Medical Terminology for Interpreters

An Instructor's Guide

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Contents

Sample Agenda

Medical Terminology for Interpreters

Sample Agenda

The following schedule is based on the assumption that the program will be delivered over a single day (for the one-day workshop only) or three days (for the full program).

If another format is used, for example, one evening for each module, the instructor will adapt the sample schedule accordingly.

Note that the one-day workshop is based on Modules 1 and 2.
The three-day workshop comprises Modules 1-6.

MODULE 1 SAMPLE SCHEDULE

8:30 – 9:00 a.m.	Introductions, housekeeping and learning objectives
9:00 – 10:30 a.m.	Greek and Latin roots and affixes
10:30 – 10:45 a.m.	*Break*
10:45 – 11:15 a.m.	Register of medical terms
11:15 a.m. – 12:00 p.m.	The human body
12:00 – 1:00 p.m.	*Lunch*

MODULE 2 SAMPLE SCHEDULE

1:00 – 2:00 p.m.	Introduction to anatomy and physiology
2:00 – 2:30 p.m.	Medical tests and procedures
2:30 – 2:45 p.m.	*Break*
2:45 – 3:30 p.m.	Symptoms and abbreviations
3:30 – 4:30 p.m.	Professional development

MODULE 3 SAMPLE SCHEDULE

8:30 – 10:00 a.m.	Musculoskeletal and integumentary systems
10:00 – 10:15 a.m.	*Break*
10:15 a.m. – 12:00 p.m.	Circulatory, respiratory and nervous systems
12:00 – 1:00 p.m.	*Lunch*

MODULE 4 SAMPLE SCHEDULE

1:00 – 1:30 p.m.	Review of Module 3: five body systems
1:30 – 2:15 p.m.	Endocrine and immune systems
2:15 – 3:00 p.m.	Digestive and urinary systems
3:00 – 3:15 p.m.	*Break*
3:15 – 4:30 p.m.	Reproductive system and review

MODULE 5 SAMPLE SCHEDULE

8:30 – 9:00 a.m.	Review and learning objectives
9:00 – 9:45 a.m.	The continuum of register
9:45 – 10:30 a.m.	Tests, procedures and the human body
10:30 – 10:45 a.m.	*Break*
10:45 a.m. – 12:00 p.m.	Medical terminology in real-life settings
12:00 – 1:00 p.m.	*Lunch*

MODULE 6 SAMPLE SCHEDULE

1:00 – 3:00 p.m.	Review, self-assessment
3:00 – 3:15 p.m.	*Break*
3:15 – 4:30 p.m.	Wrap-up and exit assessment

LESSON PLAN OVERVIEW MEDICAL TERMINOLOGY FOR INTERPRETERS MODULE 1				
Time	**Learning Objectives**	**Materials/Set-up**	**Activities**	**Remarks**
8:30 – 10:30 a.m.	1. Identify the meaning of common Greek and Latin roots and affixes found in medical terms. 2. Associate the Greek and Latin roots found in terms for common medical specialties with medical terms related to those specialties.	– MT handbook (one per participant) – Name tents – Handout with the agenda (***optional***: see the front matter of this guide for sample agendas) – YES/NO cards (***optional***) – bell to call time (if desired) – Activity 2 envelopes and cards	• Welcome, introductions and housekeeping (20 minutes) • Overview of program and learning objectives (10 minutes) • Icebreaker: Self-assessment, handbook pp. 6-8 (20 minutes) • Mini-lecture: Greek and Latin roots and affixes (15 minutes) • **Activity 1:** Roots and affixes, handbook, pp. 18-19 (30 minutes) • **Activity 2:** Medical specialties, handbook, pp. 26-27 (25 minutes)	• Try to start and stay on time. • Emphasize that this program is not a silver bullet: we are teaching them to fish (not providing fish).
10:30 – 10:45 a.m.	***Break***			
10:45 a.m. – 12:00 p.m.	3. Analyze the language register of common medical terms and identify whether each term is higher, medium or lower register, taking context into account. 4. Interpret terms for parts of the human body into both or all the interpreter's working languages. 5. Identify the basic functions of 10 human body systems.	– "Traffic circles" – Three-dimensional human body prop, for example, "Dimensional Man" – Body systems functions handout (see Appendix 4 of this guide), one set per participant – Flash cards for Activity 4 (one set per *pair* of participants	• **Activity 3:** Identifying register in medical terms, handbook, p. 36 (30 minutes) • Body parts demo activity (10 minutes) • **Activity 4:** The human body (20 minutes) • **Activity 5:** Body systems functions matchup activity (15 minutes)	• Do not complete the register activity. End it when time is up and let participants study the rest of this exercise at home. • Keep Activity 4 quick and lively. • Activity 5 is a match-up activity—intended to be quick.
12:00 – 1:00 p.m.	***Lunch***			

MODULE 1	**GREEK AND LATIN ROOTS AND AFFIXES** **8:30 – 10:30 a.m.**
Objectives:	1. Identify the meaning of common Greek and Latin roots and affixes found in medical terms. 2. Associate the Greek and Latin roots found in terms for common medical specialties with medical terms related to those specialties.
Materials:	– MT handbook, one per participant – Name tents – Handout with the agenda (***optional***: see the front matter of this guide for sample agendas) – YES/NO cards (***optional***) – bell – Activity 2 envelopes and cards
Activities:	– Welcome, introductions and housekeeping (20 minutes) – Overview of program and learning objectives (10 minutes) – Icebreaker: Self-assessment, handbook, pp. 6-8 (20 minutes) – Mini-lecture: Greek and Latin roots and affixes (15 minutes) – **Activity 1:** Roots and affixes, handbook, pp. 18-19 (30 minutes) – **Activity 2:** Medical specialties, handbook, pp. 26-27 (25 minutes)
Preparation:	– *Set up the room in U shape*. If possible, restrict the number of participants to 25 or fewer. – *Set up AV.* Check sightlines, sound, lighting for session and lighting for any videos (if using). If internet is needed, check internet connection. – *Write the instructor's plans for participant introductions on an easel sheet* or use slide 3 in Sample Slide Kit 1, for example: • Name • Title/organization (including "freelance interpreter") • Language(s) spoken • Country of origin • Type of medical interpreting you do (or what each participant hopes to learn from the workshop) – *Plan where you will execute Activity 2*. Depending on the number of participants and teams, a big open space will be ideal. – *Prepare the cards and envelopes for Activity 2.* Laminate these cards if you plan to use them more than once. (See Appendix 4 for templates.) – If desired, *set up a table for medical terminology resources* that participants can "visit" during breaks and lunch.

Note: YES/NO cards are featured in Modules 3 and 4 but many trainers like to have them at all times to conduct "instant polls" of the class as important questions arise. The template for printing YES/NO cards can be found in Appendix 4.

MODULE 1	REGISTER OF MEDICAL TERMS 10:45 – 11:15 a.m.
Objectives:	3. Analyze the language register of common medical terms and identify whether each term is higher, medium or lower register, taking context into account.
Materials:	– "Traffic circles"—one set per participant (a red, green and yellow circle)
Activities:	– **Activity 3:** Identifying register in medical terms, handbook, p. 36 (30 minutes)
Preparation:	– *Days ahead, prepare and (ideally) laminate the traffic circles.*

Activity 3: Identifying register in medical terms (30 minutes)

Prior to the session, make the traffic circles. Purchase red, green and yellow paper or card stock, draw circles (using a compass) for a diameter of about 4 inches, and draw as many on one sheet of paper or card stock as possible. Laminate each sheet *before* cutting them into circles. Laminating them will protect the circles, help ensure that participants don't write on them or lose them, and greatly increase the number of circles that come back to the trainer intact, thus reducing future work. You may also choose to have YES/NO cards for this activity.

Note: There is no template for the traffic circle cards in this guide. However, there is a template in Appendix 4 for the YES/NO cards, which could also be used in this activity.

Make one complete set of a red, green and yellow circle for each participant and then a few extra sets for possible larger sessions in future and/or the possible loss of some circles before the next session.

After welcoming the group back from break, ask if anyone can define the meaning of "register." Accept two or three definitions, then display your own. See slide 33 for suggestions. Make clear that:

- "Register" refers to level of language, from more formal to less formal.
- It means the way a speaker uses language differently in tone and style.
- High-register speech is usually formal and can sound academic or hard to understand.
- Low-register language tends to be relaxed, informal or slang. It is usually easy to understand.

Emphasize that register is a *continuum* or *spectrum.*

If you have YES/NO cards available, use them. Otherwise, ask them to hold up their GREEN circle (or YES card) if they think it's all right to *simplify* something complicated that a doctor says, to help the patient to understand it. Hold up their RED circle (or NO card) if they think this practice is not acceptable. Hold up their YELLOW circle (or both the YES and NO cards) if they think sometimes it's all right to do so and sometimes not. You will now find out what your participants know about this topic.

Call on a couple of people to comment. Then make clear, as discussed in the handbook, that maintaining register is both a professional and ethical requirement for interpreters, citing the National Council on Interpreting in Health Care (NCIHC). In general, there is an overwhelming tendency for medical interpreters to simplify the language used by healthcare (and other) providers. Interpreters think they are "helping" the patient by doing so.

MODULE 3	**MUSCULOSKELETAL AND INTEGUMENTARY SYSTEMS** **8:30 – 10:00 a.m.**
Objectives:	11. Accurately understand, use and interpret terms for the ***musculoskeletal*** and ***integumentary systems.***
Materials:	– MT handbook (one per participant) – "Roots and Affixes Workbook Handout and Answer Key" (one copy per participant, see Appendix 2 of this guide) – "Anatomy and Physiology Workbook Handout and Answer Key" (one copy per participant, see Appendix 3 of this guide) – Agenda for Modules 3 and 4 (***optional***—include Module 4 if taught on the same day as Module 3; see Part One of this guide for sample agenda) – Appendix 5 of this guide, "Suggested Video Resources" (instructors only) – Cups of water (one per every pair of participants) for ***optional*** activity – Toothpicks (at least two for every pair of participants), also ***optional***
Activities:	– Introduction of health professional, learning objectives and overview of Modules 3 and 4 (10 minutes) – Introduction of Roots and Affixes Workbook Handout (5 minutes) – **Activity 11a:** Warm-up exercise on body cavities in A&P workbook (15 minutes) – Film for musculoskeletal system (5 minutes) – Mini-lecture by **health professional (HP)**: what interpreters need to know about the musculoskeletal system (5 minutes) – **Activity 11b:** Exercises 1 (a) and (b) in A&P workbook (20 minutes) – Film for integumentary system, with mini-lecture by HP (10 minutes: 5 minutes each for film and mini-lecture) – Skin demos 1 and 2 (5 minutes), ***optional*** – **Activity 11c:** Exercises 2 (a) and (b) in A&P workbook (15 minutes)
Preparation:	– *Months in advance, schedule a health professional (HP) to deliver this module (and Module 4).* Plan to be present while the HP teaches. Guide the HP beforehand on how to teach interactive programs to interpreters, including this module. – *Weeks in advance, select films to use.* Review the possibilities discussed in the lesson plans and the lists of video resources in Appendix 5 of this guide. If desired, distribute Appendix 5 electronically suggesting that your participants check out some of these videos before the session. – *Days in advance, prepare the agenda* (if using), adapting it from the sample agenda at the beginning of this guide, and *program evaluations (see samples in Appendix 6) and certificates (see samples in Appendix 7)* if relevant. – *Days in advance, print the agenda (if using)* and the "Roots and Affixes Workbook Handout and Answer Key" (Appendix 2 of this guide) and the "Anatomy and Physiology Workbook Handout" (Appendix 3). If desired, print the "Suggested Video Resources" (Appendix 5) as a supplementary handout.

Appendices

If you are authorized to receive the electronic versions of these appendices and you have not yet received them, please contact clp@cultureandlanguage.net.

If you have purchased this book from a third party, the electronic copies of these appendices may be available to you for a separate fee. Contact clp@cultureandlanguage.net for details.

The following appendices are included in this section.

GREEK AND LATIN ROOTS AND AFFIXES

A Review Workbook for Medical Interpreters

Sylvana Fernández-Ellauri, MD (Uruguay), CMI

Review of Roots and Affixes (Parts of Words)[7]

Most medical terms derive from Greek or Latin and consist of basic word parts. It's easier to learn medical terms once we understand the meaning of the parts they are composed of.
The basic word parts are:

- The *root,* which holds the core meaning of the word (for example, *gastr* = stomach; *pulmon* = lung).
- The *prefix,* the part of the word that comes ***before*** the root, adds meaning to it: It tells us something about the root. For example, *sub-* as in *sub*cutaneous; *cutaneous* refers to the skin and *sub-* means "under," therefore, ***sub***cutaneous refers to something that is "under the skin."
- The *suffix,* the word part that comes ***after*** the root. Most medical terms have a suffix. They also contribute to the meaning of the term by adding meaning to the root. For example, *-ic*, means *"related, pertaining to."* Add it to the word root *gastr* (stomach): *gastr* + ***-ic*** = *gastric, which* means "pertaining to the stomach."

We also find an extra vowel after the word root, called the ***combining vowel***. This vowel (usually an **"o,"** sometimes **"i"** or **"e"**) does not carry any meaning, and we find it added at the end of the root. It helps to make the pronunciation smoother. For example, *pulmon/o* + *-logy* = *pulmonology*; otherwise, "pulmonlogy," without the combining vowel "o" would be harder to pronounce.

A few more things to know and remember:

- The root + the combining vowel form a unit called the *combining form.* The way we find word roots listed in glossaries and tables is with their respective combining vowel included: for example, *gastr/o or gastr(o), pulmon/o or pulmon(o), cutane/o or cutane(o).* Both the slash before the vowel and the vowel between parentheses mean the same thing and are equally correct. In this document, we will refer to these combining forms of the root simply as the "root."
- Prefixes, when not forming part of a word, are written followed by a dash. That is the way you will find them in glossaries and tables. For example, *sub-, mono-, intra-*.
- Suffixes in their isolated form (when not forming part of a word) are written preceded by a dash. For example, *-itis, -logy, -ary*.

Knowing this information will help you find the word part you are looking for in a table, especially when the table has all types of word parts (roots, prefixes and suffixes) listed in alphabetical order and not separately by category, such as Appendix 1 of the handbook, *Medical Terminology for Interpreters,* 4th ed.

Finally, here are a few more important points to keep in mind:

- Some medical terms refer to more than one organ or body part, so the word holds more than one root (or combining form). These are called *compound words.* Here are a few examples:
  - *Gastrointestinal* means "related to the stomach and the intestine" (*gastr/o* + *intestin/o* + *-al*).
    - *gastr/o*: root (in its combining form) for stomach

7 The activities in this workbook handout were inspired by Charlotte Creason (Ed.). *Stedman's Medical Terminology.* Philadelphia: Lippincott, Williams & Wilkins, 2010. The second edition came out in 2016.

THE HUMAN BODY, ITS DISEASES AND CONDITIONS

A Review Workbook of Basic Anatomy and Physiology for Medical Interpreters

Sylvana Fernández-Ellauri, MD (Uruguay), CMI

3. Circulatory System

Key roots for the circulatory system

cardi/o: heart
my/o: muscle
ventricul/o: ventricle
atri/o: atrium (pl. atria)
sept/o: septum
valv/o, valvul/o: valve(s)
mitr/o: mitral (valve)
aort/o: aorta
coron/o: coronary
pulmon/o: pulmonary
angi/o, vas/o, vascul/o: vessels
arteri/o: artery
ather/o: fatty plaque
phleb/o, ven/i, ven/o: vein
thromb/o: thrombus, clot
electr/o: electric, electricity
scler/o: hard

Exercise 3 (a): Quiz on the Anatomy and Physiology of the Heart

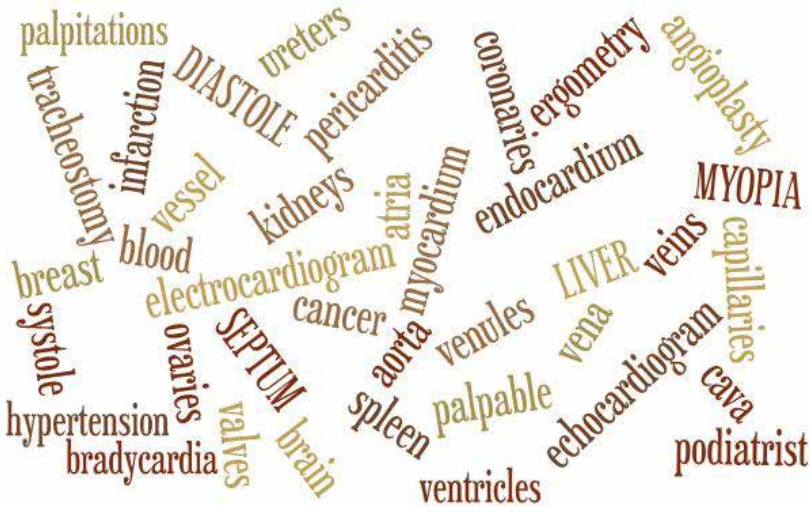
Fill the blanks by writing the letter for the best answer from the right column.

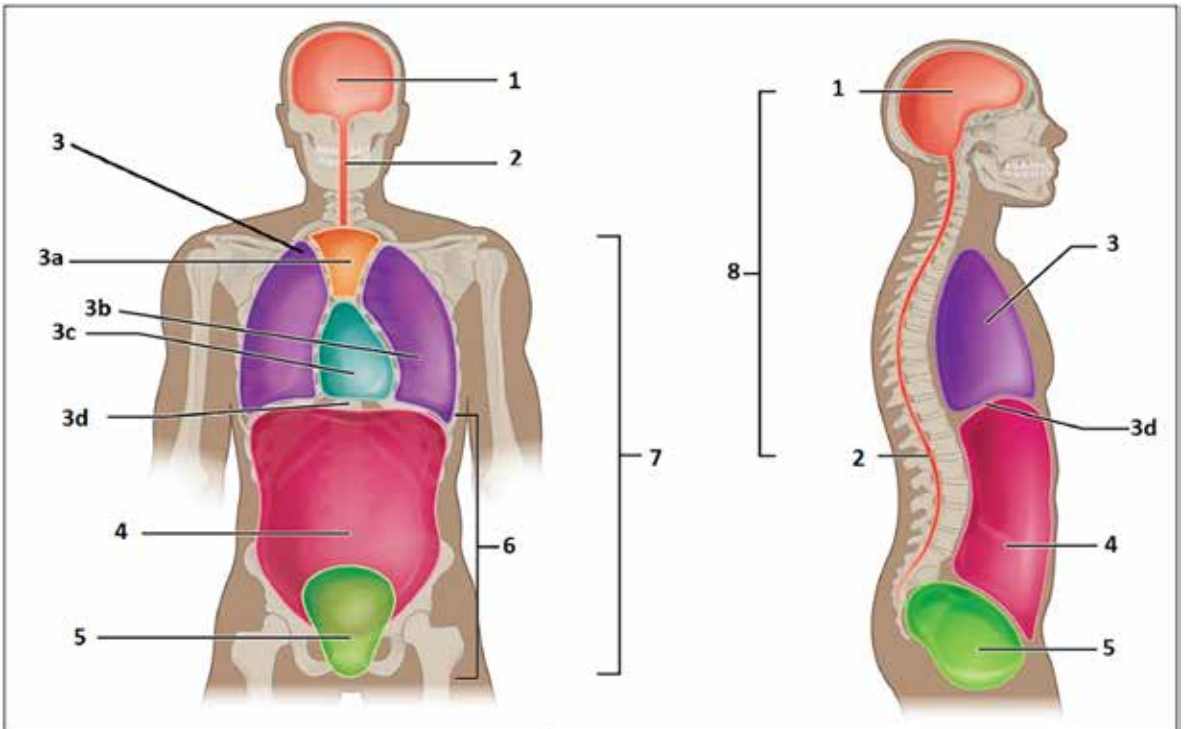
1. The normal heart has four _____
2. The upper chambers are called _____
3. Carries deoxygenated blood to the lungs _____
4. Supply oxygenated blood to the heart _____
5. Allow one-way passage of blood from the upper chambers to the lower chambers _____
6. Is the thicker of the two _____
7. Artery that carries oxygenated blood to the entire body _____
8. Divides the heart in a right and a left side_____

a) coronary arteries
b) tricuspid and mitral valves
c) left ventricle
d) septum
e) aorta
f) pulmonary artery
g) chambers
h) atria

Exercise 3 (b): Find the Terms Trapped in Murky Waters

Circle any terms in the word diagram below that are directly related to the circulatory system—and be prepared to justify your answers. The person who finds the highest number of correct terms in the allotted time wins!

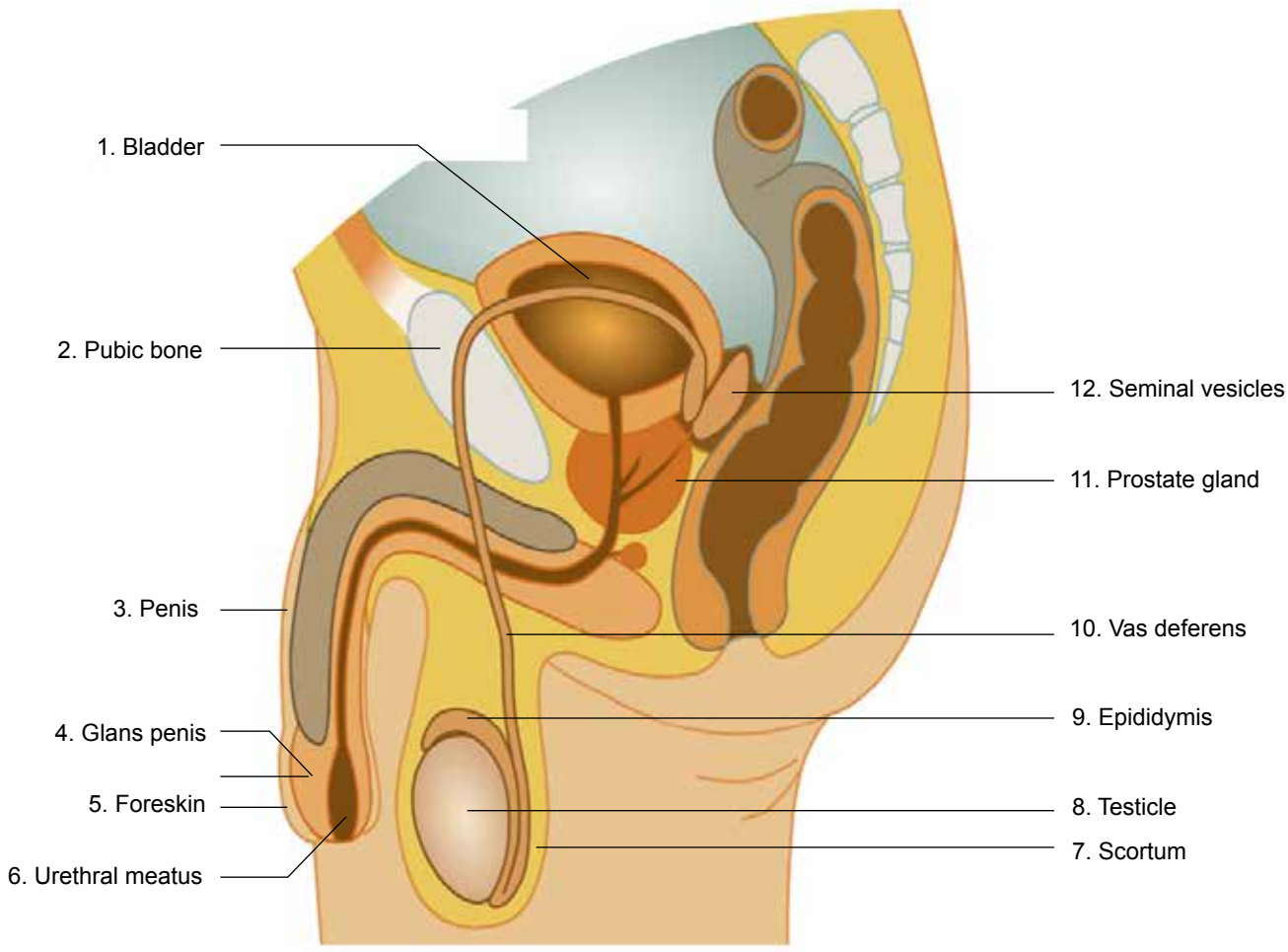




HUMAN BODY CAVITIES Frontal view	HUMAN BODY CAVITIES Lateral view
1. Cranial cavity 2. Spinal cavity 3. Thoracic cavity: a) Superior mediastinum b) Pleural cavity c) Pericardial cavity within mediastinum d) Diaphragm 4. Abdominal cavity 5. Pelvic cavity 6. Abdominopelvic cavity 7. Ventral body cavities (thoracic and abdominopelvic cavities)	1. Cranial cavity 2. Spinal cavity 3. Thoracic cavity d) Diaphragm 4. Abdominal cavity 5. Pelvic cavity 8. Dorsal body cavities (cranial and spinal cavities)

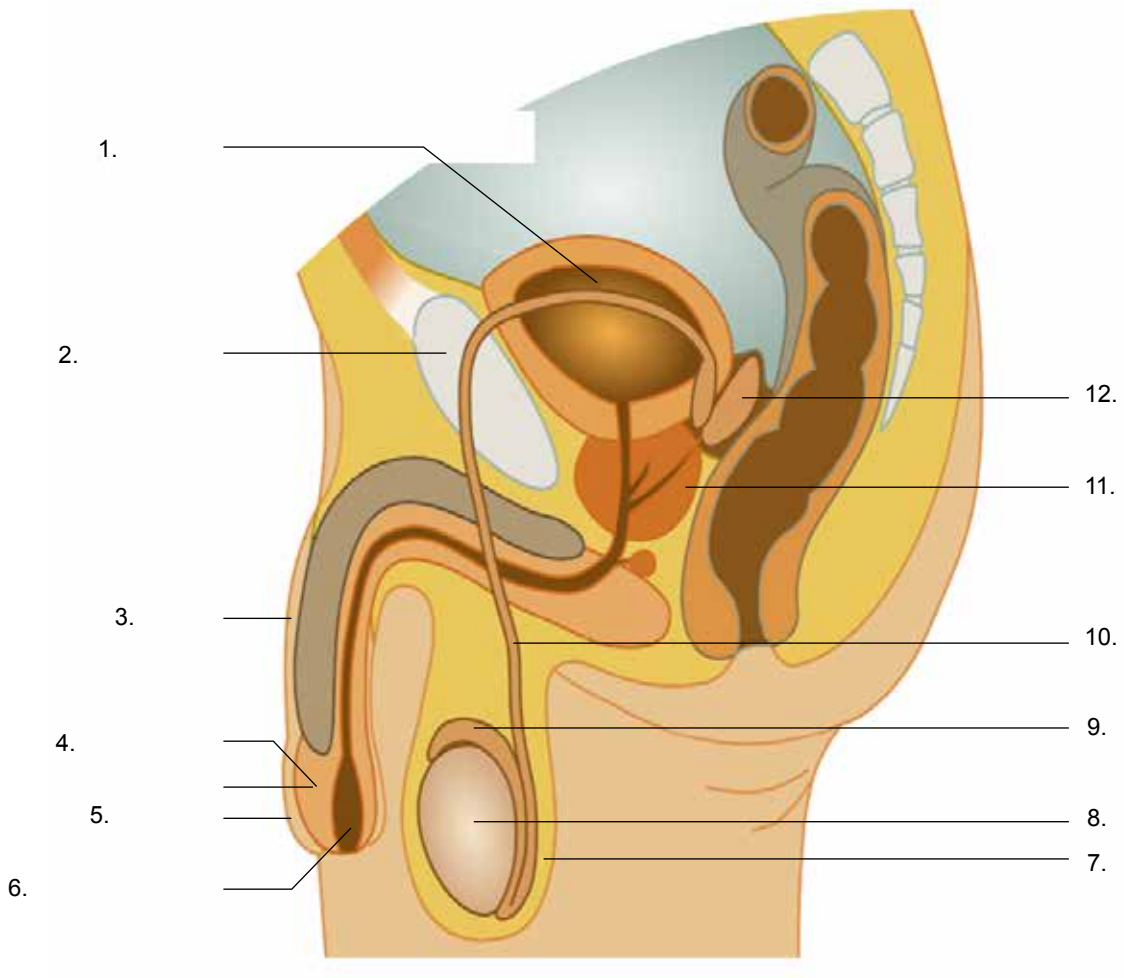
Modified from: By OpenStax, https://cnx.org/contents/FPtK1zmh@8.25:fEI3C8Ot@10Version 8.25 from the Textbook OpenStax Anatomy and Physiology, published May 18, 2016, CC BY 3.0, https://commons.wikimedia.org/w/index.php?curid=64287786

MALE REPRODUCTIVE SYSTEM



Modified from: CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=1416209

MALE REPRODUCTIVE SYSTEM



Modified from: CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=1416209

Hueso (sustantivo) Ósea (adjetivo) **Oss/o oste/o**	Adomen **Lapar/o**
Oido / oreja **Ot/o**	Mama (sustantivo) Mamaria (adjetivo) (Pecho / tórax / seno) **Mamm/o, mast/o, maz/o**
Ojo **Ocul/o** **Ophthalm/o, -opia**	Esófago (sustantivo) Esofágico (adjetivo) **Esophag/o**
Glándula (gánglio linfático) **Aden/o**	Vesícula biliar **Cholecyst/o,** **Chol/e (bile)**

Gums	Head
Kidney	Liver
Mouth	Nose
Ovary	Pancreas

MUSCULOSKELETAL SYSTEM

osteo-

What does this root mean?

MUSCULOSKELETAL SYSTEM

joint

What does a joint connect?

MUSCULOSKELETAL SYSTEM

tendon

Describe the difference between ligaments and tendons.

MUSCULOSKELETAL SYSTEM

musculoskeletal

What does this body system do?

MUSCULOSKELETAL SYSTEM

spinal stenosis

Where does this condition usually occur?

MUSCULOSKELETAL SYSTEM

sprain

What is damaged in a sprain?