptor cells in the retina that detect colour and fine detail.
Conjunctiva	This is the transparent mucous membrane that lines the inner surfaces of the eyelids and covers the sclera, except at the cornea.
Conjunctivitis	This is an inflammation or infection of the conjunctiva. Also known as “pink eye.”
Cornea	This is the dome-shaped window of the eye that provides most of the eye’s optical power. Light enters through the cornea and is refracted by the cornea’s angle toward the back of the eye.
Corneal transplantation	This is a surgical procedure to remove a diseased or scarred cornea and replace it with a healthy cornea from a deceased donor.
Dacryoadenitis	Inflammation (usually infective) of the tear gland.
Dacryocystitis	Inflammation (usually infective) of the tear sac.

Diabetic retinopathy	This is a condition associated with diabetes that causes retinal changes and haemorrhaging. More than 7 million of the 14 million Americans diagnosed with diabetes will experience some degree of diabetic retinopathy, which is the most common diabetic eye disease. Nearly all individuals with Type I (insulin dependent) diabetes will experience some retinal changes 15 years after diagnosis of diabetes. One-fourth of these will experience severe diabetic retinopathy. About 10% of individuals with Type II (non-insulin dependent) diabetes will experience severe diabetic retinopathy 15 years after diagnosis.
Diopter	This is a unit of measurement, abbreviated as “D” on medical charts. It measures the degree to which light converges or diverges within the eye or through a lens, such as an eyeglass lens or contact lens.
Diplopia	Double vision, which may be binocular (only with both eyes open) or monocular (persisting with one eye open).
Drusen	These are white or yellowish deposits within the retina that commonly occur after age 60. Individuals with drusen are at increased risk of later developing abnormal blood vessels that leak and form scar tissue on the choroid.
Emmetropia	This refers to the normal refractive state of an eye in which light travels to the retina, where it is clear enough to create an image that can be recognised near or far. Conditions that interfere with this normal functioning include hyperopia, astigmatism, and myopia.
Endophthalmitis	Inflammation (usually infection) of the internal eye.
Entropion	Eyelid margin turned in towards the eyeball.
Enucleation	Removal of the eyeball.
Epiphora	Overflowing tears, watering of the eye.
Fornix	Recess of conjunctiva between the lid and the upper and lower eyeball. Fovea small point of fixation and maximum sensitivity in the retina, at the centre of the macula.
Fundus	Interior of the back chamber visible with the ophthalmoscope.
Glaucoma	This is a group of diseases that result from increased intraocular pressure, which can result in damage to the optic nerve. It is a common cause of preventable vision loss.
Hyperopia (far-sightedness)	This is a condition that results when the eyeball is too short. Light rays hit the retina before they come into focus. Distant objects are clearer than near objects; however, even distant objects may appear blurry.
Hordeolum	Stye or inflammation of a lash follicle.
Hypermetro-pia	Far-sightedness or long-sightedness, being able to see more clearly at distance.
Hyphaema	Blood in the front chamber which has sedimented at the bottom.
Hypopyon	White cells in the front chamber which have sedimented at the bottom.
Intracorneal ring	This is a tiny, transparent ring that can be inserted into the periphery of the cornea to change its shape and correct nearsightedness.
Intraocular lens	This is a plastic implant that is used to replace the natural lens of the eye. It is abbreviated as “IOL.”
Iris	This is the ring of muscle fibres behind the cornea that determine eye colour. The iris opens and closes the hole at its centre, the pupil, to control the amount of light entering the eye.
Keratitis	Inflammation of the cornea.
Kerato	Referring to the cornea. Keratoplasty corneal graft or refashioning the shape of the cornea, usually for optical purposes.



Keratoconus	This is a hereditary, degenerative condition that causes the cornea to thin and protrude into a cone-like shape.
LASIK	This is an acronym that stands for laser in situ keratomileusis. LASIK is a surgical procedure during which the top layer of the cornea is pulled back and the middle layer is sculpted to eliminate refractive errors such as nearsightedness, farsightedness and astigmatism. The top layer of the cornea is then replaced to serve as a protective flap.
Lens	This is the almond-shaped, elastic structure within the eye that focuses images onto the retina. It is curved on both its front and back surfaces; the lens narrows or thickens to focus on images at different distances.
Lensectomy	This is the surgical removal of the lens. This procedure is often used to remove a cataract.
Macula	This is the central portion of the retina, an area that is responsible for the sharpest sight.
Macular degeneration	This is the leading cause of blindness in individuals older than 60 years of age. Often called “rusting of the retina.” There are two main types, dry and wet. The dry or atrophic type is the most common affecting nearly 70 percent of all cases and results as the macula’s tissues age and break down, causing a gradual vision loss. The wet or exudative form of macular degeneration affects 15-20 percent of individuals with the disease and can significantly damage vision. It results when abnormal blood vessels form and leak fluid and blood in the choroid. The choroid’s blood vessels, combined with tissue, can form a scar-like membrane under the retina and block central vision.
Melanoma	This is a malignant tumour arising from pigmented tissue. Melanoma can affect areas surrounding the eye, such as the eyelid or orbit, and the structures within the eye, such as the choroid and iris.
Mydriasis	Dilatation of the pupil. Mydriatic drug that dilates the pupil.
Myopia (near-sightedness)	This is a condition in which the visual images come to a focus in front of the retina of the eye because of defects in the refractive media of the eye or because of abnormal length of the eyeball, resulting especially in defective vision of distant objects.
Optic nerve	This is the largest nerve of the eye. Comprised of retinal nerve fibres (but no rods and cones), the optic nerve connects the retina to the primary visual cortex of the brain. Visual input from the retina travels along the nerve fibres of the optic nerve to the brain. The brain interprets images sent by the optic nerve of each eye, reverses the images, and integrates them into the one three-dimensional image that you see.
Pars plana	This is the flattened back portion of the ciliary body.
Posterior chamber	This is the space filled with aqueous humour that lies between the back of the iris and front surface of the vitreous.
Presbyopia	This is a condition that results when the lens loses its elasticity due to aging. Reading glasses are needed to discern close-up objects and fine detail, such as print.
Ptosis	This is a condition that causes the drooping of the upper eyelid.
Retina	This is the innermost layer of blood vessels and nerves that serves as the “film” of the eye. The retina receives visual images and transmits signals to the optic nerve through its nerve endings, the rods and cones.
Retinitis pigmentosa	This is a hereditary, progressive condition that causes abnormal pigmentation on the retina that can hinder vision. RP affects both eyes and can begin with a loss of night vision, progress to a loss of peripheral vision and then to “tunnel vision,” and finally result in blindness.



Retinal cell transplantation	This is an experimental therapy currently that involves transplanting healthy retina cells on the areas of the retina damaged by disease.
Retinoblastoma	This is a malignant tumour of the retina that affects one in 20,000 children born in the U.S. If untreated, retinoblastoma can metastasize to other parts of the body, resulting in death.
Retinopathy of prematurity (ROP)	This is a disease of the retina and is the most common blinding disease in premature infants.
Rods	These are the receptor cells in the retina that are sensitive to varying degrees of light and help individuals see in dim light. The retina has about 150 million rods.
Rubeosis	Formation of abnormal new blood vessels on the iris or in the aqueous drainage angle. May lead to glaucoma.
Sclera	This is the tough outermost layer of the eye joining the cornea; the visible part is the white of the eye. The sclera has a transparent covering, the conjunctiva. The sclera helps maintain the eyeball's shape, which is about one inch (25mm) in diameter.
Scotoma	Area of loss of vision within the seeing field, e.g. the blind spot.
Snellen chart	Standard chart for measuring distance vision.
Strabismus	This is an eye misalignment caused by an imbalance in the muscles holding the eyeball.
Tarsal	Referring to the eyelid.
Tarsorrhaphy	Stitching together the eyelids, either partially or completely. Tonometry measurement of internal eye pressure by externally applied pressure.
Trabeculectomy	Operation for glaucoma, to improve drainage of aqueous and lower eye pressure.
Trichiasis	Turning in of eyelashes so that they damage the eye surface.
Trabecular meshwork	This is the series of canals or tubes behind the iris that filters the aqueous humour and allows it to drain into the bloodstream.
Uvea	These are the blood vessel-rich pigmented layers of the eye. The uvea includes the iris, ciliary body, the choroid and the majority of the eye's blood vessels.
Uveitis	This is an inflammation of any of the structures of the uvea, including the iris, ciliary body or choroid.
Vitrectomy	This is the surgical removal of the vitreous, blood, and/or membranes from the eye.
Vitreous or vitreous humour	This is the clear jelly that fills the eyeball behind the lens. It helps support the shape of the eye and transmits light to the retina.



Occupational Physician



OCCUPATIONAL PHYSICIAN

Can assess all injury: Musculoskeletal, musculoligamentous, soft tissue injury, neck/back, upper & lower limbs, hernia, chemical exposures, noise, and ergonomics. Diagnose all disease processes, Ross River Fever, "Q" Fever.

Workplace Hazard Assessment: Occupational physicians assess workplace environments to identify potential health hazards and risks. They conduct evaluations of physical, chemical, biological, and ergonomic factors that may impact employee health and safety.

Health Surveillance: They develop and implement health surveillance programs to monitor the health status of workers exposed to occupational hazards. This may involve regular medical examinations, health assessments, and monitoring of exposure levels to ensure early detection of work-related illnesses or injuries.

Occupational Health Promotion: Occupational physicians design and implement health promotion programs aimed at educating workers about occupational health and safety practices. These programs may include training sessions, workshops, and awareness campaigns to promote healthy behaviours and prevent work-related injuries and illnesses.

Injury and Illness Management: When work-related injuries or illnesses occur, occupational physicians provide medical care and treatment to affected employees. They also collaborate with other healthcare professionals and employers to develop return-to-work plans and rehabilitation programs to facilitate the recovery and reintegration of injured workers.

Disability Management: Occupational physicians assist in managing disability cases by evaluating the medical status of workers, assessing their functional capacity, and determining their ability to perform job duties. They may provide recommendations for workplace accommodations and modifications to support employees with disabilities in returning to work.

For common terminology please see Orthopaedic.



Orthopaedic



An orthopaedic surgeon, also known as an orthopaedist or an orthopaedic doctor, is a medical professional who specializes in diagnosing, treating and preventing injuries and diseases of the musculoskeletal system. This system includes bones, muscles, joints, ligaments, tendons and other connective tissues that support and enable movement in the human body. Some common conditions that orthopaedic surgeons treat include fractures, arthritis, joint dislocations, torn ligaments or tendons, and sports injuries.

They use both surgical and non-surgical techniques to help patients regain function and reduce pain caused by these conditions. Orthopaedic surgery is a vast field that encompasses various subspecialties, hip, knee & shoulder, hands and trauma surgery, spinal surgery, paediatric orthopaedics, sports medicine, shoulder surgery and joint replacement. This allows orthopaedic surgeons to focus on specific areas of the musculoskeletal system and develop expertise in those areas.

The ten most common orthopaedic injury

Ankle Sprains

Ankle sprains occur when the ankle twists, rolls, or turns awkwardly beyond its limits. This can make the tough bands of tissue (ligaments) that help hold the ankle bones together stretch or tear. Typically, sprained ankles cause pain, swelling, and limited range of motion. Often, people can treat a sprained ankle at home with rest, ice, and over-the-counter pain relievers. However, severe sprains may require professional medical treatment.

Rotator Cuff Tears

A rotator cuff tear is a tear in the tendons (tissues that connect muscles to bone) around the shoulder joint. Typically, repeatedly performing the same shoulder motions over and over can lead to a rotator cuff tear. Common symptoms are shoulder pain and weakness. Often, treatment includes rest, medication, physical therapy, corticosteroid injections, and possibly surgery.

ACL Tears

An anterior cruciate ligament (ACL) tear involves the tissue that connects the thighbone to the shinbone at the knee. Furthermore, most ACL injuries occur while playing sports that require sudden twisting motions such as football, basketball, soccer, and tennis. Symptoms often include knee swelling, pain/tenderness, and instability. Progressive physical therapy and rehabilitation can be used to conservatively treat mild cases and partial tears. However, more severe cases may require surgery, especially for patients with ACL tears in combination with other knee injuries.

Wrist Fractures

Most often, a fall, sports injury, or other accident can cause a distal radius fracture. Common symptoms are pain, tenderness, swelling, and/or bruising. Sometimes simply wearing a cast or splint will help repair a broken wrist. However, severe cases may require surgery to hold the bone in place while the wrist heals.

Tennis Elbow

Tennis elbow is an inflammation of the tissue that connects the elbow to the forearm muscle. Often, repetitive wrist and arm motions cause tennis elbow. The primary symptom is pain, typically on the outside of the elbow. Treatment includes rest, over-the-counter pain relievers, and physical therapy.

Meniscus Tears

A torn meniscus is an injury that occurs in the rubbery cartilage in the knee that helps cushion and protect the shinbone from the thigh bone. Typically, a forceful twisting motion tears the cartilage, causing this injury. Symptoms include pain/tenderness, swelling, stiffness, and difficulty extending the leg at the knee. Typical treatments include rest, ice, over-the-counter pain medications, and physical therapy.

Plantar Fasciitis

Plantar fasciitis is an inflammation of the thick band of tissue that runs across the bottom of the foot connecting the heel bone to the toes. Interestingly, the exact cause remains unknown. However, we do know that tension and stress in the fascia can cause irritation and inflammation. Symptoms include pain, often described as a stabbing pain, at or near the heel. For most, the pain also tends to worsen in the morning upon waking. Physical therapy, shoe inserts, steroid injections, Extracorporeal Pulse Activation Technology (EPAT), and surgery are used as treatments for plantar fasciitis.

Compression Fractures

Compression fractures occur when one or more bones in the spine weaken and collapse. Typically, a loss in bone mass (osteoporosis) that occurs due to ageing causes these injuries. Additionally, compression fractures can occur because of a fall, coughing, or lifting a heavy object. Symptoms include back pain, a loss in height, and hunching over. Physical therapy and over-the-counter pain relievers may be used to conservatively treat compression fractures. Furthermore, surgical procedures, such as kyphoplasty, can also be used to repair and stabilize the spine.

Carpal Tunnel Syndrome

Carpal tunnel syndrome, also known as median nerve compression, is the result of a pinched nerve in the wrist. It can cause the hand and arm to tingle and feel numb. Often, symptoms include pain in the hand and arm. Typically, treatment includes rest, ice, wrist braces or splints, and cortisone injections. In more severe cases, surgery may be required. Importantly, carpal tunnel syndrome is not the same thing as cubital tunnel syndrome.

Shoulder Dislocations

A dislocated shoulder occurs when the round ball of the upper arm bone pops out of the shoulder blade socket. Symptoms include pain, swelling, and an inability to move the joint. Additionally, a dislocated shoulder often has visible symptoms. In fact, you may notice the shoulder suddenly appears out of place with a lump or bulge under the skin. Moreover, it may even look square rather than round. Conservative treatments include popping the bone back in place, bracing or splinting, pain medication, and physical therapy. Occasionally, severe cases may require surgery.



Common Terminology

Achilles tendinitis	Inflammation of the Achilles tendon often caused by increased activity, improper footwear or tight hamstrings
Acromegaly	Overgrowth of the bones of the hands, feet and face.
Adhesive capsulitis	Also called frozen shoulder, it results from any inflammatory process about the shoulder in which capsular scar tissue is produced, resulting in pain and limited range of motion.
Anterior compartment syndrome	Increased soft tissue pressure in the anterior compartment of the lower leg, resulting in pain, decreased sensation and muscle paralysis.
Anterior cruciate ligament tears	Acute knee injury that commonly occurs in sports that require twisting, jumping and pivoting.
Ankylosing spondylitis	Inflammatory disorder that affects the low back and pelvis and produces stiffness and pain.
Ankylosis	Severe stiffness of a joint typically observed with end-stage arthritis.
Arthritis	Joint inflammation resulting in pain, swelling, stiffness and limited movement.
Arthrodesis	Surgical fusion of a joint to stop motion for pain relief or stabilization of an undependable joint.
Arthrography	Procedure in which a contrast medium ("dye") is injected into a joint to outline soft tissues for improved visibility on a standard MRI.
Arthroplasty	Procedure to replace or mobilize a joint, typically performed by removing the arthritic surfaces and replacing them with an implant. Total joint arthroplasty is replacement of both sides of the joint. Hemiarthroplasty replaces only one side of a joint.
Arthroscopy	Minimally invasive surgery in which a fiberoptic camera (arthroscope) is introduced into an area of the body through a small incision.
Arthrotomy	Surgical procedure to open and explore a joint.
Avascular necrosis (AVN)	Disease caused by the temporary or permanent loss of blood supply to bones, after which the bone lacking blood can collapse and die.
Avulsion fracture	A fracture that occurs when a ligament or tendon pulls off a sliver of the bone.
Bone densitometry	Bone density measurement.
Bursitis	Inflammation of a bursa, often caused by repeated small stresses, overuse, or infection. This condition is common in the shoulders, elbows, and hips and may require rest, ice, or anti-inflammatory medication to reduce swelling and pain.
Carpal Tunnel Syndrome	Condition caused by compression of the median nerve as it passes through the narrow carpal tunnel in the wrist. Symptoms can include numbness, tingling, and weakness in the hand, particularly affecting the thumb and three middle fingers.
Cartilage	Smooth, flexible tissue that covers the ends of bones in joints, allowing them to move easily without friction. In conditions like arthritis, cartilage may wear down, leading to pain and limited movement.
Cubital tunnel syndrome	Occurs when the ulnar nerve passing through the cubital tunnel on the inside of the elbow becomes compressed due to chronic irritation, injury or pressure.
De Quervain's tenosynovitis	Tendon sheath swelling in the tendons of the thumb.



Diastasis	Separation of normally joined parts, such as adjacent bones without fracture.
Discectomy	Surgical decompression procedure in which an intervertebral disc is removed.
Dislocation	Occurs when extreme force is put on a joint, causing the ends of two connected bones to separate.
Femoral neck fracture	A hip fracture that occurs one to two inches from the hip joint, sometimes leading to complications as the break usually cuts off blood supply to the head of the femur which forms the hip joint.
Fracture	A break or crack in a bone. Fractures can range from small, hairline cracks to complete breaks. Depending on the severity, fractures may require treatment such as immobilisation with a cast or surgical intervention.
Ganglion Cysts	Non-cancerous, fluid-filled lumps that commonly form on the wrist or hand. They are often harmless, though they can cause discomfort or limit movement, and in some cases, may require drainage or surgical removal.
Gout	Painful condition caused by an accumulation of uric acid crystals in the joints. It most commonly affects the big toe but can occur in other joints as well. Gout is treatable with medication and dietary changes to manage uric acid levels.
Herniated disc	Rupturing of the tissue that separates the vertebral bones of the spinal column.
Hill-Sachs lesion	Bony defect in the humeral head caused by a shoulder dislocation.
Hip impingement	Condition in which the ball and socket of the hip joint fit together too tightly, hindering normal motion and causing cartilage damage.
Intertrochanteric hip fracture	Generally, an easier-to-repair hip fracture that occurs three to four inches from the hip joint, with no interruption of blood supply to the head of the femur which forms the hip joint.
Lachman test	Used to diagnose a tear to the anterior cruciate ligament (ACL) of the knee (ACL tear).
Laminectomy	Surgical decompression procedure that removes a portion of the vertebral bone called the lamina.
Laminotomy	Surgical decompression procedure to increase the size of an opening in a lamina (part of the vertebral bone).
Lateral epicondylitis	Commonly called tennis elbow, it is an injury to the tendon that is attached to the outer part of the elbow, due to repetitive twisting of the wrist or forearm.
Lateral patellar compression syndrome (LPCS)	Characterized by pain in the knee due to increased pressure from the kneecap (patella).
Kyphosis	Curvature of the spine giving an abnormally rounded or “humpback” appearance.
Menisci	The menisci are two crescent-shaped discs of cartilage in the knee that act as shock absorbers. They help cushion the knee joint and prevent damage to the bones. Meniscal tears are common in athletes and can cause pain, swelling, and difficulty moving the knee.
Medial epicondylitis	Commonly called golfer’s or baseball elbow, it is characterised by pain from the elbow to the wrist on the palm side of the forearm caused by damage to the tendons that bend the wrist toward the palm.
Myelopathy	Abnormal condition of the spinal cord, whether through disease or compression, that can result in spasticity, impairment of sensation, and impairment of bowel and bladder function.
Myofascial pain syndrome	Painful musculoskeletal response following muscle trauma.



Neuromuscular scoliosis	Form of scoliosis caused by a neurological disorder of the central nervous system or muscle.
Osteoarthritis (OA)	The most common type of arthritis, caused by the breakdown of cartilage in joints over time. It results in pain, swelling, and stiffness, often affecting the hips, knees, hands, and spine.
Osteochondroma	Benign tumour that contains both bone and cartilage and usually occurs near the end of a long bone.
Osteolysis	Destruction of bone caused by disease, infection or loss of blood supply.
Osteonecrosis	The death of bone, often as a result of obstruction of its blood supply.
Osteopenia	Less bone mineral density than normal, a precursor to osteoporosis.
Osteophyte	Outgrowth of bone that forms around joints, deforming the joints and limiting their movements, commonly found in joints with osteoarthritis.
Osteotomy	Surgical procedure in which bones are cut and realigned, with the goal of improving upper extremity function.
Osteoporosis	A condition where bones become weak and brittle, increasing the risk of fractures. It is common in older adults, particularly postmenopausal women, and can often be managed with medications and lifestyle changes.
Paget's disease	Chronic bone disorder that typically results in enlarged, deformed bones due to excessive breakdown and formation of bone tissue, which may result in bone pain, arthritis, deformities or fractures.
Patellar tendinitis	A condition that results in pain and inflammation of the patella tendon, a common problem in jumping sports.
Patellectomy	Surgical excision of the patella (kneecap).
Periacetabular osteotomy (PAO)	Hip surgery in which bones are cut and repositioned to better align the femoral head within the hip bone.
Peritendinitis	Inflammation of the tendon sheath.
Perthes disease	Condition in which the femoral head dies because of a temporary loss of blood supply.
Prosthesis	Artificial body part replacement.
Reflex sympathetic dystrophy (RSD)	Condition characterised by diffuse pain, swelling and limitation of movement that follows an injury such as a fracture in an arm or a leg. Its symptoms are out of proportion to the injury and may linger long after the injury has healed.
Rotator cuff impingement syndrome	The rotator cuff tendon gets trapped in the subacromial space (beneath the shoulder blade) and repeatedly scrapes against the shoulder blade, eventually leading to fraying of the tendon.
Rotator cuff tear	Tear in the rotator cuff tendon that, in younger people, normally results from trauma (injury); in older people, tears are often caused by rotator cuff impingement syndrome.
Rotator cuff tendonitis	Inflammation of the tendons of the rotator cuff muscles generally caused by overuse of the shoulder.
Sarcopenia	Loss of muscle mass and strength as a result of ageing.
Sciatica	Also known as lumbar radiculopathy, it is pain that originates along the sciatic nerve extending from the back of the pelvis down the back of the thigh. Sciatica is sometimes caused by a herniated disc in the spine that presses on the sciatic nerve.
Sclerosis	Hardening of tissue, which often occurs in advanced stages of arthritis.



Scoliosis	Sideways curvature of the spine beyond what is considered “normal” (greater than 15 degrees).
Spinal fusion	Surgical procedure in which two or more of the vertebrae in the spine are united together so that motion no longer occurs between them.
Spinal stenosis	Narrowing of the canal housing the spinal cord.
SLAP tear	A specific kind of shoulder injury involving the firm ring of tissue called the labrum around the shoulder socket. SLAP stands for “superior labrum, anterior to posterior,” meaning the top part of the labrum, from the front to the back.
Spondylitis	Inflammatory disease of the spine.
Sprain	A sprain refers to a stretch or tear of a ligament, the tough tissue that connects bones. Sprains are common in the ankle and wrist and may require rest, ice, compression, and elevation (R.I.C.E.) to aid recovery.
Strain	A strain is an injury to a muscle or tendon, often caused by overstretching or overuse. Like sprains, strains typically affect the back, legs, or arms and can require rehabilitation for full recovery.
Spondylolisthesis	Forward slippage of one vertebra over another.
Tendinosis	Degeneration of the tendon’s collagen in response to chronic overuse.
Tendonitis	Inflammation of a tendon, typically caused by repetitive motion or overuse. It can result in pain, swelling, and stiffness and is common in conditions like tennis elbow and Achilles tendonitis.
Tenosynovitis	Inflammation of the thin inner lining of a tendon sheath.
Tennis elbow	Also called lateral epicondylitis, it is an injury to the tendon that is attached to the outer part of the elbow, due to repetitive twisting of the wrist or forearm.
Trigger Finger	A condition where a finger gets stuck in a bent position and then suddenly pops straight. It occurs when the tendon that controls the finger becomes irritated or inflamed.
Trochanteric Bursitis	A condition characterised by inflammation of the bursa located over the greater trochanter of the femur, leading to hip pain. Common symptoms include localized pain on the outer hip, which may radiate down the thigh and occasionally to the buttock or groin. The condition can be caused by repetitive activities, injury, or prolonged pressure on the hip. Treatment options typically include rest, physical therapy, anti-inflammatory medications, and in some cases, corticosteroid injections.

Psychiatric



PSYCHIATRIC

They provide psychological treatment, prescribe medications, and may perform procedures such as rTMS or electroconvulsive therapy.

Psychiatrists treat a variety of mental health and behaviour conditions. Sometimes a psychiatrist works within a multi-disciplinary team, which may comprise clinical psychologists, social workers, occupational therapists, and nursing staff. Psychiatrists have broad training in a biopsychosocial approach to the assessment and management of mental illness.

Psychiatrists can diagnose and treat several conditions, including:

- Alcohol use disorder and other substance use disorders.
- Alzheimer's disease.
- Anxiety disorders.
- Attention-deficit/hyperactivity disorder (ADHD).
- Autism spectrum disorder.
- Bipolar disorder.
- Body dysmorphic disorder.
- Depression.
- Dissociative disorders.
- Eating disorders.
- Gambling disorder.
- Hoarding disorder.
- Mood disorders.
- Obsessive-compulsive disorder (OCD).
- Panic disorder.
- Personality disorders.
- Post-traumatic stress disorder (PTSD).
- Postpartum depression.
- Schizoaffective disorder.
- Schizophrenia.
- Sleep disorders.



Anxiety disorders

Anxiety disorders are defined by disproportionately high levels of fear, anxiety, and avoidance in response to certain objects or situations. Panic attacks are common in anxiety disorders, but they can occur in other disorders, too.

- Agoraphobia
- Generalised Anxiety Disorder
- Panic Disorder
- Separation Anxiety Disorder
- Specific phobias
- Post-Partum Anxiety
- Social Anxiety Disorder

Mood disorders

Mood disorders are mental health conditions that affect your mood. Depressive disorders involve sad, empty, or irritable moods along with physical and thought (cognitive) changes that affect your ability to function. Bipolar disorders involve extreme mood shifts, such as between the highs of mania and the lows of depression.

- Major Depressive Disorder
- Persistent Depressive Disorder, previously known as Dysthymia
- Peri-Partum Depression
- Post-Partum Depression
- Premenstrual Dysphoric Disorder
- Seasonal Affective Disorder
- Situational Depression

Bipolar Disorder

- Major depressive episode
- Hypomanic episode
- Manic episode
- Mixed features
- Cyclothymic Disorder
- Additional specifiers for bipolar disorder

Substance-related disorders

Alcohol and substance use disorders involve changes in brain chemistry that create a dependence on the substance you're using. People with these conditions may experience dependence, withdrawal symptoms, and impairments in their personal or work lives that are related to substance use.

- Alcohol Use Disorder
- Opioid Use Disorder
- Substance Use Disorder



Schizophrenia and related disorders

Schizophrenia spectrum disorders are defined by challenges in one or more of these five areas: delusions, hallucinations, disorganized thought or speech, abnormal movements such as catatonia, and negative symptoms, such as a lack of motivation, pleasure, or emotional expression.

- Brief Psychotic Disorder
- Catatonia
- Delusional Disorder
- postpartum psychosis
- psychotic disorder not otherwise specified
- Schizophrenia
- Schizoaffective Disorder
- Schizophreniform Disorder
- Schizotypal Personality Disorder

Obsessive-compulsive disorder and related disorders

Obsessive-Compulsive Disorder (OCD) and OCD spectrum disorders involve elements of thoughts (obsessions) and behaviours (compulsions). The disorders in this group share some characteristics but are different in many ways. Some experts believe the conditions should be considered independent disorders rather than OCD spectrum disorders.

- Body Dysmorphic Disorder
- Hoarding Disorder
- Dermatillomania
- Obsessive-Compulsive Disorder
- Trichotillomania

Feeding and eating disorders

Feeding and eating disorders are defined by disrupted eating patterns that involve a change in how much you eat or how much food your body absorbs. For a diagnosis to be made, these eating patterns will have significant effects on your body or your personal, social, work, or school life.

- Avoidant restrictive Food Intake Disorder (ARFID)
- Anorexia Nervosa/Binge Eating Disorder
- Bulimia Nervosa
- Pica
- Rumination Disorder



Stress-related disorders

Trauma or stressor-related disorders are disorders where having experienced trauma or extreme stress is an essential part of the diagnosis. Stress-related disorders have close links with anxiety disorders, obsessive-compulsive disorders, and dissociative disorders.

- Acute Stress Disorder
- Adjustment Disorder
- Disinhibited Social Engagement Disorder
- Post-Traumatic Stress Disorder (PTSD)
- Reactive Attachment Disorder

Dissociative disorders

Dissociative disorders involve a disruption to the typical states of awareness, impairing your consciousness, memory, identity, emotions, and perceptions of yourself and your surroundings. Often, they develop due to a stressful or traumatic situation.

- Depersonalization-Derealization Disorder
- Dissociative Amnesia
- Dissociative Identity Disorder
- Dissociative Disorder not otherwise specified

Neurodevelopmental disorders

Neurodevelopmental disorders begin early in child development, often before a child starts grade school. These disorders are defined by developmental issues that affect your personal, social, school, or work life.

- Attention Deficit Hyperactivity Disorder (ADHD)
- Autism Spectrum Disorder
- Asperger's syndrome
- Rett syndrome
- Expressive Language Disorder
- Social (pragmatic) Communication Disorder
- Specific Learning Disorder
- Stereotypic Movement Disorder
- Transient Tic Disorder



Personality disorders

Personality disorders are a group of 10 disorders that involve a persistent pattern of thoughts, feelings, and behaviours that are very different from cultural expectations and can lead to significant stress and disruption to your life.

- Antisocial Personality Disorder
- Avoidant Personality Disorder
- Borderline Personality Disorder
- Dependent Personality Disorder
- Histrionic Personality Disorder
- Narcissistic Personality Disorder
- Obsessive-Compulsive Personality Disorder
- Paranoid Personality Disorder
- Schizoid Personality Disorder
- Schizotypal Personality Disorder

Sexual dysfunctions and paraphilic disorders

Sexual dysfunctions are defined as significant problems with your ability to experience sexual arousal or sexual pleasure. Some people have several of these disorders at the same time.

- Erectile Disorder (ED)
- Female Sexual Arousal Disorder
- Genito-pelvic Pain/Penetration Disorder
- Dyspareunia
- Vaginismus
- Hypoactive Sexual Desire Disorder
- Orgasmic Disorders
- Exhibitionistic Disorder
- Fetishistic Disorder
- Frotteuristic Disorder
- Paedophilic Disorder
- Transvestic Disorder
- Voyeuristic Disorder
- Persistent Genital Arousal Disorder (PGAD)



Sleep-wake disorders

Sleep disorders affect the quality and amount of sleep you get. The symptoms usually involve distress during the daytime and can interfere with your ability to function in day-to-day life.

- Circadian Rhythm Sleep-Wake Disorder
- Hypersomnolence
- Insomnia
- Nightmare Disorder
- Narcolepsy
- Restless Legs Syndrome
- Non-Rapid Eye Movement Sleep Arousal Disorders
- Sleep Terror Disorder
- Sleepwalking Disorder

Neurocognitive disorders

Neurocognitive disorders involve a decline in your cognitive (thinking) abilities. By definition, neurocognitive disorders aren't present at birth or at an early developmental stage, but rather represent a loss of previously acquired functions or skills.

- Alzheimer's Disease
- Major Neurocognitive Disorder
- Mild Neurocognitive Disorder
- Parkinson's Disease

Childhood mental health disorders

Childhood mental health disorders, often labelled as developmental disorders or learning disorders, most often arise and are diagnosed when the child is of school age. Adults may also relate to some of the symptoms of these disorders, but typically their symptoms need to have first appeared at some point in childhood.

- Conduct Disorder
- Disruptive Mood Dysregulation Disorder
- Encopresis
- Enuresis
- Oppositional Defiant Disorder
- Reading Disorder
- Selective Mutism
- Tourette Syndrome



Other mental health disorders and symptoms

Other mental health disorders, conditions, and symptoms include the following:

- bereavement
- Conversion Disorder
- Diabulimia
- Gaming Disorder
- Gender Dysphoria
- Illness Anxiety Disorder, formerly known as hypochondriasis
- Intermittent Explosive Disorder
- Kleptomania
- Pyromania
- Shared Psychotic Disorder
- Somatic Symptom Disorder

Psychiatrists use and prescribe a variety of treatments, including:

- Psychotherapy (talk therapy).
- Medications.
- Other treatments, such as electric convulsive treatment (ECT) or transcranial magnetic stimulation (TMS).

Treatment for mental health conditions is very individualized and unique to each person. Treatment often involves a combination of therapies.

Classes of medications that psychiatrists typically prescribe include:

- Antidepressants.
- Antipsychotic medications.
- Hypnotics.
- Mood stabilizers.
- Sedatives and anxiolytics.
- Stimulants.
- Ketamine.



Surgeon - General



SURGEON - GENERAL

A general surgeon is a doctor and a surgeon who's trained to care for the whole patient in all the ways necessary, including surgery. They diagnose and manage a broad array of medical conditions before, during and after surgery (preoperative, operative and postoperative care), often as leaders of a team.

General surgery is one of 14 surgical specialties recognized by the American College of Surgeons. While some surgical specialties focus on the technicalities of the heart or brain, a general surgeon is more likely to operate on your abdominal organs or musculoskeletal system, or take care of multiple injuries.

General surgeons study the principal components of general surgery, which include:

- The gastrointestinal tract.
- The abdominal and pelvic organs.
- Breasts, skin and soft tissues.
- Head and neck.
- Cardiovascular system.
- Endocrine system. (Thyroid/Adrenal)
- Surgical oncology (cancer treatment).
- Trauma (including musculoskeletal, head and hand injuries).
- Vascular conditions (involving blood vessels)

Some of the common surgical procedures you might expect a general surgeon to perform include:

- Anti-reflux surgery (Nissen fundoplication).
- Appendix removal (appendectomy).
- Bariatric (weight loss) surgery.
- Breast surgery
- Exploratory surgery (laparotomy or laparoscopy).
- Gallbladder removal (cholecystectomy).
- Hernia repair surgery.
- Prostate removal (prostatectomy).
- Spleen removal (splenectomy).
- Uterus removal (hysterectomy).

Common Terminology

Appendectomy	The surgical removal of the appendix, a small tube that branches off the large intestine, to treat acute appendicitis. Appendicitis is the acute inflammation of this tube due to infection.
Breast biopsy	A diagnostic test involving the removal of tissue or cells for examination under a microscope.
Carotid endarterectomy	A surgical procedure to remove blockage from carotid arteries, the arteries located in the neck that supply blood to the brain. Left untreated, a blocked carotid artery can lead to a stroke.



Cholecystectomy	Surgery to remove the gallbladder (a pear-shaped sac near the right lobe of the liver that holds bile). A gallbladder may need to be removed if the organ is prone to troublesome gallstones, if it is infected, or becomes cancerous.
Colonoscopy	Examination of your large intestine (colon).
Debridement of wound, burn, or infection	Involves the surgical removal of foreign material and/or dead, damaged, or infected tissue from a wound or burn. By removing the diseased or dead tissue, healthy tissue is exposed to allow for more effective healing.
Endoscopy	A long flexible tube with a video camera enters your body through your throat.
Free skin graft	Involves detaching healthy skin from one part of the body to repair areas of lost or damaged skin in another part of the body. Skin grafts are often performed as a result of burns, injury, or surgical removal of diseased skin. They are most often performed when the area is too large to be repaired by stitching or natural healing.
Haemorrhoidectomy	The surgical removal of haemorrhoids, distended veins in the lower rectum or anus.
Hysterectomy	The surgical removal of a woman's uterus. This may be performed either through an abdominal incision or vaginally.
Hysteroscopy	A surgical procedure used to help diagnose and treat many uterine disorders. The hysteroscope (a viewing instrument inserted through the vagina for a visual examination of the canal of the cervix and the interior of the uterus) can transmit an image of the uterine canal and cavity to a television screen.
Inguinal hernia repairs	Protrusions of part of the intestine into the muscles of the groin. Surgical repair pulls the intestine back to its original location.
Laparoscopic surgery	A surgeon accesses your abdominal organs through small keyhole incisions.
Mastectomy	The removal of all or part of the breast. Mastectomies are usually performed to treat breast cancer.
Partial colectomy	The removal of part of the large intestine (colon) which may be performed to treat cancer of the colon or long-term ulcerative colitis.
Prostatectomy	The surgical removal of all or part of the prostate gland, the sex gland in men that surrounds the neck of the bladder and urethra - the tube that carries urine away from the bladder. A prostatectomy may be performed for an enlarged prostate, benign prostatic hyperplasia (BPH), or if the prostate gland is cancerous.
Releasing of peritoneal adhesions	The peritoneum is a two-layered membrane that lines the wall of the abdominal cavity and covers abdominal organs. Sometimes, organs begin to adhere to the peritoneum, requiring surgery to detach them.
Robotic surgery	A type of laparoscopic surgery. It uses a laparoscope and long, narrow tools through small keyhole incisions. The difference is that robotic arms operate the tools. The surgeon operates the robotic arms from a computer console within the operating room. General surgeons may learn robotic surgery in their standard training, or they may take additional training to learn it, such as a fellowship.

Medical abbreviations

AC: Ante cibum, or «before meals,» indicating when a patient should take medication

ADR: Adverse drug reaction

ALOC: Acute loss of consciousness

BMI: Body mass index, a measurement of body fat based on height and weight

BP: Blood pressure, a measurement of the pressure exerted by the flow of blood upon vessel walls. This measurement is expressed using two numbers, the systolic, or highest pressure and the diastolic, or lowest pressure.

CHF: Congestive heart failure

DNR: Do not resuscitate, an indication that the patient does not want CPR or other life-saving procedures performed on them

ECG or EKG: Electrocardiogram, a device that records heartbeats

EMS: Emergency medical services

FX: Fracture #

HR: Heart rate, the number of times a person's heart beats, usually measured per minute

LFT: Liver function test

MRI: Magnetic resonance imaging, diagnostic imaging that uses magnetism and radio waves to produce images of internal organs

PT: Physical therapy

Rx: Prescription

UTI: Urinary tract infection

Diseases and conditions

These are some common terms for diseases and conditions:

Acute: A condition that is often severe but starts and ends quickly

Angina: Intermittent chest pain normally caused by insufficient blood flow to the heart

Benign: Refers to a tumour that is neither cancerous nor malignant

Chronic: Describes a condition that is persistent or recurring

Embolism: A clot caused by blood, fat, air or other types of fluid, gas or foreign material

Fracture: A cracked or broken bone

Hypertension: Unusually high blood pressure

Hypotension: Unusually low blood pressure

Intravenous: Administration of medication or fluids by vein

Lesion: Damage or change to tissue, such as a cut, a wound or a sore

Malignant: Refers to the presence of cancerous cells in a tumour or growth

Myocardial infarction: Also known as a heart attack, where the heart is deprived of blood due to arterial blockage



Oedema: Swelling as a result of fluid retention or buildup

Remission: Describes a disease that is not getting worse

Sepsis: An imbalance in the body's response to infection that injures the body's tissues and organs

Thrombosis: A blood clot that forms inside a blood vessel restricting blood flow; DVT – Deep Venous Thrombosis

Prefixes and suffixes

You can often determine what a medical term means if you understand some basic prefixes and suffixes, such as:

A- or an-: Lacking or without

Ab-: Away from

-algia: Indicates pain or a painful condition

Cardio-: Related to the heart

Ecto- or exo-: Outside of

-ectomy: Removal through surgery

Hyper-: Above, beyond or in excess

-itis: An inflammation

-mortem: Relating to death

-plasty: Repair through surgery

Post-: After or behind

-rrhea: A discharge or a flow

-somnia: Related to sleep

Trans-: Across or through

-trophic: Relating to nutrition

Vas(o)-: Relating to a vessel

Procedures and tests

Common medical procedures and tests:

Appendectomy: Surgical procedure to remove the appendix

Biopsy: Removal of a small tissue sample for testing

Blood culture: Test to reveal the existence of fungi or bacteria in the blood, possibly indicating an infection

Blood swab: Taking a blood sample using a cotton-tipped stick

Coronary bypass: Surgical transplant of a healthy blood vessel into the heart to bypass or replace an unhealthy vessel

Dialysis: Process to filter the blood, usually performed as a result of kidney failure

Fusion: Joining together adjacent bones or vertebrae to increase stability



Glucose test: A test to discover the quantity of a particular type of sugar in the bloodstream

Hysterectomy: Surgical procedure to remove the uterus

Intubation: Medical insertion of a tube into the body, for example, into the throat to assist with breathing

Lead test: A test to reveal the quantity of lead in the bloodstream

Lumbar puncture or spinal tap: Drawing of cerebrospinal fluid from the lumbar region of the back using a hollow needle

Mastectomy: Surgical procedure to remove part or all of the breast

Occult blood screen: Use of a chemically treated card or pad to test for blood hidden in a stool sample

Ultrasound: Imaging produced by high-frequency sound waves, usually used to view internal organs

X-ray: Use of high-energy electromagnetic radiation to create images of internal bones and organs

Tools and equipment

Here are some common medical tools, devices and appliances:

Blood lancet: A double-edged blade or needle used to obtain blood samples

Defibrillator: A device that discharges an electric current to the heart to correct cardiac arrhythmia or arrest

Dialyser: A machine that replaces the function of the kidneys by removing solutes, excess water and toxins from the blood

Endoscope: An optical instrument containing a tube with a lighted end used for internal examinations

Forceps: A hinged instrument, like scissors, used to grasp and hold objects

Hypodermic needle: A very thin, hollow needle used with a syringe to inject substances into the body or to extract blood

Nebulizer: A device used to deliver medication in an aerosol form through inhalation

Ophthalmoscope: An instrument used to examine the eye's fundus, retina and other structures

Otoscope or auriscope: A device for examining the external ear cavity

Pulse oximeter: A small device that clips to the finger, toe or earlobe used to measure blood oxygen saturation

Reflex hammer: A specially designed hammer used to test deep tendon or motor reflexes

Speculum: An instrument used when examining body orifices to help widen the opening

Spirometer: A device that measures the amount of air breathed in and out by the lungs

Splint: A tool for immobilizing and protecting displaced or injured body parts such as broken bones or dislocated joints

Stethoscope: A device for listening to the heartbeat or breathing

Ventilator: A machine that provides mechanical assistance with breathing



Tests and Treatments

Electromyogram (EMG)

A test that evaluates muscle and nerve function

Ultrasound

A way of diagnosing that uses high-frequency sound waves to create imaging of internal organs

X-Ray

A way of diagnosing that uses invisible electromagnetic energy beams to produce images of internal tissues, organs, and bones onto film

Cast

Used to hold a bone in place, as it prevents movement during the healing process – it will immobilize a specific area of the body

CAT Scan

This is a combination of computer technology and x-rays for diagnostic imaging, produces cross-sectional images of the body, vertically and horizontally, used to view bones, fat, organs, and muscles with more detail

MRI Scan

An **MRI scan** (Magnetic Resonance Imaging) is a **non-invasive medical test** that uses a strong magnetic field and radio waves to create detailed images of the organs and tissues within the body. It is particularly useful for examining soft tissues, such as muscles and organs, and is commonly used to diagnose various conditions, including injuries, tumours, and certain heart problems. Unlike X-rays or CT scans, MRI does not use radiation, making it a safer option for imaging. MRI scans are often the preferred method for imaging the brain and spinal cord due to their high-resolution capabilities.





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