

# Erysipelothrix

## What is Erysipelothrix?

Erysipelothrix rhusiopathiae, also known literally “erysipelas thread of red disease,” is a facultative intracellular pathogen that causes swine erysipelas, as well as a variety of diseases in many animals, including humans.

## What kind of germ is Erysipelothrix?

Erysipelothrix rhusiopathiae, a pleomorphic, non-motile, non-sporulating, gram-positive rod, is the type species of the genus Erysipelothrix. E. rhusiopathiae. Erysipeloid, previously known as Rosenbach’s disease, Baker-Rosenbach disease, and pseudoerysipelas, is a bacterial infection of the skin caused by traumatic penetration of Erysipelothrix rhusiopathiae.

## How can Erysipelothrix be diagnosed?

There are three types of disease; Localized cutaneous infection, Diffuse cutaneous infection, Systemic infection. Symptoms of localized cutaneous infection include; burning, itching, throbbing, and swelling at the site of entry. Symptoms of diffuse cutaneous infection include; fever, malaise, joint and muscle pain, headaches, and polyarthritis in rare instances. Symptoms of Systemic infection are rare, but include; fever, brain abscesses, meningitis, intra-abdominal abscess, endophthalmitis, septic arthritis, osteomyelitis, necrotizing enterocolitis, and peritoneal dialysis-related peritonitis with bacteremia have been reported.

## How can Erysipelothrix be treated?

Penicillin is the drug of choice for all forms of this infection. Consult with your doctor to find out which amounts of penicillin to use because they vary between localized and diffuse cutaneous infections.

## Are there any long-term effects of Erysipelothrix?

Erysipelothrix bacteremia is commonly complicated by endocarditis. Prosthetic valve endocarditis has been described, but native valve endocarditis, most often the aortic valve, is more common. A history of preceding skin infection was seen in approximately one-third of cases. Endocarditis caused by Erysipelothrix is more common in males, more likely to involve the aortic valve, and has a high mortality rate (38%). More than one-third of patients reported in the literature required valve replacement. Complications of E. rhusiopathiae endocarditis include myocarditis, congestive heart failure, valvular perforations, paravalvular and myocardial abscess formation, cerebral infarctions, osteomyelitis, septic arthritis, and acute renal failure secondary to proliferative glomerulonephritis. Complications of bacteremia without endocarditis are more common in immunocompromised hosts and include brain abscess, necrotizing fasciitis, meningitis, peritonitis, intra-abdominal abscess, osteomyelitis, and septic arthritis.

## How can humans get Erysipelothrix?

Infections in both man and animals appear to have a seasonal incidence, with most cases occurring in the summer and early fall. The organism is shed by infected animals in feces, urine, saliva, and nasal secretions, which can contaminate food, water, soil, and bedding.

**How can Erysipelothrix be prevented?**

For individuals working at high risk occupations, suggested preventative measures include wearing gloves or other protective hardware, good hygiene, especially frequent hand washing with disinfectant soap, and the prompt topical treatment of any small skin injuries. Vaccination is considered useful in animals; however, vaccination of humans is not felt to be a viable option now. Infection and clinical disease appear to convey little or no immunity. Research to develop more immunogenic and safer vaccines continues.