

Coxsackievirus

Coxsackievirus is a virus that belongs to the Picornaviridae family. These viruses are divided into group A and group B. In general, group A coxsackieviruses infect the skin and mucous membranes, causing febrile pharyngitis, hand, foot, and mouth disease, herpangina, and conjunctivitis. This virus is also one of the most common causes of aseptic meningitis that usually occurs in the late summer months. Group B coxsackieviruses tend to infect the heart and the pleura, as well as the pancreas. Infection of the heart can lead to myocarditis, and dilated cardiomyopathy and can lead to pericardial effusions. Recently, the development of type 1 diabetes mellitus has been associated with previous coxsackievirus B infection.



PLAY PICMONIC

Characteristics

Picornavirus

[Pickle-corn-virus](#)

Picornaviruses are non-enveloped, single-stranded positive sense RNA viruses with an icosahedral capsid. This virus family includes many important human pathogens, including enteroviruses and rhinoviruses. Enteroviruses that cause human disease include poliovirus, echovirus, coxsackievirus, and hepatitis A virus.

Signs and Symptoms

Coxsackie A

[Cock-in-sack with \(A\) Apple](#)

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Febrile Pharyngitis

[Fever-beaver Pharaoh](#)

A common presentation of infection by coxsackievirus is a nonspecific febrile illness and upper respiratory tract diseases, such as pharyngitis.

Hand, Foot, and Mouth Disease

[Hand, Foot, and Mouth with red spots](#)

Hand, foot, and mouth disease is caused by infection of coxsackievirus A. Symptoms include fever, headache, and malaise, along with painful oral lesions and a body rash followed by sores and blisters on the palms of the hand and soles of the feet.

Most Common Cause of Aseptic Meningitis

[A-Apple-scepter Men-in-tights](#)

Coxsackievirus is the most common cause of aseptic meningitis, which is inflammation of the meninges without a pyogenic bacterial source. Both coxsackie A and B can lead to aseptic meningitis.

Late Summer

Beach scene

Aseptic meningitis caused by coxsackievirus is more common in the late summer months.

Coxsackie B

Cock-in-sack with (B) Bee

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Myocarditis

Mayo-heart-card

Coxsackie B infection can lead to inflammation of the myocardium, leading to myocarditis.

Dilated Cardiomyopathy

Dilated Heart and mayo-jar with party-hat

Dilated cardiomyopathy is a condition that causes the heart to become weakened and enlarged, leading to the inability to pump blood efficiently. Coxsackievirus B can infect the heart causing weakening, leading to dilated cardiomyopathy.

Type 1 Diabetes

Dyed-beads-pancreas

Recently, the development of type 1 diabetes mellitus has been associated with previous coxsackievirus B infection.