Diphtheria

What Is It?

- Diphtheria is a respiratory tract illness caused by the bacteria Corynebacterium diphtheria. This infection is rare in the United States because of routine childhood immunizations but is present in other countries such as Latin America, Asia and the Soviet Union. This bacteria can also cause a skin infection.

How can you get it?

Diphtheria is transmitted through respiratory droplets. When patients infected with the virus cough or sneeze, they exhale droplets that can be inhaled by people nearby. Rarely, the infection is spread through contact with contaminated objects, food or infected skin lesions. Risk factors for transmission include lack of immunization and crowded environments.

What are the symptoms?

Diphtheria bacteria infect the nose and throat creating a gray covering (pseudomembrane) that may block the airway. These bacteria produce toxins that may spread from the throat into the bloodstream and lead to life threatening complications. Symptoms start between 2 and 5 days after exposure.

The signs and symptoms of diphtheria may include:

> ➢ Sore throat (mild to severe)
> ➢ Drainage from the nose (watery or bloody)
> ➢ Breathing difficulties
> ➢ Barking cough (similar to that seen with Croup)
> ➢ Fever
> ➢ Skin ulcers are rare but can occur
> ➢ Painful swallowing
> ➢ No symptoms at all in some patients

Complications from diphtheria depend on the person and recovery is typically a slow process. The illness may be mild in some or life threatening in others. Complications that are more serious include inflammation of the heart muscles, airway obstruction,

temporary paralysis and kidney damage. Death occurs in 5-10% of patients with respiratory diphtheria infection.

How do you prevent it?
Diphtheria is a vaccine preventable disease. Diphtheria, tetanus and pertussis are combined in one vaccination for children. Adults should receive the tetanus and diphtheria booster every ten years.

In addition to vaccination, you can help prevent the spread of diphtheria by:
> ➢ Preventing contamination and performing decontamination of surfaces
> ➢ Using Droplet and Universal Precautions
>> • Assume patients with respiratory symptoms are contagious and provide masks for symptomatic patients
>> • Limit the number of crew members having direct patient contact
>> • Hand hygiene (wash with soap and water or using an alcohol based hand rub)
>> • Personal protective equipment (PPE) (gloves, gowns, goggles, and respiratory protection). **IAFF recommends P100 respirators** for all patients with respiratory symptoms such as cough
>> • Proper handling and disposal of contaminated instruments/devices and clothing

What should you do if you believe you have been exposed?

• Notify your infection control officer
• See a health care provider who can look for the grey covering in the throat and perform a culture to identify the bacteria.

Post exposure prophylaxis for anyone who has encountered diphtheria includes immunization with the diphtheria toxoid or a booster if already vaccinated. Treatment of suspected diphtheria is with an antitoxin as well as antibiotics such as penicillin. Symptoms can be improved with oxygen, bed rest, fluids as needed and a breathing tube.

DIVISION OF OCCUPATIONAL HEALTH, SAFETY & MEDICINE

DISPATCH

For More Information and Frequently Asked Questions (FAQs), Check Out:

- ✓ Centers for Disease Control and Prevention (CDC): http://www.cdc.gov/ncidod/dbmd/diseaseinfo/diptheria_t.htm
- ✓ Mayo Clinic: http://www.mayoclinic.com/health/diphtheria/DS00495
- ✓ Public Health Agency of Canada (PHAC): http://www.phac-aspc.gc.ca/im/vpd-mev/diphtheria-eng.php