14.5 True or False

American Trypanosomiasis (Chagas Disease) Image credit: cdc.gov

Write true if the statement is true or false if the statement is false.

_____ 1. Of all the protists, algae cause the most disease in humans.

_____ 2. Mutualistic relationships between protists and humans cause harm to human health.

_____ 3. Sleeping sickness is a disease caused by a protozoan, which is an animal-like protist.

_____ 4. Diseases such as sleeping sickness and Chagas disease are spread to humans by insects.

_____ 5. The work of thousands of researchers at the same time was needed to discover what caused Chagas disease.

_____ 6. One definition of vector is a living organism that transfers a disease-causing organism to a host.

_____ 7. Without treatment, Chagas disease always goes away by itself.

_____ 8. Giardia are fungi with many hyphae.

_____ 9. Symptoms of giardiasis include abdominal pain, diarrhea, and fever.


_____ 11. Malaria is spread only when people drink contaminated water.

_____ 12. Symptoms of malaria include abdominal pain, diarrhea, and increased energy.


_____ 14. It is easy to tell if a mushroom is poisonous just by looking at it.

_____ 15. Ringworm, a skin disease that shows itself as a ring-shaped rash, is caused by a fungus.
14.5 Critical Reading (page 1)

Read these passages from the text and answer the questions that follow.

**Fungi and Human Disease**

Fungi cause human illness in three different ways: poisonings, parasitic infections, and allergic reactions.

Fungal poisoning and fungal parasites are described below.

**Fungal Poisoning**

Many fungi protect themselves from parasites and predators by producing toxic chemicals. If people eat toxic fungi, they may experience digestive problems, hallucinations, organ failure, and even death. Most cases of mushroom poisoning are due to mistaken identity. That’s because many toxic mushrooms look very similar to safe, edible mushrooms.

**Fungal Parasites**

Some fungi cause disease when they become human parasites. Two examples are fungi in the genera *Candida* and *Trichophyton*.

*Candida* are yeast that cause *candidiasis*, commonly called a “yeast infection.” The yeast can infect the mouth or the vagina (in females). If yeast enter the blood, they cause a potentially life threatening illness. However, this is rare, except in people with a depressed immune system.

*Trichophyton* are fungi that cause ringworm. This is a skin infection characterized by a ring-shaped rash. The rash may occur on the arms, legs, head, neck, or trunk. The same fungi cause athlete’s foot when they infect the skin between the toes. Athlete’s foot is the second most common skin disease in the U.S.
14.5 Critical Reading (page 2)

Questions - Answer in complete sentences and good handwriting.

1. How do fungi make people sick?

2. Why is it extremely dangerous to eat the “destroying angel” mushroom?

3. What are Candida? How do they affect humans?

4. What is ringworm? What causes it?

5. How are ringworm and athlete's foot related?
14.5 Multiple Choice

Circle the correct choice.

1. Humans can catch giardiasis by _____________________ the Giardia parasite.
   drinking water contaminated with
   breathing air containing
   not having any contact with
   all of the above

2. Humans who live in ______ are at risk for getting malaria.
   Alaska
   Norway
   Florida
   Mexico

3. Puffball mushrooms
   are highly toxic.
   are edible.
   grow only in areas where there is malaria.
   often cause hallucinations when eaten.

4. Infection with Candida is life-threatening most often
   in all people.
   in people with immune systems that don’t work well.
   when it infects the mouth.
   none of the above

5. The second most common skin disease in the United States is
   mushroom poisoning.
   ringworm.
   athlete’s foot.
   mold allergy.

6. Symptoms of an allergy to mold may include
   coughing.
   trouble breathing.
   sneezing.
   all of the above.

7. Allergies to mold
   are very rare in humans.
   are very common in humans.
   occur only in children under two years old.
   occur only in adults over 65 years old.

8. Mold can grow
   indoors.
   outdoors.
   only in deserts.
   a and b
14.5 Vocabulary I

Match the vocabulary word with the proper definition.

Definitions

_____ 1. a kingdom including yeast, mushrooms, and molds

_____ 2. technical name for a yeast infection caused by Candida fungi

_____ 3. a disease spread by mosquitoes infected with a protozoan parasite

_____ 4. the group of protozoa that causes malaria

_____ 5. a fungal skin infection typified by a ring-shaped rash

_____ 6. an infection caused by a Trypanosoma parasite and spread by an insect known as the “kissing bug”

_____ 7. a group that includes protozoa with flagella that cause sleeping sickness

_____ 8. an infection, most often in between the toes, by Trichophyton fungi

_____ 9. a general name for an organism that can transmit a disease to humans

_____ 10. animal-like protists

_____ 11. a group of eukaryotic organisms including algae, slime molds, and protozoa

_____ 12. a disease caused by a flagellate protozoan and transmitted through water or feces contaminated with this protozoan

Terms

a. athlete's foot
b. candidiasis
c. Chagas disease
d. fungi
e. giardiasis
f. malaria
g. Plasmodium
h. protist
i. protozoa
j. ringworm
k. Trypanosoma
l. vector

Sleeping Sickness
Parasite
Image Credit: http://dpd.cdc.gov/
14.5 Vocabulary II

Fill in the blank with the appropriate term.

1. Mosquitoes are the ________ that transmits the Plasmodium protozoa that cause malaria.

2. A ________ spreads Chagas disease via an insect vector.

3. _________ is a common skin disease typified by a ring-shaped rash.

4. Mushrooms, yeast, and mold are all _________.

5. _________ allergies are very common and caused by airborne spores.

6. _________ is a common yeast infection.

7. _________ is a disease spread by a mosquito vector.

8. _________ are animal-like protists.

9. The second most common skin disease is _________.

10. People can get _________ by drinking water contaminated by this flagellated protozoan parasite.

11. _________ protozoa cause malaria.

12. A sometimes deadly disease spread by the “kissing bug” is _________.

RINGWORM IS NOT REALLY FROM A WORM!

James Heilman, MD - CCASA3