

Safety and Health Topics / Anthrax

Anthrax

Anthrax Menu

Overview

Anthrax is an acute infectious disease caused by the bacteria Bacillus anthracis (BA). BA is particularly dangerous because it normally is found in the environment (e.g., in soil) as microscopic endospores. These spores, as they are commonly called, are dormant structures that can survive for many years, even when exposed to very hot or cold temperatures, dry conditions, chemicals, radiation, or other factors. Contact with BA bacteria or viable BA spores may lead to severe infection in both people and animals.

Although anthrax is a very serious disease, it is not contagious like a cold or the flu. People and animals can be infected through different routes of exposure (e.g., cutaneous, inhalation, or ingestion) when they have contact with anthrax-infected animals, contaminated animal products, or other sources of BA spores; or when they breathe in BA spores suspended in the air.

Because BA is a threat to both human and animal health, it can be used as a biological weapon. The U.S. Departments of Health and Human Services (HHS) and Agriculture (USDA) classify BA as a Tier 1 agent on their Select Agents and Toxins Lists.



Photo Credit: CDC/Janice Haney Carr

Magnifying 31,207 times the actual size, this scanning electron micrograph (SEM) shows spores from the Sterne strain of Bacillus anthracis bacteria. These spores can live for decades, which enables the bacteria to survive in a dormant state.

This Safety and Health Topics page is designed to serve as a resource for employers and workers with increased risk for exposure to BA because of their job functions, or who may be exposed through accidental or intentional releases. OSHA's Bioterrorism Safety and Health Topics page provides additional information about emergency response for biological agents.

The web page includes the following sections:

Background

This page provides a summary of the hazards from exposure to BA, including information on its viability, infectiousness, and sources of or circumstances leading to exposure.

More »

Hazard Recognition

This page presents information on the risk of infection through exposure to BA spores, lists the job categories at the highest risk for potential exposure, and provides guidance on assessing risk of exposure.

More »

Medical Information

There are currently no specific OSHA standards for occupational exposure to butter-flavoring, diacetyl, or 2,3-pentanedione. However, OSHA standards regulating all workplaces offer protection to workers exposed to these substances.

More »

Standards

This page highlights OSHA standards, letters of interpretation, directives (instructions for compliance officers) and other regulatory requirements that may apply in the event of possible worker exposure to BA.

More »

Control and Prevention

This page provides general guidance applicable across all job categories at risk for potential exposure to BA. It also presents specific guidance for workers and employers in job categories with increased risk for BA exposure.

More »

Additional Resources

This page provides links to OSHA resources on BA and anthrax, as well as resources from other federal agencies, states, international agencies, non-profit organizations, and peer-reviewed journal articles.

More »

Workers' Rights

Workers have the right to:

- Working conditions that do not pose a risk of serious harm.
- Receive information and training (in a language and vocabulary the worker understands) about workplace hazards, methods to prevent them, and the OSHA standards that apply to their workplace.
- Review records of work-related injuries and illnesses.
- File a complaint asking OSHA to inspect their workplace if they believe there is a serious hazard or that their employer is not following OSHA's rules. OSHA will keep all identities confidential.
- Exercise their rights under the law without retaliation, including reporting an injury or raising health and safety concerns with their employer or OSHA. If a worker has been retaliated against for using their rights, they must file a complaint with OSHA as soon as possible, but no later than 30 days.

For additional information, see OSHA's Workers page.

How to Contact OSHA

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees. OSHA's role is to help ensure these conditions for America's working men and women by setting and enforcing standards, and providing training, education and assistance. For more information, visit www.osha.gov or call OSHA at 1-800-321-OSHA (6742), TTY 1-877-889-5627.

This web page is not a standard or regulation, and it creates no new legal obligations. It contains recommendations as well as descriptions of mandatory safety and health standards. The recommendations are advisory in nature, informational in content, and intended to assist employers in providing a safe and healthful workplace. The Occupational Safety and Health Act requires employers to comply with safety and health standards and regulations promulgated by OSHA or by a state with an OSHA-approved state plan. In addition, the Act's General Duty Clause, Section 5(a)(1), requires employers to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm.

¹ Anthrax. Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services (HHS).

Quick Facts

- Anthrax is an infectious disease, but generally does not spread from person to person like a cold or flu.
- Anthrax is rare in the United States; however, occasional outbreaks occur in wild and domestic grazing animals, such as deer and cattle.
- Anthrax is most common in agricultural regions of Central and South America, sub-Saharan Africa, central and southwestern Asia, southern and Eastern Europe, and the Caribbean.
- Anthrax symptoms depend on the route of exposure (cutaneous, inhalation, ingestion). Symptoms can appear
 in as little as one day or more than two months after exposure.¹

UNITED STATES DEPARTMENT OF LABOR

Occupational Safety and Health Administration 200 Constitution Ave NW Washington, DC 20210
 800-321-6742 (OSHA) TTY www.OSHA.gov

FEDERAL GOVERNMENT

White House
Severe Storm and Flood Recovery Assistance
Disaster Recovery Assistance
DisasterAssistance.gov
USA.gov
No Fear Act Data
U.S. Office of Special Counsel

OCCUPATIONAL SAFETY AND HEALTH

Frequently Asked Questions
A - Z Index
Freedom of Information Act
Read the OSHA Newsletter
Subscribe to the OSHA Newsletter
OSHA Publications
Office of Inspector General

ABOUT THE SITE

Freedom of Information Act Privacy & Security Statement Disclaimers Important Website Notices Plug-Ins Used by DOL Accessibility Statement