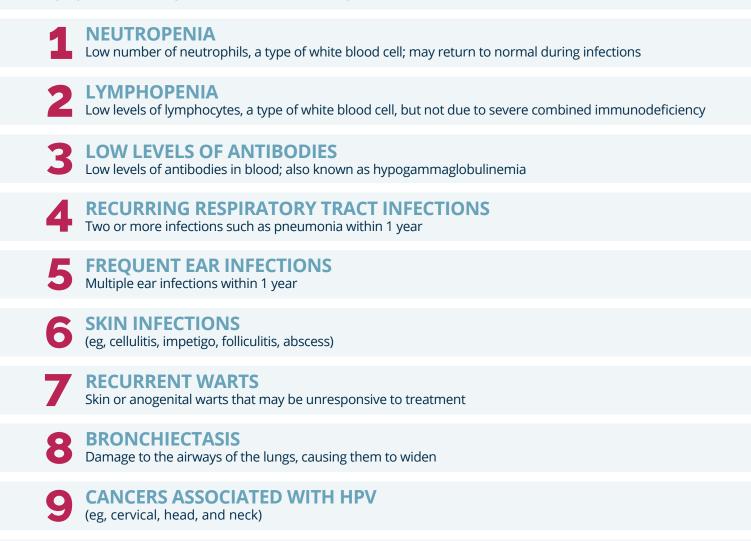
10 Warning Signs of WHIM Syndrome

Primary immunodeficiencies (PIs), like WHIM (Warts, Hypogammaglobulinemia, Infections, and Myelokathexis*) syndrome, are diseases where the immune system doesn't function properly. WHIM syndrome is predominantly caused by pathogenic variants in the *CXCR4* gene. Patients may experience a wide variety of signs and symptoms, and most do not present with all four features listed in the acronym, making WHIM syndrome challenging to recognize and diagnose. Below are the most common signs and symptoms. **If you know a patient who has two or more of these warning signs, consider a genetic test to inform a diagnosis.**



FAMILY HISTORY (eg, neutropenia, recurrent infections, warts)

*Myelokathexis, retention of neutrophils in the bone marrow; CXCR4, C-X-C chemokine receptor 4; HPV, human papillomavirus.

Presented as a public service by





For more information about WHIM syndrome, visit <u>WhatIfltsWHIM.com</u>.

For more information about primary immunodeficiencies, visit info4pi.org.

For Healthcare Providers

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