

# Multiple Myeloma Precursor Conditions

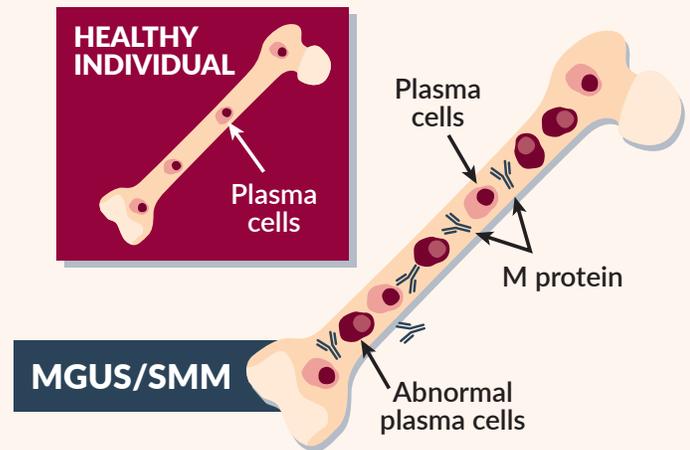
## What are the precursor conditions to multiple myeloma?



- Almost all patients diagnosed with multiple myeloma have had one or two myeloma precursor conditions: monoclonal gammopathy of undetermined significance (MGUS) and/or smoldering multiple myeloma (SMM)
- These precursor conditions are present before myeloma develops

## How do precursor conditions develop?

- Plasma cells in the bone marrow grow more rapidly than normal
- Rapidly growing plasma cells, which can develop into myeloma cells, produce monoclonal (or M) protein
- M protein, which can be detected in the blood, is used to diagnose MGUS and SMM
- MGUS and SMM do not produce any signs or symptoms, so patients may remain undiagnosed for several years



## What are the differences between MGUS and SMM?

	MGUS	SMM
 Risk of progression to myeloma	1% each year	10% each year for the first 5 years, 3% each year for the next 5 years, 1% each year thereafter
 M protein levels detected in blood	Less than 3 g/dL	3 g/dL or more
 Plasma cells in bone marrow	Less than 10%	10% or more
 Treatment	Not needed; individuals monitored regularly for signs of progression	

# Why is treatment not recommended for patients with MGUS or SMM?



Neither condition produces symptoms or causes organ damage



Many patients with precursor conditions will not progress to myeloma

## What is high-risk SMM?

- Patients with high-risk SMM are more likely to progress to myeloma
- Blood and bone marrow tests to measure specific risk factors are used to determine whether a SMM patient is at high risk of progression
- Clinical trials are currently investigating whether early treatment for high-risk SMM patients may delay the progression to myeloma



## Screening for precursor conditions

Several screening studies are under way to identify patients with MGUS and/or SMM before they progress to myeloma.

### THE PROMISE STUDY

This study is looking at patients from two categories: all African Americans age 40–75, and people of any race who have a parent, sibling, or child with myeloma; another blood cancer; or a related condition such as MGUS, SMM, or Waldenström macroglobulinemia

### PCROWD

Patients diagnosed with a precursor condition

Data collected in these studies will help researchers identify factors that may be associated with progression to myeloma. Talk with your doctor if you are interested in participating in one of these studies.



## The MMRF Patient Navigation Center

is available to provide you with additional guidance and support and to answer your questions.

You can reach the MMRF Patient Navigation Center by phone at **1-888-841-MMRF (6673)**, Monday through Friday from 9:00 AM to 7:00 PM Eastern Time, or on the Web at [themmrf.org/resources/patient-navigator-center](http://themmrf.org/resources/patient-navigator-center)

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