

The A to Z of Medical Terms



interstitial nephritis

nephrolithiasis

Acute glomerulonephritis is a disease that affects many organs in the body as a result of an acute infection, as in poststreptococcal glomerulonephritis, which appears 10 to 14 days after a streptococcal infection is found in the throat, but it is also caused by a variety of other infections. In some cases the disease becomes chronic. Chronic glomerulonephritis is a disease that is caused by hypertension (high blood pressure) through damaged glomerular walls, renal failure is useful to control inflammation, and dialysis or renal transplantation is necessary if uremia occurs.

Inflammation of the renal interstitium (connective tissue between the renal tubules).

Acute interstitial nephritis, an increasingly common condition caused by the administration of drugs. This condition is characterized by eosinophilia in the blood and urine, and resolution of the disease when the patient discontinues using the drug. Treatment with corticosteroids (anti-inflammatory agents) is usually effective.

kidney stones (renal calculi).

Kidney stones usually are composed of calcium oxalate. The etiology often remains unclear, but a high concentration of calcium (parathyroid hormone-related protein) in the blood (hypercalcemia) associated with cancer is a risk factor for kidney stones.

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INTRODUCTION

Medical terminology is becoming more and more main stream, as health care becomes the responsibility of the patient. So what does that term mean, QUICKLY!!

This whole area can be very confusing as approximately 75% of medical terminology is either Greek - for diseases & disease processes, or Latin -major organs & their related systems. However this protocol is not always followed and many other terms is eponymous, named after the discoverer, or eminent scientist in the field, and increasingly more abbreviated. Medical terms are difficult to understand, spell and pronounce, and may mean one thing in one specialty but another in a different health / medical area. This book is a guide through this maze. It is not only a dictionary but rather a guide through common medical terms and a HOW TO book. **How to construct and de-construct the meaning of medial terms.** They cannot all be listed and new ones are constantly appearing: new diseases are discovered; new processes mapped out. Tables of the word prefixes, suffixes, and word roots are placed at the beginning of the book, to help in this process.

Lists and Tables of basic medical facts; the weights of common organs and means of specimen preparation; the meanings of post-nominal awards placed after a person's name; major scientific organizations and their acronyms and other academic forums form another section so this book is also a medical, science, etiquette book and atlas.

The **A to Zs** are increasingly going into new territory and with each new book there is a new vocabulary which is becoming increasingly more pathological as the series enters a new phase of the ***A to Z of the failure of...*** series – the first of which is the ***A to Z of Bone and Joint Failure.***

If there is a structure / subject you want to see in the A to Zs let us know. anatomy.update@gmail.com

We have 2 websites and there maybe others where you can view all images of the A to Zs and any additional material please feel free to examine the new books which may be placed here and to give any suggestions. The order of the new titles is often guided by the feedback received. <http://www.aspenpharma.com.au/atlas/student.htm>
www.amandasatoz.com

ACKNOWLEDGEMENT

Thank you Aspenpharmacare Australia for your support and assistance in this valuable project, particularly Mr. Greg Lan, and Rob Koster. Thank you to all those who have helped when I have been rushed to finish and have made time for this project, and have faith in it, in particular Ante Mihaljevic and Phill Ryman. Thank you everyone who has provided valuable feedback, and help in many ways; Richard, Peter, Robbie, Jody, Quentin and my own A to Z the alphabet of my life - there are others too, thank you.

DEDICATION

To people who love words – onomatophylics, and want to use them well.
Let's have words, words and more words!!!

HOW TO USE THIS BOOK

The Table of Contents as usual guides the reader through this book's sections – within which the subject is listed alphabetically.

The elements of a typical medical term – COMPOUND WORD - are –

The Prefix	Combining Vowel	Word Root	Combining Vowel	The Suffix
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The main text lists the word roots prefixes and suffixes with the Greek or Latin etc meaning, the common explanation of the **ANATOMICAL term is in RED** unless it is a **PATHOLOGICAL term where it is in GREEN**.

Pronunciation guides are alongside terms where necessary, as well as a listing of the common forms of the word roots: adjectives plurals etc.

Note there may be more than one of each element present but they are not necessarily always present in each term.

As well as this a guide lists all these word components in a table form before the main text. **Word roots with their prefix and suffix forms are in BLUE** in both sections. Combining vowels of "A" "O" etc used to make pronunciation easier are not listed with the term but added in the compound word.

PREFIXES are generally used to further describe the term indicating: amount, colour, direction, location, number & negation i.e. the absence of, position, or time.

SUFFIXES are generally used to modify the basic word indicating: condition, disease, procedure, or part of speech e.g. adjective etc

ABBREVIATIONS are used increasingly often replacing the original term, in common use. These have been placed in a separate section. Some are also placed alongside the term itself in the main text.

Thank you

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ISBN 978-1-921930-01-0

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Anatomical, Medical and Clinical Abbreviations and Acronyms in common use

A		AODM	= adult onset diabetes mellitus
A	= actions movements of a joint	AP	= anteroposterior or abdominal - perineal
a	= artery	AR	= allergic reaction
aa	= anastomoses	ARDS	= acute respiratory distress syndrome
AA	= amino acids / androgenic alopecia	ARF	= acute renal failure
AAA	= abdominal aortic aneurysm	art.	= articulation, artery
AAD	= antibiotic-associated diarrhoea	AS	= aortic stenosis
AAO	= alert, awake, and orientated	AS	= Alternative spelling, generally referring to the differences b/n British and American spelling
A&O	= alert & orientated	ASAP	= as soon as possible
Ab	= antibody = IL	ASCVD	= atherosclerotic cardiovascular disease
Ab/Ag	= antigen antibody complex	ASD	= atrial septal defect
ABD/Abd	= abdomen	ASHD	= atherosclerotic heart disease
ABG	= arterial blood gas	AST	= anal skin tag
AC	= before eating	AV	= atrioventricular
ACD	= acute contact dermatitis	A-V	= arteriovenous
ACLS	= advanced cardiac life support	A-VO2	= arteriovenous oxygen
ACTH	= adrenocorticotrophic hormone ad libitum/ad lib = take as needed / no restrictions		
ADD	= attention deficit disorder		
ADH	= anti-diuretic hormone		
ADHD	= attention deficit hyperactivity disorder		
adj.	= adjective		
ADR	= adverse drug reaction / acute dystonic reaction		
AED	= antiepileptic drug		
AF	= atrial fibrillation / afebrile		
AFB	= acid-fast bacilli		
AFP	= alpha-fetoprotein		
AFX	= atypical fibroxanthoma		
A /G	= albumin/globulin ratio		
Ag	= antigen		
AI	= aortic insufficiency		
AI	= acute inflammation		
AK	= actinic keratosis		
AKA	= above the knee amputation		
aka	= also known as		
ALD	= alcoholic liver disease		
ALL	= acute lymphocytic leukaemia		
alt.	= alternative		
Amb	= ambulate		
AML	= acute myelogenous leukaemia		
ANA	= antinuclear antibody		
ANF	= antinuclear factor		
ANS	= autonomic nervous system		
ant.	= anterior		
AOB	= alcohol on breath		

B

b/n	=	between
BBB	=	bundle branch block / blood brain barrier
bc	=	because
BCAA	=	branched chain amino acids
BCC	=	basal cell carcinoma
BCR	=	B-cell antigen receptor
bd/bid	=	twice a day
BD	=	Bowen's disease / twice daily
BE	=	barium enema
BEE	=	basal energy expenditure
BF	=	blood flow
BKA	=	below the knee amputation
BLK	=	benign lichenoid keratosis / benign lymphocytic keratosis
BL	=	basal lamina
BM	=	bone marrow /bowel movement/basement membrane
bm	=	basement membrane
BMR	=	basal metabolic rate
b/n	=	between
BOM	=	bilateral otitis media
BP	=	blood pressure / bullous pemphigoid
BPH	=	benign prostatic hypertrophy
BPM	=	beats per minute
BRBPR	=	bright red blood per rectum
BRP	=	bathroom privileges
BS	=	bowel sounds / breath sounds / blood stream / blood supply
BUN	=	blood urea nitrogen
BV(s)	=	blood vessel(s)
BV	=	blood vessels
BW	=	body weight
Bx	=	biopsy

C

c	=	with
C	=	carpal / cervical
CA	=	cancer/carcinoma
Ca	=	calcium /carcinoma
CAA	=	crystalline amino acids
CABG	=	coronary artery bypass graft
CAD	=	coronary artery disease
CAT (scan)	=	computerized axial tomography
CBC	=	complete blood count
CBG	=	capillary blood gas
CC	=	cervical cortex
CC	=	chief complaint
CCF	=	chronic cardiac failure
CCU	=	cardiac care unit
CCV	=	critical closing volume
CD	=	cluster of differentiation
c.f.	=	as demonstrated / that means
CF	=	cystic fibrosis
CFU	=	colony forming unit
C&S	=	culture and sensitivity
CGL	=	chronic granulocytic leukaemia
CHF	=	congestive heart failure
CHO	=	carbohydrate
chol.	=	cholesterol
CI	=	cardiac index
Cif	=	chronic inflammation
CIN	=	carcinoma in situ
CK	=	creatinine kinase
cm	=	cell membrane
CML	=	chronic myelogenous leukaemia
CMV	=	cytomegalovirus
CN	=	cranial nerves / compound naevus
CNS	=	central nervous system
CO	=	cardiac output
C/O	=	complaining of
Co	=	coccygeal / collagen
COAD	=	chronic obstructive airways disease
coag.	=	coagulation
COLD	=	chronic obstructive lung disease
COPD	=	chronic obstructive pulmonary disease

C *continued*

CONN	= congenital naevus
CP	= cerebral palsy / cervical plexus / chest pain
CP	= chest pain/cerebral palsy
CPAP	= continuous positive airway pressure
CPDN	= compound naevus
CPK	= creatinine phosphokinase
CPR	= cardiopulmonary resuscitation
Cr	= cranial
CRCL	= creatinine clearance
CRF	= chronic renal failure
CRP	= C-reactive protein
CSF	= Cerebrospinal fluid / colony stimulating factor
CSSD	= chronic superficial scaling dermatitis
CT	= connective tissue / computerized tomography
CTCL	= cutaneous T cell lymphoma
cut.	= cutaneous
CUT HORN	= cutaneous horn
CVA	= cerebrovascular accident /costovertebral angle
CVAT	= tenderness at the costovertebral angle
CVP	= central venous pressure
CX	= cicatrix
CXR/CX	= chest X-ray

D

DA	= dermatitis artifacta
DAT	= diet as tolerated
DAW	= dispense as written
DC	= discontinue /discharge
D&C	= dilation and curettage
DDx	= differential diagnosis
DF	= dermatofibroma
DFSP	= dermatofibrosarcoma protuberans
D5W	= 5% dextrose in water
DH	= dermatitis herpetiformis
DHT	= dihydrotestosterone
DI	= diabetes insipidus
DIC	= disseminated intravascular coagulopathy
DIF	= direct immunofluorescence
diff.	= difference(s)
DIP	= distal interphalangeal joint
DJD	= degenerative joint disease
DKA	= diabetic ketoacidosis
dL/dl	= decilitre
DLE	= discoid lupus erythematosus
DM	= diabetes mellitus
DMS	= dermatomyositis
DN	= dermal naevus
DNR	= do not resuscitate
DNS	= did not survive processing (e.g. tissue sample)
DOA	= dead on arrival
DOE	= dyspnea on exertion
DPL	= diagnostic peritoneal lavage
DPT	= diphtheria, pertussis, tetanus
DRE	= digital rectal examination
Ds	= disease
DSAP	= disseminated superficial actinic porokeratosis
DTR	= deep tendon reflexes
DVT	= deep venous thrombosis
DX	= diagnosis
Dysp	= dysplastic

E

EAA	= essential amino acids
EAC	= erythema annular centrifricum
EAM	= external acoustic meatus
EAS	= external anal sphincter
EBA	= epidermolysis bullosa acquisita
EBL	= estimated blood loss
EC	= extracellular (outside the cell)
ECG	= electrocardiogram
ECT	= electroconvulsive therapy
EED	= erythema elevatum diutinum
EEG	= electroencephalogram
EFAD	= essential fatty acid deficiency
e.g.	= example
EM	= electron microscopy
EMG	= electromyogram
EMS	= erythema multiforma
EMV	= eyes, motor, verbal response (Glasgow coma scale)
ENT	= ears, nose, and throat
EOM	= extraocular muscles
ESR	= erythrocyte sedimentation rate
ER	= extensor retinaculum
ET	= endotracheal
ETT	= endotracheal tube
ERCP	= endoscopic retrograde cholangio-pancreatography
ETOH	= ethanol
EUA	= examination under anaesthesia
Ex	= examination
ext.	= extensor (as in muscle to extend across a joint)

F

Fab	= antibody binding fragment
FB	= foreign body
FBS	= fasting blood sugar
Fc	= fragment -crystallizable region
FDE	= fixed drug eruption
FEV	= forced expiratory volume
FFP	= fresh frozen plasma
FFFT	= fits, faints and/or funny turns
FR	= flexor retinaculum
FRC	= functional residual capacity
FTT	= failure to thrive
FU	= follow-up
FUO	= fever of unknown origin
FVC	= forced vital capacity
Fx	= fracture

G

GA	= granuloma annulare
GC	= Gonorrhoea
GD	= Grover's disease
GETT	= general by endotracheal tube
GF	= growth factors
GFR	= glomerular filtration rate
GH	= growth hormone
GI	= gastrointestinal
GIT	= gastrointestinal tract
Gk.	= Greek
gld	= gland
g/gm	= gram
gr	= grain; 1 grain = 65mg. Therefore Vgr = 325mg
grp	= group
GSW	= gun shot wound
Gt/gtt	= drops
GTT	= glucose tolerance test
GU	= genitourinary
GVDH	= graft versus host disease
GXT	= graded exercise tolerance test (Stress test)

H

H	= hormone
HA	= headache
HAA	= hepatitis B surface antigen
HAV	= hepatitis A virus
Hb	= haemoglobin
HBP	= high blood pressure
HCG	= human chorionic gonadotropin
HCT	= hematocrit
HDL	= high density lipoprotein
HEENT	= head, eyes, ears, nose and throat
Hg	= haemorrhage
Hgb	= haemoglobin
H/H	= haemoglobin/haematocrit
HIV	= human immunodeficiency virus
HK	= solar keratosis
HLA	= histocompatibility locus antigen
HMF	= Hutchinson's melanotic freckle
HJR	= hepatojugular reflex
HO	= history of
HOB	= head of bed
HP	= high power
HPF	= high power field
HPV	= human papilloma virus
HPI	= history of present illness
HR	= heart rate
HS	= at bedtime
HSM	= hepatosplenomegaly
HSP	= herpes simplex virus
HTLV-III	= human lymphotropic virus, type III AIDS agent, HIV)
HSV	= herpes simplex virus
HTN	= hypertension
Hx	= history

I

I	= insertion
IAM	= internal acoustic meatus
IAS	= internal anal sphincter
I&D	= incision and drainage
I&O	= intake and output
IBR	= insect bite reaction
IC	= intracellular (inside the cell)
ICD	= irritant contact dermatitis
ICS	= intercostal space
ICU	= intensive care unit
ID	= infectious disease/identification
IDDM	= insulin dependent diabetes mellitus
IEC	= intradermal carcinoma
If	= inflammation
Ifr	= inflammatory response / reaction
IG/Ig	= immunoglobulin
IHSS	= idiopathic hypertrophic subaortic stenosis
IL	= interleukins = immunoglobulins = Ab
IM/im	= intramuscular
IMV	= intermittent mandatory ventilation
In	= infection
INF	= intravenous nutritional fluid
IPPB	= intermittent positive pressure breathing
IR	= immune response / reaction
IRBBB	= incomplete right bundle branch block
IRDM	= insulin resistant diabetes mellitus
IT	= intrathecal
ITP	= idiopathic thrombocytopenic purpura
IV/iv	= intravenous
IVC	= intravenous cholangiogram/inferior vena cava
IVP	= intravenous pyelogram
Ix	= investigation of
Iy	= injury

J

JN	= junctional naevus
JODM	= juvenile onset diabetes mellitus
jt(s)	= joints = articulations
JVD	= jugular venous distention

K

KA	=	keratocanthoma
KOR	=	keep open rate
KP	=	keratous pilaris
KUB	=	kidneys, ureters, bladder
KVO	=	keep vein open

L

L	=	left / lumbar
l	=	lymphatic
LAD	=	left axis deviation/left anterior descending
LAE	=	left atrial enlargement
LAHB	=	left anterior hemi-block
LAP	=	left atrial pressure or leukocyte alkaline phosphatase
LBBB	=	left bundle branch block
LDH	=	lactate dehydrogenase
LE	=	lupus erythematosus
lig	=	ligament
LIH	=	left inguinal hernia
LK	=	lichenoid keratosis
LL	=	lower limb
LLL	=	left lower lobe
LM	=	light microscopy
LMM	=	lentigo maligna (melanoma)
LMP	=	last menstrual period
LNMP	=	last normal menstrual period
LOC	=	loss of consciousness/level of consciousness
LP	=	lumbar puncture / lichen planus / Low power / lumbar plexus
Lt.	=	Latin

M

M	=	margin (generally of the skin)
m	=	muscle
MAO	=	monoamine oxidase
MAP	=	mean arterial pressure
MAST	=	medical anti-shock trousers
MBT	=	maternal blood type
MC	=	metacarpal
MCH	=	mean cell haemoglobin
MCHC	=	mean cell haemoglobin concentration
MCL	=	mid clavicular line
MCTD	=	mixed connective tissue disease
MCV	=	mean cell volume
med.	=	medial
MI	=	myocardial infarction/mitral insufficiency
mL/ml	=	millilitre
MLE	=	midline episiotomy
MM	=	malignant melanoma / mucous membrane
MM	=	malignant melanoma
MMEF	=	maximal mid expiratory flow
Mmol	=	millimole
MMR	=	measles, mumps, rubella
MNC	=	mononuclear cells
MO	=	microorganisms
MRI	=	magnetic resonance imaging
MRSA	=	methicillin resistant staph aureus
MP	=	medium power
MS	=	multiple sclerosis/mitral stenosis/morphine sulphate
MSSA	=	methicillin-sensitive staph aureus
MT	=	metatarsal
MVA	=	motor vehicle accident
MVI	=	multivitamin injection
MVW	=	maximum voluntary ventilation

N

N (s)	=	nerve(s)
NA	=	nucleic acids
NAD	=	normal (size, shape) / no active disease/ no abnormality detected
NAD	=	no active disease/ no abnormality detected
NAS	=	no added salt
NCV	=	nerve conduction velocity
NED	=	no evidence of recurrent disease
Ng	=	nanogram
NG	=	nasogastric
NIDDM	=	non-insulin dependent diabetes mellitus
NK	=	natural killer
NKA	=	no known allergies
NKDA	=	no known drug allergies
NMR	=	nuclear magnetic resonance
NMSC	=	non-melanotic skin cancer
NNT	=	need to treat
nocte	=	at night
NPO	=	nothing by mouth /nil by mouth
NR	=	nerve root origin
NRM	=	no regular medications
NS	=	nervous supply / nerve system
NSAID	=	non-steroidal anti-inflammatory drugs
NS	=	nervous system
NSR	=	normal sinus rhythm
NT	=	nervous tissue / nasotracheal

O

O	=	origin
OB	=	obstetrics
OCG	=	oral cholecystogram
OD	=	overdose / right eye
OE / O/E	=	on examination
OM	=	otitis media
OOB	=	out of bed
OP	=	out patients - hospital patients treated but not admitted
OPV	=	oral polio vaccine
OR	=	operating room
OS	=	left eye
OU	=	both eyes

P

P	=	para / pressure
PA	=	posteroanterior
PAC	=	premature atrial contraction
PAD	=	peripheral vascular disease
PAO2	=	alveolar oxygen
PaO2	=	peripheral arterial oxygen content
PAP	=	pulmonary artery pressure
PaNS.	=	parasympathetic nervous system
ParaNs	=	parasympathetic nerves ± fibres
PAS	=	periodic acid Schiff's stain
PAT	=	paroxysmal atrial tachycardia
P&PD	=	percussion and postural drainage
Pb	=	prothrombin time / lead
PC	=	after eating
PCWP	=	pulmonary capillary wedge pressure
PD	=	pathological diagnosis
PDA	=	patent ductus arteriosus
PDR	=	physicians desk reference
PDx	=	provisional diagnosis
PE	=	pulmonary embolus /physical exam / pleural effusion
PEEP	=	positive end expiratory pressure
PFT	=	pulmonary function tests
Pg/pg	=	pictogram
ph	=	palanges
PHx	=	past history
PI	=	pulmonic insufficiency disease / pulmonary index
PKU	=	phenylketonuria
pl.	=	plural
PMH	=	previous medical history
PMI	=	point of maximal impulse
PMN	=	polymorphonuclear leukocyte (neutrophil, polymorph)
PN	=	peripheral nerve
PND	=	paroxysmal nocturnal dyspnea
PNS	=	peripheral nervous system
polymorphs	=	polymorphonuclear leukocyte (neutrophil)
post.	=	posterior
PPD	=	pigmented purpuric dermatosis
PR	=	petechial rash
prn	=	given as required no set treatment regime
proc.	=	process
prox.	=	proximal
PS	=	pubic symphysis / pulmonic stenosis
PT	=	prothrombin time, or physical therapy

P *continued*

Pt	= patient
PTCA	= percutaneous transluminal coronary angioplasty
PTH	= parathyroid hormone
PTHC	= percutaneous transhepatic cholangiogram
PTT	= partial thromboplastin time
PUD	= peptic ulcer disease
PUPP	= puritic urticarial papules and plaques of pregnancy
PVC	= premature ventricular contraction
PVD	= peripheral vascular disease

Q

q	= every (e.g. q6h = every 6 hours)
qd	= every day
qh	= every hour q4h, q6h... every 4 hours, every 6 hours etc.
qid	= four times a day
QNS	= quantity not sufficient
Qod	= every other day
Qs/Qt	= shunt fraction
Qt	= total cardiac output

R

R	= right / resistance
RA	= rheumatoid arthritis or right atrium
RAD	= right atrial axis deviation
RAE	= right atrial enlargement
RAP	= right atrial pressure
RBBB	= right bundle branch block
RBC	= red blood cell
RBP	= retinol-binding protein
RBS	= random blood sugar
RBT	= random breath test
RDA	= recommended daily allowance
RDW	= red cell distribution width
RE	= rectal examination
RIA	= radioimmunoassay
RIH	= right inguinal hernia
RLL	= right lower lobe
RLQ	= right lower quadrant
RML	= right middle lobe
RNA	= ribonucleic acid
R/O	= rule out
ROM	= range of motion
ROS	= review of systems
RPG	= retrograde pyelogram
RRR	= regular rate and rhythm
RT	= respiratory therapy / radiation therapy / Respiratory tract
RTA	= renal tubular acidosis
RTC	= return to clinic
RU	= resin uptake
RUG	= retrograde urethrogram
RUL	= right upper lobe
RUQ	= right upper quadrant
RV	= residual volume
RVH	= right ventricular hypertrophy
Rx	= treatment / regime

S

S	=	strata/stratum /sacral
s	=	without
SA	=	sinoatrial
SAA	=	synthetic amino acid
S&E	=	sugar and acetone
SBE	=	subacute bacterial endocarditis
SBFT	=	small bowel follow through
SBS	=	short bowel syndrome
SC	=	spinal cord / subcutaneously
sc	=	subcutaneously
SCC	=	squamous cell carcinoma
SCr	=	serum creatinine
SEB K	=	seborrhoeic keratosis
SEM	=	systolic ejection murmur
SG	=	Swan-Ganz (catheter)
SGA	=	small for gestational age
SGGT	=	serum gamma-glutamyl transpeptidase
SGOT	=	serum glutamic-oxaloacetic transaminase
SGPT	=	serum glutamic-pyruvic transaminase
SIADH	=	syndrome of inappropriate antidiuretic hormone
Sig	=	write on label
SIMV	=	synchronous intermittent mandatory ventilation
sing.	=	singular
SK	=	solar keratosis
sl	=	sublingual
SLE	=	systemic lupus erythematosus
SMO	=	slips made out
SN	=	spinal nerve
SO	=	standing orders
SOAP	=	Subjective, Objective, Assessment, Plan
SOB	=	shortness of breath
SP	=	spinous process / sacral plexus
SPF	=	sun protection factor
SQ	=	subcutaneous
SS	=	signs and symptoms
ss	=	one-half/same side/signs & symptoms
SSM	=	superficial spreading melanoma
SSMM	=	superficial spreading malignant melanoma
STAT	=	immediately
STD	=	sexually transmitted disease
subcut.	=	subcutaneous (just under the skin)
sup.	=	superior
supf.	=	superficial
SVD	=	spontaneous vaginal delivery
Sx	=	symptoms
SyNS	=	sympathetic nervous system

T

T	=	TEST / thoracic / tissue
T&C	=	type and cross
TAH	=	total abdominal hysterectomy
T&H	=	type & hold (blood or serum products)
TB	=	tuberculosis
TBG	=	total binding globulin
TCR	=	T cell receptor
Td	=	tetanus-diphtheria toxoid
tds	=	three times daily
TIA	=	transient ischemic attack
TIBC	=	total iron binding capacity
Tid/td	=	three times a day
TIG	=	tetanus immune globulin
TKO	=	to keep open
TLC	=	total lung capacity
TMJ	=	temporo-mandibular joint
TNF	=	tumour necrosis factor
TNTC	=	too numerous to count
TO	=	telephone order
TOPV	=	trivalent oral polio vaccine
TPN	=	total parenteral nutrition
TS	=	thin sections
TSH	=	thyroid stimulating hormone
TT	=	thrombin time
TTP	=	thrombotic thrombocytopenic purpura
TU	=	tuberculin units / transurethral
TUR	=	transurethral resection
TURBT	=	TUR bladder tumors
TURP	=	transurethral resection of prostate
TV	=	tidal volume
TVH	=	total vaginal hysterectomy
Tw	=	twice a week
Tx	=	therapy / treatment / transplant

U

UA	=	urinalysis
UAC	=	uric acid /umbilical artery catheter
UAO	=	upper airway obstruction
UBD	=	universal blood donor
UC	=	ulcerative colitis /umbilical cord
Ud	=	as directed
UFH	=	unfractionated heparin
UGI	=	upper gastrointestinal
UL	=	upper limb, arm
URI	=	upper respiratory infection
URQ	=	upper right quadrant
URTI	=	upper respiratory tract infection
US	=	ultrasound
UTI	=	urinary tract infection
UUN	=	urinary urea nitrogen
UVA	=	ultraviolet A light

V

V	= vertebra / vein
v	= very
VA	= verrica / verrucous
VAD	= venous access device
VB	= vertebral body
VC	= vertebral column/ vital capacity
VC	= vital capacity
VCT	= venous clotting time
VCUG	= voiding cysourethrogram
VDRl	= Venereal Disease Research Laboratory (test for syphilis)

VE	= vaginal examination
VMA	= vanillylmalic acid
VO	= verbal order / voice order
V/Q	= ventilation - perfusion
VRE	= vancomycin-resistant enterococcus
VSS	= vital signs stable
VT	= ventricular tachycardia
VV	= varicose veins
w	= visa versa
VW	= vessel wall
VWD	= von Willebrand's disease
VZV	= varicella zoster virus

W

WB	= whole blood
WBC	= white blood cell / white blood cell count
WBR	= whole body radiation
WD	= well developed
WF	= white female
WIA	= wounded in action
WID	= widow, widower
WM	= white male
WN	= well nourished
w/n	= within
w/o	= without
WNL	= within normal limits
WO	= written order / weeks old / wide open
WOP	= without pain
WOS	= wedge of skin
W.P.	= whirlpool
WPW	= Wolff-Parkinson- White (syndrome)
W-T-D	= wet to dry
WU	= workup

X

X2d	= times 2 days.
XI	= eleven
XII	= twelve
XL	= extended release / extra large.
XM	= crossmatch
XMM	= xeromammography
XOM	= extraocular movements
XRT	= X-ray therapy (radiation therapy)
XS	= excessive
XULN	= times upper limit of normal

Y

y	= years / yes
YF	= yellow fever
YLC	= youngest living child
yo	= years old
YOB	= year of birth
yr	= year
ytd	= year to date

Z

ZDV	= zidovudine
ZE	= Zollinger-Ellison (syndrome)
Z-ESR	= zeta erythrocyte sedimentation rate
Zn	= zinc
ZnO	= zinc oxide
ZSB	= zero stools since birth
&	= and
n	= intersection with
#	= fracture / number
~	= approximately
°	= no (e.g. FFFT° = no fits, faints or funny turns)
1°	= primary
2°	= secondary
9/12	= nine months
3/52	= three weeks
5/7	= five days
2/24	= two hours
3/60	= three minutes
3/360	= three seconds
3s	= three seconds

Extra abbreviations...

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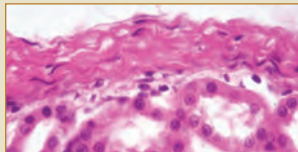
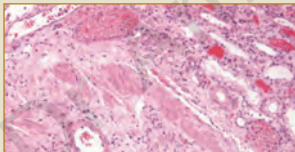
Common Histological Stains and their uses

Histology stains are a confusion of eponymous terms and methods used in individual laboratories. In many cases individual variations exist in different laboratories and it is advised that contact with the appropriate laboratory will give the medical professional the details they need, concerning their particular specialities and variations on these common stains. Those included here are those stains common to most labs and the principles behind the staining methods. There are many more and this list is by no means complete, also one stain may be used for many purposes eg the routine stain used in all labs. - H&E. More details can be found in the A to Z of Histology/Histopathology, and the A to Z of the Skin and surface anatomy.

General Stains

Haematoxylin and Eosin (H&E)

This is an all round stain and used on nearly every section in the histology laboratory. The haematoxylin stains the nucleic acids and other acid material blue and the eosin acts as a counter stain to colour most other structures non-specifically red/pink, allowing an overall view of the cellular morphology. It generally does not interfere with other stains and can be used in conjunction with them, for example with PAS.

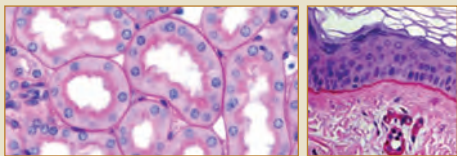


Kidney tissue LP & HP to show clarity of the H&E stain – arrow pointing to the renal capsule with collagen fibres – eosin staining and nuclei of the renal tubules – haematoxylin staining.

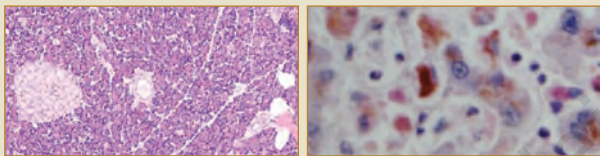
PAS (periodic acid-Schiff)

This is an all-around useful stain for many things: glycogen, mucin, mucoprotein, glycoprotein, as well as fungi.

A predigestion step with amylase will remove the glycogen and reduce the background. PAS is useful for outlining tissue structures: basement membranes (BM), capsules, BVs, etc. It is very sensitive, but not very specific.



Skin (MP) and kidney tissue (HP) stained with PAS to demonstrate the BM counterstained with H&E.



Pancreas (LP) stained with PAS to differentiate b/n the Islets of Langerhans (endocrine) (1) and the glands for digestion containing mucopolysaccharides – PAS +ve (2).

Liver (HP) stained with PAS which stains glycoproteins but also lipofuscin while bile and haemosiderin which do not stain also appear brownish, so structures are unable to be differentiated.

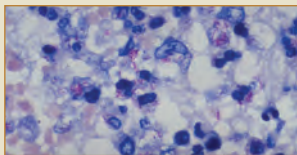
Structures stained

AFB (acid fast bacilli) stain for mycobacterium

This stain uses carbol-fuchsin to **stain the lipid walls of acid fast organisms such as *M. tuberculosis***. The most commonly used method is the Ziehl-Neelsen method, though there is also Putt's stain, Kinyoun's method a modification of which is the Fite-Faraco stain and has a weaker acid for supposedly more delicate ***M. leprae bacilli***.

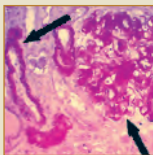
Lipid is often removed in the processing, so this stain can be insensitive particularly when looking in large granulomatous tissue.

The most sensitive stain for mycobacteria is the Auramine-Rhodamine stain which requires a fluorescence microscope for viewing. There are things other than mycobacteria that are "acid fast". Included are *cryptosporidium*, *isospora*, and the hooklets of *cysticerci*.



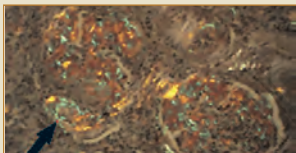
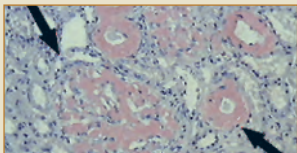
Lung tissue +ve for TB (HP) showing mycobacterium - Ziehl-Neelsen - acid fast stain small purple rods in the cells are the bacteria.

Amyloid



Amyloid is a substance which can be found in all tissues pathologically. Although a fatty substance it is not fat, but can be stained using Congo red, or Lieb's Crystal Violet method, although not with PAS.

Renal tissue showing amyloid in the tubules and glomeruli with Crystal Violet.



Amyloid in the same tissue stained with Congo red – also showing the apple green birefringence when viewed under polarized light.

Biogenic Amine stains for Argentaffin cells

(Autofluorescence, Diazo, Fontana-Masson, modified Giemsa, Schmorl's Pascual's and Weisel's stains)

Cells that produce polypeptide hormones, active amines, or amine precursors (adrenalin = epinephrine, noradrenalin = norepinephrine) can be found individually (Kulchitsky cell of GI tract) or as a group (adrenal medulla). The following is a traditional classification of the staining patterns based upon the ability of the cells to reduce soluble silver nitrate to metallic silver - causing a black deposit in tissue sections.

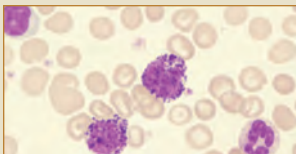
Traditionally there are 3 patterns of staining although this is fairly artificial, as they are interchangeable when the fixative is changed.

Chromaffin cells have cytoplasmic granules that appear brown when fixed with a dichromate solution as in the adrenal medulla and their tumours pheochromocytomas; **Argentaffin** cells reduce a silver solution to metallic silver after formalin fixation, as in carcinoid tumours of the gut. Using a pre-reduction step may cause a more intense stain. This is called an **argyrophil** (silver loving) reaction.

Blood smear stains

Romanowsky stains eg Giemsa stains, Wright-Giemsa stains

All these stains contain mixtures of methylene blue, azure, and



Typical blood smear (HP) showing monocytes (m) and granulocytes - basophils (b) and neutrophils (n) using the one stain - Romanowsky

eosin compounds. One property of methylene blue and toluidine blue dyes is metachromasia. This means that a tissue component stains a different colour than the dye itself. For example, mast cell granules, cartilage, mucin, and amyloid will stain purple and not blue, which is helpful in identifying these components, while using only the one stain.

Calcium (Ca) Stains

Ca bound to an anion, such as phosphate (PO_4) or carbonate (CO_3) can be demonstrated with the Von Kossa stain. Ca forms a blue-black lake with haematoxylin to give a blue colour on H&E stain, usually with sharp edges. This stain is most useful when large amounts are present, as in bone.

Alizarin red S forms an orange-red lake with Ca. It works best with small amounts of Ca (such as in Michaelis-Gutman bodies). The Alizarin method is also used in analyzers to measure serum calcium photometrically.

Azan stain can be used to differentiate osteoid from mineralized bone.

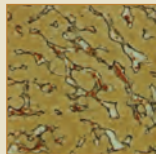
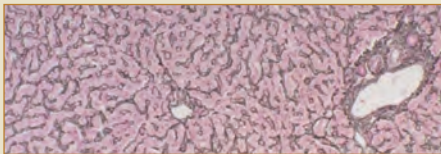
Connective tissue stains (collagen, elastin, reticulin fibres and fibrin)

The trichrome stain helps to highlight the supporting **collagenous stroma** in sections from a variety of organs. This helps to determine the pattern of tissue injury. Trichrome will also aid in identifying normal structures, such as **connective tissue capsules of organs, the lamina propria of gastrointestinal tract, and the broncho-vascular structures in lung**. Sirius red stain is also used for **collagen** staining.

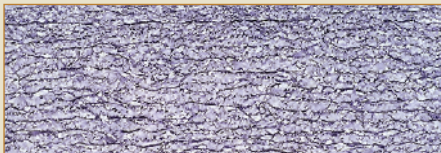
The reticulin stain is useful in parenchymal organs such as liver and spleen to outline the architecture. Delicate **reticular fibres**, which are argyrophilic, can be seen. A reticulin stain occasionally helps to highlight the growth pattern of neoplasms, by showing the dispersal of the normal fibrous architecture.

An **elastic tissue** stain such as the Verhoff's van Giesen stain or Orcein-Giemsa stain help to outline arteries, because the **elastic lamina of muscular arteries, and the media of the aorta, contain elastic fibres**, and if used with the Masson stain for **collagen and muscle fibres** provides a good contrast.

Martius's scarlet blue stain distinguishes **fibrin** from true connective tissues and should be used where there is extensive inflammation.



Liver LP and MP stained to show reticular fibres (Gordon & Sweet method) - fine outline of supportive fibres.



Normal aorta (MP) showing elastic fibres throughout - van Giesen stain.

Exogenous pigments and minerals (asbestos, carbon, silica)

Asbestos is a special type of long-thin silica crystal, usually of the mineral group chrysotile. In tissue, these crystals are highly irritative and highly fibrogenic. The fibres become coated with a protein-iron-calcium matrix, giving them a shish-kebab appearance. These are called “ferruginous bodies” because they are highlighted with an iron stain, such as Perl’s iron stain, or the Prussian blue reaction.

Carbon appears as anthracotic pigment in the lungs. It can be distinguished from melanin by doing a Melanin bleach, which helps to distinguish carbon from melanin. Poorly fixed tissues may contain formalin-heme pigment, which is black and finely granular, but this is widely scattered in the tissues without regard to cellular detail. Formalin-heme pigment is also birefringent on polarization.

Silica is present in many minerals and building materials. Most forms are very inert and cannot be stained in tissue but can be demonstrated by white birefringence on polarization. It is most often present in lung, but can make its way into lymph node.

Street drugs for injection often are diluted with compounds containing minerals such as **silica or talc**. These crystals can be found throughout the body, but especially in lymphoreticular tissues.

Tattoo pigment is usually black and is inert and non-polarizable.

Red tattoo pigment often contains **cinnabar** (which has mercury in it). There are no specific stains for these materials, and in general, minerals are best demonstrated by microincineration techniques or by scanning electron microscopy with energy dispersive analysis (SEM-EDA), which is also used in the analysis of gunshot residue, because of its composition of antimony, barium, and lead.

A H

B

C habenula: diminutive of Lt. habena = rein.

Haeme = blood (AS Heme).

D **Haematocrit** (hee-MAT-o-krit) the percentage of RBCs in a sample
E of blood, which is determined by centrifuging the sample and
F measuring the RBC volume relative to other blood components.

Haematopoiesis (heem'-ah-to-poy-EE-sihs) The production of blood
H cells in the red bone marrow. (= haemopoiesis. AS hematopoiesis).

Haemoglobin (HEE-mo-glo-bihn) a complex protein in RBCs involved
H in the transport of oxygen & carbon dioxide. (AS hemoglobin).

Haemolysis (hee-MOL-ih-sihs) the bursting of a RBC resulting from
I disruption of the plasma membrane by toxins, freezing or thawing, or
J exposure to a hypotonic solution. (AS hemolysis).

Haemorrhage (HEM-or-ayj) GK. haeme = blood, rhegnyimi = to
K burst forth, hence loss of blood outside the CVS.

Haemostasis (hee'-mo-STA-sihs) the stoppage of bleeding.

L haemorrhoid: Gk. haema = blood, & rheo = to flow, hence likely to
M bleed, hence haemorrhoids are the extrusion of gut BVs
N through the anus. These have little or no muscle and so bleeding
O can be profuse.

Hair a threadlike outgrowth of the skin that is composed of columns
P of keratinized cells.

Hair follicle a cluster of epithelial tissue surrounding the root of a
Q hair where the hair originates.

hallux- big toe (hal-uhcs)

R hallux: Lt. hallex = great toe (hallucis = of the great toe).

S **Hamartoma** (ham-ar-TOE-mar) bodily defect causing an overgrowth
T of tissue - not cancerous.

U hamate: adj. Lt. hamus = a hook, hence, hooked.

U hamstrings: the tendons of the muscles of the ham - ie. of the
V back of the thigh - felt behind the knee when the leg is flexed
W against resistance (semimembranosus, semitendinosus and
X biceps femoris).

W hamulus: diminutive of Lt. hamus = hook.

hapl- single

X haustra: Lt. = saccules.

Y **Haversian system** (see osteon) smallest functioning unit of bone.

Z **Heart** the hollow muscular organ within the thoracic cavity that
propels blood through the circulatory network.

hecl- ulcer (hels)

helicine: Gk. helix = a coil, spiral.

helix: Gk. = coil.

heme see haeme.

hemi- half (hem-ee)

hemianopia: Gk. hemi = half, an = negative, opsis = vision, hence loss of half of the field of vision.

hemianopsia: Gk. hemi = half, an = negative, opsis = vision, hence loss of half of the field of vision.

hemiparesis: Gk. hemi = half, paresis = paralysis, used usually to denote weakness rather than paralysis.

hemiplegia: Gk. hemi = half, plegia = stroke, hence, paralysis of one half of the body.

hemisphere: Gk. hemi = half, sphaira = ball, hence, half of a sphere

hepar: Gk. = liver, adj.- hepatic.

Hepatic (heh-PAT-ik) pertaining to the liver.

hepatic: adj. Gk. hepar = the liver.

Hepatocytes (heh-PAT-OH-cites) Liver cells.

hernia: Lt. = a protrusion, adj.- hernial.

heter- other, different, abnormal ≠ homo**hex- six**

hiatus: Lt. = a gap (like that between some people's ears).

hidr- sweat**Hidrosis (HEYE-droh-sis) disease of the sweat glands.****hier- to do with the sacrum**

hilum: Lt. = the point of attachment of a seed, hence the part of an organ where the vessels and nerves are attached; adj.- hilar.

hindbrain: the part of the brain below tentorium cerebelli, i.e.

medulla oblongata + pons + cerebellum.

hip: the lateral prominence of the hip bone & greater trochanter.

hippocampus: Gk. hippokampos = a sea-horse, the curled shape of the hippocampus in coronal section

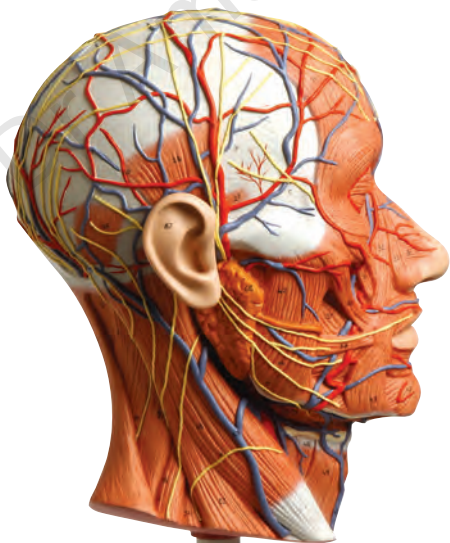
hippus (Gk. hippos = horse) fluctuation of the pupil under steady illumination

hist- tissues**Histology (HIHS-toh-lo-jee) the microscopic study of tissues.**

histology Lt. = pictures, ology = the study of, hence the study of pictures

Horizontal plane a plane that extends perpendicular to the length of the body dividing it into superior and inferior portions. (also = transverse plane).

- A **holo- entire**
- B **homo- same (hoh-moh)**
- homeo- same, common, like (hoh-me-oh)**
- C homologous: adj. Gk. homos = same, & logos = word, parts with similar morphologies but different functions.
- D horizontal: adj.- parallel to the horizon.
- E **Hordeolum** (Hord-ee-oh-lum) Lt = barley grain – a small pustule on the eyelid = sty.
- F **horm- to urge, to stimulate**
- G **Hormone** (HOR-mone) a substance secreted by endocrine tissue that changes the physiological activity of the target cell.
- H horn: a projection, often pointed.
- I **humer- to do with the arm, upper arm (hew-mer)**
- J humerus: Lt. = the arm-bone.
- J humour: Lt. humor = liquid, hence the aqueous & vitreous humour of the eyeball.
- K **hyal- glass**
- L hyaline: adj.Gk. hyalos = glassy.
- Hyaline cartilage** (HY-al-ine) a type of CT that contains chondrocytes embedded w/n lacunae, both of which are surrounded by a dense, semitranslucent matrix of collagen fibres &



glycosaminoglycans. Hyaline cartilage is found in: tracheal & bronchial walls, the costal cartilages, the nose, the ends of all synovial joints & the larynx.

hydr- water

hydrocephalus: Gk. hydor = water, koilos = head. (c.f. cephalic).

hydrops = oedema

hygr- water

hymen: Gk. = membrane; across the vaginal vagina.

hyoid: adj. Gk. = U-shaped.

hyper - excessive ≠ hypo

hyperacusis: Gk. hyper = over, and akousis = hearing, hence excessive sensitivity to sound.

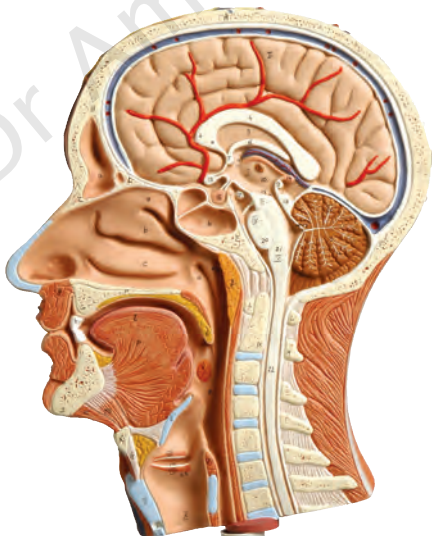
hypoglossal: adj. Gk. hypo = under, and glossa = tongue.

Hyperplasia (HI'-per-PLAY-zee-ah) an increased production & growth of cells beyond normal limits.

Hypertonic (HI'-pehr-TOHN-ihk) the state of a solution having a greater concentration of dissolved particles than the solution it is compared to (≠ hypotonic).

Hypertrophy (hi'-PEHR-tro-fee) the abnormal enlargement or growth of a cell, tissue, or organ.

hypo- deficient, below, under ≠ hyper



- A **Hypodermis** (hi'-po-DEHRM-ihs) the area of the body b/n the
B dermis of the skin and skeletal muscle
- C **Hyponychium** thickened epidermis which forms the floor of the nail
D fold to the undersurface of the nail see also Subungual.
E hypophysis: Gk. hypo = down, physis = growth, hence, a
D downgrowth (from the brain). However, this is not the whole truth.
E Part of this gland is an upgrowth from the pharynx, adj.-
F hypophysial. (=pituitary).
- F **Hyposecretion** (hi'-po-see-KREE-shuhn) the diminished secretion of
G a product by a gland.
- G **Hypothalamus** (hi'-po-THAHL-aw-muhs) the small, inferior portion
H of the diencephalon in the brain. It functions mainly in the control of
I involuntary activities, including endocrine gland regulation, sleep,
J thirst & hunger.
J hypothalamus: Gk. hypo = under, and thalamus (q.v.), refers to
K part of diencephalon.
- K **Hypotonic** (hi'-po-TON-ik) the state of a solution having a lower
L concentration of dissolved particles that the solution it is compared to
M (\neq hypertonic).
- M **hyster- uterine (hyster-)**
N hystero: Gk. hyster = to do with the uterus thought to be the seat
O of all female emotion, hence adj.- hysterical pertains to female
P emotions- over exhibitionistic emotion, noun. hysteria.



Head Clamp

iatr- to treat (ee-at-rah)

ictero- jaundiced

ichthy. Gk. = fish

Ichthyosis (IK-thee-oh-sis) generalized term for any skin disease characterized by any increased or aberrant keratinization of the skin – gish skin

idio- one's own, separate, unknown

Idiopathic (ID-ee-oh-path- ic) unknown

idiopathic: Gk. = idios = one's self, pathos = sickness - a spontaneous sickness or illness of unknown origin = agnogenic.

icter- jaundice (ikter)

ile- pertaining to the ileum

Ileum (IHL-ee-uhm) the distal segment of the small intestine.

ileum: Gk. eilein = twisted. adj.- ileal.

ili- pertaining to the flank or the leg

ilium: Lt. the bone of the flank, adj.- iliac.

im- in, into, on, onto, not, non

ima: adj. Lt. = lowest, hence artery thyroidea ima lowest artery to the thyroid.

impacted Lt. impactō = to strike against, hence wedged, closely packed & so immovable, generally referring to teeth imprisoned in the alveolus.

impar: Lt. = unpaired.

in- in, into, on, onto, not, non

In vitro (ihn VEE-tro) outside the body, such as in a culture bottle.

In vivo (ihn VEE-vo) inside the living body.

incisor: Lt. incisum = cut up.

incisura: Lt. = notch.

incus: Lt. = anvil, hence the anvil-shaped ossicle of the middle ear.

index: Lt. = a pointer, hence, the fore-finger. adj. indicis

indusium: Lt. = tunic.

infarct Lt. infarctus = to stuff into, hence the wedge shape of dead tissue resulting from a sudden insufficiency in the arteriole BS.

infero- low, lower

Inferior (ihn-FER-ee-or) a directional term describing a location further from the head than something else.

inferior: adj. Lt. = lower down, hence, farther from the head end.

Inflammation (in-FLAM-ay-shon) body response to any irritation.

A **infra- below, beneath**

infra: Lt. = below.

B **Infundibulum** (ihn'-fuhn-DIB-yoo-lum) the narrow connection b/n
C the hypothalamus of the brain & the pituitary gland, also, the funnel-
D shaped distal end of the uterine tube which opens near an ovary.

infundibulum: Lt. = funnel & the fluid opening in the Left ventricle.

E **inguin- pertaining to the groin**

inguinal: adj. Lt. inguen = groin.

F inhibition: Lt. inhibitus = restrained, hence, reduction of the
excitability of a synapse.

G innervate: Lt. in = into, and nervus = nerve, hence, to supply a
H nerve to a part.

I innominate: Lt. in = not, and nomen = name, hence, without a name,
hence innominate bone = unnamed bone generally referring to the hip.

J insert: Lt. insertio = to join into, implant, hence, to attach; noun insertion.

inspection: Lt. inspectus = examined, hence, visual examination.

K **insul- island**

insula: Lt. = island.

L **Integumentary** (ihn-tehg'-yoo-MEHN-tar-ee) pertaining to the skin
M & its accessory organs.

integument: Lt. in = on, tegmen = roof, hence the skin coat.

N **inter- between**

O intercalated: adj. Lt. inter = between, and calatum = inserted,
hence interposed.

P **Intercalated disk** (ihn-ter'-kaw-LA-ted dihsk) a transverse
Q thickening of a cardiac muscle cell's sarcolemma at its boundary
R with an adjacent cell. It aids in the conduction of an impulse from
one cardiac cell to another.

S **Intercellular** (ihn'-tehr-SEHL-yoo-lar) the area b/n cells.

interdigitate: Lt. inter = between, and digitus = a digit, hence, to

T interlock - like fingers.

U **Internal** (ihn-TER-nawl) a directional term describing a location deep
to the surface of the skin relative to something else.

V internal: adj. Lt. internus = inward, hence, nearer the inside.

W interstitial: adj. Lt. inter = between, & sistum = set, hence, set between.

X **Interstitial cells** (ihn'-ter-STIH-shuhl) cells in the testes located b/n
seminiferous tubules that secrete testosterone. (= cells of Leydig).

Y **Interstitial fluid** (ihn'-tehr-STIH-shuhl FLOO-ihd) the portion of
extracellular fluid which fills the tissue spaces b/n cells. (= tissue
fluid and intercellular fluid).

Z **Intervertebral disk** (ihn'-tehr-VEHR-teh-brahl disk) a cartilaginous

joint consisting of a pad of fibrocartilage located b/n two adjacent vertebrae.

Intestinal gland (ihn-TEHS-tihn-awl glahnd) a tubular gland in the mucosa of the small intestine which secretes digestive enzymes. (= crypt of Leiberkuhn).

intestine: Lt. intestinum = the digestive tube beyond the stomach.

intima: Lt. = innermost.

intra- within

intra: Lt. = within.

Intracellular (ihn'-traw-SEHL-yoo-lar) the space w/n a cell ≠ intercellular fluid ≠ extracellular fluid.

Intracellular fluid (ICF) the fluid w/n cells.

intrafusil: adj. Lt. intra = within, fusus = spindle.

Intramembranous ossification (ihn'-trah-MEHM-braw-nuhs ohs'-ih-fih-KA-shuhn) the development of bone from foetal CT membranes.

intrinsic: adj. Lt. = on the inside.

introitus: Lt. intro = within, and ire = to go, i.e. an orifice or point of entry to a cavity or space.

inversion: Lt. = in, and vertere = to turn, hence to turn inward, inside out, upside down.

ipsi- same

ipsilateral: Lt. ipsi = self, the same, and latus = side, hence on the same side ≠ contralateral.

Iris (I-rihs) a part of the vascular tunic of the eye. It is located on the anterior side of the eyeball & is composed of smooth muscle fibres that regulate the amount of light entering the eye. The iris is the coloured part of the eye surrounding the pupil.

iris: Lt. = a rainbow.

isch- suppression, blocking

Ischaemia (is-KEEM-ee-ya) result of sudden decrease in the BS to cells or tissues

ischi- hip

ischium: Gk. ischion = socket, because the ischium contributes more than either the ilium or pubis to the acetabulum.

Islet of Langerhans (I-leht of LANG-er-hawnz) one of numerous clusters of endocrine cells w/n the pancreas.

iso- equal, similar

iso: Gk. = equal.

Isotonic solution a solution that contains an equal amount of solutes relative to another.

isthmus: Gk. isthmos - a narrow passage.

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Jejunum (jeh-JEW-nuhm) the middle segment of the small intestine.

jejunum: Lt. jejunus = empty, adj.- jejunal.

Joint (joynt) a point of contact b/n two opposing bones, which may move. (also = articulation).

joint: the meeting of 2 or more bones or cartilages, at which movement is possible.

jug- yoke (jug)

jug- throat (jug-ew)

jugular: adj.Lt. jugulum = neck.

Jugum (JOO-gum) referring to the bridge b/n 2 bones generally symmetrical with a Right and Left side (pl. juga).

jugum: Lt. = yoke (cf. conjugal).

Juxta- near to

juxta: Lt. = near. next to

Juxtaglomerular apparatus (juhks'-tah-glo-MER-yoo-lawr ahp'-ah-RAHT-uhs) a structure located in a kidney nephron which is composed of cells from the distal convoluted tubule & the afferent arteriole.

It secretes renin in response to a decrease in BP.

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kary- nucleus

kel- tumor

Keloid (KEE-loyd) - skin tumor - overgrowth of skin and scar tissue particularly as the result of injury / surgery

kerato- horny, hard, skin, cornea

Keratin (KER-ah-tihn) a waterproofing protein present in the epidermis, nails, and hair.

keratin: Gk. keras = horn.

kine- move

-kines stimulation of activation for division or growth of cells

kinocilium: Gk. kineo = to move (cf. kinetic), and cilium Lt. = eyelash, hence protoplasmic thread of hair process in cupula of crista ampullaris of a semicircular duct.

knee: the junction of the thigh and the leg. (see genu = knee).

koilo- hollow concave

kolp- vagina

koniocortex: Gk. konis = dust, and Lt. cortex = bark, hence, sensory cortex containing mostly granular layers.

kyphosis: Gk. kyphos = bent or bowed forward.

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A **L**

B

C **labi- lip**

labium: Lt. = lip (plural labia), adj.- labial.

D labrum: Lt. = rim.

E labyrinth: Gk. labyrinthos = maze, adj.- labyrinthine.

F lacerum: Lt. lacer = mangled, hence, lacerated, tornforamen

lacerum is often torn in head injuries.

G **lacri- tear (lak-ree)**

H lacrimal: adj. Lt. lacrima = a tear (drop).

I lactation: Lt. lactans = suckling. Hence, the act of secreting milk.

J **Lacteal** =lactiferous ducts, specialized lymphatic ducts in the small intestine to absorb large fat molecules. When they do so they turn pale or milky.

K lacteal: adj. Lt. lac = milk, hence, resembling milk.

L lactic: adj. Lt. lac = milk.

M lactiferous: adj. Lt. lac = milk, and ferre = to carry.

N **Lacuna** (lah-KOO-nah) a chamber w/n bone or cartilage matrix which houses a cell (an osteocyte or chondrocyte). pl. - lacunae.

O lacuna: Lt. lacus = lake, hence, a small pond or gap, adj.lacunar.

P **lal- talking**

Q lambda: Gk. letter representing a capital 'L' and written as an inverted V. adj. lambdoid (L-shaped).

R **Lamella** (lah-MEHL-uh) concentric ring of hardened bone matrix found in compact bone. pl. lamellae.

S lamella: diminutive of Lt. lamina = plate; hence, a small plate.

T **Lamina** (lah-MIN-uh) plate as in the lamina of the vertebra a plate of bone connecting the vertical and transverse spines pl. laminae (lah-MIN-ee) laminectomy = removal of the lamina to give access to the SC and its perforating nerves.

U lamina: Lt. = plate, either a layer of NT, like the laminae of the lateral geniculate body, or a CT membrane, like lamina cribrosa sclerae, or of bone, as in vertebral laminae; laminectomy = lamina + Gk. ektome = excision - excision of the vertebral laminae, adj.- aminar.

V lanugo: Lt. lana = wool, the fine downy hair on the skin of the foetus, or cheeks or malnutrition.

W **lapar- abdominal cavity**

X **lapis- stone**

Z

Large intestine the final segment of the alimentary canal consisting of a large tube that forms the faeces, which is expelled by the process of defecation.

Larynx (LAR-ihns) a box-like cartilaginous organ in the respiratory tract located b/n the pharynx & the trachea.

larynx: Gk. = voice-box, adj.- laryngeal.

lata: Lt. latus = side.

Lateral (LA-tehr-awl) a directional term describing a structure that is located further from the vertical midline of the body relative to another.

lateral: adj. Lt. latus = side, hence, nearer the side.

latissimus: superlative of adj. Lt. latus = wide, hence, latissimus dorsi muscle, the widest muscle of the back; earlier name was anitersor - wiper of the anus.

leg: the lower limb b/n the knee & the ankle.

leio- smooth

lemniscus: Gk. lemniskos = a band or ribbon (applied to nerve fibres).

Lens an oval, transparent structure located b/n the posterior iris & the vitreous humor of the eyeball. It is connected to the vascular tunic by suspensory ligaments -it is a cataract if it becomes opaque.

lens: Lt. = lentil - transparent body with surfaces curved to re-direct light adj. lentiform or lenticular.

lentiform: adj. Lt. lens = lentil, & forma = shape, hence, lentil- shaped.

lentigo Lt. freckle – brown / tan spot on the skin.

lepto- thin, delicate small mild

leptomeninx: Gk. lepto = delicate, & meninx = membrane.

Lesion (LEE-zhen) a destructive change in the tissue - such as an inflammation, injury or wound. Generally refers to pia & arachnoid meninges.

leuco- white, colourless, pale (AS leuko)

leuko- white, colourless, pale (AS leuco)

Leucocyte (LOO-ko-site) a white blood cell. (AS leukocyte).

Leukocyte (LOO-ko-site) a white blood cell. (AS leucocyte).

levator- to lift up ≠ depressor

levator: Lt. = elevator. ≠ depressor

lien- spleen (leen)

lien: Lt. = spleen, adj.- lienal.

levo- left

liga- bind

Ligament (LIHG-ar-ment) a band or cord of dense CT that extends from one bone to another to provide a joint with structural stability.

- A ligament: Lt. ligamentum = bandage, usually tying parts to each other, adj.- ligamentous.
- B limbic: adj. Lt. limbus = a margin, usually curved. limbus: Lt. = a
- C margin, usually curved, hence, limbus of cornea, its circular
- D junction with the sclera, adj. - limbic; the brain limbic lobe is
- E made up of structures which encircle the junction of the
- F diencephalon and telencephalon.
- F limen: Lt. = a threshold, hence, subliminal - below threshold.
- F **linea- line (lin-ee-ah)**
- G linea: Lt. = line.
- G **lingu- tongue see also gloss-**
- H lingua: Lt. = tongue, adj. lingual.
- I **Lingual** (LIHN-gwal) pertaining to the tongue. For example, the
- I lingual frenulum connects the tongue to the floor of the mouth.
- J lingula: diminutive of lingua, hence, a little tongue, adj.- lingular.
- K **lio- smooth**
- K **lip- fat**
- L **Lipid** (LIH-pihd) an organic compound that is usually insoluble in
- M water but soluble in alcohol, ether, and chloroform. It includes fats,
- M phospholipids, and steroids.
- N **Lipoprotein** (lih'-po-PRO-teen) a protein-lipid complex produced by
- N the liver that transports cholesterol and triglycerides through the BS.
- O Low density lipoproteins (LDLs) are associated with an increased risk
- O of atherosclerosis, whereas high density lipoproteins (HDLs) are
- P associated with a reduced risk.
- Q **lith- stone**
- Q **Livedo** - discoloured spot on the skin due to passive congestion.
- R **Liver** a large digestive organ in the superior right corner of the
- R abdominopelvic cavity that functions mainly in the interconversion of
- S energy-storage molecules, detoxification of blood, and production of bile.
- S livid Lt = lividus lead coloured – discolouration from a contusion
- T or congested pooled blood.
- U **Lobe** - (LOH-b) roundish projection of any structure.
- V **Lobules** - little lobe (lob-YOOL) when pertaining to the liver, the lobules are
- V cuboidal subdivisions of the liver that contain row upon row of hepatocytes.
- W lobule: diminutive of lobus.
- X lobulus: Lt. diminutive of lobus, hence, a lobule.
- X lobus: Gk. lobos = lobe, adj.- lobar.
- Y **loc- location place**
- Y locus: Lt. a place (cf. location, locate, dislocate).
- Z loin: Lt. lumbus - the part of the back b/n the ribs & the hip bone.

longus- long

longissimus: superlative of Lt. longus = long, hence, the longest.

longitudinal: adj.Lt. longitudo = length, hence, lengthwise.

longus: adj.Lt. = long, hence, longissimus (superlative) = the longest.

Loose connective tissue a type of CT consisting of loosely-packed protein fibres of collagen and elastin in a semifluid matrix, which are produced by fibroblasts. (also = areolar tissue). It is the most widespread of all CT.

luc- light (loo-s)

lucidum: Lt. lucidus = clear.

lue- syphilis**lumb- loin**

lumbar: Lt. lumbus = loin adj.- see loin.

lumbrical: Lt. lumbricus = worm, hence worm-shaped muscles of the palm.

Lumen (LOO-mehn) the potential space w/n a tubular structure. i.e. the hole in the tube.

lumen: Lt. = opening, hence the space within a tube.

lunate: adj. Lt. luna = moon, hence, crescentic.

Luncula the half moon shape at the base of the nail bed.

Lung one of two large organs in the thoracic cavity which is responsible for the exchange of respiratory gases.

lypus- (Loo-pus) Gk = wolf specifically, disease of the skin which is highly destructive and deposits collagenous lesions all over the body –looking like the skin was gnawed

luteum: adj. Lt. = yellow.

ly- dissolved

Lymph (lihmf) the slow-moving fluid w/n lymphatic vessels of the lymphatic system.

lymph: Lt. lymphā - clear spring water. adj. - lymphoid, lymphatic

Lymph node a small, oval organ located w/n the lymphatic vessel network.

Lymph nodules a compact cluster of lymphocytes w/n a lymph node.

lymphatic: a vessel carrying lymph.

Lymphatic tissue a specialized type of CT containing an abundance of lymphocytes. (= lymphoid tissue).

Lymphatic vessel a hollow tubular structure similar to a vein that transports lymph in a direction leading toward the heart.

Lymphocyte (LIHM-fo-site) a type of WBC lacking large granules in the cytoplasm, it plays a central role in immunity.

lys- disintegrate

Lysosome (LI-so-sohm) a cellular organelle that contains digestive enzymes.

A **M**

B

C **macro- big**

macroscopic: adj. Gk. makros = large, & skopein = to examine; hence, large enough to be seen with the naked eye, e.g., pertaining to gross anatomy.

E

Macrophage (MAK-ro-fahrj) a large phagocytic cell originating from a monocyte.

F

macula: Lt. = spot (cf. immaculate - spotless); adj.- macular.

G

Macula lutea (MAK-yoo-law LOO-tee-ah) a yellow-colored depression in the retina of the eye.

H

Macule nonpapular coloured mark on the skin.

I

magna- large, great

J

makro- big

K

mal- abnormal bad

K

malac- soft

M

malar- cheek bone

M

Malignant (MAL-ig-nant) cancerous cells which invade other body parts.

M

magna: Lt. = great.

N

Major (MAY-jaw) bigger of the 2 things

N

malleolus: diminutive of Lt. malleus = hammer, adj.- malleolar.

O

Malleus (MAL-ee-uhs) the lateral ear bone that contacts the tympanic membrane; = the hammer.

P

malleus: Lt. = a hammer.

Q

mamma: Lt. = breast; adj.- mammary.

Q

Mammary (MAM-ar-ree) **gland** a modified sweat gland in the breast that serves as the gland of milk secretion for nourishment of the young.

S

mammilla: diminutive of mamma; adj.- mammillary.

T

mandible: Lt. mandere = to chew; hence, the movable lower jaw; adj.- mandibular.

U

manubrium: Lt. = handle; adj.- manubrial.

V

man- hand

V

manus: Lt. = hand (cf. manual).

W

Marrow (MAR-oh) the soft, highly vascularized tissue w/n bone. It includes yellow marrow, consisting of adipose tissue, and red marrow, which consists of blood-forming tissue. (also = haemopoietic tissue).

X

Y

margin: the edge or border of a surface; adj.- marginal.

Z

masseter: Gk. = chewer; adj.- masseteric.

mast- pertaining to the breast

Mast cell (MAH-st) a basophil that has migrated out of the BS to the extracellular tissue generally found in loose CT. It secretes heparin (an anticoagulant) and serotonin (promotes inflammation) and the immune response.

mastication: Lt. masticere = to chew.

mastoid: adj.Gk. mastos = breast or teat, and eidos = shape or form. (mass-toyd).

Matrix (MAY-trihks) the intercellular material in CT.

matrix: Lt. = a female animal used for breeding, womb; refers to ground substance of CT, and nail bed.

maxilla: Lt. = jaw-bone; now used only for the upper jaw; adj.- maxillary.

maz- breast

meat- opening

Meatus (mee-AY-tus) canal, opening passage

meatus: Lt. = passage; adj.- meatal.

medi- middle, intermediate

Medial (MEE-dee-al) a directional term describing a part lying nearer to the vertical midline of the body relative to another part.

medial: adj.Lt. medius = middle; hence, nearer the median plane.

median: Lt. medianus = in the middle.

Mediastinum (mee'-dee-ah-STIH-nuhm) the region in the thoracic cavity b/n the two pleural cavities. It consists of the heart, part of the oesophagus, part of the trachea, and the major vessels of the heart.

mediastinum: Lt. medius = middle, and stans = standing; a

median vertical partition, adj- mediastinal.

medius: Lt. = middle.

Medulla (meh-DUL-ah) an inner, or deeper, part of an organ. e.g. the medulla of the kidneys, the medulla of the adrenal gland & the lymph node. ≠ cortex.

medulla: Lt. = marrow; applied to part of an organ deep to its cortex; & to the SC & adjoining part of brain stem adj.- medullary.

Medulla oblongata (meh-DUHL-ah ob'-long-GAR-tah) the inferior part of the brain stem.

Medullary cavity (mehd-UL-lar-ee KAV-ih-tee) the potential space w/n the shaft of a long bone. In the adult this contains yellow marrow.

meg- large

A **megalo-** large

B **meio-** reduce, contract

mel- limb, cheek

C **melan-** black

D **Melanin** (MEHL-ah-nihn) a dark pigment released into some parts of the body like the skin.

E **Melanocyte** (MEHL-ahn-o-site') a cell normally located deep to the epidermis in the skin that secretes melanin.

F **Melanoma** (mehl-an-OH-mah) a highly metastatic malignancy arising from melanocytes in the skin. (also = malignant melanoma).

G **Melatonin** (mehl'-ah-TO-nihn) a H secreted by the pineal gland. It may play a role in circadian rhythms.

H **Membrane** (MEHM-brane) a thin sheet of tissue that lines or covers body structures. It may contain a thin layer of epithelial tissue and CT, or only CT.

membrane: Lt. membrana = a thin sheet; adj.- membranous.

K **Membranous bone** a type of embryonic osseous tissue representing early skeletal development in a late embryo.

L **men-** menses

M meninges: pl. of Gk. meninx = a membrane; adj.- meningial.

N meniscus: Lt. menis - a small crescent.

O **ment-** mind, chin

mental: adj.- Lt. mentum = chin; or Lt. mens = mind.

P **mer-** part, segment

Q **mes-** middle

R mesencephalon: Gk. mesos = middle, and enkephalos = brain; adj.- mesencephalic.

S mesenchyme: Gk. mesos = middle, & chymos = juice; the embryonic CT of the mesoderm.

T mesentery: Gk. mesos = middle, and enteron = intestine; the peritoneal fold which tethers the centrally placed small intestine; adj. - mesenteric.

U **Mesoderm** (MEEZ-oh-derm) the middle of the three primary germ layers in a developing embryo that forms the muscles, the heart and BVs, & the CT.

W mesoderm: Gk. mesos = middle, and derma = skin; the middle germ layer of the embryo.

X **Mesothelium** (mehz'-oh-THEE-lee-uhm) a simple squamous epithelium lining parts of the body's ventral cavity.

Y mesosalpinx: Gk. mesos = middle, and salpinx = tube; the

intermediate part of the broad ligament.

meta- subsequent, transformation, between, changing after

metacarpus: Gk. meta = after, & karpus = wrist; adj.- metacarpal

metachromasia: Gk. meta = after and chrome = colour; a phenomenon where different tissues are stained colours not seen in the original dye after the dye has bound to that tissue.

metaplasia Gk. meta =after plasia = growth / formation, a phenomenon where cells change their shape and properties after maturity – happens in cancerous transformation.

metaphysis: Gk. meta = after, and physis = growth; hence, b/n the 2 ends of a long bone. Alongside the epiphysial or growth cartilage; adj. - metaphysial.

Metastasis (met-AS-ta-sis) – a growth of cancerous cells in other body parts not physically linked to the primary source (V metastasize).

metatarsus: Gk. meta = after, and tarsos = ankle; hence, the bones beyond the tarsus, adj. - metatarsal.

metopic: adj.Gk. metopon = forehead.

micro- small

Microfilament (mi'-kro-FIHL-ah-mehnt) a rod-shaped component of cytoplasm composed of protein. It provides mobility for the cell.

Microglia (mi'-kro-GLIE-aw) a type of neuroglia in the brain characterized by its small size & phagocytic function.

Microtubule (mi'-kro-ew-yool) a tube-shaped component of cytoplasm composed of protein providing support & shape for the cell.

Microvilli (mi'-kro-VIHL-i) microscopic extensions of the cell membrane filled with cytoplasm that serve to increase the absorptive surface area of the cell.

micturition: Lt. micturare = to desire to pass urine.

mid- middle

Midbrain (MID-brayn) the superior part of the brain stem, located b/n the diencephalon and the pons. It serves as a relay center for impulses. (also = the mesencephalon).

Middle ear the area of the ear b/n the tympanic membrane of the outer ear & the bony labyrinth of the inner ear. It is an epithelial-lined space housing the 3 ear ossicles. (also = the tympanic cavity).

Midsagittal (MID-sahj-ih-tahl) a plane that extends vertically through the body, dividing it into unequal right and left portions.

miliary: grainlike - describing small millet seed like lesions

milli- thousandth

minus- smallest

minus: Lt. = smallest.

A **minor- smaller of 2 things**

B **mio- reduced contraction**

miosis: Gk. meiosis = lessening; hence, pupillary constriction;
C adj.- mitotic.

D **Mitochondrion** (mite'-o'-KOHN-dree-ohn) a cellular organelle that
E consists of a double layer of plasma membrane where many of the
F catabolic activities of the cell take place.

G **Mitosis** (mi-TO-sihs) the division of a cell's nucleus into two
H daughter nuclei, each of which contains the same genetic
I composition as the original parent. When mitosis is followed by
J cytokinesis, equal division of the whole cell results.

K **Mixed nerve** a nerve that contains axons from sensory & motor
L neurons.

I **mnem- memory (mem)**

J modality: Lt. modus = mode; hence, a form of sensation - e.g.
K touch, pain, sight.

K **modiolus**: Lt. a cylindrical borer with a serrated edge; hence, like
L a screw; the central stem of the bony cochlea.

L **Modiolus** (MOHD-ee-oh-loes) point of insewrtn of all the facial
M muscles around the lips.

molar: adj.Lt. mola = mill.

N **Monocyte** (MON-oh-site) a large, agranular WBC that is phagocytic.
O If the cell moves from the BS to the extracellular tissue, it is called a
P macrophage.

P **mons**: Lt. = mountain; mons pubis, the soft tissue bulge over the
Q female pubes.

Q **morph- shape**

R morphology: Gk. morphos = form, and logos = word or relation;
S hence, study of pattern of structure; adj.- morphological.

S **Motor end plate** the portion of the sarcolemma of a muscle fibre
T that is in close association with a motor neuron.

T **Motor nerve** a nerve that contains axons from motor neurons, and
U thereby transmits impulses away from the CNS.

U **Mucosa** (myoo-KO-saw) an epithelial membrane that lines a body cavity
V or organ & contains cells that secrete mucus. (= mucous membrane).

W **Mucous** (MYOO-kuhs) **cell** a unicellular gland that secretes mucus.
X (= a goblet cell).

X **Mucus** (MYOO-kuhs) a thick fluid secretion from mucous cells,
Y containing mostly water & polysaccharides.

Y **multi- many (mul-tee)**

Z multifidus: Lt. multus = much, and findere = to split.

Muscle (MUSS-l) an organ composed of skeletal muscle tissue & its associated CT that functions mainly in the production of movement of the skeleton.

muscle: Lt. musculus, diminutive of Gk. mus = mouse, the body & head of which represent the main belly of a muscle, & the tail, the tendon.

Muscle fibre a synonym for muscle cell.

Muscle tissue one of the 4 primary types of tissue in the body, characterized by its ability to contract.

Muscularis (muhs'-kyoo-LAHR-ihs) a layer of smooth muscle tissue w/n the wall of an organ.

mycet- fungal (my-seet-)

mydriasis: Gk. = dilatation of the pupil.

myc- fungal (meyec-)

myel- bone marrow, spinal cord

myelin: Gk. myelos = marrow; hence, white fatty sheath of an axis cylinder; adj. -.myelinated.

Myelin sheath (MI-eh-lihn sheth) a white, segmented insulative cover over the axons of many peripheral neurons that is produced by Schwann cells. A neuron axon that is covered by the myelin sheath is said to be myelinated.

myenteric: Gk. mys = muscle, & enteron = intestine, pertaining to the muscle of the gut.

myl- molar

mylohyoid: Gk. mylo = molar, and hyoeides = U-shaped.

Myocardium (mi'-o-KAHR-dee-uhm) the primary layer of the heart wall, composed of cardiac muscle tissue.

myocardium: Gk. mys = muscle, and kardia = heart, adj.- myocardial.

Myofibril (mi'-o-FI-brihl) a rod-shaped component of a muscle fibre, which extends the length of the fibre and is composed of thin and thick filaments of protein.

Myometrium (mi'-o-MEE-tree-uhm) the smooth muscle layer in the wall of the uterus.

myopia = nearsightedness, things are seen / focused in the near distance but not in the far distance.

myotome: Gk. mys = muscle, and tome = a cutting; a group of muscles innervated by spinal segment.

myx- mucoid (mix)

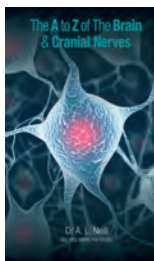
Myxoedema AS myxedema (MIX-se-deem-uh) - swelling under the skin due to hypothyroidism - hard oedema (mucoid) in the subcutaneous tissues.



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