

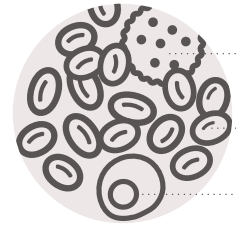
Multiple Myeloma

Multiple myeloma is a blood cancer formed by malignant plasma cells and typically originates in the bone marrow.

What is Multiple Myeloma?

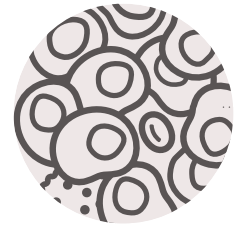
Normal plasma cells are found in the bone marrow and are an important part of the immune system. Through a complex, multi-step process, healthy plasma cells can transform into malignant myeloma cells.

Myeloma cells then produce abnormal antibodies, or M proteins, at a rapid rate that crowd out other important blood cells. A high level of M protein in the blood is the hallmark characteristic of multiple myeloma.



Healthy Bone Marrow

White Blood Cell
Red Blood Cell
Normal Plasma Cell



Bone Marrow with Multiple Myeloma

Abnormal Plasma Cell

Multiple myeloma typically occurs in bone marrow in the **spine, pelvic bones, ribs** and areas of the **shoulders and hips**.



275,000+
new cases of multiple myeloma are expected to occur globally in 2040

Risk Factors

The cause of multiple myeloma is not known but it may be more common in:

People who are overweight or obese

People with a sibling or parent who has had multiple myeloma

People with other plasma cell diseases



Males



People 65+

Fewer than 1% of cases are diagnosed in people younger than 35

2x

African Americans

Multiple myeloma is more than twice as common in African Americans than in white Americans

Signs & Symptoms

Some people with multiple myeloma have no signs or symptoms at all, but symptoms of multiple myeloma may include:



Bone Pain or Bone Fractures



Weakness



Infections



Increased Thirst



Loss of Appetite and Weight Loss



Nerve Damage



Impaired Kidney Function

Treatment Options

A patient's treatment options depend on the stage of their multiple myeloma, but may include:



Drug Therapy



Immunotherapy



Radiation



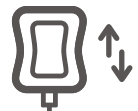
Surgery



Stem Cell Transplant



Bisphosphonates



Plasmapheresis