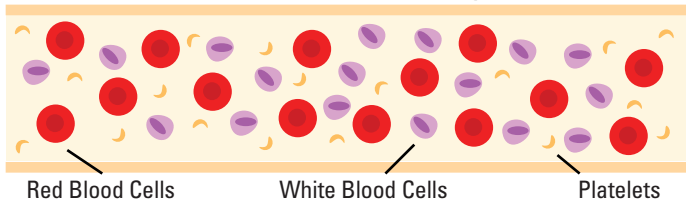


# UNDERSTANDING MYELOFIBROSIS: A Rare Blood Cancer

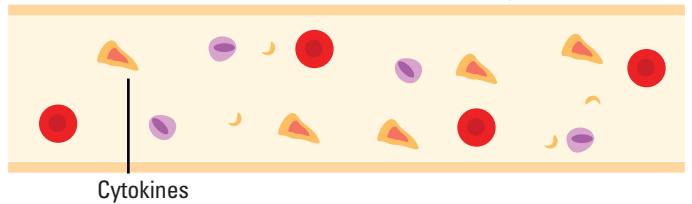
**MF is a life-threatening blood cancer with progressive, debilitating symptoms that severely impact quality of life and reduce overall survival<sup>1</sup>.**

Healthy Bone Marrow



Bone marrow is a soft blood-forming tissue that fills bone cavities. Healthy bone marrow produces blood cells and platelets regulated by controlled signaling in the JAK pathway<sup>2</sup>.

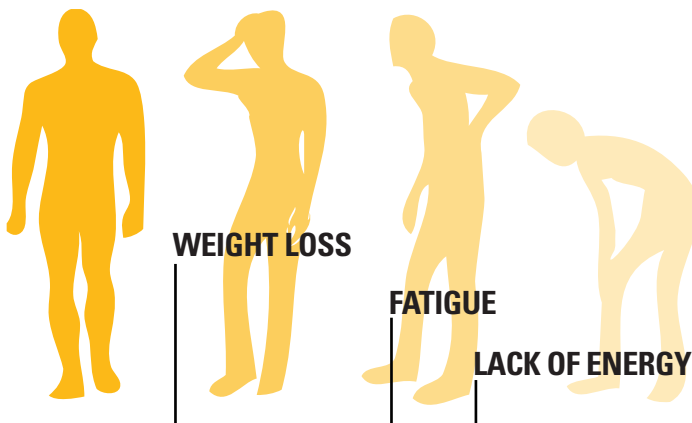
Bone Marrow with Myelofibrosis



While the exact cause of myelofibrosis is unknown, researchers believe that the condition develops when uncontrolled signaling in the JAK pathway – which regulates blood cell and platelet production – causes scarring in the bone marrow and faulty blood cell production resulting in severe complications<sup>2,3</sup>, including:

- Anemia
- Susceptibility to infections
- Increased bruising and bleeding

## WHAT ARE THE SYMPTOMS OF MYELOFIBROSIS?



**SEVERELY IMPACTS QUALITY OF LIFE**

- Night sweats
- Bone marrow scarring
- Fever
- Itchy skin
- Bone pain
- Abdominal pain or discomfort
- Enlarged spleen

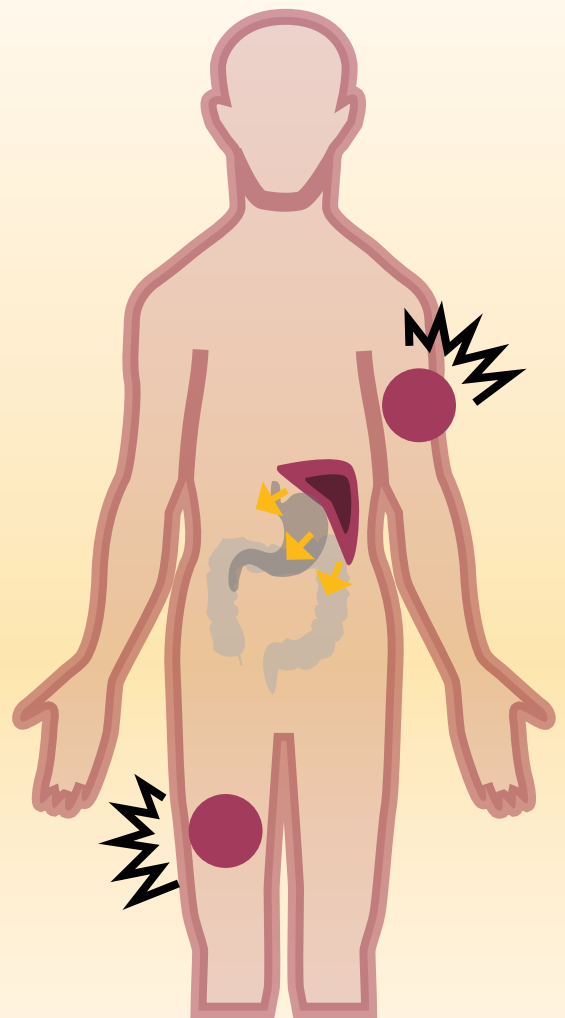


The spleen may produce excess blood cells and become enlarged as a result of the uncontrolled signaling in the JAK pathway which causes faulty blood cell production.

## WHO DOES MF AFFECT?

**50-80 years**

Myelofibrosis is typically diagnosed in people over the age of 50, but can occur at any age and affects both men and women<sup>2</sup>.



The disease is rare, affecting one out of every 133,333 people, but could be more frequent, as many cases go unreported and patients are often misdiagnosed<sup>4,5</sup>.

The average person diagnosed with MF tends to live about five years past the initial diagnosis, although some patients can survive for decades<sup>2</sup>.

New research is paving the way for greater understanding and improved management of the disease. Patients are encouraged to talk with their doctor about a treatment plan that is right for them.

<sup>1</sup> Mesa RA, Schwagera S, Radia D, et al. The Myelofibrosis Symptom Assessment Form (MFSAF): an evidence-based brief inventory to measure quality of life and symptomatic response to treatment in myelofibrosis. *Leuk Res.* 2009;33:1199-1203. <sup>2</sup> MedlinePlus Medical Encyclopedia, National Library of Medicine, National Institutes of Health. Myelofibrosis. Available at <http://www.nlm.nih.gov/medlineplus/ency/article/000531.htm>. Updated June 2, 2010. Accessed April 4, 2012. <sup>3</sup> Leukemia & Lymphoma Society. Myelofibrosis Facts. 2012. Available at [http://www.lls.org/content/nationalcontent/resourcecenter/freeducationmaterials/mpd/pdf/idiopathic\\_myelofibrosis.pdf](http://www.lls.org/content/nationalcontent/resourcecenter/freeducationmaterials/mpd/pdf/idiopathic_myelofibrosis.pdf). Accessed April 2012. <sup>4</sup> Girodon F, Bonicelli G, Schaeffer C, et al. Significant increase in the apparent incidence of essential thrombocythemia related to new WHO diagnostic criteria: a population-based study. *Haematologica.* 2009; 94(6):865-869. <sup>5</sup> McNally RJQ, Rowland D, Roman E, Cartwright RA. Age and sex distributions of hematological malignancies in the U.K. *HematolOncol.* 1997;15:173-189.