

10 Resources

Public Information and Communication

“**Resources**” includes an acronym list and agent/drug fact sheets which are provided to assist PIOs and state planners in overall public information planning.

Materials included in this chapter are:

- 10-1 Additional Resources
- 10-3 Acronym List
- 10-5 Influenza Fact Sheet
- 10-7 Anthrax Fact Sheet
- 10-9 CDC’s Patient Information– Ciprofloxacin for Anthrax
- 10-11 CDC’s Patient Information– Doxycycline for Anthrax
- 10-13 CDC’s Patient Information– Amoxicillin for Anthrax
- 10-15 Doxycycline for Infants and Children Exposed to Anthrax
- 10-17 Plague Fact Sheet
- 10-18 FAQs About Plague
- 10-21 Tularemia Fact Sheet
- 10-23 FAQs About Tularemia

Additional Resources

The American Red Cross

<http://www.redcross.org/>

CDC Emergency Preparedness and Response

<http://www.bt.cdc.gov/>

Community Emergency Response teams (CERT) from FEMA

<https://www.citizencorps.gov/cert/>

Crisis and Emergency Risk Communication (CERC)

CDC's Emergency and Risk Communication web site

<http://emergency.cdc.gov/cerc/>

Emergency Risk Communication CDCynergy

<http://www.orau.gov/cdcynergy/erc/>

First Hours

<http://emergency.cdc.gov/firsthours>

FEMA Training (NIMS/ICS)

<http://www.training.fema.gov/emiweb/IS/crslist.asp>

Health Emergency Assistance Line and Triage Hub

<http://www.ahrq.gov/research/health/>

Incident Communications Emergency Reference: A Guide for Communication Professionals

Available on LLIS.gov

HHS, Terrorism and Other Public Health Emergencies: A Reference Guide for Media

<http://www.hhs.gov/disasters/press/newsroom/mediaguide/media.html>

Lessons Learned Information Sharing (LLIS)

<http://www.llis.gov>

Medical Reserve Corp

<http://www.medicalreservecorps.gov>

Modern Language Association Map Data Center

http://www.mla.org/map_data

NACCHO

STOCKbox

<http://www.naccho.org/toolbox/program.cfm?id=6>

EQUIPh (formerly BtToolbox)

<http://www.naccho.org/toolbox/program.cfm?id=1>

Points of Light Foundation

Committed to building volunteer organizations and communities.

<http://www.pointsoflight.org>

Public Health Workbook to Define, Locate, and Reach Special, Vulnerable, and At-risk Populations in an Emergency

<http://www.bt.cdc.gov/workbook>

Public Health Training Network

<http://www2a.cdc.gov/phtn/default.asp>

Redefining Readiness: Terrorism Planning Through the Eyes of the Public

<http://www.redefiningreadiness.net/pdf/RedefiningReadinessStudy.pdf>

Strategic National Stockpile

<http://www.bt.cdc.gov/stockpile/index.asp>

SNS Extranet

<http://www.bt.cdc.gov/stockpile/extranet>

User ID: Stockpile

Password: Str*teg!c

Washington State Department of Health Medication Center Signage site

<http://www.doh.wa.gov/phepr/signs/>

Acronym List

AAR	After Action Report
ASTHO	Association of State and Territorial Health Officials
BT	Bioterrorism
CBRN	Chemical, Biological, Radiological/Nuclear
CDC	Centers for Disease Control and Prevention
CERC	Crisis and Emergency Risk Communications
COTPER	Coordinating Office for Terrorism Preparedness and Emergency Response
CRI	Cities Readiness Initiative
DEOC	Director's Emergency Operations Center (CDC)
DHHS	Department of Health and Human Services
DHS	Department of Homeland Security
DSNS	Division of Strategic National Stockpile (CDC)
EMAC	Emergency Management Assistance Compact
EOC	Emergency Operations Center
Epi-X	Epidemic Information Exchange
FEMA	Federal Emergency Management Agency
FMS	Federal Medical Station
HAN	Health Alert Network
HHS	Health and Human Services (U.S. Department)
IC	Incident Commander
ICS	Incident Command System
JIC	Joint Information Center
JIS	Joint Information System
LLIS	Lessons Learned Information Sharing
MAD	Mass Antibiotic Dispensing
MI	Managed Inventory

NACCHO	National Association of County and City Health Officials
NIMS	National Incident Management System
NPS	National Pharmaceutical Stockpile (now Strategic National Stockpile)
NRP	National Response Plan
PHEP	Public Health Emergency Preparedness
PIC	Public Information and Communications
PIO	Public Information Officer
POD	Point of Dispensing
RITS	Receipt Store Stage (RSS Warehouse) Inventory Tracking System
RSS	Receipt, Store, Stage (Warehouse)
SMI	SNS Managed Inventory
SNS	Strategic National Stockpile
TARU	Technical Advisory Response Unit
TOC	TARU Operations Center
VMI	Vendor Managed Inventory
WMD	Weapons of Mass Destruction



FACT SHEET

Influenza Symptoms, Protection, and What to Do If You Get Sick

Influenza (commonly called the “flu”) is a contagious respiratory illness caused by influenza viruses. The information below describes common flu symptoms, how to protect yourself and those close to you from getting the flu, and what to do if you get sick with flu-like symptoms.

People May Have Different Reactions to the Flu

The flu can cause mild to severe illness and at times can lead to death. Although most healthy people recover from the flu without complications, some people, such as older people, young children, and people with certain health conditions, are at high risk for serious complications from the flu.

Be Aware of Common Flu Symptoms

Influenza usually starts suddenly and may include the following symptoms:

- Fever (usually high)
- Headache
- Tiredness (can be extreme)
- Cough
- Sore throat
- Runny or stuffy nose
- Body aches
- Diarrhea and vomiting (more common among children than adults)

Having these symptoms does not always mean that you have the flu. Many different illnesses, including the common cold, can have similar symptoms.

Know the Risks from the Flu

In some people, the flu can cause serious complications, including bacterial pneumonia, dehydration, and worsening of chronic medical conditions, such as congestive heart failure, asthma, or diabetes. Children and adults may develop sinus problems and ear infections.

Know How the Flu Spreads

The flu usually spreads from person to person in respiratory droplets when people who are infected cough or sneeze. People occasionally may become infected by touching something with influenza virus on it and then touching their mouth, nose, or eyes.

Healthy adults may be able to infect others **1 day before** getting symptoms and up to **5 days after** getting sick. Therefore, it is possible to give someone the flu before you know you are sick as well as while you are sick.

Protection against the Flu

The single best way to protect yourself and others against influenza is to get a flu vaccination each year. Two kinds of flu vaccine are available in the United States:

- **The “flu shot”**—an inactivated vaccine (containing killed virus) that is given with a needle, usually in the arm. The flu shot is approved for use in people older than 6 months, including healthy people and people with chronic medical conditions.
- **The nasal-spray flu vaccine**—a vaccine made with live, weakened flu viruses that do not cause the flu (sometimes called LAIV for “live attenuated influenza vaccine”). LAIV is approved for use in healthy people 5 years to 49 years of age who are not pregnant.

Influenza Symptoms, Protection, and What to Do If You Get Sick

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October or November is the best time to get vaccinated, but you can still get vaccinated in December and later. Flu season can begin as early as October and last as late as springtime.

The following additional measures can help protect against the flu.

Habits for Good Health

These steps may help prevent the spread of respiratory illnesses such as the flu:

- **Cover your nose and mouth** with a tissue when you cough or sneeze—throw the tissue away after you use it.
- **Wash your hands often with soap and water**, especially after you cough or sneeze. If you are not near water, use an alcohol-based hand cleaner.
- **Avoid close contact with people who are sick.** When you are sick, keep your distance from others to protect them from getting sick too.
- **If you get the flu, stay home from work, school, and social gatherings.** In this way you will help prevent others from catching your illness.
- **Try not to touch your eyes, nose, or mouth.** Germs often spread this way.

Antiviral Medications

Three antiviral drugs (amantadine, rimantadine, and oseltamivir) (<http://www.cdc.gov/flu/protect/antiviral/index.htm>) are approved for use in preventing the flu. These are prescription medications, and a doctor should be consulted before they are used. During the 2005-2006 influenza season, CDC recommends against the use of amantadine or rimantadine for the treatment or prophylaxis of influenza in the United States. For details, see the January 14, 2006 CDC Health Alert Notice (HAN): www.cdc.gov/flu/han011406.htm.

What to Do If You Get Sick

Diagnosing the Flu

It is very difficult to distinguish the flu from other infections on the basis of symptoms alone. A doctor's exam may be needed to tell whether you have developed the flu or a complication of the flu. There are tests that can determine if you have the flu as long as you are tested within the first 2 or 3 days of illness.

If you develop flu-like symptoms and are concerned about your illness, especially if you are at high risk for complications of the flu, you should consult your health-care provider. Those at high risk for complications include **people 65 years or older, people with chronic medical conditions, pregnant women, and young children.**

Antiviral Medications

Your doctor may recommend use of an antiviral medication (<http://www.cdc.gov/flu/protect/antiviral/index.htm>) to help treat the flu. Four antiviral drugs (amantadine, rimantadine, zanamivir, and oseltamivir) are approved for treatment of the flu. During the 2005-2006 influenza season, CDC recommends against the use of amantadine or rimantadine for the treatment or prophylaxis of influenza in the United States. (For details, see the January 14, 2006 CDC Health Alert Notice [HAN]: www.cdc.gov/flu/han011406.htm.) These are prescription medications, and a doctor should be consulted before the drugs are used. Antiviral treatment lasts for 5 days and must be started within 2 days of illness. Therefore, if you get flu-like symptoms, seek medical care early.

Other Ways to Respond to the Flu

If you get the flu, get plenty of rest, drink a lot of liquids, and avoid using alcohol and tobacco. Also, you can take medications such as acetaminophen (e.g., Tylenol®) to relieve the fever and muscle aches associated with the flu. **Never give aspirin to children or teenagers who have flu-like symptoms, particularly fever.**

For more information, visit www.cdc.gov/flu,
or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6358 (TTY).

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FACT SHEET

Anthrax: What You Need To Know

What Is Anthrax?

Anthrax is a serious disease caused by *Bacillus anthracis*, a bacterium that forms spores. A bacterium is a very small organism made up of one cell. Many bacteria can cause disease. A spore is a cell that is dormant (asleep) but may come to life with the right conditions.

There are three types of anthrax:

- **skin (cutaneous)**
- **lungs (inhalation)**
- **digestive (gastrointestinal)**

How Do You Get It?

Anthrax is not known to spread from one person to another.

Anthrax from animals. Humans can become infected with anthrax by handling products from infected animals or by breathing in anthrax spores from infected animal products (like wool, for example). People also can become infected with gastrointestinal anthrax by eating undercooked meat from infected animals.

Anthrax as a weapon. Anthrax also can be used as a weapon. This happened in the United States in 2001. Anthrax was deliberately spread through the postal system by sending letters with powder containing anthrax. This caused 22 cases of anthrax infection.

How Dangerous Is Anthrax?

The Centers for Disease Control and Prevention classifies agents with recognized bioterrorism potential into three priority areas (A, B and C). Anthrax is classified as a Category A agent. Category A agents are those that:

- pose the greatest possible threat for a bad effect on public health
- may spread across a large area or need public awareness
- need a great deal of planning to protect the public's health

In most cases, early treatment with antibiotics can cure cutaneous anthrax. Even if untreated, 80 percent of people who become infected with cutaneous anthrax do not die. Gastrointestinal anthrax is more serious because between one-fourth and more than half of cases lead to death. Inhalation anthrax is much more severe. In 2001, about half of the cases of inhalation anthrax ended in death.

What Are the Symptoms?

The symptoms (warning signs) of anthrax are different depending on the type of the disease:

- **Cutaneous:** The first symptom is a small sore that develops into a blister. The blister then develops into a skin ulcer with a black area in the center. The sore, blister and ulcer do not hurt.
- **Gastrointestinal:** The first symptoms are nausea, loss of appetite, bloody diarrhea, and fever, followed by bad stomach pain.

Anthrax: What You Need To Know

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- **Inhalation:** The first symptoms of inhalation anthrax are like cold or flu symptoms and can include a sore throat, mild fever and muscle aches. Later symptoms include cough, chest discomfort, shortness of breath, tiredness and muscle aches. (Caution: Do not assume that just because a person has cold or flu symptoms that they have inhalation anthrax.)

How Soon Do Infected People Get Sick?

Symptoms can appear within 7 days of coming in contact with the bacterium for all three types of anthrax. For inhalation anthrax, symptoms can appear within a week or can take up to 42 days to appear.

How Is Anthrax Treated?

Antibiotics are used to treat all three types of anthrax. Early identification and treatment are important.

Prevention after exposure. Treatment is different for a person who is exposed to anthrax, but is not yet sick. Health-care providers will use antibiotics (such as ciprofloxacin, levofloxacin, doxycycline, or penicillin) combined with the anthrax vaccine to prevent anthrax infection.

Treatment after infection. Treatment is usually a 60-day course of antibiotics. Success depends on the type of anthrax and how soon treatment begins.

Can Anthrax Be Prevented?

Vaccination. There is a vaccine to prevent anthrax, but it is not yet available for the general public. Anyone who may be exposed to anthrax, including certain members of the U.S. armed forces, laboratory workers, and workers who may enter or re-enter contaminated areas, may get the vaccine. Also, in the event of an attack using anthrax as a weapon, people exposed would get the vaccine.

What Should I Do if I Think I Have Anthrax?

If you are showing symptoms of anthrax infection, call your health-care provider right away.

What Should I Do if I Think I Have Been Exposed to Anthrax?

Contact local law enforcement immediately if you think that you may have been exposed to anthrax. This includes being exposed to a suspicious package or envelope that contains powder.

What Is CDC Doing To Prepare For a Possible Anthrax Attack?

CDC is working with state and local health authorities to prepare for an anthrax attack. Activities include:

- Developing plans and procedures to respond to an attack using anthrax.
- Training and equipping emergency response teams to help state and local governments control infection, gather samples, and perform tests. Educating health-care providers, media, and the general public about what to do in the event of an attack.
- Working closely with health departments, veterinarians, and laboratories to watch for suspected cases of anthrax. Developing a national electronic database to track potential cases of anthrax.
- Ensuring that there are enough safe laboratories for quickly testing of suspected anthrax cases.
- Working with hospitals, laboratories, emergency response teams, and health-care providers to make sure they have the supplies they need in case of an attack.

For more information, visit www.bt.cdc.gov/agent/anthrax,
or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).

July 31, 2003

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Patient Information:

Ciprofloxacin 500-mg *Oral Tablet*

Ciprofloxacin *Oral Suspension*

Take this medicine as prescribed.

Ciprofloxacin, commonly known as cipro, belongs to a class of drugs called quinolone antibiotics. It has been approved by the Food and Drug Administration (FDA) to treat and protect people who have been exposed to anthrax spores.

How to take cipro

ADULTS: Take 1 tablet every 12 hours as directed.

CHILDREN: A child's dose depends on body weight. Give the medicine to your child as directed by the doctor.

It is best to take cipro 2 hours before or after a meal with at least one large glass of water. However, if an upset stomach occurs, cipro may be taken with food. Avoid dairy products such as milk and yogurt for at least 3 hours before and after taking the medicine. If you take vitamins or antacids such as Tums or Maalox, take them 6 hours before or 2 hours after taking cipro.

If you miss a dose, start again taking one tablet every 12 hours. Do not take 2 pills to make up for the missed dose. *Finish all your pills, even if you feel okay, unless your doctor tells you to stop. If you stop taking this medicine too soon, you may become ill.*

Side effects

Common side effects of cipro include an upset stomach, vomiting, diarrhea, fatigue, dizziness or headache. If you have problems with any of these symptoms, tell your doctor. Less common side effects include pain in arms or legs, changes in vision, restlessness, ringing in the ears, or mental changes. If any of these symptoms occur, call your doctor right away.

Severe allergic reactions are very rare. Signs of an allergic reaction include rash, itching, swelling of the tongue, hands or feet, fever, or trouble breathing. If any of these symptoms occur, call your doctor right away.

SPECIAL NOTE FOR CHILDREN: *This medicine may cause joint problems in infants and children under 18 years of age. If your child has any joint pain while he/she is taking cipro, tell your doctor.*

Precautions

- ❖ Be sure to tell the doctor if you are allergic to any medicine
- ❖ It is very important to tell your doctor about **ALL** of the medicine you are currently taking even pills that were bought at the store such as vitamins and antacids.
- ❖ Tell the doctor if you have ever had a seizure, stroke, or problems with your kidneys, joints or tendons, liver, or vision. Report any history of unusual bleeding or bruising.
- ❖ If this drug makes you dizzy, use caution driving or doing tasks that require you to be alert. Avoid alcohol in this case as it will make the dizziness worse.
- ❖ Cipro can make skin very sensitive to the sun which increases the chance of getting severe

Patient Information: Ciprofloxacin

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sunburn. Avoid the sun as much as possible. When outside, wear a long sleeve shirt and hat and always apply sunscreen (30 SPF)

- ❖ In women, cipro can cause vaginal itching and discharge commonly known as a yeast infection. Tell your doctor if this happens.
- ❖ If you are pregnant or breastfeeding, tell your doctor.
- ❖ Safety of taking cipro during pregnancy is unknown. If you are pregnant or could become pregnant, tell your doctor. Also, if you are breastfeeding, tell your doctor.
- ❖ Cipro can increase the effects of caffeine and theophylline (a medicine).

For more information, visit www.bt.cdc.gov/agent/anthrax, or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).

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Patient Information:

Doxycycline 100-mg *Oral Tablet*

Doxycycline *Oral Suspension*

Take this medicine as prescribed.

Doxycycline belongs to a class of drugs called tetracycline antibiotics. It is approved by the Food and Drug Administration (FDA) to treat and protect people who have been exposed to anthrax spores.

How to take doxycycline

ADULTS: Take 1 tablet every 12 hours as directed.

CHILDREN: A child's dose depends on body weight. Give the medicine to your child as directed by the doctor.

Take doxycycline with food and least one full glass of water. Avoid taking antacids (like Tums or Maalox), cholestyramine (Questran), colestipol (Colestid), dairy products (like milk or yogurt) or vitamins 3 hours before or after taking doxycycline.

If you miss a dose, start again taking 1 pill every 12 hours. Do not take 2 pills to make up for the missed dose. *Finish all your pills, even if you feel okay, unless your doctor tells you to stop. If you stop this medication too soon, you may become ill.*

Side effects

Common side effects of doxycycline include an upset stomach, vomiting, or diarrhea. If you have problems with any of these symptoms, tell your doctor. Less common side effects include dark urine, yellowing of the eyes or skin, sore throat, fever, unusual bleeding or bruising, fatigue, white patches in the mouth. If any of these symptoms occur, call your doctor right away.

Allergic reactions are rare. Signs of an allergic reaction are rash, itching, swelling of the tongue, hands or feet, fever, and trouble breathing. If any of these symptoms occur, call you doctor right away.

SPECIAL NOTE FOR CHILDREN: *This medicine may cause staining of the teeth in children younger than 8 years old. This means that their teeth can become grayish in color and this color does not go away. This medicine can also cause bone growth delay in premature infants but this side effect goes away after the medicine is finished.*

SPECIAL NOTE FOR PREGNANT WOMEN: *There is little data about side effects from the use of this drug during pregnancy. If the mother of an unborn baby takes doxycycline, staining of baby teeth or poor bone development can result. There is a remote chance of severe liver disease in some pregnant women.*

Precautions

- ❖ Be sure to tell the doctor if you are allergic to any medicine.
- ❖ It is very important to tell the doctor the names of ALL medicines that you are currently taking even pills bought at the store such as vitamins and antacids.
- ❖ Doxycycline can make skin very sensitive to the sun which increases the chance of getting severe

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Patient Information: Doxycycline

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sunburn. Avoid the sun as much as possible. When outside, wear a long sleeve shirt and hat and always apply sunscreen (30 SPF).

- ❖ Birth control pills may not work as well when taking this medication. Be sure to use condoms or another form of birth control until you are finished the entire course of treatment. If you are pregnant or breastfeeding, tell your doctor.
- ❖ In women, doxycycline can cause vaginal itching and discharge commonly known as a yeast infection. Tell your doctor if this happens.
- ❖ Tell the doctor if you have ever had problems with your liver or kidneys, or if you have frequent heartburn.

For more information, visit www.bt.cdc.gov/agent/anthrax, or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).

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**Patient Information:****Amoxicillin 500-mg Oral Capsules (Pills)****Amoxicillin Oral Suspension**

Take this medicine as prescribed.

Amoxicillin belongs to a class of drugs called penicillin antibiotics. It has been approved by the Food and Drug Administration (FDA) to treat people with infections caused by certain types of bacteria. Amoxicillin has not been approved by the FDA to use when treating people who have been exposed to anthrax. However, if test results show that the anthrax bacteria can be killed by penicillin antibiotics, the use of amoxicillin is recommended to prevent the development of anthrax disease in people who have been exposed to anthrax, **when other antibiotics are not as safe to use such as with children and pregnant women.**

How to take amoxicillin

ADULTS: Take one pill three times a day.

CHILDREN: A child's dose depends on body weight. Give the medicine to your child as directed by the doctor.

Take amoxicillin with a large glass of water. This medicine can be taken with or without food. Taking with food may decrease the chance that upset stomach will occur.

If you miss a dose, start again taking 1 pill three times a day. Do not take 2 pills to make up for the missed dose. *Finish all your pills, even if you feel okay, unless your doctor tells you to stop. If you stop taking this medicine too soon, you may become ill.*

Side effects

Common side effects of amoxicillin include an upset stomach, vomiting, and diarrhea. If you have problems with any of these symptoms, tell your doctor.

Allergic reactions are rare. Signs of an allergic reaction include rash, itching, swelling of the tongue, hands or feet, fever, or trouble breathing. If any of these symptoms occur, call your doctor right away.

Precautions

- ❖ Be sure to tell your doctor if you are allergic to any medicine.
- ❖ It is very important to tell the doctor the names of **ALL** medicines that you are currently taking—even pills bought at the store such as vitamins and antacids.
- ❖ Tell your doctor if you have asthma, which is a breathing problem, or any other illnesses.
- ❖ Birth control pills may not work as well when taking this medication. Be sure to use condoms or another form of birth control until you have finished the entire course of treatment.
- ❖ Amoxicillin is safe to take when you are pregnant but be sure your doctor knows if you are pregnant.
- ❖ In women, amoxicillin can cause vaginal itching and discharge commonly known as a yeast infection. Tell your doctor if this happens.

For more information, visit www.bt.cdc.gov/agent/anthrax,
or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).

August 5, 2005

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In an Emergency: **How to Prepare** **Doxycycline** **for Children and** **Adults Who Cannot** **Swallow Pills**

Mixing Doxycycline Hyclate 100mg Tablets with Food

Once you have been notified by your federal, state or local authorities that you need to take doxycycline for a public health emergency, it may be necessary to prepare emergency doses of doxycycline for children and adults who cannot swallow pills.

June 2008

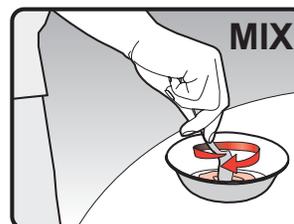
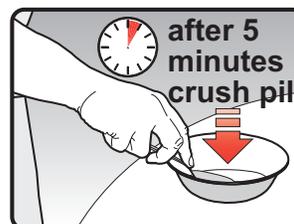
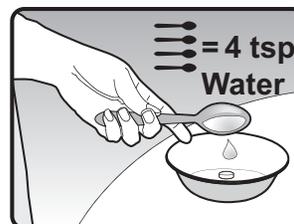
Prepared by the U.S. Food and Drug Administration

1

Supplies You Will Need

You will need these items to make doses of doxycycline for adults and children who cannot swallow pills:

- 1 doxycycline pill (100 mg)
(Do not take doxycycline if you are allergic to tetracyclines)
- a metal teaspoon
- 2 small bowls
- Water
- one of these foods or drinks to hide the bitter taste of crushed doxycycline:
 - milk or chocolate milk
 - chocolate pudding
 - apple juice and sugar



2

Crushing the Pill and Mixing with Water

1. Put 1 doxycycline pill in a small bowl.
2. Add 4 full teaspoons of water to the same bowl.
3. Let the pill soak in the water for 5 minutes so it will be soft.
4. Use the back of a metal teaspoon to crush the pill in the water. Crush the pill until no visible pieces remain.
5. Stir the pill and water so it is well mixed.

**You have now made the
Doxycycline and Water
Mixture.**

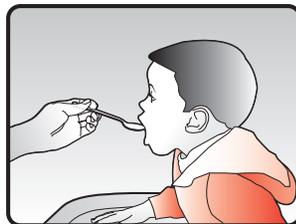
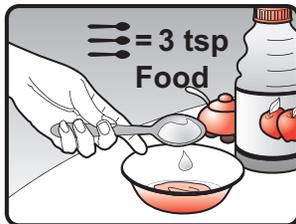
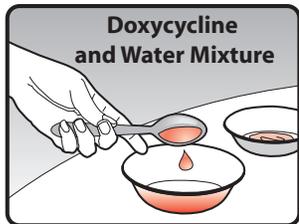
Child's weight: _____

3 Adding Food to the Doxycycline and Water Mixture to Make It Taste Better

1. Weigh your child.
2. Find your child's weight on the left side of the chart below.
3. Next, look on the right side of the chart to find the amount of the Doxycycline and Water Mixture to mix with food. The chart shows you the amount to give your child for 1 dose. (For a ½ teaspoon dose, fill the metal teaspoon half way. It is better to give a little more of the medicine than not enough).

Child's Weight	Amount of Doxycycline and Water Mixture	Teaspoons
12 pounds or less	½ teaspoon	
13 to 25 pounds	1 teaspoon	
26 to 38 pounds	1½ teaspoons	
39 to 50 pounds	2 teaspoons	
51 to 63 pounds	2½ teaspoons	
64 to 75 pounds	3 teaspoons	
76 to 88 pounds	3½ teaspoons	
89 pounds or more and adults	Use the entire mixture	Entire Mixture

4. Add the right amount of the Doxycycline and Water Mixture from the chart above to the second bowl. For adults and children 89 pounds and more, use the entire mixture.
5. Add 3 teaspoons of milk or chocolate milk or chocolate pudding or apple juice to the second bowl. If you use apple juice, also add 4 teaspoons of sugar to the second bowl.
 - Stir well.



6. Go to Step **4** for dosing.



4

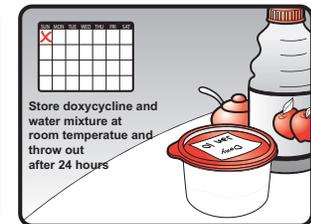
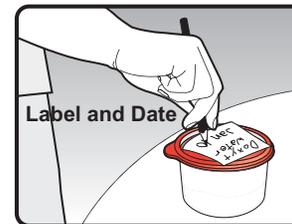
Dosing the Doxycycline and Water Mixture Mixed With Food

1. Give all of the Doxycycline and Water and food mixture in the second bowl. This is one dose.
2. **Each child or adult should take 1 dose in the morning and 1 dose at night each day.**

5

Storing the Doxycycline and Water Mixture (If There Is Enough for Another Dose)

- If you have enough leftover doxycycline and water mixture for another dose, you can keep it for the next dose.
- The doxycycline and water mixture can be stored in a covered bowl or cup. Label and date.
- Keep the mixture in a safe place out of the reach of children.
- Store the Doxycycline and Water Mixture at room temperature for up to 24 hours.
- Throw away any unused mixture after 24 hours and make a new Doxycycline and Water Mixture before the next dose.



Do not take doxycycline if you have an allergy to tetracyclines. Get emergency help if you have any signs of an allergic reaction including hives, difficulty breathing, or swelling of your face, lips, tongue or throat.

Doxycycline may cause diarrhea, skin reaction to the sun, loss of appetite, nausea and vomiting. Birth control pills may not work as well if you take doxycycline.



Report any reaction to the medication to MedWatch at www.fda.gov/medwatch or 1-800-FDA-1088



FACT SHEET

Facts about Pneumonic Plague

Plague is an infectious disease that affects animals and humans. It is caused by the bacterium *Yersinia pestis*. This bacterium is found in rodents and their fleas and occurs in many areas of the world, including the United States.

Y. pestis is easily destroyed by sunlight and drying. Even so, when released into air, the bacterium will survive for up to one hour, although this could vary depending on conditions.

Pneumonic plague is one of several forms of plague. Depending on circumstances, these forms may occur separately or in combination:

- **Pneumonic plague** occurs when *Y. pestis* infects the lungs. This type of plague can spread from person to person through the air. Transmission can take place if someone breathes in aerosolized bacteria, which could happen in a bioterrorist attack. Pneumonic plague is also spread by breathing in *Y. pestis* suspended in respiratory droplets from a person (or animal) with pneumonic plague. Becoming infected in this way usually requires direct and close contact with the ill person or animal. Pneumonic plague may also occur if a person with bubonic or septicemic plague is untreated and the bacteria spread to the lungs.
- **Bubonic plague** is the most common form of plague. This occurs when an infected flea bites a person or when materials contaminated with *Y. pestis* enter through a break in a person's skin. Patients develop swollen, tender lymph glands (called buboes) and fever, headache, chills, and weakness. Bubonic plague does not spread from person to person.
- **Septicemic plague** occurs when plague bacteria multiply in the blood. It can be a complication of pneumonic or bubonic plague or it can occur by itself. When it occurs alone, it is caused in the same ways as bubonic plague; however, buboes do not develop. Patients have fever, chills, prostration, abdominal pain, shock, and bleeding into skin and other organs. Septicemic plague does not spread from person to person.

Symptoms and Treatment

With pneumonic plague, the first signs of illness are fever, headache, weakness, and rapidly developing pneumonia with shortness of breath, chest pain, cough, and sometimes bloody or watery sputum. The pneumonia progresses for 2 to 4 days and may cause respiratory failure and shock. Without early treatment, patients may die.

Early treatment of pneumonic plague is essential. To reduce the chance of death, antibiotics must be given within 24 hours of first symptoms. Streptomycin, gentamicin, the tetracyclines, and chloramphenicol are all effective against pneumonic plague.

Antibiotic treatment for 7 days will protect people who have had direct, close contact with infected patients. Wearing a close-fitting surgical mask also protects against infection.

A plague vaccine is not currently available for use in the United States.

For more information, visit www.bt.cdc.gov or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (Español), or (866) 874-2646 (TTY)



Frequently Asked Questions About Plague

What is plague?

Plague is a disease caused by *Yersinia pestis* (*Y. pestis*), a bacterium found in rodents and their fleas in many areas around the world.

Why are we concerned about pneumonic plague as a bioweapon?

Yersinia pestis used in an aerosol attack could cause cases of the pneumonic form of plague. One to six days after becoming infected with the bacteria, people would develop pneumonic plague. Once people have the disease, the bacteria can spread to others who have close contact with them. Because of the delay between being exposed to the bacteria and becoming sick, people could travel over a large area before becoming contagious and possibly infecting others. Controlling the disease would then be more difficult. A bioweapon carrying *Y. pestis* is possible because the bacterium occurs in nature and could be isolated and grown in quantity in a laboratory. Even so, manufacturing an effective weapon using *Y. pestis* would require advanced knowledge and technology.

Is pneumonic plague different from bubonic plague?

Yes. Both are caused by *Yersinia pestis*, but they are transmitted differently and their symptoms differ. Pneumonic plague can be transmitted from person to person; bubonic plague cannot. Pneumonic plague affects the lungs and is transmitted when a person breathes in *Y. pestis* particles in the air. Bubonic plague is transmitted through the bite of an infected flea or exposure to infected material through a break in the skin. Symptoms include swollen, tender lymph glands called buboes. Buboes are not present in pneumonic plague. If bubonic plague is not treated, however, the bacteria can spread through the bloodstream and infect the lungs, causing a secondary case of pneumonic plague.

What are the signs and symptoms of pneumonic plague?

Patients usually have fever, weakness, and rapidly developing pneumonia with shortness of breath, chest pain, cough, and sometimes bloody or watery sputum. Nausea, vomiting, and abdominal pain may also occur. Without early treatment, pneumonic plague usually leads to respiratory failure, shock, and rapid death.

How do people become infected with pneumonic plague?

Pneumonic plague occurs when *Yersinia pestis* infects the lungs. Transmission can take place if someone breathes in *Y. pestis* particles, which could happen in an aerosol release during a bioterrorism attack. Pneumonic plague is also transmitted by breathing in *Y. pestis* suspended in respiratory droplets from a person (or animal) with pneumonic plague. Respiratory droplets are spread most readily by coughing or sneezing. Becoming infected in this way usually requires direct and close (within 6 feet) contact with the ill person or animal. Pneumonic plague may also occur if a person with bubonic or septicemic plague is untreated and the bacteria spread to the lungs.

Does plague occur naturally?

Yes. The World Health Organization reports 1,000 to 3,000 cases of plague worldwide every year. An average of 5 to 15 cases occur each year in the western United States. These cases are usually scattered and occur in rural to semi-rural areas. Most cases are of the bubonic form of the disease. Naturally occurring pneumonic plague is uncommon, although small outbreaks do occur. Both types of plague are readily controlled by standard public health response measures.

Can a person exposed to pneumonic plague avoid becoming sick?

Yes. People who have had close contact with an infected person can greatly reduce the chance of

Frequently Asked Questions About Plague

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becoming sick if they begin treatment within 7 days of their exposure. Treatment consists of taking antibiotics for at least 7 days.

How quickly would someone get sick if exposed to plague bacteria through the air?

Someone exposed to *Yersinia pestis* through the air—either from an intentional aerosol release or from close and direct exposure to someone with plague pneumonia—would become ill within 1 to 6 days.

Can pneumonic plague be treated?

Yes. To prevent a high risk of death, antibiotics should be given within 24 hours of the first symptoms. Several types of antibiotics are effective for curing the disease and for preventing it. Available oral medications are a tetracycline (such as doxycycline) or a fluoroquinolone (such as ciprofloxacin). For injection or intravenous use, streptomycin or gentamicin antibiotics are used. Early in the response to a bioterrorism attack, these drugs would be tested to determine which is most effective against the particular weapon that was used.

Would enough medication be available in the event of a bioterrorism attack involving pneumonic plague?

National and state public health officials have large supplies of drugs needed in the event of a bioterrorism attack. These supplies can be sent anywhere in the United States within 12 hours.

What should someone do if they suspect they or others have been exposed to plague?

Get immediate medical attention: To prevent illness, a person who has been exposed to pneumonic plague must receive antibiotic treatment without delay. If an exposed person becomes ill, antibiotics must be administered within 24 hours of their first symptoms to reduce the risk of death. Notify authorities: Immediately notify local or state health departments so they can begin to investigate and control the problem right away. If bioterrorism is suspected, the health departments will notify the CDC, FBI, and other appropriate authorities.

How can the general public reduce the risk of getting pneumonic plague from another person or giving it to someone else?

If possible, avoid close contact with other people. People having direct and close contact with someone with pneumonic plague should wear tightly fitting disposable surgical masks. If surgical masks are not available, even makeshift face coverings made of layers of cloth may be helpful in an emergency. People who have been exposed to a contagious person can be protected from developing plague by receiving prompt antibiotic treatment.

How is plague diagnosed?

The first step is evaluation by a health worker. If the health worker suspects pneumonic plague, samples of the patient's blood, sputum, or lymph node aspirate are sent to a laboratory for testing. Once the laboratory receives the sample, preliminary results can be ready in less than two hours. Confirmation will take longer, usually 24 to 48 hours.

How long can plague bacteria exist in the environment?

Yersinia pestis is easily destroyed by sunlight and drying. Even so, when released into air, the bacterium will survive for up to one hour, depending on conditions.

Is a vaccine available to prevent pneumonic plague?

Currently, no plague vaccine is available in the United States. Research is in progress, but we are not likely to have vaccines for several years or more.

For more information, visit www.bt.cdc.gov/agent/plague,
or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).

April 4, 2005

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FACT SHEET

Key Facts About Tularemia

This fact sheet provides important information that can help you recognize and get treated for tularemia. For more detailed information, please visit the Centers for Disease Control and Prevention (CDC) Tularemia Web site (www.bt.cdc.gov/agent/tularemia).

What is Tularemia?

Tularemia is a potentially serious illness that occurs naturally in the United States. It is caused by the bacterium *Francisella tularensis* found in animals (especially rodents, rabbits, and hares).

What are the Symptoms of Tularemia?

Symptoms of tularemia could include:

- sudden fever
- chills
- headaches
- diarrhea
- muscle aches
- joint pain
- dry cough
- progressive weakness

People can also catch pneumonia and develop chest pain, bloody sputum and can have trouble breathing and even sometimes stop breathing.

Other symptoms of tularemia depend on how a person was exposed to the tularemia bacteria. These symptoms can include ulcers on the skin or mouth, swollen and painful lymph glands, swollen and painful eyes, and a sore throat.

How Does Tularemia Spread?

People can get tularemia many different ways:

- being bitten by an infected tick, deerfly or other insect
- handling infected animal carcasses
- eating or drinking contaminated food or water
- breathing in the bacteria, *F. tularensis*

Tularemia is not known to be spread from person to person. People who have tularemia do not need to be isolated. People who have been exposed to the tularemia bacteria should be treated as soon as possible. The disease can be fatal if it is not treated with the right antibiotics.

How Soon Do Infected People Get Sick?

Symptoms usually appear 3 to 5 days after exposure to the bacteria, but can take as long as 14 days.

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Key Facts About Tularemia

(continued from previous page)

What Should I Do if I Think I Have Tularemia?

Consult your doctor at the first sign of illness. Be sure to let the doctor know if you are pregnant or have a weakened immune system.

How Is Tularemia Treated?

Your doctor will most likely prescribe antibiotics, which must be taken according to the directions supplied with your prescription to ensure the best possible result. Let your doctor know if you have any allergy to antibiotics.

A vaccine for tularemia is under review by the Food and Drug Administration and is not currently available in the United States.

What Can I Do To Prevent Becoming Infected with Tularemia?

Tularemia occurs naturally in many parts of the United States. Use insect repellent containing DEET on your skin, or treat clothing with repellent containing permethrin, to prevent insect bites. Wash your hands often, using soap and warm water, especially after handling animal carcasses. Be sure to cook your food thoroughly and that your water is from a safe source.

Note any change in the behavior of your pets (especially rodents, rabbits, and hares) or livestock, and consult a veterinarian if they develop unusual symptoms.

Can Tularemia Be Used As a Weapon?

Francisella tularensis is very infectious. A small number (10-50 or so organisms) can cause disease. If *F. tularensis* were used as a weapon, the bacteria would likely be made airborne for exposure by inhalation. People who inhale an infectious aerosol would generally experience severe respiratory illness, including life-threatening pneumonia and systemic infection, if they are not treated. The bacteria that cause tularemia occur widely in nature and could be isolated and grown in quantity in a laboratory, although manufacturing an effective aerosol weapon would require considerable sophistication.

What is CDC Doing About Tularemia?

The CDC operates a national program for bioterrorism preparedness and response that incorporates a broad range of public health partnerships. Other things CDC is doing include:

- Stockpiling antibiotics to treat infected people
- Coordinating a nation-wide program where states share information about tularemia
- Creating new education tools and programs for health professionals, the public, and the media.

For more information, visit www.bt.cdc.gov/agent/tularemia, or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (Español), or (866) 874-2646 (TTY)

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Frequently Asked Questions (FAQ) About Tularemia

Q. What is tularemia?

A. Tularemia, also known as "rabbit fever," is a disease caused by the bacterium *Francisella tularensis*. Tularemia is typically found in animals, especially rodents, rabbits, and hares. Tularemia is usually a rural disease and has been reported in all U.S. states except Hawaii.

Q. How do people become infected with tularemia?

A. Typically, people become infected through the bite of infected insects (most commonly, ticks and deerflies), by handling infected sick or dead animals, by eating or drinking contaminated food or water, or by inhaling airborne bacteria.

Q. Does tularemia occur naturally in the United States?

A. Yes. Tularemia is a widespread disease in animals. About 200 human cases of tularemia are reported each year in the United States. Most cases occur in the south-central and western states. Nearly all cases occur in rural areas, and are caused by the bites of ticks and biting flies or from handling infected rodents, rabbits, or hares. Cases also resulted from inhaling airborne bacteria and from laboratory accidents.

Q. What are the signs and symptoms of tularemia?

A. The signs and symptoms people develop depend on how they are exposed to tularemia. Possible symptoms include skin ulcers, swollen and painful lymph glands, inflamed eyes, sore throat, mouth sores, diarrhea or pneumonia. If the bacteria are inhaled, symptoms can include abrupt onset of fever, chills, headache, muscle aches, joint pain, dry cough, and progressive weakness. People with pneumonia can develop chest pain, difficulty breathing, bloody sputum, and respiratory failure. Tularemia can be fatal if the person is not treated with appropriate antibiotics.

Q. Why are we concerned about tularemia being used as a bioweapon?

A. *Francisella tularensis* is highly infectious. A small number of bacteria (10-50 organisms) can cause disease. If *Francisella tularensis* were used as a bioweapon, the bacteria would likely be made airborne so they could be inhaled. People who inhale the bacteria can experience severe respiratory illness, including life-threatening pneumonia and systemic infection, if they are not treated.

Q. Can someone become infected with the tularemia bacteria from another person?

A. People have not been known to transmit the infection to others, so infected persons do not need to be isolated.

Q. How quickly would someone become sick if he or she were exposed to tularemia bacteria?

A. The incubation period (the time from being exposed to becoming ill) for tularemia is typically 3 to 5 days, but can range from 1 to 14 days.

Q. What should someone do if he or she suspects exposure to tularemia bacteria?

A. If you suspect you were exposed to tularemia bacteria, see a doctor quickly. Treatment with antibiotics for a period of 10-14 days or more after exposure may be recommended. If you are given antibiotics, it is important to take them according to the instructions you receive. All of the medication you are given must be taken.

Frequently Asked Questions About Tularemia

(continued from previous page)

Local and state health departments should be notified immediately so an investigation and infection control activities can begin.

Q. How is tularemia diagnosed?

A. When a person has symptoms that appear related to tularemia, the healthcare worker collects specimens, such as blood or sputum, for testing in a diagnostic or reference laboratory. Laboratory test results for tularemia may be *presumptive* or *confirmatory*. Presumptive (preliminary) identification may take less than 2 hours, but confirmatory testing will take more time, often 24 to 48 hours or longer depending on the methods that need to be used.

Depending on the circumstances, a person may be given treatment based on symptoms before the laboratory results are returned.

Q. Can tularemia be effectively treated with antibiotics?

A. Yes. Early antibiotic treatment is recommended whenever it is likely a person was exposed to tularemia or has been diagnosed as being infected with tularemia. Several types of antibiotics have been effective in treating tularemia infections. The tetracycline class (such as doxycycline) or fluoroquinolone class (such as ciprofloxacin) of antibiotics are taken orally. Streptomycin or gentamicin are also effective against tularemia, and are given by injection into a muscle or vein. Health officials will test the bacteria in the early stages of the response to determine which antibiotics will be most effective.

Q. How long can *Francisella tularensis* exist in the environment?

A. *Francisella tularensis* can remain alive for weeks in water and soil.

Q. Is there a vaccine available for tularemia?

A. A vaccine for tularemia was used in the past to protect laboratory workers, but it is not currently available.

For more information, visit www.bt.cdc.gov/agent/tularemia, or call the CDC public response hotline at (888) 246-2675 (English), (888) 246-2857 (español), or (866) 874-2646 (TTY)

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