What is Chronic Lymphocytic Leukemia? Experts Explain the Symptoms and Treatment Options

This blood cancer typically affects older adults.

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You've heard of leukemia, but what about chronic lymphocytic leukemia (CLL)? It's one of the most common types of leukemia in adults, says the National Cancer Institute. Still, it's not something that's usually diagnosed in younger adults.

So who's at risk, exactly, and how does it differ from other types of leukemia? Here's what to know about CLL, including common symptoms and treatment options.

What causes chronic lymphocytic leukemia?

First, let's review the basics about leukemia. There are different types, but they all begin in the blood-forming cells of the bone marrow, says the American Cancer Society (ACS). The type of leukemia that someone develops depends on a couple of factors, explains the National Library of Medicine:

- The type of blood cell that become cancerous.
- How slowly or quickly the cancer progresses.

Lymphocytic leukemia refers to blood cancer that impacts a type of white blood cell known as a lymphocyte. Lymphocytes are germ fighters that develop from more immature versions of the same cells called lymphoblasts, per ACS. In people with lymphocytic leukemia, however, the lymphoblasts grow out of control, rather than maturing into healthy lymphocytes, says the American Society of Clinical Oncology (ASCO). As a result, they take up too much space in the bone marrow—where blood cells are made—which leaves inadequate room for healthy white blood cells, red blood cells, and platelets.

Chronic lymphocytic leukemia (CLL) is one of main types of lymphocytic leukemia (aka lymphoblastic leukemia). CLL is the slower-growing counterpart to acute lymphocytic leukemia (ALL). The main difference is that CLL grows far more slowly and doesn't necessarily require imminent treatment.

While that can cause an array of problems like a high risk of infections and fatigue, per ACS, the fact that CLL is slow-growing is a major plus.

"In some cases with CLL, especially in patients who don't have any symptoms, we can just do 'watch and wait,'" says Jeffrey Schriber, MD, director of Hematologic Malignancies at Cancer Treatment Centers of America in Phoenix, AZ. That means not treating your cancer right away but still being closely monitored.

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What are the risk factors for chronic lymphocytic leukemia?

CLL is relatively rare: According to ACS, there are fewer than 22,000 new cases each year, and the lifetime risk is about 1 in 175.

As with other cancers, anyone can get CLL, but some people seem to be more prone to it than others, explains Mayo Clinic. Those who get CLL tend to be older (in their 70s) and white. Exposure to chemicals like Agent Orange (which was used during the Vietnam War) and a family history of any type of blood cancer also raises your risk.

What are the symptoms of chronic lymphocytic leukemia?

Not everyone with CLL has noticeable symptoms. For those who do, ASCO says it's fairly common to have swollen lymph nodes in your neck, groin, or under your arms. Despite their large size, Mayo Clinic says lymph nodes don't generally hurt (like they might when you're coming down with a cold or other contagious ailment).

Some people with CLL also feel unusually fatigued, get fevers, experience night sweats, lose weight for no clear reason, or develop frequent infections.

You might also have pain in the upper left part of your abdomen; that's where your spleen is, and it sometimes become enlarged in people with CLL because lymphocytes are made there, per ASCO, (in addition to in your bone marrow). Some patients say they feel full quickly while eating, notes ACS.

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How it chronic lymphocytic leukemia diagnosed?

Because CLL doesn't always cause symptoms, it's not unusual to have no clue that something is amiss until you a routine blood test reveals that your blood counts are off. People with CLL will usually have way too many white blood cells; meanwhile, they have too few red blood cells and platelets, says ACS.

If simple blood tests suggests that you might have CLL, you'll likely require additional bloodwork so that more specialized analyses (flow cytometry and cytochemistry) can be conducted. These tests check for distinctive surface proteins that indicate whether you have CLL or another type of blood cancer, explains ASCO.

If you do have CLL, you'll also need tests to determine whether any specific genetic mutations are driving your cancer. You probably won't need a bone marrow aspiration and biopsy, though in some cases it's useful to help determine how advanced the cancer is.

Chronic lymphocytic leukemia treatment

CLL treatment ranges from increased surveillance (aka "watch and wait") to targeted drugs and chemotherapy. If your spleen has become very enlarged you might need surgery to remove it or radiation to shrink it, says ACS.

If your cancer doesn't require immediate treatment, you should still expect to see your oncologist about every three months so you can have tests designed to

identify how much the disease has progressed. Staying on top of new symptoms is also important.

"If someone develops night sweats, or fevers, or one lymph node grows very rapidly, those are signs something is changing" and you need treatment, Dr. Schriber tells *Health*. "Sometimes the disease changes to a more advanced form of leukemia, and that's something you'd need to deal with right away."

Medications used to treat CLL are often used in combination. For instance, you might be given a targeted treatment like ibrutinib (Imbruvica) plus a biologic drug like rituximab (Rituxan), says ACS. The specific treatment you'll get will depend on a number of factors. Your oncology team will want to know about whether you have any genetic changes that are common in LCC patients, says ASCO, because it can help them make predictions about your prognosis and decide how aggressively you ought to be treated.

In some cases, a mutation is a good thing: CLL patients with a mutated immunoglobulin heavy chain gene (IgHV) tend to fare better than those without this mutation, according to a 2018 review article. "What I tell patients in this situation is that it's good to be a mutant. Those patients often don't need therapy and do very well," says Dr. Schriber.

The stage of your cancer will also inform your treatment options. Because CLL is a blood cancer, it isn't staged based on how far it has spread the way that solid tumors are. Instead, staging is based on the level of lymphocytes in the blood; the presence or absence of enlarged lymph nodes, spleen, or liver; and your platelet and red blood cell count, says ACS.

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What's the prognosis for people with CLL?

Survival statistics vary widely and cannot predict how any individual patient will fare, the National Cancer Institute points out. That said, a person's chance of living for five or more years after being diagnosed with CLL is estimated to be around 87%.

For a small group of CLL patients, the condition suddenly and quickly transforms into an aggressive cancer called Richter's syndrome (large B-cell lymphoma). This happens to up to 10% of people with CLL, says Cancer Research UK, though it's not clear why. Richter's syndrome is also treated with chemotherapy and immunotherapy, but some patients require a stem cell transplant.

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