

Chronic
Myelomonocytic
Leukemia
CMML

WHAT YOU NEED TO KNOW

You or your loved one has been diagnosed with chronic myelomonocytic leukemia (CMML). What does it mean and how will it affect you?

This fact sheet will help you:

Learn about CMML
and how it is
diagnosed

Get an overview
of treatment
options

Understand
what happens
next



What is chronic myelomonocytic leukemia?

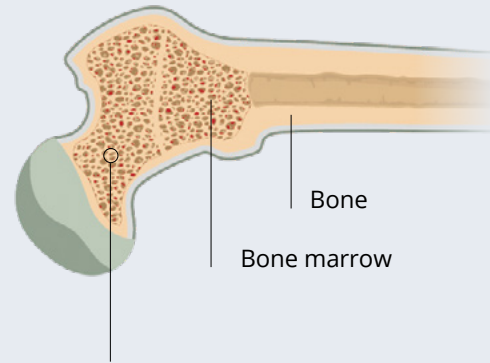
Chronic myelomonocytic leukemia (CMML) is a blood cancer. It has features of two other diseases: myelodysplastic syndromes (MDS) and myeloproliferative neoplasms (MPNs).

This may mean that:

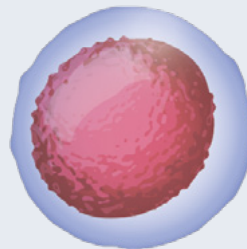
- Your bone marrow – the soft, spongy material inside your bones – does not produce enough healthy blood cells
- You have monocytosis, or an increase in the number of monocytes in your blood (a type of white blood cell)

CMML affects the normal development of monocytes.

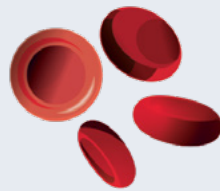
Blood is created in the **bone marrow** (the spongy part inside the bone).



Stem cell



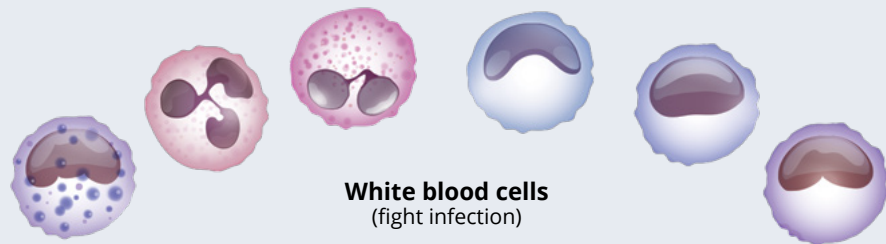
Three kinds of blood cells develop from stem cells:



Red blood cells
(carry oxygen)

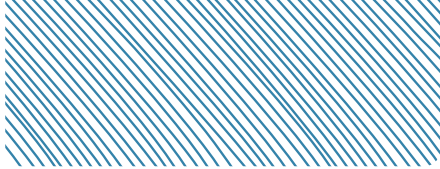


Platelets
(allow blood to clot)



White blood cells
(fight infection)

CMML is an uncommon type of blood cancer.



About CMML

- A clonal disease, where cells multiply uncontrollably
- Too many monocytes (white blood cells) accumulate
- Interferes with the normal production of red blood cells (which carry oxygen) and platelets (which stop bleeding)
- Majority who are diagnosed with CMML are aged 65 to 75
- CMML is twice as common in men as in women

Signs and symptoms

Many people with CMML first visit their doctor because they feel weak, have an infection, or have unexplained bleeding. Others don't have any symptoms, but their routine bloodwork prompts the doctor to investigate further.

With CMML, you may experience:

- Weakness and fatigue
 - When you have a low red blood cell count (anemia) or infection
- Bruising, bleeding, and tiny spots of bleeding on the skin
 - When you have a low platelet count
- Fever and infections
 - When you have a low white blood cell count
- Large masses in the neck or abdomen and/or painless swelling in one or more lymph nodes
 - When your lymph nodes are enlarged or swollen
- Feeling of fullness below the ribs
 - When your spleen and liver are enlarged, causing the abdomen to swell
- Decrease in appetite and weight loss
 - When you are eating less or using more energy
- Bone and joint pain
 - When your white blood cells accumulate, causing the bone marrow to expand





After your diagnosis

With your diagnosis, your doctor can determine the right treatment for you. Your test results will help your doctor predict how your CMML will likely progress and how you may respond to treatment.

Name of test	Description
Medical history and physical exam	The doctor reviews past illnesses, injuries, and symptoms. They examine your lungs, heart, and other organs.
Peripheral blood smear	This test looks at blood cells under a microscope to see the number, size, shape, type, and pattern of cells. It also looks for blast cells (immature blood cells).
Complete blood count (CBC)	This test measures the number of red blood cells, white blood cells, and platelets in your blood.
Bone marrow aspiration and biopsy	These two tests look for the presence and number of abnormal cells. The tests are usually done at the same time.
Cytogenic test	This test examines samples of tissue, blood, or bone marrow to look for changes in chromosomes. It may be used to clarify your diagnosis.

Subtypes of CMML

There are three subtypes of CMML. They are based on the percentage of blast (immature) cells found in your blood or bone marrow. Identifying the subtype of your disease is an important step in planning your treatment.

Subtypes

CMML-0 means that less than 2% of your blood and less than 5% of your bone marrow is made up of blast cells.

CMML-1 means that less than 5% of your blood and less than 10% of your bone marrow is made up of blast cells.

CMML-2 means that 5% to 20% of your blood and 10% to 20% of your bone marrow is made up of blast cells.

Most healthy people have no blast cells in their blood, and their bone marrow is made up of less than 5% of blast cells.



CMML treatment

CMML treatment can vary greatly. Your treatment will focus on managing your symptoms and complications rather than curing the disease. Lasting remission (where there is no evidence of cancer cells in your body) is not common. About 50% of people with CMML will live for 1 to 2 years after the start of treatment.

Most people with CMML are treated with drug therapy.

Types of treatment

Drug therapy

is the main form of treatment. It may include one or more of the following drugs:

- **Hydroxyurea** to decrease the number of blood cells the bone marrow makes.
- **Hypomethylating agents** to stop abnormal cells in the bone marrow from dividing into new cells.

Allogeneic stem cell transplantation

transfers a healthy person's donated stem cells to your body following chemotherapy treatment. This slows the growth of the disease, but it can be a high-risk procedure. It can be an option to cure some people with CMML.

Find out if you can take part in clinical trials of treatments. Clinical trials test new drugs and treatments before they are approved. Talk to your doctor for more information.

Factors that affect treatment

Discuss your treatment options with your doctor to make sure you understand the benefits and risks of each approach. Your treatment plan is based on:

- Your age and overall health status
- Your CMML subtype
- Your symptoms and how severe they are
- How quickly your cancer needs to be controlled
- Whether you are eligible for a stem cell transplant



Treatment side effects

When you begin treatment for CMML, you may experience mild to severe side effects, depending on your age, your overall health, and your treatment plan. New drugs and therapies can help control most side effects. Speak to your doctor if you are having side effects.

Common side effects

Your side effects will depend on the type of treatment. You may experience side effects such as:

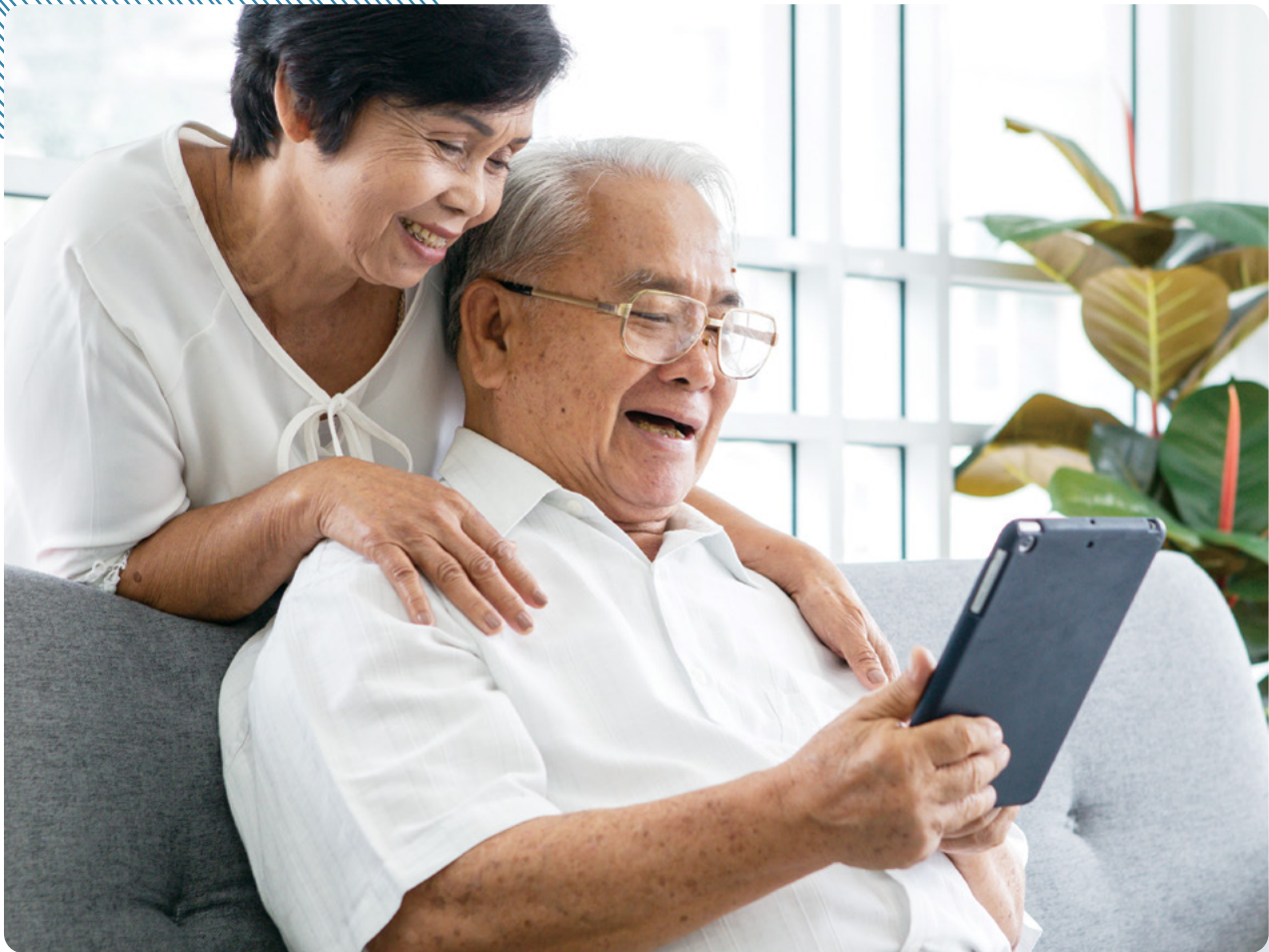
- Mouth ulcers (open sores), changes in your sense of taste, and skin ulcers or a rash from hydroxyurea treatments
- Fever, infection, and fatigue from low blood counts

Talk to your doctor about the specific side effects you may experience.

Medical follow-up

Many treatments continue for as long as they benefit you. Medical follow-up is important with CMML. You may need blood tests, bone marrow tests, or molecular tests to determine if you need further treatment. Your medical team should provide you with a care plan listing the frequency of follow-up visits and the tests you will have at those visits.





Living with CMML can be hard. Seek medical help if you feel “down” or “blue” or don’t want to do anything and your mood does not improve over time. These could be signs of depression, an illness that should be treated even when you’re undergoing treatment for CMML. Treatment for depression has important benefits for people living with cancer. Remember, you are not alone.

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