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Greek and Latin in medical terminology

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ABSTRACT

This paper offers an overview of the status quo of medical terminology. Most terms used in biology and medicine are derived from classical languages, i.e. Latin and Greek. In previous years, Latin was listed as a subject offered in the syllabus of medical studies. Now, things have altered. It is obvious however, that a basic understanding of Latin and Greek etymology increases the productivity of learning and comfort while using medical terminology. A knowledge of the meaning of the roots, prefixes, and suffixes enables the student to thoroughly analyse a given medical term in terms of its component parts. This is probably the greatest aid in learning to understand the vocabulary of medicine. The main part of this study consists of tables containing the most common morphemes together with numerous examples.

Key words: Latin, Greek, language of medicine, medical terminology

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Introduction

Over the centuries, the development of medical terminology has been based on the process of creating parallel national and international terms, known all over the world and well-defined. In the field of medical, biological and pharmaceutical sciences, such a reliable tool of communication was Latin and Greek. In recent years, gradually but consistently Latin has been replaced by the Polish language, which is becoming evident in the diagnoses of diseases. Simultaneously, another trend also prevails. In fact, English has already permeated and partially replaced even Polish medical language. This state of affairs is somewhat surprising, since basic knowledge of Latin names of diseases and drugs enables international communication, which seems crucial at a time when more and more people enjoy travelling abroad.

Medical Latin still enables, or at least facilitates, the use of multilingual specialist literature. It is indispensable in communication with scientists from other countries. It enables us to precisely define and differentiate between concepts¹. The benefits flowing from knowledge of Latin are so significant that it seems impossible to imagine a physician, pharmacist or physiotherapist without even elementary knowledge of this language. Nonetheless, fluent command of the vocabulary requires a lot of effort. Learning numerous names and terms without philological preparation is time-consuming; moreover, it usually leads to estab-

lishing a mechanical bond between specific terms and a set of letters or syllables. This method of acquiring language competence is not sufficient or satisfactory, because vocabulary acquired in such a way is easily forgotten. It is even easier to twist the terms.

The aim of the present paper is to offer a remedy for the difficulties mentioned before, or at least, to familiarise the reader with medical vocabulary. Terminology, which is gathered in transparent tables (Tab. 1–6), is intended to unveil the structure of the Latin terms as well as to trace shades of the contents suggested by prefixes and suffixes. Understanding of the etymological and morphological mechanisms is a simple way to acquire and remember the most curious phrases.

It is worth mentioning that, admittedly, juxtapositions similar to those offered in my paper have appeared previously. However, it seems advisable to present them once again in a more sophisticated form, especially at a time when educational standards for the medical faculty do not include teaching Latin.

Today, the dominant language of science is English. All the most influential medical journals are written in English, and English has become the language of international conferences. We have entered the era of medical English, which resembles the era of medical Latin in that, once again, physicians have chosen a single language for international communication. Note, however, that English is rooted in the classical languages. It is estimated that about 90% of the med-

¹A striking advantage of Latin is its brevity, clarity and precision, especially compared to its Polish counterparts, e.g. *homoeopathia* instead of "leczenie małymi dawkami środków, które w większych dawkach wywołują daną chorobę" or *hyperphoria* instead of "zez utajony ze skłonnością do odchylenia osi oka ku górze".

ical vocabulary in English is of Greek or Latin origin. One cannot deny the huge impact of ancient Greek on medical terminology.

It may be concluded that the modern language of medicine basically represents the ancient Greek language transcribed into Latin. English equivalents gathered in the tables and sounding almost identical to the original term show that removing Latin from

the curriculum was not the right decision. Even poor knowledge of a foreign language (English or a Romance language, and even a Germanic language) is enough to read a diagnosis written abroad, on the understanding that the reader has at least a basic knowledge of Latin².

This review may be helpful in this respect and it might form the basis for learning medical terminology in other languages, especially in English.

Table 1. Greek prefixes

Prefix	Meaning	Examples		Meaning of examples	
		Latin	English	In English	In Polish
a-, an-	without, not	an-aemia	an-aemia	lack of blood Gr. (Greek) <i>an</i> + <i>haima</i> (blood)	niedokrwistość, anemia
		an-aesthesia (an-aesthesia)	an-aesthesia	loss of bodily sensation Gr. <i>an</i> + <i>aisthesis</i> (sensation)	brak czucia, anestezja
		an-orexia	an-orexia	loss of appetite Gr. <i>an</i> + <i>oreksis</i> (appetite)	brak apetytu, anoreksja
		an-uria	an-uria	the absence of urine Gr. <i>an</i> + <i>uron</i> (urine)	bezmocz
ana-, an-	up, upward, again	ana-lysis	ana-lysis	separating into constituents in order to study Gr. <i>ana</i> + <i>luo</i> (to loosen)	rozbiór, rozłożenie na czynniki, analiza
		ana-mnesis	ana-mnesis	the ability to recall past events; recollection Gr. <i>ana</i> + <i>mimnesko</i> (call to mind)	przypomnienie, wywiad lekarski, anamneza
		ana-tomia	ana-tomy	art of studying the different parts of any organised body Gr. <i>ana</i> + <i>temno</i> (to cut, to hew)	rozbiór, anatomia
anti-	against, opposed to	anti-dotum	anti-dote	remedy to counteract a poison Gr. <i>anti</i> + <i>didomi</i> (to give)	odtrutka, antidotum
		anti-pyreticum	anti-pyretic	fever-reducing Gr. <i>anti</i> + <i>pyretos</i> (fever)	przeciw-gorączkowy
		anti-septicum	anti-septic	capable of preventing microbial infection Gr. <i>anti</i> + <i>septikos</i> (characterized by putridity)	zapobiegający zakażeniu, antyseptyczny
		anti-acidum	ant-acid	agent reducing acidity L. (Latin) <i>anti</i> + <i>acidum</i> (acid)	przeciw nadkwasocie
apo-	off, away from	apo-physis	apo-physis	outgrowth Gr. <i>apo</i> + <i>fyo</i> (to grow, produce)	odrostek, wyrostek
		apo-plexia	apo-plexy	loss of consciousness Gr. <i>apo</i> + <i>plesso</i> (to strike)	udar mózgu, apopleksja
cata-	down	cata-menia	cata-menia	female period, menstrual discharge Gr. <i>cata</i> + <i>men</i> (month)	miesiączka, menstruacja
		cata-tonia	cata-tonia	a severe psychiatric condition, stupor Gr. <i>cata</i> + <i>tonos</i> (muscle tension)	katatonia, osłupienie
		cata-rrhus	cata-rrh	inflammation of the mucous membranes Gr. <i>cata</i> + <i>rheo</i> (to flow)	katar
dia-	through, across	dia-betes	dia-betes	group of metabolic diseases Gr. <i>dia</i> + <i>baino</i> (to pass through)	cukrzyca
		dia-gnosis	dia-gnosis	identification of the nature and cause of an illness Gr. <i>dia</i> + <i>gignosko</i> (to learn)	rozpoznanie choroby, diagnoza
		dia-rrhoea	dia-rrhoea	flow through Gr. <i>dia</i> + <i>rheo</i> (to flow)	biegunka
		dia-thermia	dia-thermy	local heating of the body tissues with an electric current Gr. <i>dia</i> + <i>therme</i> (heat)	przegrzewanie tkanek, diatermia

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²It is worth noting that even in countries in which there is an adopted habit of writing diagnoses in the national language, the basis of medical terminology is Greek / Latin vocabulary: e.g. Latin *myocarditis*, English *myocarditis*, German *Myokarditis*, French *myocardite*, Spanish *miocarditis*, Italian *miocardite*; Latin *strabismus*, English *strabismus*, Italian *strabismo*, French *strabisme*, Spanish *estrabismo*.

Table 1. Greek prefixes (cont. tab.)

Prefix	Meaning	Examples		Meaning of examples	
		Latin	English	In English	In Polish
dys-	bad, painful, difficult	dys-enteria	dys-entery	disease characterised by inflammation of the intestines Gr. <i>dys</i> + <i>entera</i> (bowels)	czerwonka, dyzenteria
		dys-pepsia	dys-pepsia	disorder of digestion Gr. <i>dys</i> + <i>pepsis</i> (digestion)	zaburzenie trawienia, dyspepsja
		dys-pnoe	dys-pnoea	difficult respiration Gr. <i>dys</i> + <i>pnoe</i> (breeze)	zaburzenie oddychania, duszność
		dys-trophia	dys-trophy	faulty or inadequate nutrition or development Gr. <i>dys</i> + <i>trophe</i> (food, nourishment)	zaburzenie odżywiania, dystrofia
ec-, ex-	out, out of, outside	ec-zema	ec-zema	acute or chronic inflammation of the skin Gr. <i>ek</i> + <i>zema</i> (to boil, to seethe)	wyprysk, egzema
		ex-ophthalmus	ex-ophthalmos	abnormal protrusion of the eyeball Gr. <i>ex</i> + <i>ophthalmos</i> (eye)	wytrzeszcz
		ex-ostosis	ex-ostosis	a benign bony growth Gr. <i>ex</i> + <i>osteon</i> (bone)	wyrośl kostna
en-, em-	in, inside, within	en-cephalon	en-cephalon	brain Gr. <i>en</i> + <i>kephale</i> (head)	mózgowie
		en-demia (subst.)	en-demic (adj)	native to a particular area Gr. <i>en</i> + <i>demos</i> (people)	choroba występująca na danym obszarze, endemia
		em-bolus	em-bolus	an obstruction causing an embolism: a blood clot Gr. <i>em</i> + <i>bolos</i> (throw)	zator, czop zatorowy, embolia
		em-bryo	em-bryo	fertilised egg before developing into a foetus Gr. <i>em</i> + <i>bruo</i> (to grow)	zarodek, embrion
hyper-	over, above	hyper-aemia	hyper-aemia	excess of blood in a body part Gr. <i>hyper</i> + <i>haima</i> (blood)	przekrwienie
		hyper-thyr(e)osis	hyper-thyroidism	excessive production of hormones by the thyroid Gr. <i>hyper</i> + <i>thyreos</i> (kind of shield)	nadczynność tarczycy
		hyper-tonia	hyper-tonia	increased rigidity, tension, and spasticity of the muscles Gr. <i>hyper</i> + <i>tonos</i> (tension); cf <i>hypo-tonia</i> (an abnormal loss of muscle tone)	nadmierne napięcie, nadciśnienie, hipertonia
		hyper-thermia	hyper-thermia	an abnormally high body temperature Gr. <i>hyper</i> + <i>therme</i> (heat)	gorączka, przegrzanie
hypo-	under, below	hypo-chondriasis	hypo-chondria	an abnormally heightened and unreasonable fear of disease Gr. <i>hypo</i> + <i>chondros</i> (cartilage)	chorobliwy niepokój o własne zdrowie, hipochondria
		hypo-dermis	hypo-dermis	a layer of cells beneath the epidermis in some plants Gr. <i>hypo</i> + <i>derma</i> (skin)	tkanka podskórna
		hypo-glycaemia	hypo-glyc-aemia	low level of blood glucose Gr. <i>hypo</i> + <i>glukus</i> (sweet) + <i>haima</i> (blood); cf <i>hyper-glyc-aemia</i> (an abnormally high level of glucose in the blood)	niedocukrzenie krwi, hipoglikemia
		hypo-thermia	hypo-thermia	abnormally low body temperature Gr. <i>hypo</i> + <i>therme</i> (heat)	obniżona temperatura ciała, hipotermia
meta-	among, between, after, later, along with	meta-bolismus	meta-bolism	complete set of chemical reactions Gr. <i>meta</i> + <i>bolos</i> (throw)	przemiana materii, metabolizm
		meta-morphosis	meta-morphosis	transformation Gr. <i>meta</i> + <i>morphe</i> (form)	przeobrażenie, metamorfoza
		meta-stasis	meta-stasis	the transference of a bodily function or disease to another part of the body Gr. <i>meta</i> + <i>stasis</i> (state of standing)	przerzut, wtórne ognisko nowotworowe, metastaza
		met-encephalon	met-encephalon	the anterior section of the hindbrain Gr. <i>met</i> + <i>encephalon</i> (brain)	tyłomózgowie wtórne

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Table 1. Greek prefixes (cont. tab.)

Prefix	Meaning	Examples		Meaning of examples	
		Latin	English	In English	In Polish
para-	near, beyond, outside of, abnormal, alongside, by, from, together	para-noia	para-noia	psychotic disorder characterised by delusions of persecution Gr. <i>para</i> + <i>noos</i> (mind)	obłąd, psychoza, paranoja
		para-plegia	para-plegia	paralysis of both lower limbs due to spinal disease or injury Gr. <i>para</i> + <i>plege</i> (blow, stroke)	porażenie poprzeczne, paraplegia
		par-esthesia	par-esthesia	sensation of burning, prickling, itching, or tingling of the skin with no obvious cause Gr. <i>par</i> + <i>aisthesis</i> (sensation)	złudne odczucie, parestezja
		par-otid	par-otid	salivary gland Gr. <i>para</i> + <i>us, otos</i> (ear)	przyusznicza, przyuszny gruczoł ślinowy
peri-	about, around	peri-cardium	peri-cardium	serous membrane surrounding the heart Gr. <i>peri</i> + <i>kardia</i> (heart)	osierdzie
		peri-osteum	peri-osteum	membrane surrounding a bone Gr. <i>peri</i> + <i>osteon</i> (bone)	okostna
		peri-stalsis (peri-staltica)	peri-stalsis	rhythmic contraction of the digestive tract Gr. <i>peri</i> + <i>stalsis</i> (contraction)	perystaltyka, ruch robaczkowy jelit
		peri-toneum	peri-toneum	serous membrane in mammals Gr. <i>peri</i> + <i>tonos</i> (stretch)	otrzewna, błona wyścielająca jamę brzuszną
pro-	before, forward, in advance	pro-dromus	pro-drome	an early symptom Gr. <i>pro</i> + <i>dromos</i> (a course, race)	zwiastun, objaw zapowiadający
		pro-geria	pro-geria	premature old age, condition occurring in children and characterised by small stature, absent or greying hair, wrinkled skin Gr. <i>pro</i> + <i>geron</i> (old age)	przedwczesna starość, przedwczesny starczy wygląd
		pro-gnosis	pro-gnosis	forecast of the future course of a disease Gr. <i>pro</i> + <i>gnosis</i> (inquiry, investigation, knowing)	rokowanie, prognoza, przewidywanie
		pro-phylaxis	pro-phylaxis	prevention of, or protective treatment for disease Gr. <i>pro</i> + <i>phylaxis</i> (watching, guarding)	profilaktyka, zapobieganie chorobie
syn-, sym-	with, together	syn-droma	syn-drome	recognisable pattern of symptoms or behaviours Gr. <i>syn</i> + <i>dromos</i> (a course, race)	objaw choroby, zespół objawów, syndrom
		sy-stole	sy-stole	contraction of the heart Gr. <i>syn</i> + <i>stello</i> (to send)	skurcz, skurcz serca
		sym-biosis	sym-biosis	relationship of mutual benefit Gr. <i>sym</i> + <i>bios</i> (life)	forma stałego współżycia, symbioza
		sym-ptoma	sym-ptom	a sign or indication of something Gr. <i>sym</i> + <i>pipto</i> (to fall)	objaw, oznaka, symptom

Table 2. Greek suffixes

Suffix	Meaning	Examples		Meaning of examples	
		Latin	English	In English	In Polish
-ia L./E. (English) -y (E.)	pathological state	agon-ia	agon-y	the last struggle of life; death struggle Gr. <i>agon</i> (contest)	walka ze śmiercią, konanie, agonia
		hyster-ia	hyster-ia	behaviour exhibiting excessive or uncontrollable emotion Gr. <i>hystera</i> (womb)	nerwica histeryczna, histeria
		man-ia	man-ia	excessive or unreasonable desire Gr. <i>mania</i> (madness)	natręctwo, mania
		ophtalm-ia	ophtalm-ia	inflammation of the eye Gr. <i>ophtalmos</i> (eye)	zapalenie gałki ocznej, oftalmia
	branch of study	physiolog-ia	physiolog-y	the branch of science concerned with the functioning of organisms Gr. <i>physis</i> (nature) + <i>logos</i> (word)	nauka o czynnościach organizmów żywych, fizjologia
psycholog-ia		psycholog-y	the science of the mind or of mental states and processes Gr. <i>psychē</i> (breath, spirit, soul, mind) + <i>logos</i> (word)	nauka o zjawiskach i procesach psych., psychologia	
taxonom-ia		taxomomy	the science or technique of classification. Gr. <i>taxis</i> (arrangement, order)	nauka o zasadach klasyfikowania, taksonomia	
-iasis	condition, infestation, pathological state or its cause	elephant-iasis	elephant-iasis	disease that is characterised by a thickening of the skin and underlying tissues Gr. <i>elephas</i> (elephant)	stoniowatość
		lith-iasis	lith-iasis	formation of stone-like deposits Gr. <i>lithos</i> (stone)	kamica
		psor-iasis	psor-iasis	facial skin disease Gr. <i>psora</i> (itch)	łuszczyca
		trichin-iasis	trichin-iasis	disease caused by the trichinae in the intestines and muscular tissues Gr. <i>thrix, trichos</i> (hair)	włośnica, trichinoza
-icus(L.) -ic (E.)	having the nature of, like, pertaining to	epilept-icus	epilept-ic	relating to epilepsy Gr. <i>epilepsia</i> (seizures)	padaczkowy, epileptyczny
		oncolog-icus	oncolog-ic	pertaining to oncology Gr. <i>onkos</i> (lump, mass, bulk)	onkologiczny
		patholog-icus	patholog-ic	corresponding to pathology Gr. <i>pathos</i> (suffering, sensation)	chorobowy, nienormalny, patologiczny
		thorac-icus	thorac-ic	of the thorax Gr. <i>thorax</i> (breastplate, cuirass)	piersiowy
-ismus (L.) -ism (E.)	a condition indicated by the stem	aut-ismus	aut-ism	abnormal self-absorption Gr. <i>autos</i> (self)	zamknięcie się w sobie, autyzm
		embol-ismus	embol-ism	obstruction of an artery Gr. <i>embolos</i> (peg, stopper)	zatorowość
		hypnot-ismus	hypnot-ism	art of inducing hypnosis Gr. <i>hypnos</i> (sleep)	hipnoza, hipnotyzowanie
		rheumat-ismus	rheumat-ism	disorder of muscles, tendons, joints, bones Gr. <i>rheuma</i> (stream, flow)	gościec, reumatyzm
-itis	disease, inflammation	appendic-itis	appendic-itis	inflammation of the vermiform appendix L. <i>appendix</i> (supplement)	zapalenie wyrostka robaczkowego
		arthr-itis	arthr-itis	inflammation of a joint Gr. <i>arthron</i> (joint)	zapalenie stawu
		bronch-itis	bronch-itis	inflammation of the bronchial tubes Gr. <i>bronchos</i> (windpipe)	zapalenie oskrzeli
		ot-itis	ot-itis	inflammation of the ear Gr. <i>us, otos</i> (ear)	zapalenie ucha

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Table 2. Greek suffixes (cont. tab.)

Suffix	Meaning	Examples		Meaning of examples	
		Latin	English	In English	In Polish
-oma	swelling, tumour	carcin-oma	carcin-oma	invasive malignant tumour Gr. <i>karkinos</i> (cancer)	rak
		granul-oma	granul-oma	a tumour consisting of a mass of granular tissue L. <i>granulum</i> (small grain)	ziarniniak
		neur-oma	neur-oma	tumour composed of nerve cells Gr. <i>neuron</i> (sinew, tendon, cord)	nerwiak
		sarc-oma	sarc-oma	malignant tumour of the bone, cartilage, fat, muscle Gr. <i>sarx, sarkos</i> (flesh)	mięsak
-osis	disease	adip-osis	adip-osis	accumulation of adipose tissue Gr. <i>adeps, adipos</i> (fat)	stłuszczenie, otyłość
		neur-osis	neur-osis	mental disorder Gr. <i>neuron</i> (sinew, tendon, cord)	nerwica
		tubercul-osis	tubercul-osis	infectious disease Gr. <i>tuberculum</i> (small lump)	gruźlica
	process or action	hypn-osis	hypn-osis	a trance-like state Gr. <i>hypnos</i> (sleep)	hipnoza
		metamorph-osis	metamorph-osis	transformation Gr. <i>meta + morphe</i> (form)	metamorfoza, przeobrażenie
		mit-osis	mit-osis	division of a cell nucleus Gr. <i>mitos</i> (thread)	podział jądra, mitoza

Table 3. Greek nouns as a first part of a compound

Part of the word	Origin	Examples		Meaning of examples	
		Latin	English	In English	In Polish
anthrop-	Gr. <i>anthropos</i> (man)	anthropo-genesis	anthropo-genesis	the origin of man	pochodzenie człowieka, antropogeneza
		anthropo-phobia	anthropo-phobia	fear of human beings	lęk przed kontaktem z ludźmi, antropofobia
bio-	Gr. <i>bios</i> (life)	bio-logia	bio-logy	study of living matter	biologia, nauka o organizmach żywych
		bi-opsia	bi-opsy	to take a sample for pathological examination	biopsja, pobranie wycinka narządu lub tkanki do badania
broncho-	Gr. <i>bronchos</i> (gullet)	broncho-cele	broncho-cele	dilation of a bronchus	miejscowe rozszerzenie oskrzela
		broncho-pneumonia	broncho-pneumonia	inflammation of the smaller bronchial tubes	odoskrzelowe zapalenie płuc
cardi(o)-	Gr. <i>kardia</i> (heart)	cardio-megalia	cardio-megaly	megalocardia, an enlarged heart	powiększenie serca, kardiomegalia
		cardio-plegia	cardio-plegia	deliberate cessation of cardiac activity	zatrzymanie czynności serca, kardioplegia
colo(n)-	Gr. <i>colon</i> (large intestine)	colono-graphia	colono-graphy	a virtual, non-invasive form of colonoscopy	nieinwazyjna metoda badania jelita grubego, kolonografia
		colon-oscopia	colon-oscopia	examination of the colon using a colonoscope	badanie jelita grubego, kolonoskopia,
cyto-	Gr. <i>kytos</i> (cell)	cyto-logia	cyto-logy	the study of cells	cytologia, nauka o komórce
		cyto-megalia	cyto-megaly	enlargement of cells	cytomegalia, choroba wirusowa

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Table 3. Greek nouns as a first part of a compound (cont. tab.)

Part of the word	Origin	Examples		Meaning of examples	
		Latin	English	In English	In Polish
derma(t)-	Gr. <i>derma</i> (skin)	dermat-oscopia	dermat-oscopsy	examination of skin lesions	badanie skóry, dermatoskopia
		dermat-ologia	dermat-ology	the study of the skin and its diseases	dermatologia, nauka o skórze i chorobach skórnych
enter(o)-	Gr. <i>enteron</i> (intestine)	enter-algia	enter-algia	pain in the intestines	kolka jelitowa, ból jelit
		entero-colitis	entero-colitis	inflammation of the small intestine and colon	zapalenie jelita cienkiego i grubego
gastr-	Gr. <i>gaster</i> (stomach)	gastro- -enterologia	gastro-enterology	the study of the digestive system	gastroenterologia, nauka zajmująca schorzeniami układu pokarmowego
		gastro- -scopia	gastro-scopsy	examination of oesophagus and stomach	gastroskopia, wzniernikowanie żołądka
gynec-	Gr. <i>gyne</i> (female)	gynaeco- -logia	gynaeco-logy	the branch of medicine concerned with diseases in women	ginekologia, nauka o chorobach kobiecych i ich leczeniu
		gynaeco- -mastia	gynaeco-mastia	development of breasts in males	ginekomastia, przerost sutków u mężczyzn
h(a)em-, h(a)emat-	Gr. <i>haima</i> (blood)	haemat-oma	haemat-oma	swelling of blood	krwiak
		haemat-uria	haemat-uria	the presence of blood in the urine	krwimocz
hepat-	Gr. <i>hepar</i> (liver)	hepat-oma	hepat-oma	a tumour of the liver	hepatocyt, wątrobianka
		hepato- -megalia	hepato-megaly	an abnormal enlargement of the liver	powiększenie wątroby
hydr-	Gr. <i>hydor</i> (water)	hydro- -nephrosis	hydro-nephrosis	dilation of the pelvis and calices of kidneys	wodonercze
		hydro- -terapia	hydro-therapy	external use of water in medical treatment	hydroterapia, wodolecznictwo
hypno-	Gr. <i>hypnos</i> (sleep)	hypno-lepsia	hypno-lepsy	uncontrollable episodes of deep sleep	nadmierna senność
hyster-	Gr. <i>hystera</i> (uterus)	hypno-sis	hypno-sis	a trance-like state	hipnoza
		hystero- -scopia	hystero-scopsy	visual examination of the uterus	histeroskopia, wzniernikowanie macicy
litho-	Gr. <i>lithos</i> (stone)	hystero-ptosis	hystero-ptosis	prolapse of the uterus	opadnięcie macicy
		litho-nephria	litho-nephria	stone in the kidney	obecność kamieni w nerkach
narc-	Gr. <i>narke</i> (numbness)	litho-tomia	litho-tomy	a surgical method for removal of calculi	usunięcie kamieni z dróg moczowych, litotomia
		narco-lepsia	narco-lepsy	sleeping disorder	napadowa senność, narkolepsja
nephro-	Gr. <i>nephros</i> (kidney)	narco-mania	narco-mania	pathological craving for or addiction to narcotics	narkomania
		nephro-logia	nephro-logy	branch of medicine that deals with the kidneys	nefrologia, dziedzina medycyny zajmująca się schorzeniami nerek
neuro-	Gr. <i>neuron</i> (cord, tendon)	nephro-pathia	nephro-pathy	disease of the kidney	choroba nerek, nefropatia
		neur-algia	neur-algia	paroxysmal pain along the course of a nerve	neuralgia, nerwoból
odont-	Gr. <i>odus, odontos</i> (tooth)	neuro-sis	neuro-sis	a mental disorder	nerwica
		odonto-classis	odonto-classis	breaking of tooth	złamanie zęba
osteo-	Gr. <i>osteon</i> (bone)	odont-oma	odont-oma	a tumour of odontogenic origin	zębiak
		osteo- -malacia	osteo- -malacia	a softening of the bones	rozmiękanie kości, osteomalacja
		osteo-porosis	osteo-porosis	a disease in which the bones become extremely porous	zrzesztnienie kości, osteoporoza

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Table 3. Greek nouns as a first part of a compound (cont. tab.)

Part of the word	Origin	Examples		Meaning of examples	
		Latin	English	In English	In Polish
ot-	Gr. <i>us, otos</i> (ear)	ot-itis	ot-itis	inflammation of the ear	zapalenie ucha
		oto-myc-osis	oto-myc-osis	fungal infection of the ear	grzybica ucha
pod-	Gr. <i>pus, podos</i> (foot)	pod-agra	pod-agra	gout in the big toe	zapalenie śródstopno-paliczkowe palucha
		pod-algia	pod-algia	pain in the foot	ból stopy
pyo-	Gr. <i>pyon</i> (pus)	pyo-derma	pyo-derma	skin eruption characterised by pustules or the formation of pus	ropne zapalenie skóry, piodermia
		pyo-metra	pyo-metra	an accumulation of pus in the uterine cavity	ropniak macicy
pyr-	Gr. <i>pyr</i> (fire)	pyr-exia	pyr-exia	fever	stan gorączkowy, gorączka
		pyro-therapia	pyro-therapy	the therapeutic use of fever	leczenie gorączki, leczenie gorączką
zoo-	Gr. <i>zoon</i> (animal)	zoo-logia	zoo-logy	science that studies the animal kingdom	zoologia, nauka o zwierzętach
		zoo-nosis	zoo-nosis	animal disease that can be transmitted to humans	zoonoza, choroba odzwierzęca

Table 4. Greek nouns as second part of a compound

End of the word	Origin	Examples		Meaning of examples	
		Latin	English	In English	In Polish
-algia	Gr. <i>algos</i> (pain)	my-algia	my-algia	muscular pain	ból mięśniowy
		neur-algia	neur-algia	pain along the course of a nerve	neuralgia, nerwoból
-asthenia	Gr. <i>asthenes</i> (weak)	my-asthenia	my-asthenia	abnormal weakness of the muscles	miastenia, osłabienie mięśni
		neur-asthenia	neur-asthenia	nervous debility and exhaustion	neurastenia, nerwica z objawami wyczerpania
-cele	Gr. <i>kele</i> (protrusion, tumor)	cysto-cele	cysto-cele	hernial intrusion of the bladder into the vagina	przepuklina pęcherza moczowego
		hydro-cele	hydro-cele	an accumulation of serous fluid	wodniak
-kinesia	Gr. <i>kinesis</i> (movement)	brady-kinesia	brady-kinesia	slowness of movement	spowolnienie ruchów
		hypo-kinesia	hypo-kinesia	slowed or diminished movement of the body	hipokineza, osłabienie czynności ruchowej
-ectomia (L.)	Gr. <i>ektome</i> (excision)	gastr-ectomia	gastr-ectomy	(partial) removal of the stomach	wycięcie żołądka lub jego części
-ectomy (E.)		mast-ectomia	mast-ectomy	removal of all or part of a breast	mastektomia, wycięcie sutka
-(a)emia	Gr. <i>haima</i> (blood)	an-aemia	an-aemia	lack of blood	niedokrwistość, anemia
		ur-aemia	ur-aemia	an excess of urea in the blood	mocznica, uremia
-esthesia	Gr. <i>aisthesis</i> (feeling, sensibility)	an-aesthesia	an-aesthesia	loss of bodily sensation	brak czucia, anestezja
		dys-aesthesia	dys-aesthesia	impairment of sensation	zaburzenie czucia
-genesis	Gr. <i>genesis</i> (origin)	patho-genesis	patho-genesis	the origin and development of a disease	patogeneza, wywód choroby
		onto-genesis	onto-genesis	development of an individual organism	ontogeneza, rozwój osobniczy
-graphia (L.)	Gr. <i>grapho</i> (to write)	cardio-graphia	cardio-graphy	the graphic recording of the movement or other function of the heart	graficzna rejestracja czynności serca
-graphy (E.)		encephalo-graphia	encephalo-graphy	an X-ray examination of the brain	radiografia mózgu

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Table 4. Greek nouns as second part of a compound (cont. tab.)

End of the word	Origin	Examples		Meaning of examples	
		Latin	English	In English	In Polish
-malacia	Gr. <i>malakia</i> (softening)	myo-malacia	myo-malacia	pathological softening of muscular tissue	rozmięknienie mięśni
		osteo-malacia	osteo-malacia	a softening of adult bones	rozmiękanie kości, osteomalacja
-mania	Gr. <i>mania</i> (madness)	clepto-mania	klepto-mania	an irresistible impulse to steal	skłonność do kradzieży, kleptomania,
		megalo-mania	megalo-mania	delusions of grandeur, power	mania wielkości, megalomania
-odynia	Gr. <i>odyne</i> (pain)	acr-odynia	acr-odynia	disease of the skin characterised by increased sensibility of the soles and palms	zaczzerwienienie kończyn, akrodyndia
		ot-odynia	ot-odynia	pain in the ear, earache	ból ucha, ból w uchu
-opia	Gr. <i>ops</i> (vision)	my-opia	my-opia	a disorder of the vision	krótkowzroczność, miopia
		poly-opia	poly-opia	multiple vision	widzenie mnogie
		a-pathia	a-pathy	lack of feeling	zobojętnienie, apatia
-pathia (L.)	Gr. <i>pathos</i> (suffering)	psycho-pathia	psycho-pathy	a personality disorder	osobowość nieprawidłowa, psychopatia
-pathy (E.)					
-phobia	Gr. <i>phobos</i> (fear)	arachno-phobia	arachno-phobia	irrational fear of spiders	lęk przed pająkami
		clauastro-phobia	clauastro-phobia	the fear of enclosed spaces	lęk przed zamkniętą przestrzenią, klaustrofobia
-plegia	Gr. <i>plege</i> (stroke)	hemi-plegia	hemi-plegia	inability to move one side of the body	porażenie połowicze
		para-plegia	para-plegia	paralysis of both lower limbs	porażenie poprzeczne, paraplegia
-rrhagia (-rrhage)	Gr. <i>regnymi</i> (break forth)	haemo-rrhagia	haemo-rrhage	a profuse discharge of blood, bleeding	krwotok
		phlebo-rrhagia	phlebo-rrhagia	venous haemorrhage	krwotok z żyły
-rrhaphia (L.)	Gr. <i>rhaphe</i> (stitch)	aorto-rrhaphia	aorto-rrhaphy	suture of the aorta	zszycie aorty
		perinaeo-rrhaphia	perineo-rrhaphy	suture of the perineum	zszycie krocza
-rrhaphy (E.)					
-rrh(o)ea	Gr. <i>rhoe</i> (flow)	dia-rrhoea	dia-rrhoea	abnormal frequency and fluidity of fecal evacuations	biegunka
		leuco-rhoea	leuco-rhoea	white discharge	obfite upławy białe
-scopia (L.)	Gr. <i>skopeo</i> (to view)	gastro-scopia	gastro-scopy	examination of oesophagus and stomach	wziernikowanie żołądka, gastroskopia
-scopy (E.)		hystero-scopia	hystero-scopy	the examination of the uterus using a hysteroscope	wziernikowanie macicy, histeroskopia
-spasmus (L.)	Gr. <i>spasmos</i> (convulsion-	entero-spasmus	entero-spasm	increased, irregular, and painful peristalsis	stan kurczowy jelit
-spasm (E.)	-cramp)	vaso-spasmus	vaso-spasm	spasm of the blood vessels	kurcz naczyń krwionośnych
-stomia (L.)	Gr. <i>stoma</i> (mouth)	colo-stomia	colo-stomy	an incision into the colon to allow for drainage	wytworzenie sztucznego odbytu, kolostomia
-stomy (E.)		uro-stomia	uro-stomy	artificial excretory opening from the urinary tract	stomia na układzie moczowym, urostomia
-therapia (L.)	Gr. <i>therapeia</i> (treatment)	photo-therapia	photo-therapy	the use of light to treat disorders of the skin and mood disorders	światłolecznictwo, fototerapia
-therapy (E.)		physio-therapia	physio-therapy	therapy that uses physical techniques such as massage and exercise	fizjoterapia, fizykoterapia, leczenie metodami fizycznymi

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Table 4. Greek nouns as second part of a compound (cont. tab.)

End of the word	Origin	Examples		Meaning of examples	
		Latin	English	In English	In Polish
-thermia (L.)	Gr. <i>therme</i> (heat)	dia-thermia	dia-thermy	the production of heat in body tissues by electric currents	przegrzewanie tkanek, diatermia
-thermy (E.)		electro-thermia	electro-thermy	the electrical generation of heat	terapeutyczne zastosowanie ciepła
-tomia (L.)	Gr. <i>tome</i> (incision)	laparo-tomia	laparo-tomy	incision through the abdominal wall	nacięcie jamy brzusznej
-tomy (E.)		lobo-tomia	lobo-tomy	the operation of cutting into a lobe, as of the brain or the lung	dawna metoda chirurgicznej operacji mózgu, lobotomia
-trophia (L.)	Gr. <i>trophe</i> (nourishment)	a-trophia	a-trophy	a reduction in the functionality of an organ	zanik, zmniejszanie się objętości komórki, atrofia,
-trophly (E.)		dys-trophia	dys-trophy	faulty or inadequate nutrition or development	zaburzenie odżywiania, dystrofia

Table 5. Greek adjectives

Part of the word	Greek adjective	Examples		Meaning of examples	
		Latin	English	In English	In Polish
allo-	Gr. <i>allos</i> (other)	all-ergia	all-ergy	an abnormal reaction of the body to a encountered allergen	alergia, dost. odmienna reakcja
		allo-kinesia	allo-kinesis	passive movement, reflex movement	ruch bierny, ruch kończyną inną niż wskazana
auto-	Gr. <i>autos</i> (self)	aut-opsia	aut-opsia	a dissection performed on a cadaver	stwierdzenie naoczne, oględziny, sekcja zwłok
		auto-therapia	auto-therapy	spontaneous cure of a medical condition, self-treatment of a medical condition	samoleczenie, samoistne wyleczenie
brady-	Gr. <i>bradys</i> (slow)	brady-cardia	brady-cardia	abnormal slowness of the heart beat	bradykardia, wolna czynność serca
		brady-phrenia	brady-phrenia	slowness of thought common to many disorders of the brain	zwolnienie czynności umysłowych
cac-	Gr. <i>kakos</i> (bad)	cac-hexia	cac-hexia	general ill health with emaciation	charłactwo, wyniszczenie
		caco-genesis	caco-genesis	a morbid, monstrous, or pathological growth or product	wadliwy rozwój
crypto-	Gr. <i>kryptos</i> (secret, hidden)	crypto-mnesia	crypto-mnesia	the reappearance of a long-forgotten memory as if it were a new experience	pamięć podświadoma, kryptomnezja
		crypt-orchismus	crypt-orchidism	the failure of one or both testes to descend into the scrotum	wnętrostwo, niezstąpienie jąder
ecto-	Gr. <i>ektos</i> (outside)	ecto-derma	ecto-derm	the outer germ layer in the embryo	ektoderma, zewnętrzny listek zarodkowy
		ecto-zoon	ecto-zoon	any animal parasite that lives on the surface of its host	zewnętrzny pasożyt zwierzęcy
erythr-	Gr. <i>erythros</i> (red)	eryth-ema	eryth-ema	abnormal redness of the skin	rumień
		erythro-cytus	erythro-cyte	red blood cell	krwinka czerwona, erytrocyt
hemi-	Gr. <i>hemi-</i> (one half)	hemi-crania	hemi-crania	a headache affecting one side of the head	połowiczny ból głowy
		hemi-plegia	hemi-plegia	inability to move one side of the body	porażenie połowicze
hetero-	Gr. <i>heteros</i> (other, different)	hetero-phoria	hetero-phoria	a tendency of the eyes to deviate from the parallel	zez utajony, heteroforia
		hetero-plastica	hetero-plasty	transplantation of tissue obtained from another person or animal	przemieszczenie tkanki obcogatunkowej, heteroplastyka



Table 5. Greek adjectives (cont. tab.)

Part of the word	Greek adjective	Examples		Meaning of examples	
		Latin	English	In English	In Polish
hom(o)eo-	Gr. <i>homoios</i> (similar)	homoeo-pathia	homeo-pathy	system of treating diseases with very small amounts	leczenie małymi dawkami środków, homeopatia
		homoeo-stasis	homeo-stasis	condition of bodily equilibrium	zdolność do utrzymania stałości środowiska wewn., homeostaza
iso-	Gr. <i>isos</i> (equal, like)	iso-tonia	iso-tonia	a condition of tonic equality	jednakowe ciśnienie osmotyczne, izotonia
		iso-thermia	iso-thermal (adj)	occurring at constant temperature	izotermiczny, o stałej temperaturze
leuco-	Gr. <i>leucos</i> (white)	leuc-aemia	leuk-aemia	cancer of blood forming tissue	białaczką, leukemia
macro-	Gr. <i>makros</i> (large)	leuco-cytus	leuko-cyte	a white blood cell	krwinka biała, leukocyt
		macro-cephalia	macro-cephalic (adj)	having an abnormally large head	wielkogłowie
mega- (megal-)	Gr. <i>megas, megalu</i> (large)	macro-glossia	macro-glossia	enlargement of the tongue	nadmiernie powiększony język
		mega-colon	mega-colon	abnormal dilatation of the colon	okrężnica olbrzymia
melan-	Gr. <i>melanos</i> (black)	megalomania	megalomania	delusions of grandeur, power	mania wielkości, megalomania
		melano-dermia	melano-derma	an unusual darkening of the skin	przebarwienie skóry, melanodermia
mes-	Gr. <i>mesos</i> (middle)	melan-oma	melan-oma	type of skin tumour	czerniak
		mes-encephalon	mes-encephalon	midbrain	śródmózgowie
micro-	Gr. <i>micros</i> (small)	mes-enteron	mes-entery	the midgut	jelito środkowe
		micro-bion	micro-be	any microscopic organism	bakteria, drobnoustrój
mono-	Gr. <i>monos</i> (alone, single)	micro-somia	micro-somia	abnormal smallness of the body	karłowatość
		mono-plegia	mono-plegia	paralysis of a single limb (or muscle)	porażenie jednej kończyny, monoplegia
neo-	Gr. <i>neos</i> (new)	mono-therapia	mono-therapy	a medical treatment using a single drug	leczenie choroby jednym lekiem
		neo-natologia	neo-natology	branch of medicine that deals with newborn infants	nauka o noworodku, neonatologia
oligo-	Gr. <i>oligos</i> (little)	neo-plasma	neo-plasm	abnormal new growth of disorganised tissue	nowotwór
		oligo-phrenia	oligo-phrenia	less than normal mental development	niedorozwój umysłowy, oligofrenia
ortho-	Gr. <i>orthos</i> (straight)	oligo-pnoea	oligo-pnoea	abnormally infrequent respiration	zwolnione oddychanie
		ortho-dontia	ortho-dontia	straightening of the teeth	leczenie wad zgryzu, ortodoncja
pan-	Gr. <i>pas, pasa, pan</i> (all)	ortho-pedia	ortho-pedics	correction of deformities	ortopedia
		pan-creas	pan-creas	a gland near the stomach	trzustka
poly-	Gr. <i>polys</i> (much, many)	pan-demia	pan-demic (adj)	epidemic over a large area	epidemiczna na dużym obszarze
		poly-phagia	poly-phagia	excessive desire to eat	żarłoczność
pseudo-	Gr. <i>pseudēs</i> (false)	poly-uria	poly-uria	abnormally large amount of urine	wielomocz
		pseudo-podium	pseudo-podium	pseudopod	nibynóżka, pseudopodium
tachy-	Gr. <i>tachys</i> (fast)	pseudo-tumor	pseudo-tumour	portion of tissue that resembles a tumour	guz rzekomy
		tachy-cardia	tachy-cardia	a rapid resting heart rate	częstoskurcz, szybka czynność serca, tachykardia
		tachy-pnoea	tachy-pnoea	excessively rapid respiration	szybki rytm oddechowy

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Table 6. Greek adverbs

Part of word	Greek adverbs	Examples		Meaning of examples	
		Latin	English	In English	In Polish
di-	Gr. <i>dis</i> (twice)	di-morphismus	di-morphism	existing in two forms	dwupostaciowość, dymorfizm
		di-plegia	di-plegia	paralysis of the identical part on both sides of the body	porażenie obustronne, diplegia
endo-	Gr. <i>endon</i> (within)	endo-metrium	endo-metrium	mucous membrane	błona śluzowa macicy, endometrium
		endo-scopia	endo-scopia	examination using an endoscope	wziernikowanie, endoskopia
eu-	Gr. <i>eu</i> (well)	eu-phoria	eu-phoria	an excited state of joy	stan nienaturalnie dobrego samopoczucia, euforia
		eu-thanasia	eu-thanasia	painless death	pogodna, łatwa śmierć; eutanazja
tele-	Gr. <i>tele</i> (distant)	tel-encephalon	tel-encephalon	the endbrain	kresomózgowie
		tele-pathia	tele-pathy	ability to communicate by psychic means	komunikacja bez użycia zmysłów, telepatia

Abbreviations: E. — English; Gr. — Greek; L. — Latin.

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