

STAPHYLOCOCCAL ENTEROTOXIN B

What is staphylococcal enterotoxin B?

Staphylococcal enterotoxin B (SEB) is part of a family of enterotoxins commonly associated with food-borne illness. It can be purified into a powder or a mist.

How can someone come into contact with SEB?

Humans can come into contact with SEB through—

- Eating or drinking something with the enterotoxin in it; or
- Breathing it in.

Staphylococcal enterotoxin B as a weapon: It can be released into the air and people breathe it in. It also may be put into food and public water supplies.

Please note: Just because you come into contact with SEB does not mean you will get sick from it.

What happens if someone gets sick from SEB?

The symptoms of SEB include the following:

- Cough, difficulty breathing, chest pain and fluid in the lungs (three to 15 hours after contact)
- Rapid heart rate, headache, nausea and vomiting (three to 15 hours after contact)
- Fever and muscle pain (eight to 20 hours after contact)

How likely is someone to die from SEB poisoning?

Naturally occurring staphylococcal food poisoning rarely results in death. A large scale exposure to purified SEB involving a lot of people at one time has never been reported. It is believed that exposure to a high concentration of SEB may lead to shock and death.

The effects of SEB will depend on the concentration of exposure, length of time and way the person is exposed. A highly concentrated solution or large amount is more likely to cause severe effects, including death.

What is the treatment for SEB poisoning?

- **Prevention of illness after contact:** First, leave the area where the SEB was released and move to fresh air.
 - **Remove clothing.**
Quickly take off clothing that may have SEB on it. If possible, any clothing that has to be pulled over the head should be cut off the body instead so the SEB does not get near the eyes, mouth or nose. If helping other people remove their clothing, try to avoid touching any areas that may have SEB on them, and remove the clothing as fast as possible.
 - **Wash affected areas.**
 - As quickly as possible, wash any SEB from the skin with lots of soap and water.
 - If the eyes are burning or vision is blurred, rinse the eyes with plain water for 10 to 15 minutes.

- If contact lenses are worn, remove them and put them with the clothing. Do not put the contacts back in. If eyeglasses are worn, wash them with soap and water. Eyeglasses can be put back on after they are washed.
- **Discard contaminated items.**
 - Place the clothing and any other contaminated items that may have come into contact with SEB inside a plastic bag. Avoid touching them by wearing rubber gloves, turning the bag inside out and using it to pick up the clothing, or putting the clothing in the bag using tongs, tool handles, sticks or similar objects. Anything that touches the contaminated clothing should also be placed in the bag.
 - Seal the bag, and then seal that bag inside another plastic bag.
 - Contact the local county health department right away. (Visit www.idph.state.il.us//local/alpha.htm for a listing of all county health departments in Illinois.)
 - When the local or state health department or emergency personnel arrive, tell them what you did with the contaminated clothes. The health department or emergency personnel will arrange for further disposal. Do not handle the plastic bags yourself.
- **Treatment of illness:** There is no specific treatment or antidote for SEB poisoning. Supportive care (intravenous fluids, medicine to control fever and pain) is the standard treatment.

Is there a vaccine for SEB poisoning?

There is no vaccine for SEB poisoning.

What should be done if someone comes into contact with SEB?

If you think that you or someone you know may have come into contact with SEB, contact the local county health department right away. (Visit www.idph.state.il.us//local/alpha.htm for a listing of all county health departments in Illinois or check your local phone book.)

If you or someone you know is showing symptoms of SEB, call your health care provider or the Illinois Poison Center right away. The toll-free number for the poison center is 1-800-222-1222.

Where can one get more information about SEB?

- Illinois Department of Public Health www.idph.state.il.us
- Illinois Poison Center www.IllinoisPoisonCenter.org