

## Necrotizing Fasciitis (also known as Flesh-Eating Disease)

### What is necrotizing fasciitis?

Necrotizing fasciitis (*neck-roe-tie-zing fa-shee-eye-tis*) is more commonly known by the public as flesh-eating disease. The disease got this nickname as it can spread through human tissue (flesh), destroying it at a rate of almost three centimetres (1 inch) per hour. In some cases death can occur within 18 hours. When the bacteria spread along the layers of tissue that surround muscle (called the fascia), it is called necrotizing fasciitis.

### What are the symptoms of the disease?

There are 2 important symptoms to watch out for:

- An infection around a cut or bruise that is much more painful than you would expect from the kind of wound or injury that you have, *and* a high fever.
- A very painful infection around a cut which spreads up the affected arm, leg, or other body part very quickly.

The original site of infection may be a minor wound or injury such as a small cut or bruise. Or, it may follow a recent chickenpox infection. Sometimes there is no obvious skin wound or injury.

### What causes it?

Necrotizing fasciitis is caused by a number of different bacteria; one of them is the Group A streptococcus. Many people may carry these bacteria in the nose, throat, or on their skin, without getting sick, but these bacteria can also cause sore or strep throat,

scarlet fever, skin infections, and rheumatic fever. Researchers do not fully understand why Group A streptococcus bacteria, on rare occasions, cause necrotizing fasciitis. It is known that these bacteria make poisons that destroy body tissue directly, as well as causing the body's immune system to destroy its own tissue while fighting the bacteria.

### How is it spread?

The Group A streptococcus is often found in the noses and throats of healthy people. It is normally passed from person to person through close personal contact with an infected person, such as through kissing, sharing drinking cups, forks, spoons or cigarettes. Those at highest risk are:

- Persons living in the same household as an infected person;
- People who sleep in the same house as an infected person; or
- People who have direct contact with the mouth or nose secretions of an infected person.

### How can it be prevented?

There is no vaccine to prevent Group A streptococcal infections. Antibiotics are recommended for close contacts of cases of necrotizing fasciitis caused by Group A streptococcus (for example, persons living in the same household). Since this severe form of streptococcal infection can progress so rapidly, the best approach is to seek medical attention as soon as tell-tale symptoms occur. Remember - an important clue to this disease is very severe pain at the site of infection.

It also makes good sense to always take good care of minor cuts, to reduce the chance of infection getting into the tissues under the skin. If you have a small cut or wound, wash it well in warm, soapy water, and keep it clean and dry with a bandage.

### How is it treated?

Antibiotics are an important part of the treatment for these infections. However, antibiotics on their own are not usually enough. This is because necrotizing fasciitis cuts off the blood supply to body tissue, and the antibiotics must be carried by blood to the infected site in order to work. Surgery, combined with antibiotics is the usual treatment. However, researchers are investigating other methods that can be used to supplement antibiotics and surgery.

### What are your chances of getting it?

Your chances of getting necrotizing fasciitis caused by Group A streptococcus are very low. Normally in B.C., about 2 or 3 persons out of 1 million persons have gotten it every year, although there were more cases than normal in B.C. in 2001. It is important to remember that even for those who have close, prolonged contact with a person with necrotizing fasciitis, the chance of getting it is very low.

Some people are known to have a higher risk of getting the disease. Injecting drugs that are not prescribed by a doctor is the biggest risk factor. Other risk factors include:

- Skin wounds (burn, trauma, surgery);
- A weakened immune system due to disease (e.g. people with HIV infection or AIDS; people who have been getting treatment for cancer (i.e. radiation therapy or chemotherapy) and people who have had an organ or bone marrow transplant and are taking anti-rejection drugs);

- Other chronic disease (e.g. chronic heart, lung or liver disease, alcoholism);
- Recent close contact with a person who had necrotizing fasciitis caused by Group A streptococcus; or
- If you have chickenpox. A recent chickenpox infection can increase a child's risk of getting necrotizing fasciitis by 10 times. So even though chickenpox does not account for very many cases, streptococcus skin infections are a noted complication of chickenpox. Public health officials in B.C. suggest that people get their kids immunized against chickenpox. See [BC HealthFile #44b Chickenpox \(Varicella\) Vaccine](#) for information about the chickenpox vaccine.

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