

# **Multiple Myeloma**

Multiple myeloma is a cancer that begins in the plasma cells of the body. Plasma cells are white blood cells which reside in the bone marrow, generate antibodies, and help fight infections. Researchers do not know the cause of multiple myeloma but are making progress in understanding how plasma cells become cancerous. When myeloma develops, the cells can create tumors called plasmacytomas. A single plasma cell tumor is called solitary or isolated plasmacytoma. When the cancerous plasma cells are widespread throughout the bone marrow, the disease is called multiple myeloma. The prognosis for multiple myeloma can vary between individuals and has recently improved substantially with new medications, CAR-T therapy, and stem cell transplant techniques.

#### **Statistics**

- In the United States, about 1 in 103 men and 1 in 131 women will be diagnosed with multiple myeloma.
- In 2024, there will be approximately **35,780 new cases** of multiple myeloma diagnosed in the United States and approximately **12,540 deaths** are expected from the disease.
- In Texas, approximately **2,920 people** are expected to be diagnosed with multiple myeloma in 2024, and an estimated **950 deaths** are expected from the disease.

### **Risk Factors**

Doctors do not know how to prevent multiple myeloma. However, there are several factors that may increase risk:

- Age: Multiple myeloma is more likely to be diagnosed in people 65 and older.
- **Gender:** More men than women are diagnosed with the disease. In 2024, approximately 3,260 more men than women are expected to be diagnosed with multiple myeloma.
- Race: African Americans are more than two times as likely to be diagnosed with the disease than Caucasians.
- **Family history:** People with immediate family members who have had multiple myeloma are more likely to develop the disease.
- Other conditions: Having solitary plasmacytoma or monoclonal gammopathy of undetermined significance (MGUS), a condition in which plasma cells make too many copies of the same antibody, increase risk of developing multiple myeloma. Those diagnosed with other plasma cell diseases may later develop multiple myeloma. Obesity and exposure to radiation also raise risk.

#### **Symptoms**

Patients in the early stages of multiple myeloma do not always show symptoms, or their symptoms may resemble those of other diseases. Common symptoms include:

- Bone pain, often located in the ribs, hips, skull, or back
- Weak or easily broken bones
- Persistent thirst or dehydration
- Unexplained weight loss or loss of appetite
- Abdominal pain
- Shortage of red blood cells (anemia), white blood cells (leukopenia), or platelets (thrombocytopenia)
- Weakness on one side of body, slurred speech
- Hyper viscosity (thickening of the blood)

- Muscle weakness, dizziness, drowsiness, confusion, restlessness, or fatigue
- Nausea or vomiting
- Frequent urination
- Impaired kidney function or kidney failure
- Frequent infections
- Constipation
- Numbness or tingling in extremities
- Easily bruising or bleeding
- Unexplained fever
- Breathing trouble

#### **Treatment**

Treatment options for multiple myeloma vary depending upon the type, severity, and stage of the disease, as well as the health, age, lifestyle, and quality of life goals of the patient. Anyone with multiple myeloma should consult a medical oncologist and/or hematologist about treatment. Care teams for multiple myeloma patients may also include a radiation oncologist, orthopedic surgeon, or bone marrow transplant specialist. Options can include surgery, chemotherapy, targeted therapies, immunotherapy, other drug therapy, radiation therapy, bisphosphonate therapy to reduce fracture risk, plasmapheresis, stem cell transplants, watchful waiting, and palliative medicine.

## **About Texas Oncology**

With more than 530 physicians and 280 locations, Texas Oncology is an independent private practice, a member of The US Oncology Network, that sees more than 71,000 new cancer patients each year. Founded in 1986, Texas Oncology provides comprehensive, multidisciplinary care, and includes Texas Center for Proton Therapy, Texas Breast Specialists, Texas Colon & Rectal Specialists, Texas Oncology Surgical Specialists, Texas Urology Specialists and Texas Infusion and Imaging Center. Texas Oncology's robust community-based clinical trials and research program has contributed to the development of more than 100 FDA-approved cancer therapies. Learn more at TexasOncology.com.

Sources: American Cancer Society, American Society of Clinical Oncology, Centers for Disease Control and Prevention, Leukemia & Lymphoma Society, Multiple Myeloma Research Foundation, and National Cancer Institute



