

What is Necrotizing Fasciitis?

Necrotizing Fasciitis is a rare but severe, invasive infection of the soft tissues of the body caused by toxin-producing Group A Streptococcal (GAS) bacteria. A handful for other bacteria can also cause necrotizing fasciitis, but infection with GAS is the most common cause. Bacteria enter the body and release toxins that destroy the soft tissue. Dead, or “necrotic,” tissue is left behind. Necrotizing fasciitis is a medical emergency. The disease progresses rapidly and is often fatal if not treated promptly.

Who is at risk for Necrotizing Fasciitis?

Most cases occur randomly and are not linked to similar infections in others. The most common way of getting necrotizing fasciitis is when the bacteria enter the body through a break in the skin, like a cut, scrape, burn, insect bite, or puncture wound. Most people who get necrotizing fasciitis have other health problems that may lower their body's ability to fight infection. Some of these conditions include diabetes, kidney disease, cancer, or other chronic health conditions that weaken the body's immune system.

What are the symptoms of Necrotizing Fasciitis?

Initial symptoms include pain or soreness similar to that of a "pulled muscle," warm areas on the skin with red or purplish areas of swelling that spread rapidly, ulcers, blisters and black spots on the skin. Patients often describe their pain as severe and way out of proportion to how the painful area appears. Fever, chills, fatigue (tiredness) or vomiting may follow. Symptoms can progress quickly to massive tissue loss and death. If these symptoms are present, especially after a sustaining a wound, medical attention should be sought immediately.

How soon do symptoms appear?

Symptoms typically begin soon after the bacteria enter through a break in the skin, but an injury or other type of break in the skin is not always readily apparent in some cases, making necrotizing fasciitis difficult to diagnose.

How is Necrotizing Fasciitis spread?

Most cases occur seemingly randomly in people, especially those with weakened immune systems, often following some sort of break in the skin. This disease is not typically spread from person to person.

When and for how long is a person able to spread the disease?

Necrotizing Fasciitis is not typically spread person to person.

How is a person diagnosed?

Diagnosis based on presentation of symptoms. Diagnosis can be challenging because the disease is rare and first symptoms may appear to be minor in nature. Laboratory tests are available to confirm the agent of infection, but treatment should begin as soon as possible.

What is the treatment?

Necrotizing Fasciitis is treated with antibiotics injected directly into the blood. Prompt surgical removal of dead tissue helps slow the spread of infection to surrounding tissues as antibiotics may not reach areas of tissue already experiencing decay. Supportive treatment also may be needed, including giving fluids and any required support of major organ systems.

Does past infection make a person immune?

No. Past infection does not make a person immune to future infections.

Should children or others be excluded from day care, school, work or other activities if they have Necrotizing Fasciitis?

Not applicable—necrotizing fasciitis is a medical emergency, and anyone with this disease will require the direct care of a physician in a medical setting until the bacterial infection has been eliminated.

What can be done to prevent the spread of TSS?

Necrotizing Fasciitis is extremely rare. People who are healthy, have a strong immune system and practice good hygiene rarely become infected. However, cases can appear randomly. Good hygiene and wound care practices are important in preventing the disease. Good wound care includes:

- Keep draining or open wounds covered with clean, dry bandages until healed.
- Do not delay first aid of even minor, non-infected wounds like blisters, scrapes or any other break in the skin.
- If you have an open wound, avoid common use sites like whirlpools, hot tubs and swimming pools until infections are healed.
- Wash hands often with soap and water or use an alcohol-based hand sanitizer if washing is not possible.

Additional Information:

Additional information is available at www.ndhealth.gov/disease or by calling the North Dakota Department of Health at 800.472.2180.

Resources:

1. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. [Children in Out-Of-Home Care]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2015: 132-151.
2. *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. [Group A Streptococcal Infections]. Kimberlin, DW; Brady, MT; Jackson, MA; Long, SS. American Academy of Pediatrics. 2015: 732-744.
3. Centers for Disease Control and Prevention. (2015): Necrotizing Fasciitis: A Rare Disease, Especially for the Healthy. www.cdc.gov/features/necrotizingfasciitis/