# Monoclonal Gammopathy of Undetermined Significance (MGUS)



## MGUS is a benign non-cancerous condition where there is an increased amount of abnormal protein in the blood and/or urine.

You have thousands of plasma cells that grow and develop in the bone marrow. Each plasma cell produces a unique antibody to fight infection. In MGUS, abnormal plasma cells in the bone marrow produce just one type of abnormal antibody, known as paraprotein. While most people with MGUS are in a stable condition with no other affect to their health, a small amount of people will develop myeloma, a type of blood cancer, or a related blood condition.

Regular blood tests and check-ups will allow your doctor to pick up any changes to your health early. The risk of developing myeloma is extremely low with only 1% of people with MGUS developing the condition every year.

## What causes MGUS?

The exact cause of MGUS is not known. Immune system problems (such as rheumatoid arthritis), certain infections and the environment may play a role, but experts have not found a clear link yet.

**Age** – MGUS is uncommon in people under the age of 50 and the chance of developing it increases with age. The average age at diagnosis is 70. About 1 in 10 people over the age of 85 will have MGUS.

**Race** – MGUS is about twice as common in people of African origin than Caucasian origin. There is an increased risk in Māori and Pacific peoples. There is a lower risk in Asian people, especially Chinese and Japanese.

**Sex** – MGUS is about 1.5 times more common in men than women.

**Family history** – People with a first-degree relative (parent, sibling, child) with MGUS or myeloma have an increased risk of developing MGUS.

About 1 in 100 people have MGUS and 80% of people will never know they have the condition because it does not usually cause any symptoms.

## What are the symptoms of MGUS?

MGUS does not usually cause any symptoms.

Occasionally people might have a numbness or tingling in their hands and feet. This may be due to damage to the nerves (called peripheral neuropathy) caused by the paraprotein.

### How is MGUS diagnosed?

The abnormal antibody (paraprotein) is usually found during a blood test. Often the blood test is part of a routine check or to investigate symptoms for another health concern.

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You will then be referred to a haematologist. Once a paraprotein is discovered, it is important to make sure that it is not due to a more serious diagnosis such as myeloma or a related blood condition, and so further tests are likely to be carried out.

These tests might include:

- Blood tests.
- Urine test.
- X-rays.
- CT Scan.
- Bone marrow biopsy.

## How is MGUS managed?

No treatment for MGUS is needed, however it is actively monitored. Although MGUS is not a cancer, people have a slightly higher risk of developing blood cancers such as myeloma and lymphoma. It is therefore very important that everyone with MGUS has regular blood tests indefinitely. Monitoring is important to catch any changes at the earliest possible stage. You may be monitored by a haematologist or your General Practitioner (GP).

You can also play an important role in the management of MGUS by ensuring you have blood tests on time, attend regular check-ups and look after your general health. It is important to contact your doctor between check-ups if you feel there is any change to your health.

### Symptoms to monitor and report

- Constant bone pain in one area. (such as in the back, ribs, hip or pelvis).
- Unexplained weight loss.
- Breathlessness.
- Extreme tiredness (fatigue).
- Frequent infections.

### Looking after your health

- Eat a balanced, nutritious diet (ask your LBC Support Services Coordinator for a fact sheet on eating well).
- Reduce alcohol intake and stop smoking if applicable.
- Exercise regularly.
- Ensure you have adequate sleep daily.
- Reduce levels of stress.
- Ensure adequate protection from the sun.

For more information please contact Support Services on 0800 15 10 15 or supportservices@leukaemia.org.nz

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