

Frequently Asked Questions About SARS (October 20, 2003)

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THE SARS OUTBREAK

What is the status of the SARS outbreak?

SARS was first reported in Asia in February 2003, and over the next few months the illness spread to more than two dozen countries in North America, South America, Europe, and Asia. **By late July, no new cases were being reported and the global outbreak was declared over by the WHO.** For more information, check the WHO SARS Web site (<http://www.who.int/csr/sars/en/index.html>) or visit other pages on CDC's SARS Web site (<http://www.cdc.gov/ncidod/sars/>).

How many people contracted SARS worldwide during the outbreak? How many people died of SARS?

According to WHO, 8,437 people worldwide became sick with SARS during the course of this outbreak; of these 813 died. Visit WHO's SARS page (<http://www.who.int/csr/sars/en/index.html>) for more information on the numbers of SARS cases and deaths.

How widespread was the SARS outbreak in the United States?

Through July 2003, a total of 192 SARS cases had been reported in the United States, including 159 suspect and 33 probable cases; of the 33 probable cases, only 8 had laboratory evidence of SARS-CoV infection. No SARS-related deaths occurred in the United States. SARS cases reported in the United States occurred primarily among people who traveled to SARS-affected areas; a small number of other people became ill after being in close contact with (that is, having cared for or lived with) a SARS patient while in the United States. There was no evidence that SARS spread more widely in the community in the United States. For information about the number of cases reported in each state, see CDC's summary of SARS cases (<http://www.cdc.gov/od/oc/media/sars/cases.htm>).

SARS AND FLORIDA

Do we have/Did we have SARS in Florida?

During the international outbreak of SARS the Florida Department of Health investigated several cases. Based on the Centers for Disease Control & Prevention SARS case definition Florida had 22 cases that were either probable or suspect. None were confirmed by laboratory test to be SARS caused by the coronavirus. To date, there are only 8 confirmed cases of SARS in the US, none of which were Florida residents or residing in Florida at the time of diagnosis. **The last case of "probable" or "suspect" SARS in Florida was reported on 06/18/2003.**

What is the Florida Department of Health doing to address SARS?

The Florida Department of Health will be communicating regularly with the public and community providers throughout the winter season with updates on SARS and other respiratory illnesses. Communication will include educational programs such as satellite broadcasts, press releases as needed, and updates to the web. The Florida Department of Health state office and county health departments are actively involved in enhanced surveillance for respiratory illness that may be SARS. Epidemiologists will follow up on any suspected cases of SARS to verify the diagnosis and trace

contacts. Medical and epidemiologic consultation will be available 24/7 through the Bureau of Epidemiology at 850-245-4401.

THE DISEASE

What is SARS?

Severe acute respiratory syndrome (SARS) is a viral respiratory illness that was first reported in Asia in February 2003. In early March, the World Health Organization (WHO) issued a global alert about SARS. Over the next few months, the illness spread to more than two-dozen countries in North America, South America, Europe, and Asia. By late July, however, no new cases were being reported and the illness was considered contained. According to WHO, 8,437 people worldwide became sick with SARS during this outbreak, of these 813 died. For more information, check the WHO SARS Web site (<http://www.who.int/csr/sars/en/index.html>) or visit other pages on CDC's SARS Web site (<http://www.cdc.gov/ncidod/sars/>).

What are the symptoms and signs of SARS?

The illness usually begins with a high fever (measured temperature greater than 100.4°F [$>38.0^{\circ}\text{C}$]). The fever is sometimes associated with chills or other symptoms, including headache, general feeling of discomfort, and body aches. Some people also experience mild respiratory symptoms at the outset. Diarrhea is seen in approximately 10 percent to 20 percent of patients. After 2 to 7 days, SARS patients may develop a dry, nonproductive cough that might be accompanied by or progress to a condition (hypoxia) in which insufficient oxygen is getting to the blood. In 10 percent to 20 percent of cases, patients require mechanical ventilation. Most patients develop pneumonia. For more information, see the MMWR dispatch (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5212a5.htm>) that describes the clinical features of SARS.

What is the cause of SARS?

SARS is caused by a previously unrecognized coronavirus, called SARS-associated coronavirus (SARS-CoV). It is possible that other infectious agents might have a role in some cases of SARS. For more information about the SARS coronavirus see (<http://www.cdc.gov/ncidod/sars/lab/eia/index.htm>).

What are coronaviruses?

Coronaviruses are a group of viruses that have a halo or crown-like (corona) appearance when viewed under a microscope. These viruses are a common cause of mild to moderate upper-respiratory illness in humans and are associated with respiratory, gastrointestinal, liver and neurologic disease in animals.

If coronaviruses usually cause mild illness in humans, how could this new coronavirus be responsible for a potentially life-threatening disease such as SARS?

There is not enough information about the new virus to determine the full range of illness that it might cause. Coronaviruses have occasionally been linked to pneumonia in humans, especially people with weakened immune systems. The viruses also can cause severe disease in animals, including cats, dogs, pigs, mice, and birds.

How long can SARS-CoV survive in the environment?

Preliminary studies in some research laboratories suggest that the virus may survive in the environment for several days. The length of time that the virus survives likely depends on a number of factors. These factors could include the type of material or body fluid containing the virus and various environmental conditions such as temperature or humidity. Researchers at CDC and other

institutions are designing standardized experiments to measure how long SARS-CoV can survive in situations that simulate natural environmental conditions.

Are there disinfectants available that can inactivate (kill) SARS-CoV?

Right now, there are no disinfectant products registered by the U.S. Environmental Protection Agency for use on environmental surfaces that are specifically listed as having the ability to kill SARS-CoV. However, related viruses that have similar physical and biochemical properties can be killed with bleach, ammonia or alcohol, or cleaning agents containing any of these disinfectants. Cleaning agents should be used according to the manufacturer's instructions.

How is SARS spread?

The primary way that SARS appears to spread is by close person-to-person contact. The virus that causes SARS is thought to be transmitted most readily by respiratory droplets (droplet spread) produced when an infected person coughs or sneezes. Droplet spread can happen when droplets from the cough or sneeze of an infected person are propelled a short distance (generally up to 3 feet) through the air and deposited on the mucous membranes of the mouth, nose, or eyes of persons who are nearby. The virus also can spread when a person touches a surface or object contaminated with infectious droplets and then touches his or her mouth, nose, or eye(s). In addition, it is possible that SARS-CoV might be spread more broadly through the air (airborne spread) or by other ways that are not now known.

What does “close contact” mean in the context of the SARS outbreak?

Close contact is defined in the CDC SARS case definition (<http://www.cdc.gov/ncidod/sars/casedefinition.htm>) as having cared for or lived with a person known to have SARS or having a high likelihood of direct contact with respiratory secretions and/or body fluids of a patient known to have SARS. Examples include kissing or embracing, sharing eating or drinking utensils, close conversation (within 3 feet), physical examination, and any other direct physical contact between people. Close contact does not include activities such as walking by a person or sitting across a waiting room or office for a brief time.

What should I do if I think I (or someone in my family) might have SARS?

Consult a health-care provider as soon as possible. Call ahead and tell them before you visit that you think you may have SARS so they can take precautions to keep from exposing other people. Cover your mouth and nose with tissue when coughing or sneezing. If you have a surgical mask, wear it during close contact with other people. A mask can reduce the number of droplets coughed into the air. **Remember, very few respiratory infections will be SARS. Please review your signs, symptoms and travel history thoroughly with your physician. Consultation is available to physicians through the Bureau of Epidemiology at (850) 245-4401.**

What should I do if I am diagnosed with SARS and am being cared for at home?

- Follow the instructions given by your health-care provider.
- Limit your activities outside the home. For example, do not go to work, school, or public areas.
- Wash your hands often and well, especially after you have blown your nose.
- Cover your mouth and nose with tissue when you sneeze or cough.
- If possible, wear a surgical mask when around other people in your home. If you can't wear a mask, the members of your household should wear one when they are around you.
- Don't share silverware, towels, or bedding with anyone in your home until these items have been washed with soap and hot water.
- Clean surfaces (counter or tabletops, door knobs, bathroom fixtures, etc.) that have been contaminated by body fluids (sweat, saliva, mucous, or even vomit or urine) from the SARS

patient with a household disinfectant used according to the manufacturer's instructions. Wear disposable gloves during all cleaning activities. Throw these out when you are done. Do not reuse them.

- Follow these instructions for 10 days after your fever and respiratory symptoms have gone away.

If I were exposed to SARS, how long would it take for me to become sick?

The time between exposure to the SARS virus and onset of symptoms is called the "incubation period." The incubation period for SARS is typically 2 to 7 days, although in some cases it may be as long as 10 days.

How long is a person with SARS infectious to others?

Available information suggests that people with SARS are most likely to be infectious only when they have symptoms, such as fever or cough. However, as a precaution against spreading the disease, CDC recommends that people with SARS limit their interactions outside the home (for example, by not going to work or to school) until 10 days after their symptoms have gone away. Patients are most infectious during the second week of illness.

Do some people who recover from SARS become sick again or relapse?

At this time we do not have a full understanding of the natural course of illness in persons infected with SARS-CoV. It will be important to learn what factors might influence illness progression and recovery. Such factors could be related to the virus itself, how the body's immune system reacts to the virus, how infection with the virus is treated, or other possibilities. CDC and other scientists are trying to learn the answers to these important questions.

What medical treatment is recommended for patients with SARS?

CDC recommends that patients with SARS receive the same treatment that would be used for any patient with serious community-acquired atypical pneumonia. SARS-CoV is being tested against various antiviral drugs to see if an effective treatment can be found.

What is the difference between a "probable" SARS case and a "suspect" SARS case?

As defined in CDC's SARS case definition (<http://www.cdc.gov/ncidod/sars/casedefinition.htm>), suspect SARS cases have fever, respiratory illness, and recent travel to an affected area with community transmission of SARS and/or contact with a suspect SARS patient. Probable cases meet the criteria for a suspect case and also have evidence (e.g., chest X-ray) of pneumonia or respiratory distress syndrome.

What is the difference between isolation and quarantine for SARS?

Isolation of people who have a specific illness separates them from healthy people and restricts their movement to stop the spread of that illness. Isolation allows for the focused delivery of specialized health care to people who are ill, and it protects healthy people from getting sick. People in isolation may be cared for in their homes, in hospitals, or at designated health care facilities. Isolation is a standard procedure used in hospitals today for patients with tuberculosis (TB) and certain other infectious diseases. In most cases, isolation is voluntary; however, many levels of government (federal, state, and local) have basic authority to compel isolation of sick people to protect the public.

Quarantine, in contrast, applies to people who have been exposed and may be infected but are not yet ill. Separating exposed people and restricting their movements is intended to stop the spread of that illness. Quarantine is medically very effective in protecting the public from disease. States generally have authority to declare and enforce quarantine within their borders (In Florida, the Secretary for Health has this authority). This authority varies widely from state to state, depending

on the laws of each state. The Centers for Disease Control and Prevention (CDC), through its Division of Global Migration and Quarantine, also is empowered to detain, medically examine, or conditionally release individuals suspected of carrying certain communicable diseases. This authority derives from section 361 of the Public Health Service Act (42 U.S.C. 264), as amended. Additionally, in Florida, the Secretary for Health has the authority to quarantine facilities or parts of facilities (such as a hospital or part of a hospital).

During the February – July, 2003 SARS outbreak, patients in the United States were isolated until they were no longer infectious. This practice allowed patients to receive appropriate care, and it helped contain the spread of the illness. Those who were more severely ill were cared for in hospitals. Those whose illness was mild were cared for at home. Individuals being cared for at home were asked to avoid contact with other people and to remain at home until 10 days after the resolution of fever, provided respiratory symptoms were absent or improving. (For more information on SARS infection control precautions, visit the [CDC website](#)). CDC recommended isolation of individuals with SARS, but did not compel quarantine or isolation of these individuals.

What was done to contain the SARS outbreak in Florida?

To minimize the risk for SARS among Florida residents, the Department of Health took careful and thorough precautions to prevent the spread of SARS. People who were suspected of having SARS were isolated from others and received care. People arriving from affected parts of the world (who might have been exposed to SARS) received information about SARS and instructions on what they should do if they became ill. SARS patients and their contacts were monitored to help prevent spread of the disease.

If there is another outbreak of SARS, how can I protect myself?

If SARS were to re-emerge, there are some common-sense precautions that you can take that apply to many infectious diseases. The most important is frequent hand washing with soap and water or use of alcohol-based hand rubs (see Guideline for Hand Hygiene in Health-Care Settings [<http://www.cdc.gov/handhygiene/>]). You also should avoid touching your eyes, nose, and mouth with unclean hands and encourage people around you to cover their nose and mouth with a tissue when coughing or sneezing.

LABORATORY TESTING

Is there a laboratory test for SARS?

Yes, several laboratory tests can be used to detect SARS-CoV. A reverse transcription polymerase chain reaction (RT-PCR) test can detect SARS-CoV in clinical specimens, including blood, stool, and nasal secretions. Serologic testing also can be performed to detect SARS-CoV antibodies produced after infection. Finally, viral culture has been used to detect SARS-CoV.

How can I get tested for SARS?

Physicians can request patient testing for SARS through the Florida Department of Health state office. Due to the public health importance of SARS all laboratory tests on patient specimens done either at the Florida Bureau of Laboratories or CDC need to be cleared through a medical epidemiologist.

What is a PCR test?

PCR (or polymerase chain reaction) is a laboratory method for detecting the genetic material of an infectious disease agent in specimens from patients. This type of testing has become an essential tool for detecting infectious disease agents.

What does serologic testing involve?

A serologic test is a laboratory method for detecting the presence and/or level of antibodies to an infectious agent in serum from a person. Antibodies are substances made by the body's immune system to fight a specific infection.

What does viral culture and isolation involve?

For a viral culture, a small sample of tissue or fluid that may be infected is placed in a container along with cells in which the virus can grow. If the virus grows in the culture, it will cause changes in the cells that can be seen under a microscope. For more information, visit <http://www.cdc.gov/ncidod/sars> or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (Español), or (866) 874-2646 (TTY)

Why would I be asked to submit a stool specimen for SARS

Testing of stool is an additional procedure that may be used to confirm the diagnosis of SARS. The antigen for SARS may be present in stool.

CONTACT INFORMATION**Where can I get more information about SARS?**

The Florida Department of Health website is an excellent source of current information about SARS and additional links to the CDC website (<http://www.doh.state.fl.us/>).

Florida Department of Health, Bureau of Epidemiology: 850-245-4401, 24 hours, 7 days