

## Understanding the Language of Myeloma

*Myeloma is a complicated disease, but the language that describes it doesn't have to be. Here is a list of words and phrases commonly used in discussions about myeloma, followed by a short list of commonly used acronyms. A more extensive glossary of myeloma terms can be found [here](#).*

**Anemia:** A decrease in hemoglobin, which is a protein in blood that carries oxygen to tissues and organs. Anemia is usually defined as a hemoglobin lab value below 10 g/dL and/or a decrease of more than 2 g/dL from normal levels. A normal level is anything over 13–14 g/dL.

**Antibody:** A protein produced by the body (more specifically white blood cells) that helps to protect against infection.

**Bone lesions:** Holes that occur in the bone caused by myeloma.

**Bone marrow biopsy:** The removal of a tissue sample from bone using a needle. The tissue sample is checked to see if it has cancerous cells. If cancerous cells are found, the pathologist (a specialized doctor) estimates how much of the bone marrow is affected.

**Chemotherapy:** Treatment of a disease using chemicals to kill cancer cells. “Combination chemotherapy” uses more than one drug to treat and kill the cancer cells.

**Clinical trial:** A study where people volunteer to participate in scientific research. Each study is designed to find better ways to prevent, detect, diagnose, or treat cancer (and other diseases) and to answer scientific questions.

**CRAB criteria:** An elevated level of Calcium in the blood, Renal (kidney) damage, Anemia (not enough healthy red blood cells in the blood), and Bone damage are criteria used to diagnose myeloma.

**Free light chains:** Light chains are proteins made by plasma cells (white blood cells), which make up part of an antibody. There are two types of light chains: kappa and lambda. A light chain may be bound to a heavy chain or it may be unbound (free). Free light chains circulate in the blood and are small enough to pass into the kidneys. A large amount of free light chains in the blood is an indicator of myeloma.

**Frontline therapy:** A general term for the first medical treatment given to a newly diagnosed myeloma patient.

**Hematologist:** A doctor who specializes in blood and bone marrow disease.

**Hypercalcemia:** A higher than normal level of calcium in the blood. In myeloma patients, it usually results from the breakdown of bone, which causes the release of calcium from the bone into the bloodstream. This condition can cause a number of symptoms, including loss of appetite, nausea, thirst, fatigue, muscle weakness, restlessness, and confusion.

**Lab tests (blood draws):** A type of test used to determine the presence or absence of a disease. Blood tests are routinely done at the time of diagnosis and throughout the course of disease.

**Minimal residual disease (MRD):** The presence of tumor cells in a patient after treatment has been completed and complete remission (no more signs of disease) has occurred. Very sensitive new testing methods are now able to detect 1 myeloma cell among 1,000,000 sampled cells in blood or bone marrow.

**Monoclonal:** A clone or duplicate of a single cell. Myeloma cells come from a “monoclonal,” which is a single malignant (cancerous) plasma cell in the bone marrow. The myeloma protein produced from these cells is also referred to as monoclonal.

**Monoclonal protein (myeloma protein, M-protein, M-spike):** An abnormal protein produced by myeloma cells that accumulates in and damages bone and bone marrow.

**Multiple myeloma:** Cancer of the bone marrow plasma cells, which are a type of white blood cell that make antibodies. The cancerous plasma cells are called myeloma cells.

**Oncologist:** A doctor who specializes in treating cancer. Some oncologists specialize in a particular type of cancer.

**Pathologist:** A doctor that specializes in the interpretation and diagnosis of changes in body tissues and body fluids.

**Peripheral neuropathy:** Damage to the nerves that causes feelings of numbness, tingling, burning, and/or pain in the hands, feet, lower legs, and/or arms.

**Plasma cells:** Special white blood cells that produce antibodies. Myeloma is cancer of the plasma cells. In myeloma, malignant (cancerous) plasma cells produce abnormal antibodies that do not have the ability to fight infection.

**Radiology:** A branch of medicine that uses images of areas inside the body to diagnose and treat disease. The images are produced with X-rays, sound waves, magnetic fields, or other types of energy.

**Radiologist:** A doctor who specializes in creating and interpreting images of areas inside the body to treat and diagnose disease. The images are produced with X- rays, sound waves, magnetic fields, or other types of energy.

**Refractory Multiple Myeloma:** Myeloma that no longer improves with standard treatments. Patients with refractory myeloma have had progressive disease either during treatment or within 60 days following the end treatment.

**Relapse:** The reappearance of signs and symptoms of disease after a period of improvement. Patients with relapsed multiple myeloma have completed treatment and then they develop signs and symptoms of myeloma at least 60 days after treatment ended.

**Renal disease/impairment:** Disease/impairment involving the kidney.

**Remission:** Complete or partial disappearance of the signs and symptoms of cancer.

**Response:** How well a patient's disease improves due to treatment. The International Myeloma Working Group (IMWG) developed criteria to determine how good or bad a patient's response to treatment is.

**Smoldering multiple myeloma (SMM):** The pre-cancerous form of myeloma. Patients with SMM do not require treatment but should be followed regularly by a hematologist-oncologist.

**Stage/risk category:** The extent of cancer in the body, determined by exams and lab tests.

**Stem cell transplant:** A procedure in which stem cells are removed from a patient's blood and are then given back to the patient following intensive treatment.

**Steroids:** A type of hormone. Steroids are produced by the body but can also be synthetic (manmade). Dexamethasone, prednisone, and methylprednisolone are synthetic steroids that have multiple effects and are used for a large number of conditions, including myeloma.

## **ABBREVIATIONS**

**CBC:** Complete Blood Count

**CR:** Complete Response

**FISH analysis:** Fluorescence in Situ Hybridization analysis

**MGUS:** Monoclonal Gammopathy of Undetermined Significance

**MRD:** Minimal Residual Disease

**MRI:** Magnetic Resonance Imaging

**NP:** Nurse Practitioner

**PA:** Physician's Assistant

**PCP:** Primary Care Physician

**PET scans:** Positron Emission Tomography scans

**PFS:** Progression-Free Survival

**SMM:** Smoldering Multiple Myeloma