So Really, How Do You Get Ebola? Coming Days Are Critical

BY MAGGIE FOX

None of the 10 people who were in close contact with Ebola patient Thomas Eric Duncan has shown any sign of being infected with Ebola, health officials said Monday. The next few days will be the most important — Ebola’s usual incubation period is eight to 10 days and Duncan was isolated Sept. 28.

Many Americans are worried that the virus could spread because Duncan was sick and had gone back home for two days when the hospital mistakenly [failed to recognize the risk of Ebola](http://www.nbcnews.com/storyline/ebola-virus-outbreak/feds-try-calm-ebola-fears-after-texas-missteps-n217961). In fact, a Pew poll out Monday found 11 percent of Americans were "very worried" that they themselves or a family member will be exposed to Ebola, while 21 percent are somewhat worried.

How could the infection spread?

## ****Think close contact, think wet and think warm.****

The virus doesn’t live for long outside the body. Ultraviolet rays from sunlight destroy it, as does heat. Bleach kills it and plain soap and water can wash it away. Warm body fluids such as blood, vomit and feces carry the virus. And it has to get into the body to infect you — it doesn’t soak in through the skin, for instance. It must get in through the nose, mouth, eyes, through a cut or by a needle stick.

## ****Delivering medical care.****

Doctors say close contact is the usual way for people to become infected with Ebola virus. That includes [caring for patients](http://www.nbcnews.com/storyline/ebola-virus-outbreak/texas-hospital-error-highlights-need-broader-ebola-training-n216926) — health care workers are among those most likely to become infected as they examine patients, draw blood, clean them and clean up bodily fluids such as vomit. That’s why seven of the 10 people on the state of Texas and CDC’s close contact list for Duncan are health professionals.

## ****Home care.****

Experts say one reason Ebola is spreading so badly in Sierra Leone, Guinea and Liberia is that patients have nowhere to run. They’re being treated at home, or left to die in the streets. A single sick patient can infect his or her [whole family](http://www.nbcnews.com/storyline/ebola-virus-outbreak/dallas-ebola-family-joins-long-history-quarantines-n217706). Anyone who's treated a loved one with a stomach virus knows how messy, and infectious, it can be.

## ****Cleaning up a mess.****

The virus lives in vomit, diarrhea, blood and sweat. The sicker a patient is, the more virus there is in the bodily fluids. Thomas Geisbert, who tests Ebola drugs and vaccines at the University of Texas Medical Branch, says using high-pressure sprays to clean animal cages can splash the virus into the air. “If you blast it, you can create a manmade aerosol,” Geisbert said. But that is not the same as the virus being airborne. It’s not. And the mess, in general, should be fresh. “I don’t think there’s a whole lot of evidence that there is going to be virus on door handles,” says Geisbert. Ashoka Mukpo, the freelance NBC camera operator who’s infected, said he believes he got infected while helping to disinfect a car used to transport a sick Ebola patient in Liberia.

## ****Burying a body.****

People who have just died of Ebola are the most infectious. One healer who died in Sierra Leone infected 14 other people who prepared her body. CDC says people who have just died of Ebola should be placed in not one, but two sealed plastic bags and then a hermetically sealed casket.

## ****You won’t get it from casual contact****.

Some people have expressed worry that Texas state officials walked unprotected into an apartment where Duncan stayed when he was sick. But there is no evidence at all the virus could be suspended in the air somehow, or even on the walls or floors. It’s important to clean an area where someone’s been sick with Ebola but that’s just to make sure no fluids that could contains the virus could remain. Forty years of studying Ebola outbreaks show the danger comes from being close to sick people. “Most times, when people get it, there’s some kind of defining moment when they have been in close contact with the body fluids of somebody who had it,” Geisbert said.

So why do crews cleaning the apartment [wear hazmat suits](http://www.nbcdfw.com/news/local/Ebola-Hazmat-Crew-Finishes-Work-at-Dallas-Apartment-278267921.html)? Because they may be handling wet or damp soiled sheets or towels, and because cleaning may cause splashes that could carry virus-laden fluids into the eyes, nose or mouth, or if the virus splashed onto someone's skin and they later touched it, they could carry it into their own eyes, nose or mouth.

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