Understanding Ebola

With the arrival of Ebola in the United States, it's very easy to develop fears that the outbreak that has occurred in Africa will suddenly take shape in your state and local community. It's important to remember that unless you come in direct contact with someone who is infected with the disease, you and your family will remain safe. State and government agencies have been making preparations to address isolated cases of infection and stop the spread of the disease as soon as it has been positively identified. Every day, the Centers of Disease Control and Prevention (CDC) is monitoring developments, testing for suspected cases and safeguarding our lives with updates on events and the distribution of educational resources.

Learning more about Ebola and understanding how it's contracted and spread will help you put aside irrational concerns and control any fears you might have about Ebola severely impacting your life. Use the resources below to help keep yourself calm and focused during this unfortunate time.

Ebola Hemorrhagic Fever

Ebola hemorrhagic fever (Ebola HF) is one of numerous Viral Hemorrhagic Fevers. It is a severe, often fatal disease in humans and nonhuman primates (such as monkeys, gorillas, and chimpanzees).

Ebola HF is caused by infection with a virus of the family Filoviridae, genus Ebolavirus. When infection occurs, symptoms usually begin abruptly. The first Ebolavirus species was discovered in 1976 in what is now the Democratic Republic of the Congo near the Ebola River. Since then, outbreaks have appeared sporadically.

There are five identified subspecies of Ebolavirus. Four of the five have caused disease in humans: Ebola virus (Zaire ebolavirus); Sudan virus (Sudan ebolavirus); Taï Forest virus (Taï Forest ebolavirus, formerly Côte d'Ivoire ebolavirus); and Bundibugyo virus (Bundibugyo ebolavirus). The fifth, Reston virus (Reston ebolavirus), has caused disease in nonhuman primates, but not in humans. The natural reservoir host of ebolaviruses remains unknown. However, on the basis of available evidence and the nature of similar viruses, researchers believe that the virus is zoonotic (animal-borne) with bats being the most likely reservoir. Four of the five subtypes occur in an animal host native to Africa.

A host of similar species is probably associated with Reston virus, which was isolated from infected cynomolgous monkeys imported to the United States and Italy from the Philippines. Several workers in the Philippines and in US holding facility outbreaks became infected with the virus, but did not become ill.

How do people become infected with the Ebola virus?

Ebola is introduced into the human population through close contact with the blood, secretions, organs or other bodily fluids of infected animals. In Africa, infection has occurred through the handling of infected chimpanzees, gorillas, fruit bats, monkeys, forest antelope and porcupines found ill or dead or in the rainforest. It is important to reduce contact with high-risk animals (i.e. fruit bats, monkeys or apes) including not picking up dead animals found lying in the forest or handling their raw meat. Once a person comes into contact with an animal that has Ebola, it can spread within

the community from human to human. Infection occurs from direct contact (through broken skin or mucous membranes) with the blood, or other bodily fluids or secretions (stool, urine, saliva, semen) of infected people. Infection can also occur if broken skin or mucous membranes of a healthy person come into contact with environments that have become contaminated with an Ebola patient's infectious fluids such as soiled clothing, bed linen, or used needles.

Health workers have frequently been exposed to the virus when caring for Ebola patients. This happens because they are not wearing personal protection equipment, such as gloves, when caring for the patients. Health care providers at all levels of the health system – hospitals, clinics and health posts – should be briefed on the nature of the disease and how it is transmitted, and strictly follow recommended infection control precautions.

Burial ceremonies in which mourners have direct contact with the body of the deceased person can also play a role in the transmission of Ebola. Persons who have died of Ebola must be handled using strong protective clothing and gloves, and be buried immediately.

People are infectious as long as their blood and secretions contain the virus. For this reason, infected patients receive close monitoring from medical professionals and receive laboratory tests to ensure the virus is no longer circulating in their systems before they return home. When the medical professionals determine it is okay for the patient to return home, they are no longer infectious and cannot infect anyone else in their communities. Men who have recovered from the illness can still spread the virus to their partner through their semen for up to 7 weeks after recovery. For this reason, it is important for men to avoid sexual intercourse for at least 7 weeks after recovery or to wear condoms if having sexual intercourse during 7 weeks after recovery.

What is the treatment for Ebola?

Severely ill patients require intensive supportive care. They are frequently dehydrated and need intravenous fluids or oral rehydration with solutions that contain electrolytes. There is currently no specific treatment to cure the disease. Some patients will recover with the appropriate medical care.

To help control further spread of the virus, people that are suspected or confirmed to have the disease should be isolated from other patients and treated by health workers using strict infection control precautions.

For more information about Ebola, please visit the U.S. Centers for Disease Control and Prevention, www.cdc.gov or the World Health Organization, www.who.int