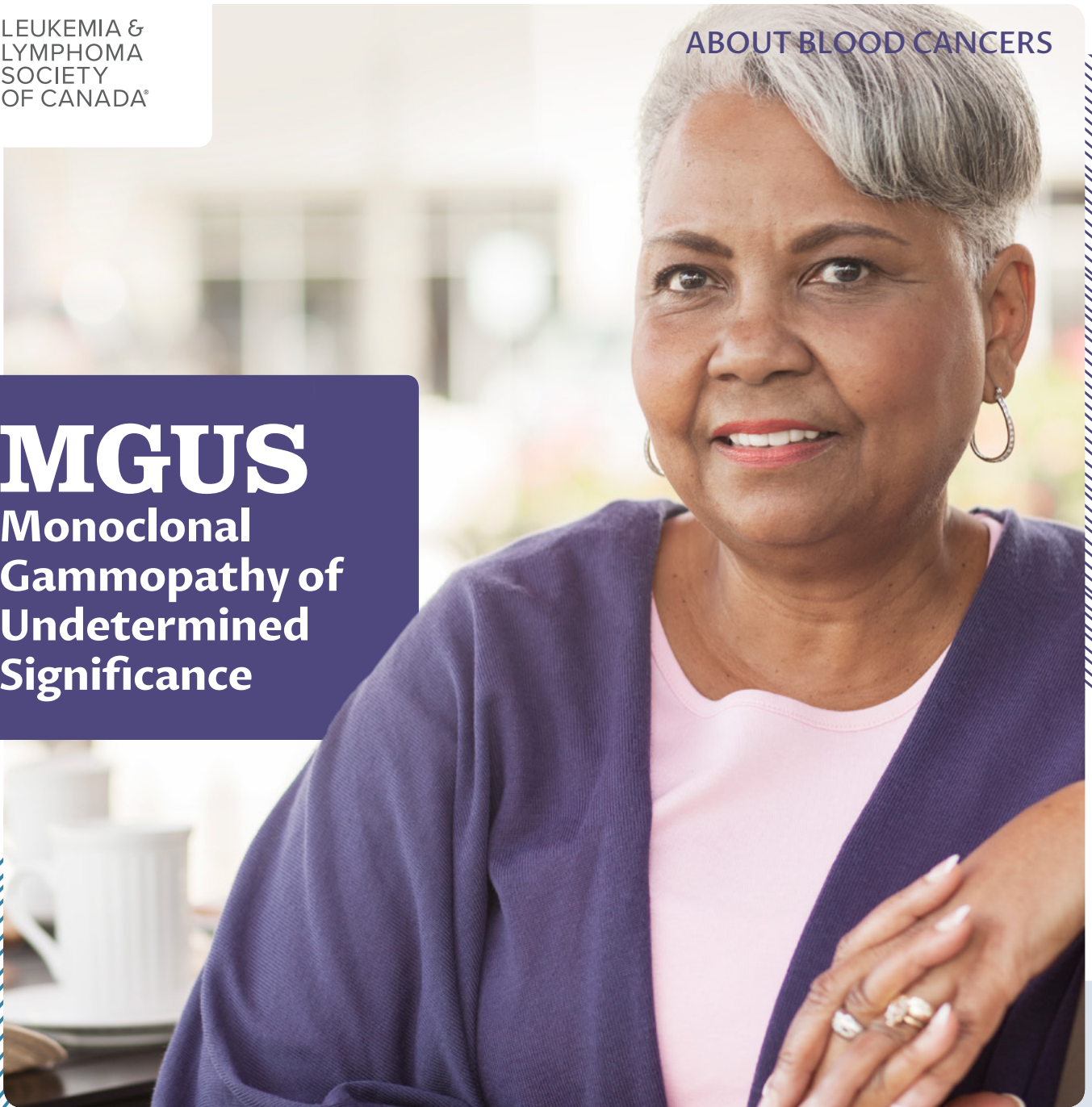


# MGUS

Monoclonal  
Gammopathy of  
Undetermined  
Significance



## WHAT YOU NEED TO KNOW

You or your loved one has been diagnosed with monoclonal gammopathy of undetermined significance (MGUS). What does it mean and how will it affect you?

This fact sheet will help you:

Learn about MGUS  
and how it is  
diagnosed

Find out how  
MGUS is monitored  
and managed

Learn about a related  
disease (smoldering  
multiple myeloma)

## What is monoclonal gammopathy of undetermined significance?

MGUS is not a blood cancer. It is an asymptomatic condition, which means you have no symptoms. It's important for your condition to be monitored, as it could progress to certain types of blood cancer, such as multiple myeloma.

Plasma cells, a type of white blood cell in your body, produce antibodies. They are also called immunoglobulins, and they help fight infection. When a certain plasma cell is copied many times and becomes abnormal, they produce too many of one type of immunoglobulin, called monoclonal protein or M protein.

When you have MGUS, your blood contains an abnormal M protein.

### About MGUS

- There are two types of MGUS:
  - Lymphoid, which secretes (releases) immunoglobulin M (IgM) into the blood and can lead to lymphoma or other blood disorders
  - Plasma cell MGUS, or non-IgM, which can lead to multiple myeloma or plasma cell disorders
- MGUS does not cause symptoms.
- It is more common in males, older adults, people with a family history, and people with exposure to pesticides.
- People with multiple myeloma – a type of blood cancer – tend to have MGUS first.

### Signs and symptoms

Most people with MGUS have no obvious signs or symptoms. The disease is uncovered during a doctor's visit and a routine blood test.

Some of the common signs and symptoms of blood cancer – such as bone damage, kidney damage, low levels of red blood cells (anemia), or high levels of calcium – are not found with MGUS.

### Risk factors

Assessing your risk factors can help determine if your condition will progress to multiple myeloma, a type of blood cancer. Your doctor will be looking for:

- An M protein level of less than 3 grams/decilitre
- A bone marrow plasma cell level of less than 10%
- Evidence of other conditions that affect white blood cells

Most people with MGUS will never develop blood cancer.

**MGUS is not cancer. However, about 20-25% of people with MGUS will develop a blood cancer.**

## After your diagnosis

With your diagnosis, your doctor can determine the right treatment for you. Your test results help your doctor predict the risk of MGUS progressing to multiple myeloma or related diseases. It is common for most people with MGUS to have a follow-up appointment 6 months after their initial diagnosis.

Name of test	Description
<b>Medical history and physical exam</b>	The doctor reviews past illnesses, injuries, and symptoms. They examine your lungs, heart, and other organs.
<b>Complete blood count (CBC)</b>	This test measures the number of red blood cells, white blood cells, and platelets in your blood.
<b>Serum protein electrophoresis</b>	This test measures specific proteins in your blood.
<b>Bone marrow aspiration and biopsy</b>	These two tests look at bone marrow cells for anything unusual in your chromosomes. They are usually done at the same time.

## Monitoring and managing your MGUS

When you have MGUS, monitoring your illness is important. Your doctor should do a full medical exam and blood work if any symptoms suggest multiple myeloma. There is no treatment for MGUS: the focus is to determine the risk of it progressing.

### Types of monitoring

#### If you are low risk

- Low risk is when your bloodwork shows that your M protein is low (IgG type) and the free light chain (protein made by plasma cells) ratio is normal.
- The doctor will monitor you at 6 months and run a serum protein electrophoresis test.
- If your condition is stable, the doctor will follow up with you every 2 to 3 years.

#### If you are immediate or high risk

- Immediate to high risk is when your bloodwork shows that your M protein is high (IgA or IgM type) and you have an abnormal free light chain ratio.
- The doctor may suggest a bone marrow biopsy to rule out multiple myeloma or a related disease.
- If the biopsy does not show an underlying plasma cell disease, you are considered immediate or high risk.
- The doctor will run a serum protein electrophoresis test again in 6 months and then every 12 months.



## Asymptomatic multiple myeloma (AMM)

Some patients may progress from MGUS to asymptomatic multiple myeloma (AMM). With AMM, you have no symptoms.

### About AMM

- It is not a type of cancer, but it is a condition that can lead to blood cancer
- There is a 10% risk of AMM progressing to multiple myeloma in the first 5 years
- You are at higher risk of your condition progressing if you have:
  - Specific genetic changes
  - Bone lesions

### Testing

- Testing should be done 2 to 3 months after diagnosis.
- If the results are stable, you should be checked every 4 to 6 months in the first year.
- If you remain stable, the doctor should re-test you every 6 to 12 months.



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