

Whipple's Disease

This is an infectious disease caused by the bacteria *Tropheryma whipplei*, and has systemic effects on top of GI illness. This disease is more common in middle-aged white males and leads to arthralgias, abdominal pain and malabsorption, accompanied with mesenteric lymph nodes. Patients can also have neurologic and cardiac symptoms. Diagnosis of Whipple's disease biopsy shows PAS-positive foamy macrophages.



PLAY PICMONIC

Tropheryma Whipplei

[Trophy-mare Whipping](#)

The causative organism in Whipple's disease is *Tropheryma whipplei*, which is a gram-positive bacillus.

Gram-Positive

[Graham-cracker Positive-angel](#)

This bacteria is classified as being a gram-positive bacillus, categorized under the class of Actinobacteria. Commonly, when staining, this bacteria can show up as gram-negative or indeterminate.

Middle-aged, Caucasian men and Farmers

[Middle-aged White Farmer](#)

This disease is extremely rare, but occurs predominantly in Caucasian men who are middle-aged. This disease also happens more commonly in farmers and those exposed to animals, most likely because this bacteria is found in soil and animal excrement.

Malabsorption

[Intestinal-mallet](#)

Malabsorption is a common symptom seen with this disorder, leading to poor fat absorption and wasting. Due to this, patients can complain of chronic diarrhea accompanied with weight loss, along with abdominal pain and distention.

Mesenteric Nodes

[Mesentric Nose-nodes](#)

Mesenteric lymph nodes become enlarged because infiltration of the intestinal lamina propria takes place.

Arthralgias

[King Arthur-algae](#)

This is a systemic disease process, and can lead to migratory arthritis, which is non-deforming. Patients complain of joint pain and arthritis in large joints, however there is usually no damage to the joint surface.

Cardiac Symptoms

[Heart](#)

Patients can develop endocarditis with this disorder, displaying dyspnea and edema as fluid is unable to be adequately pumped through the body. This can be compounded by depleted albumin, which leads to lower oncotic pressures and worsened edema.

Neurologic Symptoms

Nerves

CNS involvement can occur with this disease, and altered level of consciousness can be seen, with the additional possibility of dementia, memory loss, confusion and eye movement disorders. Headaches, weakness and seizures may also develop.

PAS-positive Foamy Macrophages

PEZ-positive Foaming Mac-man

Upon biopsy, samples from the lamina propria show PAS-positive (Periodic acid-Schiff Positive) foamy macrophages, which is diagnostic of this disease.