



**What is multiple myeloma?**

Multiple myeloma is a complex blood cancer that involves plasma cells. Plasma cells are a type of white blood cell that originates in the bone marrow. These cells produce antibodies that help your body fight infections. When plasma cells become cancerous and multiply too quickly, they are called myeloma cells.

The reason the disease is called *multiple* myeloma is because there are often multiple patches or areas in the body where it grows. Multiple myeloma affects the places where bone marrow is active in an adult, and can impact the bones, blood, kidneys and immune system.

**How common is multiple myeloma?**

Multiple myeloma is the second most common blood cancer in the world. An estimated 159,985 new cases are diagnosed yearly, worldwide. In 2016, an estimated 131,000 people in the United States were living with multiple myeloma. It is projected that over 32,000 people will be diagnosed in the U.S. in 2020, and approximately 54% of these new cases will be diagnosed in men.

**Risk Factors of Multiple Myeloma**

Some factors that may increase the chances of developing multiple myeloma include:

**65+**  
**BEING AGE 65+**  
Though it can be diagnosed in younger people, multiple myeloma is most common in people between the ages of 65-74.

**BEING AFRICAN AMERICAN**  
African Americans are more than twice as likely to develop multiple myeloma than white Americans. The reason for this is unknown.

**♂**  
**BEING MALE**  
Multiple myeloma is slightly more common in men than in women.

**HAVING FAMILY HISTORY**  
A person with a sibling or parent with multiple myeloma may be more likely to develop the disease than someone who does not. However, this only accounts for a small percentage of diagnoses.

*While these risk factors are important, patients who have no risk factors are sometimes diagnosed with multiple myeloma as well.*

**Signs and Symptoms of Multiple Myeloma**

Multiple myeloma symptoms can vary from person to person. Patients with early-stage disease may experience few or mild symptoms. Patients with active multiple myeloma may experience some of the following symptoms:



**BONE PROBLEMS**



**NAUSEA AND VOMITING**



**CONSTIPATION**



**LOSS OF APPETITE AND WEIGHT LOSS**



**MENTAL FOGGINESS OR CONFUSION**



**FATIGUE**



**FREQUENT INFECTIONS**



**EXCESSIVE THIRST**



### How is multiple myeloma diagnosed?

A diagnosis of multiple myeloma can be the result of a combination of factors including signs and symptoms, a physical examination and results from a variety of tests, such as blood, urine or bone marrow tests.



### How is multiple myeloma treated?

Since multiple myeloma is a complex disease that is characterized by recurring cycles of treatment, remission and relapse, several factors drive treatment decisions such as:

- Age and general health
- Lab tests results
- Symptoms and disease complications
- Prior myeloma treatment
- Personal treatment goals

However, no two individuals with multiple myeloma are exactly the same. Following a diagnosis, patients will work closely with their oncologist to develop a treatment plan tailored to their individual needs. If you do require treatment, your physician will work with you to find the best treatment option to try to get you into remission, which is a decrease or disappearance of signs and symptoms of multiple myeloma.



### Where to find more about multiple myeloma

Multiple myeloma is a very individualized disease. For that reason, your oncologist will be able to provide you with information best suited to your needs. There are also many helpful advocacy organizations and resources that can provide more background information on multiple myeloma.



*The external resources and organizations listed in this document are provided for your information only. Amgen does not control or endorse their content.*

**To download a guide that can help you develop a personalized plan, please visit:**

[www.myelomaexplained.com/myeloma-mvp/](http://www.myelomaexplained.com/myeloma-mvp/)