

## What is multiple myeloma?

---

Multiple myeloma is a type of cancer. Cancer occurs when cells in your body become abnormal and grow out of control. The plasma cells are affected in multiple myeloma.

Plasma cells are a type of white blood cell found in your bone marrow. Bone marrow is the spongy part inside bones. This is where your body makes the red blood cells, white blood cells and platelets found in your blood. Red blood cells carry oxygen to your muscles and tissues. White blood cells fight infection. Platelets form a plug to stop bleeding. Plasma cells like the other white blood cells help your body fight infection. Plasma cells make antibodies or special proteins to fight certain bacteria or viruses.

**There are too many abnormal plasma cells (myeloma cells) in multiple myeloma.**

## Myeloma cells can cause these problems:

---

- They crowd out other cells in your bone marrow so you do not have enough red blood cells, white blood cells and platelets.
- They make too much abnormal antibody (M Protein). This increases your risk of infection.
- They release substances that weaken and destroy bones causing pain and broken bones.
- As bone is destroyed, calcium increases in the blood.
- High levels of calcium and proteins in the blood can cause kidney problems.

## What causes multiple myeloma?

---

The cause of multiple myeloma is not known.

### Looking for more information on this topic?

Contact your local public library for books, videos, magazine articles and online health information.  
For a list of public libraries in Nova Scotia go to <http://publiclibraries.ns.ca>

*Reviewed by:* Colleen Colville RN, BN, CNE Hematology, Capital Health, NS

*Prepared by:* Hematology Patient Education Working Group, QEII, Capital Health, NS

*Approved by:* LA Fernandez, MD, FRCP(C) FACP for the Hematology Cancer Site Team, QEII Cancer Care Program & NS Cancer Patient Education Committee

*Illustration by:* Page 2 - LifeART Health Care 1 Images, Copyright © 1994, TechPool Studios Corp. USA

## How is it diagnosed?

---

Many tests are done to confirm the diagnosis and see the extent of disease. These include a bone marrow biopsy, x-rays of most of the bones in your body, and blood and urine tests. Your nurse and/or doctor can discuss these tests in more detail with you.

## What are the symptoms of multiple myeloma?

---

The symptoms of multiple myeloma are caused by the effect of the myeloma cells on your body.

### They are:

- bone pain
- anemia (low red blood cells) and/or fatigue
- abnormal bleeding
- broken bones
- high calcium levels in the blood
- kidney problems
- numbness or tingling or weakness
- increased risk of infection

## How is multiple myeloma treated?

---

If you do not have symptoms from your myeloma, your doctor will likely just watch you closely. Once you have symptoms, your doctor will discuss your treatment options with you. They may include a medication to block the bone weakening effect of the myeloma cells, chemotherapy, radiation and stem cell (bone marrow) transplantation.

## Caring for yourself

---

Allow yourself and your family time to adjust to the diagnosis. Many people find it helpful to discuss their feelings, fears, or concerns with their family, a health professional or someone who has gone through a similar experience. Your doctor and/or nurse are there to listen, answer your questions and help you live with this disease.

If you feel tired or short of breath, rest. Allow yourself more time to do everyday tasks

and have others help with housework and making meals. Even though you are tired, it is important that you exercise (such as taking a short walk everyday). Your nurse can give you information on managing fatigue.

Protect yourself from infection by avoiding people with cold or flu symptoms. Talk to your doctor about getting the flu vaccine every year for you and all household members. Your doctor may also suggest you receive a vaccine to prevent pneumonia, Pneumovax.

## When should I call my doctor?

---

Call your doctor if you have new symptoms or your symptoms increase.

## Go to the nearest Emergency Department right away if you have:

---

- severe nausea
- excessive thirst
- drowsiness
- confusion
- a temperature greater than 38°C (100.4°F)
- chills



## How can I learn more?

---

The **Canadian Cancer Society, Cancer Information Service (CIS)** toll free number is 1-888-939-3333. Trained Cancer Information Specialists can discuss the latest treatment options about your disease and tell you about support services in your area. They can also give you good Internet sites where you can seek more information or send you written information. This service is available in French and English.

The **International Myeloma Foundation** is a private, non-profit organization that supports both health professionals and patients.

Toll free phone number 1-800-452-CURE(2873)

Website <http://www.myeloma.org>