

## PREFIXES AND SUFFIXES THAT ARE IMPORTANT FOR PHARMACUETICAL TERMINOLOGY

### A. WORDS OF LATIN ORIGIN

<b>Prefix</b>	<b>English</b>	<b>Example</b>
a,ab	apart, away from	abstract
ad-	to, up to	adherence, adrenal
adversus	opposite, in opposite direction	adverse effect
alb(i/o)-	white	albumin, albinism
allo-	other	allosteric
ante-	before	anterior
auto-	self	autoanalyser
-cid	fatal	baktericid
circum	around	circumanalis
de(des)	reversal, undoing	depression, disinfectant
di(s)	not, apart	disfunction
ex-	out	extraction, edentatus
extra	external, out	extracellular, extrasystols
hom(o) -	same, human	homo sapiens
in-	in, inside	injection
infra-	below	infrared
inter-	between	intercostal
intra-	inside	intramuscular
iso-	equal	isomer, isotonic
juxta	near, beside	juxtglomerular
ob-	towards, against	obovatus
ped-	foot	pedicure
per-	from between	percolation
poet(ic)-	structure	hemopoietic
post-	after	post mortem
pro-	for, used as	provitamin
prae-	before, fore	premature, prenatal
re-	back, repetition	retroversus
se-	separation	segregatus
sine-	without	sine aqua
stat-	stop, stoppage	haemostatic, bacteriostatic
sub- (suc, suf, sug)	beneath, almost	sublingualis, subacute
super, supra	above, top	suprarenalis, supernatant
trans-	through	transfer, transaminase
uro-	urine	urobilin, urochrome, urology

### B. WORDS OF GREEK ORIGIN

a (n)-	negation, un-	aseptic, anaemia, anaerob, anuria
acanth-	thorn	brachyacanthus
acro-	terminal, pointed	acromegaly, acrodinia
aem-, haema(to)-	blood	anaemia, haematoma, haemostatic
aer(o)-	air	aerobe, aerophagia
aetio-	cause	etiology
alg-, -algia	ache	neuralgic, analgesic
amphi-	around, pair, two	amphitheater, amphibian
ana-	to the up, above	analysis

andr(os)-	male, human	androphobia, androgynous
ang(e)(io)-	vessel	angiocardiology
anthrop(o)-	human	anthropology, anthropoid
ant(i)-	against	antibiotic, antipathy, antipode
antho-	flower	anthology, polianthus
arthr(o)-	joint	arthritis
bi(o)-	life	biology, symbiosis
brachy-	short	brachycephalous
brady-	slow	bradycardia
card(io)-	heart	carditonic
carp-	fruit	carpel
cathar-	clean	cathartic (deobstruent)
cephal-	head	encephalitis, macrocephalous
chlor(o)-	green	chlorophyll
chol-	gall	cholic acid, cholesterol
chori-	separate, segregate	choripetalous
chrom(ato)-	colour	chromophore, chromatography
chron(o)-	time	chronometer, chronopharmacology
cosmo	beautiful	cosmetology
dec(a)-	ten	decathlon
derm(ato)-	skin	epiderm, dermatology
di-	two, double	dipeptide, disaccharide
dia-	from each other, through, between	dialysis, diaphragm, diabetes
diplo-	pair, double	diploid, diploma
dynam(o)-	force	dynamics, dynamite
dys-	aberrant, bad, difficult	dysmenorrhea, dyspepsy, dysentery
ecto-	outer (outside)	ectoderma
em-, en-	in(side)	emboly
endo-	in	endoderma, endocarditis
epi-, eph-	above	epithelium
eu-	good	euthanasia, eukaryote
erythr(o)-	red	erythrocyte
exo-	out	exothermic, exophthalmi
gast(e)r-	stomach	gastro-intestinal, gastritis
gen-(G ve L)	development, type, family, origin	genetic, glycogenesis
gloss(o)-	tongue	glossitis
glyc(o)-	sweet	glycolysis, glycoprotein
graph-	writing	cardiology, graphic
gymno-	naked	gymnastics, gymnosperm
gyn(aeco)-	woman	gynaecology
hemi-	half	hemi cellulose, hemisphere
hetero-	other, various, different	heteropolysacharides, heterogeneous
hidr(ot)-?	sweat	hidrotic=diaphoretic (sudorific)
hippo-	horse	hippocastanum (aesculus)
histo-	tissue	histology, histamine
holo-	full	holoenzyme
homo-(io)-	similar, equal, same	homozygote, homeopathy
hydr(o)-	water	hydrophil, hydrolysis
hygr(o)-	wet	hygroscopic
hyper-	excessive	hyperglycemia, hyperacidity
hypno-	sleep	hypnotic, hypnotism
hypo-	under	hypoglycaemia, hypoacidity
leuc(o)-	white	leucocyte, leucaemia
ly(o/s)-	melt, (dis)solve	hydrolysis, haemolysis
macr(o)-	big	macrocephalous, macroscopic

megalo	large
meta-	later, different
met(e)r-(G ve L)	measurement, quantification
micr(o)-	small
morph-	shape
my(o)-, myos-	muscle
my-	winking, blink of an eye
myc(o)-	mycetes
neo-	new, fresh
necro-	ded
neur(o)-	nerve
nom-	law
oligo-	low, few
op-	vision, eye
ophthalmo-	eye
orth(o)-	straight, vertical
-osis	situation, condition
osteo-	bone
ped(ia)-	child
par(a)-	throughout, close
path(o)-	disease
peri-	around
phag-	eat
phanero-	visible
pharmaco-	drug, medicine
phil(o)-	loving
phob-, phobia	hating, fear
-phon	voice
phor-	carrier
phos-, photo-	light
phyll-	leaf
phys(o)-	nature
phyt-	plant
pneum(ato)-	breath
pod,-	foot
poly-	very
prot(o)-	in the front, first, primitive
pseud(o)-	false, wrong, similar
psych(o)-	spirit
pyr(o)-	fire
rhiz(o)-	stem
scato-	stool
schiz(o)-	slitting
sclero-	hard
scop-	looking
sperm(ato)-	seed
sten(o)-	tight
stom(ato)-	mouth
syn- sym-	together, with
tachy-	quick
tele-	far, last, goal
therap(eu)-	treatment
therm(o)-	hot, warm
tom-	cut
ton-(G ve L)	(tension) force

hepatomegaly
metaphase, metabolism
thermometer, urometer
micro carpus, microbe, microscope
amorphous, morphology
myocardium, myoglobin
myopy
mikosit, miselium, mycosis
neonatal, neotypus
necrophobia, necrosis
neurology, neuritis, neuralgia
autonomy, astronomy
oligosaccharides, oliguria
optical
ophthalmic, xerophthalmia
orthodonty, orthography
acidosis, ketosis
osteoporosis
pedagogue, pediatrics
parapsychology, parallel
pathological, psychopat
pericard, pericarp
poliphagia, esophageal, phagocyte
phanerogame
pharmacology, pharmaceutic
hydrophilous, hemophilia, chlorophyll
hydrophobic, agoraphobia, androfob
aphonia, telephone
melanophore, phosphorus
photo, photon, phosphorus
chlorophyll
physiology, physics
phytotherapy
pneumonia, dyspneum
macropod, antipod
polycythemia, polymer, polyuri
protoplasm, protozoa, prototype
pseudoephedrine, pseudoaneurysm
psychology, psycho, psychoanalysis
antipyretic
rhizome
scatology
schizophrenia
atherosclerosis
telescope, microscope
spermatozoid
stenosis, stenopetalus
stomatitis, anastomosis
synthesis, symbiosis
tachycardia
telephone, telescope
terapy, therapeutic
thermometer, thermophore
atom, anatomy, thyroidectomy
tonic, cardiotonic

toxi-	poison	toxin, toxicology
troph-	nutrition	atrophy, autotroph
typ(o)-(G ve L)	type, kind	atypical, type
xer-, xero-	dry	xerophthalmia
xeno-	stranger	xenophobia, xenobiotic
xyl(o)-	wood	xylose
zo(o)-	vital	zoology
zymo-, zym-	fermentation	enzyme, zymogen

## **EXPLANATION OF SOME WORDS RELATED TO SOME IMPORTANT PREFIXES FOR PHARMACEUTICAL TERMINOLOGY**

**aerophagie:** swallowing of air [aero: air; phag:eating]

**aphasia:** can not speak because of a lesion in the brain.

**aphonia:** loss of the voice as a result of disease or injury to the larynx. [phon: voice]

**acrodynia:** pain in peripheral or acral parts of the body. [acro:terminal; dynia: pain]

**anaerobic:** living in the absence of air or free oxygen. [a(n):without; aero:air]

**androgen:** promotes male characteristics [andro: male; genesis: evolution]

**anaemia:** a quantitative deficiency of the hemoglobin [a(n):without; aem=haemo:blood]

**antipode:** the opposite to each other [anti: opposite; pode: foot]

**bradyphasia:** abnormal slowness in speech because of a lesion in the brain. [brady:slow]

**diabetes mellitus:** diabetes [dia:passing through(related to exclude a lot of urine)]

**dysfunction:** malfunctioning, as of an organ or structure of the body [dys:abnormal]

**dyspnea:** difficult or labored breathing [pneumato: breath]

**excretion:** the act of excreting [ex:out]

**epicranium:** the layer of scalp formed by muscle and flattened tendon. [epi:top; cranium: skull]

**erythrocyte:** red blood cell [erythro: red; cyto:cell]

**exitus:** 1.a way or passage out 2.death (patient has been ex= dead)

**phagocyte:** any cell, as a macrophage, that ingests and destroys foreign particles, bacteria, and cell debris. [phag:eating; cyto:cell]

**phosphore:** light-bearing[phos:light; phor;bearing]

**photon:** unit of the light energy [phos-, photo-: light]

**insecticide:** a substance or preparation used for killing insects [-cid:deadly]

**gymnospore:** a naked spore [gymno: naked]

**chronology:** science of time [Chronos:god of time in mythology; logos: science]

**leucocyte:** white blood cell [leuco: white; cyto: cell]

**macrophage:** large phagocytic cell [makro: large, phag: eating]

**polygamy:** the practice or condition of having more than one spouse [poly: many; -gama: sex cell (ovum or spermatozoid)]

**post mortem:** after death [post mortem examination= autopsy]

**prescription:** recipe [pre:front; scribere: to write]

**provitamin:** a substance that an organism can transform into a vitamin [pro-: before]

**secretion:** to excrete

**subacute:** between extremity and chronic, half extremity [sub: under]

**supernatant:** floating above or on the surface (after centrifuge, the liquid that stay at the surface after the precipitate left)

**transaminase:** general name of enzymes that transfer an amino group

**urology:**the medical specialty concerned with the study, diagnosis, and treatment of diseases of the urinary tract [uro-: urine]

## FREQUENTLY ENCOUNTERED MEDICAL TERMS

**abscess:** a localized collection of pus in a cavity formed by the disintegration of tissue.

**anorexia (anorexia nervosa):** lost of appetite especially as a result of disease. Fear of getting fat and it is a mental illness that is known with running away from food. Threatens life with huge weight loss.

**bulimia (boulimia, hiperorexia):** a chronic morbid disorder involving repeated and secretive episodic bouts of eating (binge eating) followed by self-induced vomiting, fasting or vigorous exercise to prevent weight gain, often accompanied by feelings of guilt, depression or self-disgust.

**cachexia:** in general losing weight and being skinny due to a chronic or an emotional disease.

**cardiac:** something about the heart.

**cholestasis:** an intra- or extrahepatic block of bile flow or bile ducts resulting in increased serum bilirubin, which can lead to jaundice.

**colitis:** inflammation of the colon.

**congenital: (hereditary)** disease or condition that exists at or from birth.

**cystitis:** inflammation of the bladder.

**diaphoretic:** about sweat, causing sweat.

**dilution:** reduction of concentration of an active substance by admixture of a neutral agent.

**dysmenorrhea:** menstruation disorder.

**dyspepsy:** gastric indigestion.

**emboly:** blood vessel blocked by vegetation or bacteria mass.

**endemic:** prevalent in or limited to a particular locality, region, or people; especially of a disease or a condition, regularly found and very common among a particular group or in a particular area.

**fatal:** causing death.

**flatulence:** excessive formation of gases in stomach and intestine.

**geriatrics:** major branch that helps old people about their medical issues and their maintenance.

**gestation:** pregnancy.

**glucopenia:** lower than normal blood glucose.

**graviditas:** pregnancy.

**hallucination:** an experience in which you see, hear, feel, or smell something that does not exist, usually because you are ill or have taken a drug; phantasms.

**infarct:** blood flow impairment which occurs following a blood clot forming inside the smaller blood vessels of cancellous bone tissue.

**invasive:** moving into all areas of something and difficult to stop; advancing, diffusing to neighbour cells (for tumours).

**ischemia:** insufficient supply of blood to an organ, usually due to a blocked artery. It is a local anemia that can lead to very serious health conditions.

**lubricant:** an oily or slippery substance put on any surface to reduce friction.

**necrosis:** pathologic cell death which is caused by damage of cells or tissues.

**neoplasm:** tumour.

**obesity:** over weight.

**physiological saline:** % 0,9 NaCl solution.

**polydipsia:** excessive thirst and fluid intake.

**prognosis:** a forecast of the probable course and/or outcome of a disease (a doctor's judgment of the likely or expected development of a disease or of the chances of getting better).

**progressive:** developing or happening gradually.

**sclerosis:** getting hard (a medical condition that causes body tissue or organs to become harder, especially the arteries)

**sedation:** the use of a drug or other means to make someone calm or to make them go to sleep.

**sedimentum:** precipitate.

**sequela:** a bad result or condition that follows from a disease or illness.

**therapia:** treatment of a disease or an abnormality.

**thrombosis:** a medical condition in which the flow of blood in the body is blocked by a clot (=half solid mass) of blood.

**tomography:** the use of X-rays to make three-dimensional images of flat sections of the body.

**zygote:** the cell that is formed when a female reproductive cell and a male reproductive cell join.

## TERMS RELATED TO TECHNIQUES

**Dialysis:** (dia=through; lysis=dissolution) the diffusion of solute molecules through a semipermeable membrane.

**Electrophoresis:** (phor=bearing) the movement of charged particles in an electric field.

**Colorimetry:** a procedure for quantitative chemical analysis based on comparison of the color developed in a solution.

**Chromatography:** (Gr. Chromato: color; graphy: writing) technique for the separation of chemical substances and particles.

**Lyophilisation:** (lyo=dissolution; philo=to like) freeze-drying; a method for drying food or blood plasma or pharmaceuticals without destroying their physical structure.

**Centrifuge:** (centrum=center; fug=run away, escape) an apparatus that rotates at high speeds and separate substances of different densities.

## ACIDS

**Acetic acid:** from acetum: vinegar

**Butyric acid:** from butyrum: solid fat

**Oleic acid:** from oleum: oil

**Citric acid:** from citrus: lemon

## PRESCRIPTIONS

The use of Latin in prescriptions is almost abandoned but a person who has undergone Pharmacy education, should nevertheless know the abbreviations from Latin origin used in prescriptions.

At the left top corner of a prescription you find the letters: Rp.: Recipere= receive .  
Recipe=Praescriptio from: Prae (pre)=before and scribere=to write.

The abbreviations used in prescriptions and their meanings are listed below.

<b>Abbreviation</b>	<b>Latin, French</b>	<b>English</b>
a.a.	ana	from each
a.c.	ante cibum; ante cibos	before meals
acet.	acetum	vinegar
ad.	-	until
add.	adde, addantur	add
adhaes.	adhaesivus	sticky
ad lib.	ad libitum	at pleasure, freely
advers.	adversum	adverse
agit.	agita	agitation
alt. hor.	alternis horis	every other hour
A.M.	ante meridiem	morning
ampul	ampulla, ampullae	ampule
applicand.	applicandus	to be applied
aq.	aqua, aquae	water
aq. bull.	aqua bullines	boiling water
aq. cal.	aqua calida	hot water
aq. comm.	aqua communis	common water
aq. dest.	aqua destillata, eau distillée	distilled water
aq. marin.	aqua marina	sea water
aq. pur.	aqua pura	pure water
bib.	bibe	drink
b.i.d.	bis in die	twice a day
bol.	bolus	bolus
bull.	bulli, bulliat	boiling
c.	cibus	food
c.	cum	with
cap.	cape, capiat	take
caps.	capsula, capsulae	capsule, capsules
caps. gelat.	capsula gelatina	gelatine capsules
c. aq.	cum aqua	with water
catapl.	cataplasma	mush

c.cib.	cum cibis	between meals
cc.	centimetrum cubicum	cubic centimeter
cerat.	ceratum	cerate
cib.	cibus	food
Coch.	cochleare, cochlear	spoon, spoonful
Cons.	conserva	conserve
d.,D	da	give
decoct	decoctum, decoction	decoction
dentif.	dentifricum	tooth powder
disp.	dispensa, dipensetur	dispense
div.	divide	divide
dos.	dosis	dose
D.P.	directione propria	on the recipe
eff.	effervescens	bubbling
elect.	electuarium	paste
elix.	elixir	elixir
emp.	emplastrum	plaster
en.	enema	enema
ext.	externus	external
f.	fiat	make
filt.	filtra	filter
f.l.a	fiat lege artis	do according to profession
F. mixt.	fiat mixtura	make mixture
fol.	folium, folia	foliar
Ft.	fac, fiat, fiant	make
garg.	gargarisma	gargle
gel.	gelatum	gel
gtt.	gutta(ae), goutte(s)	drop(s)
gum.	gummu	gum
h., hr.	hora	hour
i. d.,in d.	in die	in day
in aq.	in aqua	in water
inf.	infusum infusion	infusion
inhal.	inhalatio	mist
inj., inject	injectio, injection	injection, needle
in vit.	in vitro	in glass, in tube
lig.	ligamentum	bandage
lin.	Linimentum	liniment
liq.	liquidus	liquid
liq.	liquor	liqueur, liquid, drug
lot.	lotio	lotion
M., m.	misce	mix
menth pip.	<i>Mentha piperita</i>	mint
mist., mixt.	mistura, mixtura	mix
mor. dict.	more dicto	on instruction
n. et m.	nocte et mane	night and morning
O. M.	omni mane	every morning
p.	pro, pour	for
past.	pasta	putty, paste
pil.	pilula, (pilulae)	pilule(s)
P. M.	post meridiem	afternoon
praep.	preparatus	preparations, prepared
pro dos.	pro dose	for one dose
pro. us. ex	pro usu externo	for use external
q. in d.	quater in die	four times a day



q. l.	quantum libet	as desired
q.s.	quantum satis	enough quantity
q.s.p.	quantité suffisante pour	enough quantity for
quot., quotid.	quotidie	every day
R.	recipe	get
rep.	repetatur	repeat
semel in d.	semel in die	once a day
sig.	signa, signetur	sign, tag
sin. aq.	sine aqua	anhydrous
sine	-	without
sir.	sirupus	syrup
solut., sol.	solutio	solution
solv.	solve	solve
sum.	sume, sumat	get
supp.	suppositorium	suppository
tabl.	tablette	tablet
t. i. d.	ter in die	three times a day
ung.	unguentum	pomade, ointment
us.	usus	use
us. ex.	usus externus	use external
vol.	volatilis	volatile

In prescriptions, numbers are given with **roman numerals**.

I, II, III, IV, V, VI, VII, VIII, IX, X, XX, L, C

At the end of the prescription, you can find the word **signa**, from Latin signare=to sign, to tag, to label

The way the drug should be used is mentioned (external, intravenous, 1x1 etc.)

### **The administration ways of the drugs and related abbreviations**

i.v.	intra venous = in the vein
i.m.	intra muscularis = in the muscle
p.o.	per os = by the mouth
	nasalis = by the nose
	buccalis =in the mouth (in the cheek)
	sublingualis = under the tongue
p.r.	rectalis = into the rectum
	vaginalis = into the vagin
	pulmonar = into the lungs (spray)
	transdermal = through the skin
	intradermal = into the skin
L.D.	letal dose = dose that kills

Numbers are used in two ways in prescriptions:

a. As numerals to show the number; capsula I, capsula III

b. As measures (weight, length, quantity); aquae litra I (One liter of water); unguenti gr. C (100 grams of ointment)

### Examples of praescriptions

Rp.

Chl. de papavérine		
Ext. de belladone	a.a.	0.01 g
Luminal		0.02 g
Bicarbonat de soude		0.05 g
Kaolin		0.25 g
Magnésie calcinée		0.15 g

p. I paq. No. XXI

Meaning:

a.a. : chlorhydrate of papaverine and belladone extracts 0.01 g each. The quantities are for one package and 21 packages should be prepared.

Rp.

Luminal		0.05 g
Chlorhydrate de papavérine		0.06 g
Pyramidon		0.10 g
Beurre de cacao		<b>q.s.</b>

p.I supp. No. III

Meaning:

Sufficient quantity of cacao butter should be added.

The quantities are for one suppository and 3 suppositories should be prepared

Rp.

Coffeini		0.05 g
Aminophenazoni		0.15 g
Phenacetini		0.30 g

M. f. pulvis

Meaning:

Misce, fiat, pulvis: mix, make powder.

Rp.

Tinctura rosae	1.0 ml
Mel	48.0 ml

Aq. ad. 100.0 ml (Fill, complete to 100 ml with water).

## BIOCHEMISTRY

### Terms related to the cell

**cytoplasm:** fluid part of the cell (*cyto:* cell)

**nucleus:** the core of the cell

**nuclear:** related to nucleus

**membrane:** (L. *membrana*) soft bilayer organelle surrounding the cells

**lysosome:** organelle of the cell where desintegration and breakup reactions occur (*lysis:* desintegration and breakup; *soma:* organism)

### Terms related to physicochemical principles

**impermeable:** not permitting passage (as of a fluid) through its substance

**semipermeable:** partially but not freely or wholly permeable; *specifically:* permeable to some usually small molecules but not to other usually larger particles (a *semipermeable* membrane)

**permeable:** having pores or openings that permit liquids or gases to pass through. (a *permeable* membrane)

**osmose:** diffusion of only water molecules through a semipermeable membrane

**isotonic:** having the same osmotic pressure as body fluids (*iso:* equal; *ton-:* strength)

**hemolysis:** breakdown of erythrocytes (*haemo:* blood; *lysis:* breakdown; disruption)

### Enzymes

From the Greek, **zymo-:** ferment. The suffix **-ase** denotes an enzyme. Thus all the names of enzymes end by **-ase**. Ex: *amylase* = denotes the enzymes hydrolyzing «amylum (=starch)»; *lipase* = enzyme that hydrolyses lipids; *urease* = enzyme that splits urea.

**competition:** (L. *competitio*) rivalry, strife for superiority.

**inhibition:** (L. *inhibere* = to hold out to, restrain) to stop or slow down a process.

**competitive inhibition:** two substrates with similar structures rivalise to bind to the same site on the enzyme.

**substrate:** (L. *substratus* = spread under) substance, elements which lies beneath and supports another) in case of enzymes the molecule on which the enzyme acts.

**activity:** (L. *actio, agere:* to drive) the effect or influence of something on something else.

**proenzyme=preenzyme=zymogen:** inactive form of an enzyme before being activated (*pro-:* before)

**isoenzyme:** enzymes which have the same activity on the same substrate but different structures (Gr. *isos-:* equal, similar)

**allosteric enzyme:** enzymes that have different substrate binding sites (Gr. *allos-:* other)

**receptor:** receiver, site of cells where drugs, hormones etc. binds

**optimum:** the best, the most favorable (optimum temperature: temperature at which the enzyme shows maximum activity)

## Carbohydrates

**monosaccharide:** simple sugars that can not be separated to simplest parts (mono: one)

**oligosaccharide:** sugars containing 2-10 monosaccharide units (Gr. *oligo*: few, scant, small)

**polysaccharide:** sugars containing more than 10 monosaccharide units (Gr. *poly*:- much, many)

**saccharose:** sugar. (Gr. *sakharon* =L. *saccharum*; Ar. *sakkar*; Pers. *Sakhar*)

**lactose:** sugar of milk (L. *lactis*: milk)

**mel:** honey (*diabetes mellitus*)

**glucose:** monosaccharide, basic element of sugar metabolism *glyco*- (Gr.): sweet; *-ose* (oz): suffixe for sugars

**glycolysis:** catabolism of glucose in the organism

**fructose:** sugar of fruits (L. *fructus*: enjoyment, produce, profit)

**amylum:** starch (amylose: sugar of starch)

**xylose:** sugar of wood (Gr. *xylon*:- wood)

**dextrogyr:** turning to right (L. *dexter*: right; Gr. *gyros*:- a circle). Sugars that turn polarized light to the right are shown with «d» or «+»

**levogyr:** (L. *laevus*:- left and *gyrare*: to turn left in a circle). Sugars that turn polarized light to the left are shown with r «l» or «-»

**mucous or mucus:** the viscid watery secretion of the mucous membranes, in the alimentary canal and the respiratory tract

**mucopolysaccharide:** sugars containing more than 10 units which are present in the mucous

**mucoprotein:** proteins containing more than 4% carbohydrate which are present in the mucous

## Lipids

**lipos:** (Gr. *lipos*) fat

**hyperlipoproteinaemia:** the fact that lipoproteins are elevated over the normal level in blood (Gr. *hyper*:- over, above; *aemia*: blood)

**atherosclerosis:** hardening of arteries due to plaque formation (Gr. *sklerosis*: a hardening; *skleros*: hard)

## Proteins

**labile:** unstable

**endogenous:** produced or synthesized within the organism or system (*endo*: internal; *genesis*: the origin or coming into being of something)

**exogenous:** from outside the organism or system; must be taken by the outside=essential (*exo*:- exterior)

**fibre:** thread-like part of anything (e.g. muscles), that gives strength to any material (fibrous proteins like keratin)

**globus:** something spherical or rounded (globular proteins)

**myoglobin:** globular protein of muscles (Gr. *mys*, *myo-*: muscle); **haemoglobin:** globular protein of blood (*haemo*: blood)

**Keratine (keratin):** (Gr. *keratos*: horn) protein of hair, nails and horns. Contain the sulfurous amino acid cystine in large amounts. The disulphur covalent bonds –S–S–, are the reason of the strength of the tissues containing this protein.

**Creatine (kreatin, kreatine):** (Gr. *kreas*: flesh, meat) amino acid which is not part of structural proteins, exists in muscle tissue of vertebrates in the active form of phosphocreatine and provides the energy necessary for muscle contraction. Excreted in the form of creatinine with urine.

**Atrophy:** failure of an organ or part to grow because of insufficient nourishment (Gr. *trephein*= to nourish)

**Dystrophy:** mild state of an organ which lack nutrition (*dys*=abnormal)

**Hypertrophy:** an increase in the size of a tissue or organ

**Albinism:** state of an organism exhibiting deficient pigmentation. Genetic disease of enzyme deficiency. Synthesis of melanin, a pigment giving the black color to skin, is impaired. The hair and skin are white, the eyes are red. (L. *albus*: white)

## Porphyirins

**bile:** (L. *bilis* = anger) (**gall**) yellow, greenish fluid separated from the blood in the liver and excreted in the duodenum. It helps the digestive process by absorption of fats.

**bilirubin:** red pigment of the bile (L. *rubrum*: red,)

**icterus:** (Gr. *ikteros*) **jaundice**

(yellowish pigmentation of the skin, tissues, and body fluids caused by the deposition of bile pigments)

## Vitamins

One of a group of organic substances, present in minute amounts in natural foodstuffs, that are essential to normal metabolism; insufficient amounts in the diet may cause deficiency diseases. The name vitamin was given because the first compound found had an amine structure and was essential for life (**vita**=life; vitamin=amine for life).

**hypervitaminose:** state of excessive vitamin uptake

**avitaminose:** complete vitamin deficiency= Fr. carence

### *Pathologic states due to vitamin deficiency*

## Vitamin A

**Xerophthalmia:** (Gr. *xeros*: dry; *ophthalmo-*: eye) dryness of the conjonctiva

**Nyctalopia:** night blindness (*nycta*: night), impairment of sight ability in dim light

**Hemeralopia:** day blindness (Gr. *hemera*: day; *alaos*: blind; and *ops, opos*: the eye) impairment of sight ability in bright light

## **Vitamin D**

**Osteomalacie** (in grown-ups); **Rachitism** (Fr. rachitisme; Ing. **Ricketts**) (in infants) (Gr. *rhachis*: spine) deformation and curvation of bones

## **B vitamins**

**Neuritis:** inflammation of nerves (-it suffixe: shows inflammation)

**Glossitis:** inflammation of the tongue (*gloss* (o)-:tongue)

**Dermatitis:** inflammation of the skin

**Pernicious anemia** (Fr. Anémie pernicieuse): (fatal lack of blood) abnormal red blood cells due to B12 deficiency (pernicious: destructive)

## **Vitamin C (ascorbic acid)**

**scorbut** (Fr. scorbut; Ing. **scurvy**):

Signs of scurvy include tiredness, muscle weakness, joint and muscle aches, a rash on the legs, and bleeding gums.

## **Folic acid**

**Megaloblastic anaemia:** (Gr. *megal* (o)-: large) (macrocytic anemia)

a hematologic disorder characterized by the production of macrocytes in folate and vitamin B12 deficiency

## *Diseases related to hormones*

### **Thyroid hormones**

#### **Hyperthyroidism:**

**Exophthalmia:** an abnormal condition characterized by a marked protrusion of the eyeballs

**Goitre (Goiter)** (L. *guttur*: throat) enlargement of the thyroid gland

#### **Hypothyroidism**

**Myxoedeme:** (Gr. *oidema*: swelling) nonpitting waxy oedema of the skin

**Cretinism:** arrested physical and mental development

### **Growth hormone**

**Acromegaly:** (*acro*=pointed; *megalo* = large)

A disorder marked by progressive enlargement of the head, face, hands

**Gigantism:** abnormal overgrowth of the body

**Nanism = Dwarfism:** underdevelopment of the body

### **Terms related to blood**

**-Suffixe or prefixe: aemia or hemo-**

**anaemia:** reduction of the number of erythrocytes, quantity of hemoglobin (lack of blood)

**haemolysis:** alteration, dissolution of red cells

**hyperglycaemia:** abnormally high concentration of glucose in blood

**hypoglycaemia=glucopenia:** abnormally low concentration of glucose in blood

**uraemia:** abnormally high concentration of urea in blood

**hypercholesterolaemia:** abnormally high concentration of cholesterol in blood

**hyperlipemia=hiperlipidaemia:** abnormally high concentration of lipids in blood

**thalassemia:** inherited disorder due to reduced amount of hemoglobin (Gr. *thalassa*: the sea)

### **Terms related to urine**

**Suffixe: -uria**

**polyuria:** excessive excretion of urine

**oliguria:** diminished urine secretion

**anuria:** complete suppression of urine formation and excretion

**proteinuria:** the presence of excessive amounts of protein in urine

**glucosuria =melituria:** the presence of glucose in urine

**bilirubinuria:** the presence of bilirubin in urine

**diuretic:** increasing urine excretion (diuresis)

## SOME INFORMATION ON MYTHOLOGY

### EUROPA

Zeus (Jupiter for the Romans), the king of gods, sitting down in his palace on the Olympos mountain, was observing young girls picking flowers on a spring day, on the earth. He sees the beautiful Europa who was a king's daughter and falls in love with her. Eros has prepared his arrow and aimed directly to his heart! Zeus fearing the jealousy of his wife Hera, turns himself to a bull (or a cow) and step down on earth between the girls. Europa caress him and ride on him. The cow begins to run and run, passes through a Detroit from the sea and comes to a novel continent which is named Europe... And the Detroit is called Bosphorus (from *bos*=cow and *phorus*- to carry)

### IO

Io, is the daughter of the king from Argos and vestal in Hera Temple. Zeus falls in love with her. Hera becomes mad of jealousy when she learned it. Zeus turns Io into a white cow to preserve her from Hera's rage. But Hera understands and haunts the cow with a fly. Io willing to get rid of the insect, begins to run like a fool. She passed the sea from one continent to the other. This is the same story but slightly different.

### HYGIEA

She is the daughter of the god-doctor Asclepios. Like all the gods related to medicine she is shown with the snake which is known to be the most independent subterranean creature. Her name is attributed to health. The snake, with its ability to change his skin was accepted as the symbol of youth and immortality and thus has become the symbol of medicine.

### LETHE

**Exitus letalis** (*exitus*: exit; *lethalis*: fatal, mortal) death.

«Lethe» in Greek mhytology one of the 5 rivers of the underworld of Hades. Whoever drinks its water forgets everything from the World life.