

Mumps Virus

Mumps is a viral disease that is part of the paramyxovirus family. It presents with parotitis, orchitis, or aseptic meningitis. The disease is now rare due to vaccination but can be diagnosed with elevated amylase caused by parotitis or testicular pain. In rare cases the disease can cause pancreatitis.



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Characteristics

Paramyxovirus

Parachute-mixer-virus

Paramyxovirus viruses are enveloped, SS, negative sense, linear RNA viruses with helical capsid symmetry. Other viruses in the paramyxovirus family include parainfluenza, RSV, and rubeola.

Signs and Symptoms

Parotitis

Parrot with enlarged Parotid-in-flames

Inflammation and swelling of the parotid gland is a unique symptom of mumps. This painful swelling gives them a puffy-cheeked appearance. Infiltration and destruction of the gland can lead to increased serum amylase.

Increased Serum Amylase

Up-arrow Amulet

Inflammation and infiltration of the parotid gland and pancreas over the course of this disease causes an increase in serum amylase. Amylase from the parotid causes the vast majority of amylase increases, but pancreatic infiltration and inflammation can raise it as well.

Orchitis

Orchid-testes

Inflammation of the testes is a unique symptom of patients with mumps and presents as testicular pain. Orchitis can result in infertility, particularly when affecting post-pubescent men. Orchitis occurs in 15-30% of cases, and subsequent infertility is very rare.

Oophoritis

Ovary-leaves

Inflammation of the ovaries is a unique symptom of female patients with mumps. This complication occurs in about 5% of cases. This complication presents as fever, abdominal pain, and vomiting.

Aseptic Meningitis

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

Aseptic meningitis is inflammation of the meninges not caused by a pyogenic bacterial source. Mumps can also cause aseptic meningitis. This meningitis typically has a benign course with little to no neurological sequelae.

Pancreatitis

[Pancreas-on-fire](#)

Inflammation of the pancreas is a rare presentation of mumps and can cause elevations in serum amylase. This is a rare complication that is usually self-limiting and resolves with conservative management.