

Greek Roots.

Many medical and scientific terms come from Greek roots. For instance, the words Cardiac, Cardiogram and cardiologist come from the Greek word KARDIA, WHICH MEANS HEART. THE ENDINGS -IARIST and -IATRICIAN are from the Greek word IATROS, meaning “doctor” and the ending **-logist** means “one who studies”.

Listen to the following list of medical professions that are derived from Greek roots. Then match the root of each word with its meaning on the right.



<u>ROOT</u>	<u>MEANING.</u>
Orthodont <u>ist</u> ____	A skin
Pharmac <u>ist</u> ____	B bone
Psych <u>iatrist</u> ____	C child
Pedi <u>iatrician</u> ____	C old man
Therap <u>ist</u> ____	E Eye
Ophthalmolo <u>gist</u> ____	F Mind, soul
Gynecolo <u>gist</u> ____	G Without feeling
Anesthesio <u>logist</u> ____	H Straight tooth
Dermatolo <u>gist</u> ____	I Treatment
Ger <u>iatrician</u> ____	J Nerve
Neuro <u>logist</u> ____	K Medication
Osteo <u>path</u> ____	L Woman

B. Listen to the following underlined words. Then use the context in the examples to match them with their definitions.



- | | | |
|--|-------|---|
| 1. An epidemic is a highly <u>contagious</u> disease that spreads quickly and affects many people at the same time. | _____ | A easily harmed or affected by something |
| 2. When an <u>outbreak</u> of an epidemic occurs, health agencies work at finding the source in order to stop the disease from spreading. | _____ | B a change or alteration in genetic material |
| 3. Young children and the elderly are usually more <u>susceptible</u> to disease because their immune system is weaker. | _____ | C combined from two different species |
| 4. Influenza is caused by a <u>virus</u> that infects the body and creates disease. | _____ | D able to be easily spread to others |
| 5. Medical scientists carefully study a harmful virus in order to create a <u>vaccination</u> that can prevent others from being infected in the future. | _____ | E never seen or done before |
| 6. The same virus may appear in different forms. One <u>strain</u> of the virus may not pose a serious threat, while another strain could be deadly. | _____ | F organisms of a species that have unique characteristics |
| 7. The Spanish flu killed an <u>unprecedented</u> number of people. No other influenza virus in history is known to have caused so many fatalities. | _____ | G an injection that protects against a virus or disease |
| 8. Most viruses do not usually <u>transmit</u> from animals to humans. | _____ | H a sudden appearance and spread of disease |
| 9. However, a <u>mutation</u> in the genetic material of an animal virus could occur, thus making it able to transmit to people. | _____ | I to transfer from one place to another |
| 10. When two different viruses exchange genetic material, it creates a <u>hybrid</u> virus. | _____ | J a very small organism that causes disease |

Audio Script

Pages 72-73.

Avian Flu

– A Potential Pandemic?

Imagine waking up one morning with a sore throat, slight _____, and achy muscles. After a visit to the doctor, you are diagnosed with a case of the _____. As you sit at home resting, you notice the latest news about the avian flu and begin to worry, thinking you might have it.



What is Avian Flu? Avian means “relating to birds.” Flu is short for “influenza,” a highly contagious _____ infection that causes breathing difficulties, cough, fever, chills, muscular pain, weakness, and exhaustion. Avian flu is another name for “bird flu.” Birds, like people, can get the flu virus. They can _____ infected by a virus when they come into contact with the saliva, feces, or mucus of another infected bird. Many forms of avian flu _____ mild or New Interactions no symptoms in infected birds. However, some strains are highly _____ and deadly. One such strain of the avian _____, H5N1, has been known to kill up to 90 percent of infected _____, including poultry such as chickens and turkeys, as well as wild birds such as geese and ducks.

Jumping the Species Barrier. The H5N1 virus initially became a known threat to bird populations of Asia in 1997. Since then, farmers in Asia, Europe, Africa, and even North America have experienced _____ of avian flu among their domesticated poultry. Bird viruses generally infect other birds. However, the ability of this virus to “jump the species barrier” has alarmed the scientific community. In Hong Kong, in 1997, the virus was discovered in several people who had been in close contact with infected birds. Six of the infected people died. Following that, cases were increasingly reported in many Asian and African countries, and serious outbreaks occurred in Indonesia, Vietnam, Cambodia, and Egypt. According to the World Health Organization, the confirmed number of cases in humans _____ 2003 and 2014 was over 700, and the lethal strain of avian flu killed approximately 60 percent of the people that were infected.

Bird flu virus could develop a _____ that could merge with a human flu virus to create a new _____ virus. This new virus could be highly infectious, fatal, and easily _____ from person to person. Rapid travel between countries would enable people to spread the flu virus across the globe at an _____ rate, triggering a global pandemic (a disease that occurs worldwide). There are two possibilities for the avian flu virus and human flu virus to merge and become a hybrid virus. The first possibility is when a human is infected with the human flu and then comes into contact with the avian flu. The two viruses could meet in the

person's body and swap genes with each other. If the new hybrid virus has the avian flu gene for lethality and the human flu genes that allow it to be passed from person to person, a pandemic could be the result. The second possibility is if the two viruses _____ a different host species and swap their genes in that host species. Cats, for example, are potential host species because they are _____ to both the avian and human flu virus. If a new hybrid virus forms in cats, it could easily be passed back to humans who come in contact with infected animals. The first case of human-to-human transmission of avian flu was recorded in January 2005. A woman in Thailand contracted the virus from her sick daughter, and both women died of the avian flu. Every time it jumps from a bird to a person, the risk of a hybrid virus increases.

Actions Taken. Currently, there are no known _____ that work against the avian flu. Several medications are being tested and have produced mixed results. Scientists are racing to find a potential vaccination. However, they face the challenge of dealing with a virus that is constantly evolving. In countries that have been affected by the avian flu, governments have established programs to remove the infected and potentially infected birds. In Asia, _____ have had to kill millions of domesticated birds in an attempt to control the spread of the virus. It is hoped that eliminating the birds will contain the virus and decrease the potential of spreading. The containment efforts by the infected Asian countries have been somewhat successful at keeping the virus from spreading among domesticated poultry. On the other hand, preventing the spread of the avian flu virus among wild waterfowl as they migrate across the globe is a major problem. Confirmations of the deadly _____ of avian flu in waterfowl have been reported in Asia, Africa, the Middle East, and Europe. The United States and Canada have also reported outbreaks of the avian flu in domesticated poultry and wild birds, but so far these viruses of _____ American lineage have not posed a threat to people. Is it only a matter of time before these too become a potential epidemic?

Listen again and TYPE a complete and correct answer.

What is avian flu?

What is the name of the virus?

What does the term “jump the species barrier” mean?

What are two ways in which the avian flu virus could merge with a human flu virus?

Why is it difficult for scientists to develop a vaccine against the avian flu?

Why do infected migratory waterfowl pose a threat in the spread of avian flu?

