Tutorial in Basic Medical Terminology

Study materials

- Teachers' own materials (e.g. hand-outs, presentations, activity cards) which are going to be periodically uploaded on the IS in Study materials of your subject.
- Prucklová, R. Severová, M.: Introduction to Latin and Greek Terminology in Medicine. Praha: KLP, 2012 (Unit 1-7)
- "Drill" on the IS (https://is.muni.cz/auth/dril/?lang=en
)

Testing

- Vocabulary tests at the beginning of each lesson
- Two partial exams
 - each successfully written partial test (over 70 %) means that you get bonus 5 % for your final exam)
- Credit test
 - 70% required if you were not successful in any of the partial tests
 - 65% required if you were successful in ONE of the partial tests
 - 60% required if you were successful in BOTH partial tests

Testing

- Students can sit the credit test in the 15th week (May 29-June 4, 2017), there are no exceptions to this whatsoever.
- Resits of the credit test will take place only during the exam period, i.e. June 5 July 9, 2017, or during the extended exam period, i.e. August 28 September 10, 2017.
- The number of possible credit test resits is two.
- The dates and number of resits set by the teacher before the exam period is final, it means no other dates will be added during the exam period or later.

Testing

- Results of the tests will be available to students in the Notebook on the IS.
- The student's results will be given in percentage together with the pass mark.
- The student will have the access to his/her tests during guarantee's office hours only.

Attendance

- Absences are going to be electronically registered in the IS. In order to be sure you have been registered as present in the class, be punctual, the attendance is always checked immediately after the beginning of the class.
- We can tolerate TWO unexcused absences only; all further absences have to be properly excused by the Study Department.
- Unexcused absences are regularly recorded in the Notebook on the IS, and students having these records cannot sit the credit test.

Course objectives

- The course will focus on basic latin grammar to help the studensts understand medical terminology
- After passing final exam, the students will:
 - understand rules of creating Latin terms and to understand meaning of particular terms
 - create correct Latin terms (both from anatomical and clinical terminology)
 - master the vocabulary in a systematic way
 - understand the system in the terminology of anatomical structures (= easier memorizing of the terms)

Latin pronunciation

Vowels





Vowels

Long Short

Ā (father) frāctūra A (cut) lingua

Ē (sad) artēria **E** (met) vertebra

Ĭ (intrigue) spīna Ⅰ (intrigue) digitus

I (yes) > J

O (door) sensorius O (on) skeleton

Ū (boom) ruptūra U (put) uterus

Y (analysis) hypophysis Y (lady) tympanum

Diphtongs

AE=Ē (care) anaemia

OE=Ē (care) lagoena

Greek words

OE (o-e) dyspnoe

EU (e-u) euthanasia

Read aloud

- hypnosis
- ala
- olla
- eupnoe
- ileus
- mucus
- haematoma
- iliacus

- ossa
- diploe
- cubitus
- venae
- diameter
- sacralis
- ulcus
- iris

- sutura
- sigmoideus
- depressor
- area
- oesophagus
- melior
- meatus
- leucocytus

Consonants

A Ā B C D E Ē F G H I Ī K L MN

Consonant/group of consonants	Pronunciation	Example
1: c + a, o, u, consonants c + ae, oe, e, i, y	[k] medical [ts] tsar	camera, costa, cultivatio, cranium caecus, coeliacia,
		centrum, circulatio, cynismus
2: ch	[x] lo ch	chirurgia, cholera

Consonants II

Consonant/group of consonants	Pronunciation	Example
3: g gu + vowel 4: h	[g] g round [gv] [h] h ouse	gramma, gastritis lingua, sanguis herba, haematologia
5: j + vowel	[y] y es	iniectio/injectio, maior/major
6: p p + h	[p] p resent [f] ph ysiology	pneumonia, pulmo phantasia, pharmacia
7: qu+ vowel	[kv]	aqua, quadriceps
8: r r+h	[r] r upture [r]	vertebra, ruptura rheuma, rhinitis

Consonants III

Consonant/group of consonants	Pronunciation	Example
9: s/ss s between two vowels and following after l, r, n	[s] s ome [z]	serum, fossa nasus, incisura, pulsus, tonsilla, inversus, suspensio
10: t ti + vowel s/t/x + ti + vowel t+h	[t] tongue [tsi] [ty] [t]	trauma, tactus operatio, substantia tibia, ostium, mixtio therapia, thermometrum
11: z	[z] z one	zoologia

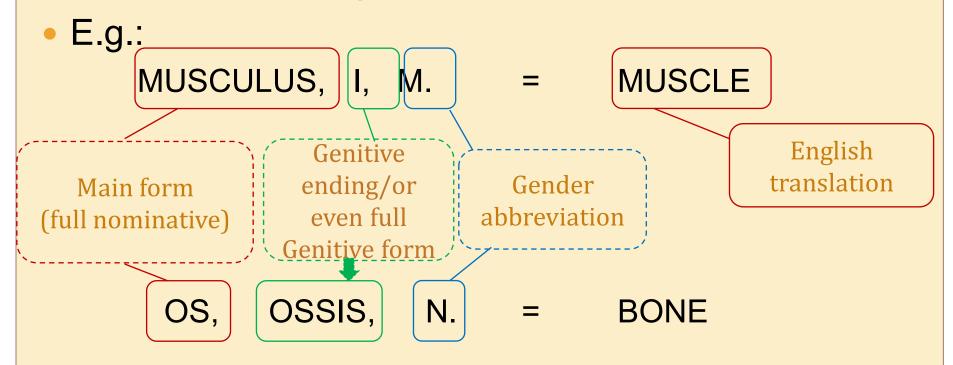
Read aloud

- lingua, unguis, diameter obliqua, liquor cerebrospinalis, lobus quadratus hepatis
- os nasale, medulla ossium, dorsum, ossa cranii, intestinum crassum, junctura fibrosa, membrana interossea antebrachii, musculus masseter, musculus risorius
- aorta descendens, arteria comitans nervi ischiadici, articulatio sacrococcygea, intestinum caecum, tunica mucosa vesicae urinariae, fossa sacci lacrimalis, pectus, occiput
- phalanx media, diaphragma, diaphysis, encephalon, os sphenoidale, hemispherium, kyphosis, sphincter, nephros, symphysis pubica
- antebrachium, facies, atrium cordis dextrum, brachium sinistrum, endometrium, frenulum labii inferioris, impressio cardiaca, os hyoideum, promontorium
- tonsillae palatinae, areae gastricae, arteria nutricia ulnae, cartilago tubae auditivae, meatus nasopharyngeus, membrana vitrea, musculus tensor fasciae latae, plicae palatinae transversae, sulcus glutealis, tunica mucosa tracheae

Grammatical categories

What will you find in the dictionary?

- English words are presented in one single form
- !!!Latin words are presented in three forms!!!



!CAUTION! ALL THREE FORMS are EQUALLY important for the future ability to use the noun in the context.

Gender

- ENGLISH has 3 genders:
 - HE refers to male humans and animals
 - SHE refers to female humans and animals
 - IT inanimate objects or animals
- LATIN has 3 genders:
 - o not only humans and animals, but also other objects are thought of as being:
 - masculine -> discipulus (he-student), musculus (muscle)
 - feminine -> discipula (she-student), vena (vein)
 - ▼ neutral -> corpus (body)

THERE IS NOTHING, WHICH COULD INDICATE THE GENDER TO YOU



YOU HAVE TO LEARN IT BY HEART

In Latin, **adjectives change** their form **depending on the noun** to which they refer

Without knowing noun's gender you CANNOT attach a correct form of an adjective to it.

Genitive ending => Declension

- Declensions are groups of nouns (or adjectives) using the same set of suffixes (=endings)
- There are 5 declensions in Latin
- Genitive ending is the only part of the word, which will indicate you its declension

DECLENSION	1 st	2 nd	3 rd	4 th	5 th
GENITIVE ENDING	-ae (-es)	-i	-(?)-is	-us	-ei
EXAMPLE	coxa, ae, f.	humerus, i, m. cranium, ii, n.	coccyx, gis, f. dens, dentis, m. femur, oris, n. pelvis, is, f.	arcus, us, m. genu, us, n.	facies, ei, f.

Decide on the number of declension

0. corpus, oris, n.	3	13.,18. digitus, i, m.	2	27. hypogastrium, ii, n.	2
cutis, is, f.	3			29. truncus, i, m.	2
1. caput. itis. n.	3	14. sulcus, i, m.	2	30. manus, us, f .	4
	2	15.,28. penis, is m.	3	31. crus, cruris, n.	3
3. facies, ei, f.	5	16. femur, oris, n.	3	32. tarsus, i, m.	2
4. os, oris, n.	3	17. genu, us, n.	4	talus, i, m.	2
lingua, ae, f.	1	19. frons, frontis, f.	3	33. pes, pedis, m.	3
				34. hallux, ucis, m.	3
5. mentum, i, n.	2	20. oculus, i, m.	2		
6. axilla, ae, f.	1	21. nasus, i, m.	2		
7. brachium, ii, n.	2	22. auris, is, f .	3		
8. cubitus, i, m.	2	23. bucca, ae, f.	1		
9. antebrachium, ii, n.	2	24. collum, i, n.	2		
		cervix, icis, f.	3		
10. carpus, i, m.	2	25. pectus, oris, n.	3		
11. pollex, icis, m.	3	26. abdomen, inis, n.	3		
12. palma, ae, f.	1				

LATIN AND GREEK DECLENSIONS

Dec	lens.		I.			I	I.				III.			IV	V.	V.
Para	ıdigm	vena	systole	diabetes	nervus	septum	nephros	colon	dolor	dolor corpus pelvis dosis febris		rete	ductus	genu	facies	
Ger	nder	f.	f.	m.	m.	n.	m.	n.	m. + f.	n.	m. + f.	m. + f.	n.	m.	n.	f.
S	1.	-a	-e	-es	-us/-er	-um ▲	-os	-on ▲	?	?	-is/-es	-(s)is/ -xis/-osis	-ar/-e/ -al ♣	-us	-u ▲	-es
n g	2.	-ae	-es	-ae	-i	-i	-i	-i	-is	-is	-is	-is/-eos	-is	-us	-us	-ei
u l	4.	-am	-en	-am	-um	1	-um	1	-em	1	-em	-im/-in	1	-um	1	-em
a r	6.	-a	-e	-a	-0	-0	-0	-0	-e	-e	-e / (-i)	-i	-i	-u	-u	-e
P	1.	-ae	-ae	-ae	-i	-a ▲	-i	-a ▲	-es	-a ▲	-es	-es	-ia ▲	-us	-ua ▲	-es
lu	2.	-arum	-arum	-arum	-orum	-orum	-orum	-orum	-um	-um	-ium	-ium	-ium	-uum	-uum	-erum
r a	4.	-as	-as	-as	-os	1	-os	1	-es	1	-es	-es	1	-us	1	-es
	6.	-is	-is	-is	-is	-is	-is	-is	-ibus	-ibus	-ibus	-ibus	-ibus	-ibus	-ibus	-ebus
		+ Adj. of 1st decl. F			+ Adj. of 2nd decl. M	+ Adj. of 2nd decl. N			+Compa -rative forms of adj. M+F	+ Com- parative forms of adj. N	+ Adj.▼ of 3rd decl. M + F		+ Adj. of 3rd decl. N			

Genitive ending \Rightarrow stem of a word

- A stem is a form to which endings can be attached
- In some declensions (1st, 4th, 5th, and in majority of cases also 2nd) the nominative and genitive forms of the word have identical stem
- In some declensions (3rd, partially 2nd) word's stem can greatly different
- WE NEED TO REMOVE THE GENITIVE ENDING IN ORDER TO GAIN THE GENITIVE STEM

ven-ae	humer-us humer-i	dol-or dolor-is corp-us	arc-us arc-us	faci-es faci-ei
	diamet-er diametr-i	corpor-is de-ns dent-is	gen-u gen-us	

Decide what is the stem of the noun

ex: caput, capit-is

- skeleton, skeleti
- os, ossis
- cranium, cranii
- orbita, orbitae
- collum, colli
- cervix, cervicis
- thorax, thoracis
- costa, costae
- discus, disc
- processus, processus
- vertebra, vertebrae
- pelvis, pelvis
- coxa, coxae

- ilia, ilium
- coccyx, coccygis
- ischium, ischii
- pubes, pubis
- symphysis, symphysis
- nasus, nasi
- dens, dent s
- mandibula, mandibulae
- clavicula, claviculae
- scapula, scapulae
- sternum, sterni
- humerus, humeri
- arcus, arcus
- radius, radii

- ulna, ulna<mark>e</mark>
- metacarpus, metacarpi
- carpus, carpi
- phalanx, phalangis
- femur, femoris
- patella, patellae
- tibia, tibiae
 - fibula, fibulae
 - metatarsus, metatarsi

Latin – inflectional language

- In many languages, Latin and Greek among them, nouns inflect (change their form) for number and for case.
 - Inflection for number involves singular (sg.): plural (pl.) forms (eg. forearm: forearms, antebrachium: antebrachia) and is present in English as well.
 - Inflection for case involves changing the form of the noun according to its syntactic function/meaning. Latin has extensive case system in which a special form is used for every specific meaning. In medical terminology we use 4 out of 6 Latin cases to express the following meanings:

Cases and their meanings

LATIN

system of specific case endings + prepositions

ENGLISH

prepositions or word order

- 1. **NOMINATIVE** subject (ending) −−−→ subject of the sentence
- 2. **GENITIVE** dependency of two nouns, possession (ending)
- 4. **ACCUSATIVE** object, movement −−−→ object of the sentence (preposition + ending)
- 6. **ABLATIVE** place, location, −−−→ by, with, to, because of... instrument, cause (preposition + ending)

In medical terminology **ACCUSATIVE** and **ABLATIVE** cases are used **ONLY AFTER** the **PREPOSITION**.

NOMINATIVE and **GENITIVE NEVER** appear **AFTER** a **PREPOSITION**

ONLY ACCUSATIVE (4TH CASE) AND ABLATIVE (6TH CASE)APPEAR AFTER A PREPOSITION

Dec	lens.		I.			I	I.				III.			I	<i>V</i> .	V.
Para	ndigm	vena	systole	diabetes	nervus	septum	nephros	colon	dolor	corpus	pelvis	dosis febris	rete	ductus	genu	facies
Ger	nder	f.	f.	m.	m.	n.	m.	n.	m. + f.	n.	m. + f.	m. + f.	n.	m.	n.	f.
S	1.	-a	-e	-es	-us/-er	-um ♣	-os	-on ▲	?	?	-is/-es	-(s)is/ -xis/-osis	-ar/-e/ -al ♣	-us	-u _	-es
n g	2.	-ae	-es	-ae	-i	-i	-i	-i	-is	-is	-is	-is/-eos	-is	-us	-us	-ei
u l a r																
P	1.	-ae	-ae	-ae	-i	-a _♠	-i	-a <u></u>	-es	-a _♠	-es	-es	-ia _♠	-us	-ua ♠	-es
lu	2.	-arum	-arum	-arum	-orum	-orum	-orum	-orum	-um	-um	-ium	-ium	-ium	-uum	-uum	-erum
r a l																
		+ Adj. of 1st decl. F			+ Adj. of 2nd decl. M	+ Adj. of 2nd decl. N			+Compa -rative forms of adj. M+F	+ Com- parative forms of adj. N	+ Adj.v of 3rd decl. M + F		+ Adj. of 3rd decl. N			

Introduction to syntax NOUN IN APPOSITION I.

noun + noun < GENITIVE

• Translated: using of

Meaning: state of dependency, possession

• **EX:** Fractura costae //fractura costarum

Fracture of ribs Fracture of ribs

! = rib fracture = rib fractures

Connect two nouns

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ex: caput + costa > caput costae head of rib
caput + femur -> caput femoris
caput + fibula -> caput fibulae
caput + humerus -> caput humeri
caput + phalanx -> caput phalangis
caput + radius -> caput radii
caput + talus -> caput tali
caput + ulna -> caput ulnae
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Adjectives of the 1st and 2nd declension, dictionary entry

Magnus, a, um

Magnus magnum magnum f. n.

coxa cervix

oculus sulcus

crus arcus

bucca metatarsus

fibula hallux

Dexter, a, um

Dexter dextra dextrum

m. f. n.

coxa cervix

oculus sulcus

crus arcus

bucca metatarsus

fibula hallux

Find all the adjectives

- vena, ae, f.
- periculum, i, n.
- fractura, ae, f.
- suspicio, onis, f.
- thorax, cis, m.
- fractus, a, um
- dies, ei, m.
- pulsus, us, m.
- hepaticus, a, um
- arcus, us, m.

- thoracicus, a, um
- hepar, tis, n.
- rete, is, n.
- planus, a, um
- caesareus, a, um
- diameter, tri, f.
- caries, ei, f.
- ruptus, a, um
- flexor, oris, m.
- bonus, a, um

Find all the adjectives

- vena, ae, f.
- periculum, i, n.
- fractura, ae, f.
- suspicio, onis, f.
- thorax, cis, m.
- fractus, a, um
- dies, ei, m.
- pulsus, us, m.
- hepaticus, a, um
- arcus, us, m.

- thoracicus, a, um
- hepar, tis, n.
- rete, is, n.
- planus, a, um
- caesareus, a, um
- diameter, tri, f.
- caries, ei, f.
- ruptus, a, um
- flexor, oris, m.
- bonus, a, um

Agreed-attribute What is the correct adjective for the noun in the triangle? dextra dexter dextrum genu orbita pes dexter dextrum dextra

Structure of multi-word medical terms

- two-word terms:
 - noun + adjective in nominative singular:
 - costa vera (true rib); fibula fracta (broken calf-bone)
 - o noun in nominative + noun in genitive (second noun is usually translated into english using "of")
 - *x spina scapulae* (spine of shoulderblade); *fractura fibulae* (fracture of calf bone)
 - noun in nominative + noun following a preposition
 - ★ ACC: medicamentum contra dolorem (remedy against pain)
 - ★ ABL: medicamentum pro adultis (remedy for adults)
- multi-word terms combining these types in various ways
 - o status post fracturam colli femoris sinistri cum dislocatione
 - * state after a fracture of the neck of the left femur with a dislocation
 - o extractio dentis canini propter cariem profundam cum anaesthesia locali
 - extraction of canine tooth because of deep dental decay with local anesthesia

1st Latin declension

Dec	lens.		I.			I	.		,,		III.			r	V.	
Para	digm	vena	systole	diabetes	nervus	septum	nephros	colon	dolor	corpus	pelvis	dosis febris	rete	ductus	genu	facies
Ger	der		f.	m.	m.	n.	m.	n.	m. + f.	n.	m. + f.	m. + f.	n.	m.	n.	f.
S	1.		-e	-es	-us/-er	-um	-os	-on ▲	?	?	-is/-es	-(s)is/ -xis/-osis	-ar/-e/ -al 靠	-us	-u ▲	-es
n g	2.		-es	-ae	-i	-i	-i	-i	-is	-is	-is	-is/-eos	-is	-us	-us	-ei
u l	4.		-en	-am	-um	1	-on	1	-em	1	-em	-im/-in	1	-um	1	-em
r	6.		-e	-a	-0	-0	-0	-0	-e	-e	-е	-i	-i	-u	-u	-e
P	1.		-ae	-ae	-i	-a ▲	-i	-a ▲	-es	-a 	-es	-es	-ia ▲	-us	-ua ▲	-es
l u	2.		-arum	-arum	-orum	-orum	-orum	-orum	-um	-um	-ium	-ium	-ium	-uum	-uum	-erum
r a	4.		-as	-as	-os	1	-os	1	-es	1	-es	-es	1	-us	1	-es
	6.		-is	-is	-is	-is	-is	-is	-ibus	-ibus	-ibus	-ibus	-ibus	-ibus	-ibus	-ebus
					+ Adj. of 2nd decl. M	+ Adj. of 2nd decl. N			+Com- parative forms M+F	+Com- parative forms N	+ Adj. ▼ of 3rd decl. M + F		+ Adj. of 3rd decl. N			

1st Latin declension

• Example word: vēna, ae, f.

case	singular	plural
nom.	vēna	vēnae
gen.	vēn <mark>ae</mark>	vēnarum
ak.	vēn <mark>am</mark>	vēn <mark>as</mark>
abl.	vēn <mark>ā</mark>	vēn <mark>is</mark>

• In the first declension we decline nouns that have:

Genitive sg. ending	-ES	-AE
Nominative sg. ending	-E	-ES
Gender	F	M

Decl	ens.		I.		I	Ι.				III.			I	V.	V.
Para	digm	n vena systole diabetes nervus septum nephros colon		colon	dolor	corpus	pelvis	dosis febris	rete	ductus	genu	facies			
Gen	der	f.		m.	n.	m.	n.	m. + f.	n.	m. + f.	m. + f.	n.	m.	n.	f.
S i	1.	-a		-us/-er	-um	-os	-on ▲	?	?	-is/-es	-(s)is/ -xis/-osis	-ar/-e/ -al 靠	-us	-u _	-es
n g	2.	-ae		-i	-i	-i	-i	-is	-is	-is	-is/-eos	-is	-us	-us	-ei
u l	4.	-am		-um	1	-on	1	-em	1	-em	-im/-in	1	-um	1	-em
a r	6.	-a		-0	-0	-0	-0	-e	-e	-е	-i	-i	-u	-u	-е
P	1.	-ae		-i	-a ▲	-i	-a ▲	-es	-a ▲	-es	-es	-ia ▲	-us	-ua ▲	-es
l u	2.	-arum		-orum	-orum	-orum	-orum	-um	-um	-ium	-ium	-ium	-uum	-uum	-erum
r a	4.	-as		-os	1	-os	1	-es	1	-es	-es	1	-us	1	-es
1	6.	-is		-is	-is	-is	-is	-ibus	-ibus	-ibus	-ibus	-ibus	-ibus	-ibus	-ebus
		+ Adj. of 1st decl. F		+ Adj. of 2nd decl. M	+ Adj. of 2nd decl. N			+Com- parative forms M+F	+Com- parative forms N	+ Adj. ▼ of 3rd decl. M + F		+ Adj. of 3rd decl. N			

	systole, es, f	diabetes, ae, m.
nom. sg.	systole	diabetes
gen. sg.	systoles	diabetae
ak. sg.	systolen	diabetam
abl. sg.	systole	diabeta

- All nouns infleced like systole, es, f. are of feminine gender.
- All nouns inflectted like *diabetes*, *ae*, *m*. are of masculine gender.
- o Paradigms *vena, systole* and *diabetes* have identical endings in plural.

Declens. I.			II.				III.					IV.		V.		
Paradigm		vena	systole	diabetes	nervus		nephros	colon	dolor	corpus	pelvis	dosis febris	rete	ductus	genu	facies
Gender		f.	f.	m.	m.	n.	m.	n.	m. + f.	n.	m. + f.	m. + f.	n.	m.	n.	f.
S i n g u l a r	1.	-a	-e	-es	-us/-er	-um ▲	-os	-on ▲	?	?	-is/-es	-(s)is/ -xis/-osis	-ar/-e/ -al 靠	-us	-u 	-es
	2.	-ae	-es	-ae	-i	-i	-i	-i	-is	-is	-is	-is/-eos	-is	-us	-us	-ei
	4.	-am	-en	-am	-um	1	-on	1	-em	1	-em	-im/-in	1	-um	1	-em
	6.	-a	-e	-a	-о	-0	-0	-0	-e	-e	-е	-i	-i	-u	-u	-e
P l u r a	1.				-i	-a ▲	-i	-a ▲	-es	-a ▲	-es	-es	-ia ▲	-us	-ua ▲	-es
	2.				-orum	-orum	-orum	-orum	-um	-um	-ium	-ium	-ium	-uum	-uum	-erum
	4.				-os	1	-os	1	-es	1	-es	-es	1	-us	1	-es
	6.				-is	-is	-is	-is	-ibus	-ibus	-ibus	-ibus	-ibus	-ibus	-ibus	-ebus
		+ Adj. of 1st decl. F			+ Adj. of 2nd decl. M	+ Adj. of 2nd decl. N			+Com- parative forms M+F	+Com- parative forms N	+ Adj. ▼ of 3rd decl. M + F		+ Adj. of 3rd decl. N			

Feminine form of adjectives ending in US, A, UM / ER, A, UM

								(1))							
Declens.			I.			II.				III.					IV.	
Paradign			systole	diabetes	nervus	septum	nephros	colon	dolor	corpus	pelvis	dosis febris	rete	ductus	genu	facies
Gender			f.	m.	m.	n.	m.	n.	m. + f.	n.	m. + f.	m. + f.	n.	m.	n.	f.
S	1.		-e	-es	-us/-er	-um ▲	-os	-on ▲	?	?	-is/-es	-(s)is/ -xis/-osis	-ar/-e/ -al 靠	-us	-u ♠	-es
n g	2.		-es	-ae	-i	-i	-i	-i	-is	-is	-is	-is/-eos	-is	-us	-us	-ei
u l a r	4.		-en	-am	-um	1	-on	1	-em	1	-em	-im/-in	1	-um	1	-em
	6.		-е	-a	-0	-0	-0	-0	-e	-e	-е	-i	-i	-u	-u	-e
P l u r a	1.		-ae	-ae	-i	-a ▲	-i	-a ▲	-es	-a <u></u>	-es	-es	-ia ♠	-us	-ua ▲	-es
	2.		-arum	-arum	-orum	-orum	-orum	-orum	-um	-um	-ium	-ium	-ium	-uum	-uum	-erum
	4.		-as	-as	-os	1	-os	1	-es	1	-es	-es	1	-us	1	-es
	6.		-is	-is	-is	-is	-is	-is	-ibus	-ibus	-ibus	-ibus	-ibus	-ibus	-ibus	-ebus
					+ Adj. of 2nd decl. M	+ Adj. of 2nd decl. N			+Com- parative forms M+F	+Com- parative forms N	+ Adj. ▼ of 3rd decl. M + F		+ Adj. of 3rd decl. N			

Homework

- learn 1st declension by heart
- revise/learn terms for grammatical categories
- revise/learn vocabulary from handouts 1.1, 2 and 3
- revise prepositions see pdf file PREPOSITIONS
- translate into Latin following slide:

Translate

- complicated fracture of right shinbone
- rupture of coronary artery
- congenital anomaly of vertebral column (literally: column of vertebrae)
- after angina
- cause of acute dyspnea
- mucous membrane of gall bladder
- fracture of the fourth coccygeal vertebra
- congenital insufficiency of eustachian tube
- treatment of chronic allergy