Polycythemia vera (PV) is a rare, chronic, malignant disease of certain bone marrow cells which affects people of all ages, but is most common in adults who are older than age 60 and is slightly more common in men than in women.

PV was not declared a reportable cancer until 2001, but from 2009 to 2013, about 490 cases of PV have been diagnosed among adult New Jersey residents, age 25 or older, and fewer than five diagnoses having been reported among child and adolescent New Jersey residents, ages 0 - 19.

As a comparison, the most common adult leukemia diagnosed in the United States, chronic lymphocytic leukemia (CLL), affected nearly 2,800 adult New Jersey residents during the same time period. CLL is a cancer of the blood and bone marrow with age-specific rates in New Jersey that ranged from a minimum of 0.3 cases per 100,000 (ages 30 – 34) to a maximum of 42.0 cases per 100,000 (ages 80 – 84) during this period, per the NJSCR.

The main cause of PV is related to a change or mutation in a specific gene in the body (JAK2) that results in the thickening of blood due to the overproduction of red blood cells, which increases the risk of blood clot formation, strokes and heart attacks. The cause of this mutation’s occurrence is not known.*

Though PV is not an inherited disease, the JAK2 gene may have a higher tendency to mutate in some families.*

There are presently no known risk factors for this disease that involve environmental or occupational exposures, but other unknown genetic factors may play a role in the development of PV.*