Module 8

Basic Diseases

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INTRODUCTION

This module covers the topic of basic body system diseases, allergies and infectious diseases. Therefore, the module includes a variety of subjects and tasks related to basic human diseases. This helps to prepare healthcare staff and students of medical faculties to communicate about diseases, their symptoms and treatment. Different assignments facilitate the achievement of the module's objectives as well as ensuring linguistic competence at levels B1 and B2.

OBJECTIVES

In this module, you will:

- acquire new vocabulary related to the stages of diseases and the basic body system diseases, allergies and infectious diseases;
- analyse the formation of medical terms and learn their meanings through the roots, suffixes and prefixes used in the formation of the specialised medical vocabulary;
- watch videos and improve your listening skills on topics related to the major types of diseases;
- be able to read and analyse specialised medical texts that describe the stages of diseases;
- improve your speaking skills discussing symptoms of basic body system diseases, allergies and infectious diseases, as well as possible ways to treat them;
- learn to write about situations and how to describe different medical conditions;
- acquire a number of helpful expressions related to different diseases, their symptoms and treatment.

VIDEO PRESENTATION

10 CONTAGIOUS DISEASES THAT COULD WIPE OUT HUMANITY. Watch the *YouTube* video *10 Contagious Diseases that Could Wipe Out Humanity*[1]). Which diseases do you remember from the 10 diseases named in the video? What do you know about these diseases? What makes them so dangerous?

LISTENING 1

KEY WORDS. Listen, repeat and memorise the professional words in the table below. They will help you to fully understand the information provided in this module.

pathology /pəˈθɒlədʒi/	**disorder** /dɪsˈɔːdə/	**medical condition** /ˈmedɪkəl kənˈdɪʃən/	**internal dysfunction** /ɪnˈtɜːnəl dɪsˈfʌŋkʃən/	**organ failure** /ˈɔːgən ˈfeɪljə/
clinically evident impairment /ˈklɪnɪkəli ˈevɪdənt ɪmˈpeəmənt/	**dormant phase** /ˈdɔːmənt feɪz/	**latency period** /ˈleɪtənsi ˈpɪərɪəd/	**(causes of) ailments** /(ˈkɔːzɪz ɒv) ˈeɪlmənts/	**recurrence of symptoms** /rɪˈkʌrəns əv ˈsɪmptəmz/
remission /rɪˈmɪʃən/	relapse /rɪˈlæps/	**incurable disease** /ɪnˈkjʊərəbəl dɪˈziːz/	**chronic disease** / ˈkrɒnɪk dɪˈziːz/	**degenerative disease** / dɪˈdʒenərətɪv dɪˈziːz/

[1] 10 Contagious Diseases that Could Wipe Out Humanity. https://goo.gl/uQ13Nx. (YouTube Standard licence) [03.05.2016].

(non-)infectious disease	asymptomatic disease	fungi	protozoa	passenger virus
/(nɒn-)ɪnˈfekʃəs dɪˈziːz/	/ˌeɪsɪmptəˈmætɪk dɪˈziːz/	/ˈfʌŋgaɪ/	/ˌprəʊtəʊˈzəʊə/	/ˈpæsɪndʒə ˈvaɪərəs/

READING 1

THE CONCEPT OF DISEASE. Read the text and carefully analyse the concept of disease (adapted from *Disease*[2]). Identify useful words / phrases and their meanings used in the text from the list of words provided in Listening 1 above. Then answer the questions below.

Disease

A disease is a particular abnormal condition, a disorder of a structure or function that affects part or all of an organism. The causal study of disease is called pathology. Disease is often construed as a medical condition associated with specific symptoms and signs. It may be caused by factors originally from an external source, such as infectious disease, or it may be caused by internal dysfunctions, such as autoimmune diseases. Diseases usually affect people not only physically, but also emotionally, as contracting and living with a disease can alter one's perspective on life, and one's personality.

Commonly, the term *disease* is used to refer specifically to infectious diseases, which are clinically evident diseases that result from the presence of pathogenic microbial agents, including viruses, bacteria, fungi, protozoa, multicellular organisms, and aberrant proteins known as prions. An infection that does not and will not produce clinically evident impairment of normal functioning, such as the presence of the normal bacteria and yeasts in the gut, or of a passenger virus, is not considered a disease. By contrast, an infection that is asymptomatic during its incubation period, but expected to produce symptoms later, is usually considered a disease. Non-infectious diseases are all other diseases, including most forms of cancer, heart disease, and genetic disease.

Answer the questions below according to the text above :

1. What is considered a disease and what is not considered a disease?
2. What are typical causes of disease?
3. How do diseases typically affect people?
4. What is the difference between infectious diseases and non-infectious diseases?

READING 2

THE STAGES OF DISEASE AND THEIR PECULIARITIES. Read the information about the stages of disease and their peculiarities (adapted from *Disease*[3]). Insert the right stages of disease in the gaps from the table below. Make sure you know the correct pronunciation of the stages of disease. Identify other useful words and phrases from the list of words provided in Listening 1.

[2] Disease. https://en.wikipedia.org/wiki/Disease. (CC BY-SA 3.0) [03.05.2016].
[3] Disease. https://en.wikipedia.org/wiki/Disease. (CC BY-SA 3.0) [03.05.2016].

cure /kjʊə/
flare-up /ˈfleərˈʌp/
acute disease /əˈkjuːt dɪˈziːz/
chronic disease /ˈkrɒnɪk dɪˈziːz/
clinical disease /ˈklɪnɪkəl dɪˈziːz/
refractory disease /rɪˈfræktəri dɪˈziːz/
subclinical disease /sʌbˈklɪnɪkəl dɪˈziːz/
progressive disease /prəʊˈgresɪv dɪˈziːz/
incubation period /ˌɪnkjʊˈbeɪʃən ˈpɪərɪəd/

In an infectious disease, the ..... is the time between infection and the appearance of symptoms. The latency period is the time between infection and the ability of the disease to spread to another person, which may precede, follow, or be simultaneous with the appearance of symptoms. Some viruses also exhibit a dormant phase, called viral latency, in which the virus hides in the body in an inactive state. For example, varicella zoster virus causes chickenpox in the acute phase; after recovery from chickenpox, the virus may remain dormant in nerve cells for many years, and later cause herpes zoster (shingles).

An ..... is a short-lived disease, like the common cold.

A ..... is one that lasts for a long time, usually at least six months. During that time, it may be constantly present, or it may go into remission and periodically relapse. A chronic disease may be stable (does not get any worse) or it may be progressive (gets worse over time). Some chronic diseases can be permanently cured. Most chronic diseases can be beneficially treated, even if they cannot be permanently cured.

A ..... can refer to either the recurrence of symptoms or an onset of more severe symptoms.

A ..... is a disease that resists treatment, especially an individual case that resists treatment more than is normal for the specific disease in question.

A ..... is a disease whose typical natural course is the worsening of the disease until death, serious debility, or organ failure occurs. Slowly progressive diseases are also chronic diseases; many are also degenerative diseases. The opposite of progressive disease is *stable disease* or *static disease*: a medical condition that exists, but does not get better or worse.

A ..... is the end of a medical condition or a treatment that is very likely to end it, while remission refers to the disappearance, possibly temporarily, of symptoms. Complete remission is the best possible outcome for incurable diseases.

A ..... is one that has clinical consequences, i.e., the stage of the disease that produces the characteristic signs and symptoms of that disease. AIDS is the clinical disease stage of HIV infection.

A ..... is also called *silent disease*, silent stage, or *asymptomatic disease*. This is a stage in some diseases before the symptoms are first noted.

LANGUAGE FOCUS 1

QUIZ. Analyse the following terms referring to the types of disease. Match the types of disease with their definitions.

1.	**acute**	communicable by contact
2.	**allergic**	resistant to treatment or cure
3.	**chronic**	characterized by observable and diagnosable symptoms of disease
4.	**incubation**	increasing in extent or severity
5.	**contagious**	characterized by sharpness or severity of sudden onset
6.	**progressive**	the period between the infection of an individual by a pathogen and the manifestation of the disease it causes
7.	**infectious**	communicable by invasion of the body of a susceptible organism
8.	**refractory**	not detectable or producing effects that are not detectable by the usual clinical tests
9.	**clinical**	marked by long duration, by frequent recurrence over a long time, and often by slowly progressing seriousness
10.	**subclinical**	affected with hypersensitivity to an antigen in response to a first exposure

LISTENING 2

THE DIFFERENT TYPES OF DISEASES. Listen to the radio broadcast about the different types of diseases[4] and fill in the table below indicating the 10 types of diseases named by Professor Livingston and giving examples of the specific diseases that have been mentioned.

Fill in the following table based on the LISTENING 2 above.

	TYPE OF DISEASE	DISEASE
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

[4] Adapted from Diane Helentjaris. 10 Major Types of Diseases. http://goo.gl/4hiN3b. [03.05.2016].

LANGUAGE FOCUS 2

MATCHING THE DISEASE WITH THE BODY SYSTEM IT AFFECTS. Match the disease below with the body system it affects. To learn more about the body systems, refer to Module 7 (Body Systems), and if some diseases in the list below are not known to you, feel free to use medical dictionaries.

	Disease	Body System
1.	Multiple sclerosis	
2.	Nephrosis	
3.	Osteoarthritis	
4.	Diabetes Mellitus	
5.	Prostate cancer	
6.	Crohn's disease	
7.	Dental caries	
8.	Acne	
9.	Parkinson's disease	
10.	AIDS	
11.	Coronary artery disease	
12.	Herpes Simplex Virus	
13.	Lung cancer	
14.	Pharyngitis	
15.	Carpal Tunnel Syndrome	
16.	Renal failure	
17.	Bone cancer	
18.	Atherosclerosis	
19.	Osteoporosis	
20.	Gonorrhoea	
21.	Hypothyroidism	
22.	Obesity	
23.	Appendicitis	
24.	Gastric reflux / Gastroesophageal reflux disease (GERD)	
25.	Lymphedema	
26.	Intestinal parasites	
27.	Myocardial infarction	
28.	Alzheimer's disease	
29.	Kidney stones	
30.	Castleman's disease	

LANGUAGE FOCUS 3

FORMATION OF THE MEDICAL TERMS. Analyse the formation (roots, suffixes and prefixes) of the medical terms given below and explain their meanings accordingly. Feel free to use the *TranslationDirectory.com* (http://goo.gl/a7zB0O)[5] **for your analysis.**

[5] TranslationDirectory.com. http://goo.gl/z6RmiK. [16.05.2016].

Note that prefixes and suffixes, most of which are derived from ancient Greek or classical Latin, have a droppable *-o-*. As a general rule, this *-o-* almost always acts as a joint-stem to connect two consonantal roots, e.g. *arthr-* + *-o-* + *logy* = *arthrology*. But generally, the *-o-* is dropped when connecting to a vowel-stem; e.g. *arthr-* + *itis* = *arthritis*, instead of **arthr-o-itis*. Use the example below to explain the following medical terms and their meaning.

EXAMPLE: *Dyspepsia* = ...

Answer: **Dyspepsia = dys- (related to bad, difficult, abnormal condition) + -pepsia (related to digestion or the digestive tract). So, the term "Dyspepsia" denotes a medical condition when there are difficulties with digestion.**

1. ***Atherosclerosis*** = ...
   .....
   .....
2. ***Dysthymia*** = ...
   .....
   .....
3. ***Hydrocephalus*** = ...
   .....
   .....
4. ***Hypertension*** = ...
   .....
   .....
5. ***Tachycardia*** = ...
   .....
   .....
6. ***Thrombocytopenia*** = ...
   .....
   .....
7. ***Galactorrhea*** = ...
   .....
   .....
8. ***Stomatogastric*** = ...
   .....
   .....
9. ***Pseudohypertrophy*** = ...
   .....
   .....
10. ***Bronchiectasis*** = ...
    .....
    .....

LANGUAGE FOCUS 4

QUIZ: FILLING IN THE MISSING LETTERS. Fill in the missing letters in the following words.

1. _ _ t _ o _ _ _ h _ _ _ _ s	This is a musculoskeletal system disease.
2. _ h _ r _ _ g _ _ _ _	This is a respiratory system disease.
3. _ t _ _ r _ _ c _ _ _ _ s _ _	This is a cardiovascular system disease.
4. _ y _ _ t _ _ r _ _ d _ _ _	This is an endocrine system disease.
5. _ p _ _ _ _ i _ _ _ _ s	This is a digestive system disease.

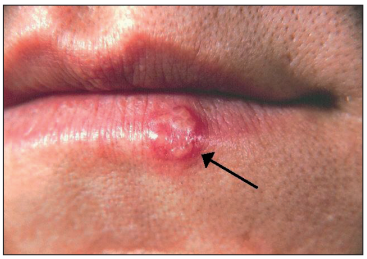
LANGUAGE FOCUS 5

QUIZ: NAMING THE DISEASE. Analyse the pictures below. Name the diseases illustrated in the pictures (refer to the list of diseases provided in LANGUAGE FOCUS 2) and explain what you know about these conditions.

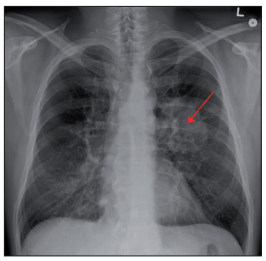
1. .....

2. .....

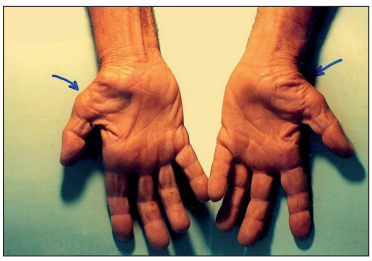
3. .....



4. .....



5. .....



6. .....

7. .....

8. .....

9. .....

10. .....

LANGUAGE FOCUS 6

QUIZ. Do the quiz. Do some research on basic diseases, if necessary. You may also want to refer to Module 7 (Body Systems).

1. The Respiratory system diseases include…
   a) Herpes Simplex Virus b) Hypothyroidism c) Lung cancer
2. The Nervous system diseases include…
   a) Atherosclerosis b) Multiple sclerosis c) Renal failure
3. The Urinary system diseases include…
   a) Osteoporosis b) Nephrosis c) Coronary artery disease
4. The Musculoskeletal system diseases include…
   a) Osteoarthritis b) Obesity c) Gonorrhoea
5. The Endocrine system diseases include …
   a) Gastric reflux b) Bone cancer c) Diabetes Mellitus
6. The Reproductive system diseases include …
   a) Dental caries b) Prostate cancer c) Appendicitis
7. The Digestive system diseases include …
   a) Crohn’s disease b) Carpal Tunnel Syndrome c) Parkinson’s disease
8. The Integumentary system diseases include …
   a) Acne b) Kidney stones c) Myocardial infarction
9. The Lymphatic system diseases include …
   a) Intestinal parasites b) Lymphedema c) Alzheimer’s disease
10. The Immune system diseases include …
    a) Pharyngitis b) Castleman’s disease c) AIDS

WRITING

KEY PHRASES. Write four different situations using the key phrases below. Feel free to use your imagination to develop your creativity ☺. Compare your situations with the situations written by your classmates or find a partner in your environment to discuss and compare your situations. Have your situations been understood in the same way? If not, in what ways do they differ?

Situation 1	Situation 2	Situation 3	Situation 4
terrible toothache	knock (oneself) unconscious	allergic to insect stings	acute diarrhoea after eating contaminated food
make an appointment	ring for an ambulance	(prevent) an allergic insect sting reaction	severe abdominal cramps / pain
need a filling	rush to the hospital	swelling around the sting site	cause loose stool / nausea / vomiting
have an injection	suffer from concussion	remove the stinger	ease the symptoms
give a prescription	have stiches for a cut	seek (immediate) medical attention	follow doctor's instructions

Suggestion for self-learners: you can work with a partner via Skype or present your point of view in a monologue.

SPEAKING 1

DISCUSSING THE SYMPTOMS, DIAGNOSIS AND TREATMENT IN A GROUP. PART 1. Work in groups of four. Think of some of the illnesses you (or a member of your family or friends) have recently had. Discuss the symptoms, diagnosis and treatment with your groupmates or other people in your environment.

Suggestion for self-learners: you can work with a partner via Skype or present your point of view in a monologue.

SPEAKING 2

DISCUSSING THE SYMPTOMS, DIAGNOSIS AND TREATMENT IN A GROUP. PART 2. Imagine that you are a sick patient. Think of possible symptoms and when you are ready, describe the imaginary symptoms to your classmates or other people in your environment – your "doctors". They have to make a diagnosis and suggest treatment for you. You may be willing to use the words and expressions from the Listening 1 exercise above or the Language Corner below.

Suggestion for self-learners: you can work with a partner via Skype or present your point of view in a monologue.

LANGUAGE CORNER


The following expressions have been selected to act as the building blocks for successful communication regarding the subject addressed in this module. They will support you in creating adequate subject-related sentences and expressions to meet the communicative requirements in any professional situations you may encounter.

to produce clinically evident impairment (of normal functioning)	congenital disease
to produce symptoms	to be affected by a disease
appearance / recurrence of symptoms	the most common disease found in (women / men)
the incubation period	severe abdominal cramps / pain
an acute (short-lived) disease	to ease the symptoms
a chronic (long-lasting) disease	a (sudden) onset of severe symptoms
to go into remission	to cause loose stool / nausea / vomiting
to periodically relapse	seek (immediate) medical attention
to be allergic to (insect stings)	stable / static / silent disease
to resist treatment / cure	to (prevent) an allergic insect sting reaction
worsening of the disease	clinical consequences
inherited conditions	a possible outcome for (incurable diseases)
hypersensitivity to an antigen	swelling around the sting site
manifestation of the disease	acute diarrhoea after eating contaminated food
communicable by contact	to contract with a disease

SUMMARY

Having completed this module, you have:

- acquired new vocabulary related to the stages of diseases and the basic body system diseases, allergies and infectious diseases;
- analysed the formation of medical terms and learnt their meanings through the roots, suffixes and prefixes used in the formation of the specialised medical vocabulary;
- watched videos and improved your listening skills on topics related to the major types of diseases;
- been able to read and analyse medical texts that describe the stages of diseases;
- improved your speaking skills discussing symptoms of basic body system diseases, allergies and infectious diseases, as well as possible ways to treat them;
- learnt to write about situations and how to describe different medical conditions;
- acquired a number of helpful expressions related to different diseases, their symptoms and treatment.

REFERENCES

Diane Helentjaris. 10 Major Types of Diseases. 21 April 2015. http://goo.gl/4hiN3b. [03.05.2016].

Module 8 Basic Diseases

AUDIOSCRIPT

VIDEO PRESENTATION

Watch the *YouTube* video *10 Contagious Diseases that Could Wipe Out Humanity*. Which diseases do you remember from the 10 diseases named in the video? What do you know about these diseases? What makes them so dangerous?

10. **Polio.** Targets the nervous system to cause spinal and respiratory paralysis. Spread through fecal remains, it mainly affects young children.
9. **Yellow Fever.** Spread through infected mosquitos, it can lead to jaundice and organ failure. There are 200,000 cases each year, 30,000 of which prove fatal.
8. **Sars.** Originating from China's Guangdong region in 2002, the virus kills 1 in 10 infected. An airborne virus, it clogs the lungs leading to respiratory failure.
7. **Spanish Flu.** Fluids fill victims' lungs, drowning them in their own mucus. The airborne virus killed 100million in 1918 – more than had died during WW1.
6. **Cholera.** Causes diarrhea and vomiting, leading to dehydration, which can send the body into shock. Spread through contaminated water, there are an estimated 120,000 deaths a year from cholera.
5. **Malaria.** Causes seizures, comas and patients' brains to swell. Carried by parasites spread through insect bites, it kills 1 child every minute.
4. **Plague.** Spread through fleas from infected animals. Kills 70% of victims – some in 24 hours. Causes excruciating swelling; the Medieval plague killed up to 75 million worldwide.
3. **Ebola.** Spread through contact with bodily fluid, hemorrhaging victims die from blood loss. One of Earth's most lethal diseases, there's no cure and a 90% fatality rate.
2. **Tuberculosis.** The world's second biggest killer attacks the lungs, bones and nervous system. Caught by inhaling airborne saliva, 1/3 of the world's population has latent TB.
1. **HIV.** Attacks the immune system, making the victim unable to fight off infection. 35 million people are estimated to be currently living with HIV.

LISTENING 2

Listen to the radio broadcast about the types of diseases and fill in the table below indicating the 10 types of diseases named by Professor Livingston and giving examples of the specific diseases that have been mentioned.

Announcer: This is Natalie Castings and the radio programme "Be Healthy, Wealthy and Wise". Today in the studio we have Professor Livingston. Hello, Professor, I've learnt that over 2,000 years ago, the Greek doctor Hippocrates was the first to begin categorizing diseases in a scientific way and this practice continues into modern times.

Professor: Hello, Natalie, yes, today we have a disease classification system presented by the World Health Organization that can be summarized in ten broad areas. To start with, the first one includes *Heart, Lung and Other Organ Diseases*. Currently it is known that the number one killer is heart disease. Heart attacks, coronary heart disease and congestive heart failure are all very common and lung diseases such as chronic obstructive pulmonary disease is another major cause of deaths.

Announcer: The statistics are undoubtedly grave. Are the causes of these ailments known today, Professor Livingston?

Professor: Yes, the causes of these ailments, as well as those of other organs typically include inherited conditions, infections and trauma. Well, if I can speak about the second category of diseases, it will include *Blood and Immune System Diseases*. I have some statistics here, if I may…

Announcer: Yes, Professor, please. Statistics will help us to get a better picture of the situation that we have today.

Professor: All right then. It has recently been reported that anaemia was named the leading reason for more than 200,000 emergency room visits and nearly 400,000 hospitalizations. The National Institutes of Health has noted that about five to eight percent are affected by an autoimmune disease. Among the most prevalent are type 1 diabetes, rheumatoid arthritis and psoriasis.

Announcer: Are the causes of these ailments the same as for the *Heart, Lung and Other Organ Diseases*?

Professor: Well, not exactly. The immune system problems may be congenital or, as in the case of AIDS, acquired.

Announcer: So the causes of *Heart, Lung and Other Organ Diseases* typically include inherited conditions, infections and trauma. Meanwhile, the causes of *Blood and Immune System Diseases* may be congenital or acquired. I can see the difference now… OK, so we can move to the third category now.

Professor: The third category includes only one, yet very common disease – *Cancer*. Although breast cancer is the most common cancer found in women and prostate cancer the most common in men, lung cancer is the deadliest. Statistically, lung cancer is the top cause of cancer deaths in both sexes.

Announcer: Yes, it is one of the major causes of deaths in the whole world. If I am not mistaken, cancer is in the second place as a cause of death.

Professor: Yes, that's a sad statistic, basically because the process of treatment is very long and painful, not to mention the fact that it is often diagnosed too late. Well, let's go to the next category of diseases, which includes *Injuries*. Statistically, injury ranks first as a killer of persons aged one to 44.

Announcer: Do you mean that the risk for injury varies with age?

Professor: Yes, the risk varies with age. For example, poisoning is a particular hazard for toddlers while older adults are at a higher risk of fall-related injuries. Meanwhile, motor vehicle crashes continue to threaten all age groups.

Announcer: Yes, that sounds about right. It's so obvious now that the risk of injury varies with age. All right. And now we can move on. So what is next in the categorization?

Professor: Well, the fifth category includes *Brain and Nervous System Diseases.*

Announcer: Does the risk vary with age within this category too?

Professor: In fact brain and nervous system illnesses can appear at any age. Spina bifida, which is associated with inadequate folic acid intake in a pregnant woman's diet is present at birth. Alzheimer's dementia, like schizophrenia, arises in adults, has a genetic component and is associated with physical changes in the brain.

Announcer: So, I can see that it's not that obvious in terms of age as it was with the *Injuries* category, but anyway we can see that certain diseases are age-related, for example, Spina bifida, which is present at birth, or Alzheimer's dementia, which typically arises in adults. That's interesting. And now what diseases can be found in the sixth category?

Professor: These are *Endocrine System Diseases.* We know that endocrine glands secrete hormones into the bloodstream with wide-ranging effects.

Announcer: Yes, but could you, please, be more specific and give some examples here, Professor, to make it more understandable for me and our listeners.

Professor: Yes, of course, Natalie. For example, diabetes occurs when insulin from the pancreas can no longer effectively regulate glucose. Cushing's disease of the adrenal glands and hyperthyroidism are also endocrine disorders. Is it any clearer now?

Announcer: Yes, a little bit, Professor. So all this means that endocrine system disorders may result in wide-ranging effects in a human body.

Professor: Yes, Natalie, you are absolutely right. And, now the seventh category… It includes *Infectious and Parasitic Diseases.*

Announcer: Well, I know that historically infectious diseases such as tuberculosis, cholera or yellow fever have played a major role in human health.

Professor: Yes. And even today, according to the National Institutes of Health, more people die worldwide of infectious diseases than of any other cause. Bacteria, viruses and parasites all contribute to this toll.

Announcer: Yes, it sounds about right that now more people die of infectious diseases than of any other cause, bearing in mind all these current major threats of contagious diseases such as HIV, Sars or Ebola.

Professor: Yes, including that same tuberculosis you've mentioned earlier. OK. And now, Natalie, let's move to the eighth category of diseases. This one includes *Pregnancy and Childbirth-Related Diseases.* The number of babies from those born alive and who survive to age one, is a critical health measure.

Announcer: But I'm sure that nowadays infant mortality rates have changed considerably for the better.

Professor: Well, yes. But still more than one-third of these deaths, statistically, are related to premature birth, which is often related to other problems during pregnancy.

Announcer: That's a sad statistic, Professor Livingston. But I believe this is the worldwide statistic and the situation with the premature birth-related problems would be less threatening if we spoke of the western part of the world where medical services are better developed.

Professor: Yes, Natalie, this is indeed a worldwide statistic. In fact, professional medical services, including preventive measures and early diagnostics for diseases add to a much more promising situation regarding premature birth-related problems and lower mortality rates. Well… and now, shall we move the ninth category of disease?

Announcer: Yes, please, Professor. What diseases does the ninth category involve?

Professor: Well, *Inherited Diseases* would go to this category.

Announcer: So, these would be the diseases related to the genetic abnormalities. Is that true, Professor?

Professor: Yes, Natalie. Inherited diseases can be the result of a single gene abnormality -- such as Down's syndrome -- or from the interplay of multiple genes. For instance, neural tube defects and hip dysplasia involve multiple genes.

Announcer: All this sounds rather complicated and severe, Professor. But we can understand that *Inherited Diseases* are any of the diseases and disorders that are caused by mutations in one or more genes. Well, although you've mentioned so many diseases, there is still one more category left. So what are the diseases that would belong to the tenth category?

Professor: These would be *Environmentally-Acquired Diseases.*

Announcer: Then these must be the diseases related to the immediate changes in the environment, for example, exposure to the sun or cold. Am I right, Professor?

Professor: Not exactly, Natalie. Yes, environmental health effects can be immediate, such as heat wave-related deaths or carbon monoxide poisoning. But others, such as skin cancer take years to evolve. And others may only show up in later generations, such as haemophilia, asthma or schizophrenia.

Announcer: Well, I see that my understanding of various diseases and their causes has been very limited until now. And I really appreciate that you could find some time in your busy schedule to come to the studio today to share this interesting and valuable information. I hope it was none the less useful to our listeners to learn about…

KEY TO EXERCISES

READING 1

Read the text and carefully analyse the concept of disease (adapted from *Disease*). Identify useful words / phrases and their meanings used in the text from the list of words provided in Listening 1 above. Then answer the questions below.
Answer the questions below according to the text above:

1. ***What is considered a disease and what is not considered a disease?***
   A disease is a particular abnormal condition, a disorder of a structure or function that affects part or all of an organism. Disease is often construed as a medical condition associated with specific symptoms and signs.
   Commonly, the term *disease* is used to refer specifically to infectious diseases, which are clinically evident diseases that result from the presence of pathogenic microbial agents, including viruses, bacteria, fungi, protozoa, multicellular organisms and aberrant proteins known as prions. An infection that does not and will not produce clinically evident impairment of normal functioning, such as the presence of the normal bacteria and yeasts in the gut, or of a passenger virus, is not considered a disease. By contrast, an infection that is asymptomatic during its incubation period, but expected to produce symptoms later, is usually considered a disease.
2. ***What are typical causes of disease?***
   It may be caused by factors originating from an external source, such as infectious disease, or it may be caused by internal dysfunctions, such as autoimmune diseases.
3. ***How do diseases typically affect people?***
   Diseases usually affect people not only physically, but also emotionally, as contracting and living with a disease can alter one's perspective on life, and one's personality.
4. ***What is the difference between infectious diseases and non-infectious diseases?***
   Infectious diseases are clinically evident diseases that result from the presence of pathogenic microbial agents, including viruses, bacteria, fungi, protozoa, multicellular organisms and aberrant proteins known as prions. Non-infectious diseases are all other diseases, including most forms of cancer, heart disease and genetic disease.

READING 2

Read the information about the stages of disease and their peculiarities (adapted from *Disease*). Insert the right stages of disease in the gaps from the table below. Make sure you know the correct pronunciation of the stages of disease. Identify other useful words and phrases from the list of words provided in Listening 1.

In an infectious disease, the **incubation period** is the time between infection and the appearance of symptoms. The latency period is the time between infection and the ability of the disease to spread to another person, which may precede, follow, or be simultaneous with the appearance of symptoms. Some viruses also exhibit a dormant phase, called viral latency, in which the virus hides in the body in an inactive state. For example, varicella zoster virus causes chickenpox in the acute phase; after recovery from chickenpox, the virus may remain dormant in nerve cells for many years, and later cause herpes zoster (shingles).
An **acute disease** is a short-lived disease, like the common cold.
A **chronic disease** is one that lasts for a long time, usually at least six months. During that time, it may be constantly present, or it may go into remission and periodically relapse. A chronic disease may be stable (does not get any worse) or it may be progressive (gets worse over time). Some chronic diseases can be permanently cured. Most chronic diseases can be beneficially treated, even if they cannot be permanently cured.
A **flare-up** can refer to either the recurrence of symptoms or an onset of more severe symptoms.
A **refractory disease** is a disease that resists treatment, especially an individual case that resists treatment more than is normal for the specific disease in question.
A **progressive disease** is a disease whose typical natural course is the worsening of the disease until death, serious debility or organ failure occurs. Slowly progressive diseases are also chronic diseases; many are also degenerative diseases. The opposite of progressive disease is *stable disease* or *static disease*: a medical condition that exists, but does not get better or worse.
A **cure** is the end of a medical condition or a treatment that is very likely to end it, while remission refers to the disappearance, possibly temporarily, of symptoms. Complete remission is the best possible outcome for incurable diseases.
A **clinical disease** is one that has clinical consequences, i.e., the stage of the disease that produces the characteristic signs and symptoms of that disease. AIDS is the clinical disease stage of HIV infection.
A **subclinical disease** is also called *silent disease*, *silent stage*, or *asymptomatic disease*. This is a stage in some diseases before the symptoms are first noted.

LANGUAGE FOCUS 1

Analyse the following terms referring to the types of disease. Match the types of disease with their definitions.

1.	**acute**	characterized by sharpness or severity of sudden onset
2.	**allergic**	affected with hypersensitivity to an antigen in response to a first exposure
3.	**chronic**	marked by long duration, by frequent recurrence over a long time, and often by slowly progressing seriousness
4.	**incubation**	the period between the infection of an individual by a pathogen and the manifestation of the disease it causes
5.	**contagious**	communicable by contact
6.	**progressive**	increasing in extent or severity
7.	**infectious**	communicable by invasion of the body of a susceptible organism
8.	**refractory**	resistant to treatment or cure
9.	**clinical**	characterized by observable and diagnosable symptoms of disease
10.	**subclinical**	not detectable or producing effects that are not detectable by the usual clinical tests

LISTENING 2

Listen to the radio broadcast about the different types of diseases, and fill in the table below, indicating the 10 types of diseases named by Professor Livingston and giving examples of the specific diseases that have been mentioned.

	TYPE OF DISEASE	DISEASE
1.	*Heart, Lung and Other Organ Diseases*	Heart attacks, coronary heart disease and congestive heart failure; lung diseases, such as chronic obstructive pulmonary disease
2.	*Blood and Immune System Diseases*	Anaemia, autoimmune disease, type 1 diabetes, rheumatoid arthritis and psoriasis, AIDS
3.	*Cancer*	Breast cancer, prostate cancer, lung cancer
4.	*Injuries*	Poisoning, fall-related injuries, motor vehicle crashes
5.	*Brain and Nervous System Diseases*	Spina bifida, Alzheimer's dementia, like schizophrenia
6.	*Endocrine System Diseases*	Diabetes, Cushing's disease of the adrenal glands and hyperthyroidism
7.	*Infectious and Parasitic Diseases*	Tuberculosis, Bacteria, viruses and parasites
8.	*Pregnancy and Childbirth-Related Diseases*	Premature birth
9.	*Inherited Diseases*	Down syndrome, neural tube defects and hip dysplasia
10.	*Environmentally-Acquired Diseases*	Heat wave-related deaths or carbon monoxide poisoning; skin cancer; haemophilia, asthma or schizophrenia

LANGUAGE FOCUS 2

Match the disease below with the body system it affects. To learn more about the body systems, refer to Module 7 (Body Systems), and if some diseases in the list below are not known to you, feel free to use medical dictionaries.

	Disease	Body System
1.	Multiple sclerosis	Nervous system
2.	Nephrosis	Urinary system
3.	Osteoarthritis	Musculoskeletal / Skeletal system
4.	Diabetes Mellitus	Endocrine system
5.	Prostate cancer	Reproductive system
6.	Crohn's disease	Digestive system
7.	Dental caries	Digestive system
8.	Acne	Integumentary system
9.	Parkinson's disease	Nervous system

10.	AIDS	Immune system
11.	Coronary artery disease	Cardiovascular system
12.	Herpes Simplex Virus	Immune system
13.	Lung cancer	Respiratory system
14.	Pharyngitis	Respiratory system
15.	Carpal Tunnel Syndrome	Musculoskeletal / Muscular system
16.	Renal failure	Urinary system
17.	Bone cancer	Musculoskeletal / Skeletal system
18.	Atherosclerosis	Cardiovascular system
19.	Osteoporosis	Musculoskeletal / Skeletal system
20.	Gonorrhoea	Reproductive system
21.	Hypothyroidism	Endocrine system
22.	Obesity	Endocrine system
23.	Appendicitis	Digestive system
24.	Gastric reflux / Gastroesophageal reflux disease (GERD)	Digestive system
25.	Lymphedema	Lymphatic system
26.	Intestinal parasites	Digestive system
27.	Myocardial infarction	Cardiovascular system
28.	Alzheimer's disease	Nervous system
29.	Kidney stones	Urinary system
30.	Castleman's disease	Lymphatic system

LANGUAGE FOCUS 3

Analyse the formation (roots, suffixes and prefixes) of the medical terms given below and explain their meanings accordingly. Feel free to use the *TranslationDirectory.com* (http://goo.gl/a7zB0O) **for your analysis.**

1. ***Atherosclerosis* = *athero-*** (related to fatty deposit, soft gruel-like deposit) **+ *-sclerosis*** (hardening). So, the term ***Atherosclerosis*** denotes a medical condition when fatty substances form a deposit thus causing hardening (of the arteries).
2. ***Dysthymia* = *dys-*** (related to bad, difficult, abnormal condition) **+ -thymia** (emotions). So, the term ***Dysthymia*** denotes a medical condition related to abnormal emotional condition or mood disorder (known as chronic depression).
3. ***Hydrocephalus* = *hydro-*** (related to water) **+ *cephal(o)-*** (related to the head (as a whole)). So, the term ***Hydrocephalus*** denotes a medical condition when water (or fluid) builds up in the head (on the brain).
4. ***Hypertension* = *hyper-*** (denotes something as 'extreme' or 'beyond normal') **+ *-tension*** (pressure). So, the term ***Hypertension*** denotes a medical condition known as high blood pressure (HBP).
5. ***Tachycardia* = *tachy-*** (denoting something as fast, irregularly fast) **+ *-cardio*** (of or pertaining to the heart). So, the term ***Tachycardia*** denotes a medical condition in which a heart rate exceeds the normal resting rate.
6. ***Thrombocytopenia* = *thrombo-*** (of or relating to a blood clot, clotting of blood) **+ *-cyto-* (cell) + -penia** (deficiency). So, the term ***Thrombocytopenia*** denotes a medical condition in which there is a deficiency of blood cells involved in forming blood clots.
7. ***Galactorrhea* = *galacto-*** (milk) **+ *-rrhoea*** (flowing, discharge). So, the term ***Galactorrhea*** denotes a discharge of milk (from a nipple, e.g. in women who are not breastfeeding an infant).
8. ***Stomatogastric* = *stomato-*** (of or pertaining to the mouth) **+ *gastro-*** (of or pertaining to the stomach). So, the term ***Stomatogastric*** denotes a medical condition related to the mouth and the stomach.
9. ***Pseudohypertrophy* = *pseudo-*** (denotes something false or fake) **+ *hyper-*** (denotes something as 'extreme' or 'beyond normal'***) +*** ***-trophy*** (nourishment, development). So, the term ***Pseudohypertrophy*** denotes falsely enlargement of organs (e.g. calf muscles, which become swollen with deposits of fat and fibrous tissue).
10. ***Bronchiectasis* = *bronch(i)-*** (of or relating to the bronchus) **+ *-ectasis*** (expansion, dilation). So, the term ***Bronchiectasis*** denotes a medical condition in which an area of the bronchial tubes is (permanently and abnormally) dilated.

LANGUAGE FOCUS 4

Fill in the missing letters in the following words.

1. Osteoarthritis
2. Pharyngitis
3. Atherosclerosis
4. Hypothyroidism
5. Appendicitis

LANGUAGE FOCUS 5

Analyse the pictures below. Name the diseases illustrated in the pictures (refer to the list of diseases provided in LANGUAGE FOCUS 2) and explain what you know about these conditions.

1. Arthritis
2. Acne
3. Dental caries
4. Herpes Simplex Virus
5. Lung cancer
6. Carpal Tunnel Syndrome
7. Osteoporosis
8. Obesity
9. Intestinal parasites
10. Kidney stones

LANGUAGE FOCUS 6

Do the quiz. Do some research on basic diseases, if necessary. You may also want to refer to Module 7 (Body Systems).

1. The Respiratory system diseases include…
   a) Herpes Simplex Virus b) Hypothyroidism c) Lung cancer
2. The Nervous system diseases include…
   a) Atherosclerosis b) Multiple sclerosis c) Renal failure
3. The Urinary system diseases include…
   a) Osteoporosis b) Nephrosis c) Coronary artery disease
4. The Musculoskeletal system diseases include…
   a) Osteoarthritis b) Obesity c) Gonorrhoea
5. The Endocrine system diseases include …
   a) Gastric reflux b) Bone cancer c) Diabetes Mellitus
6. The Reproductive system diseases include …
   a) Dental caries b) Prostate cancer c) Appendicitis
7. The Digestive system diseases include …
   a) Crohn's disease b) Carpal Tunnel Syndrome c) Parkinson's disease
8. The Integumentary system diseases include …
   a) Acne b) Kidney stones c) Myocardial infarction
9. The Lymphatic system diseases include …
   a) Intestinal parasites b) Lymphedema c) Alzheimer's disease
10. The Immune system diseases include …
    a) Pharyngitis b) Castleman's disease c) AIDS

IMAGE SOURCES

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