



Guide to Chronic Disease:

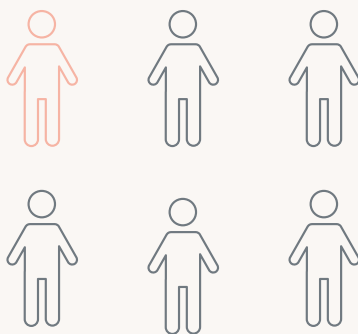
# Cancer



# Guide to Chronic Disease: Cancer

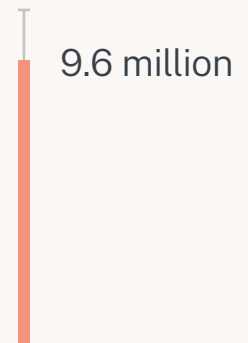
Cancer, a disease where some of the body's cells grow uncontrollably and spread to other parts of the body, is one of the top three most globally prevalent chronic diseases.

Cancer is the second-leading cause of death globally.<sup>1</sup>



Cancer causes  
1 in 6 deaths.

OR



Cancer Deaths

Read on for an overview of cancer and learn about related lab work, lifestyle considerations, and therapeutic supports for disease management.

## OVERVIEW

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Cancer and its treatment can be complicated; it's important to note that some forms of cancer are more chronic in nature, while others may be more acute and progress rapidly.

Many factors can relate to the development of cancer. Still, it's often hard to know exactly why one person develops cancer and another doesn't. Research has shown that certain risk factors may increase a person's chances of developing cancer. There are also factors linked to a lower risk of cancer (also called protective risk factors).<sup>2</sup>

Cancer risk factors include those that can be avoided, such as exposure to chemicals or practicing certain behaviors, and those that people cannot control, like age and family history. The most studied, known, and suspected risk factors for cancer are:<sup>3</sup>

- Age
- Carcinogen (cancer-causing substances) use
- Chronic inflammation
- Excessive alcohol use
- Genetics
- Hormones
- Immunosuppression
- Infectious agents
- Nutrient-poor eating patterns
- Obesity
- Overexposure to sunlight
- Radiation
- Tobacco use

While the list of cancer risk factors may seem scary and overwhelming, protective risk factors may lower a person's vulnerability. Making healthy lifestyle choices is often correlated with lower cancer risk. For example:

- People who eat more plant foods, such as fruits and vegetables, have a lower risk of getting certain cancers.<sup>4</sup>

- Avoiding obesity and the long-term inflammation caused by excess visceral fat (the type of fat surrounding the abdominal organs) can help the body evade damage, thus decreasing the risk of cancer.<sup>5</sup>
- Melatonin, produced by the brain during sleep, may have antioxidant properties that help prevent damage to cells that can lead to cancer.<sup>6</sup> Getting adequate sleep, avoiding blue light from electronic devices at night, and getting more sunshine in the morning can support melatonin production.
- Exercise is linked with a lower risk of 13 types of cancer, no matter the person's body size.<sup>7</sup>

Supporting mitochondrial health is also a meaningful way to prevent cancer.

Mitochondria are cell organelles that generate most of the chemical energy needed to power a cell's biochemical reactions. They play a central and multifunctional role in malignant tumor progression. Targeting mitochondria provides therapeutic opportunities once a person has cancer.<sup>8</sup> However, people can support mitochondrial health to prevent cancer by keeping stress hormones low and eating mitochondria-boosting foods, or those rich in antioxidants, B vitamins, sulfur, omega-3 fatty acids, and magnesium.<sup>9</sup>

Scientists continue to study strategies to help prevent cancer, including ways to avoid or control substances known to cause cancer, potential diet and lifestyle changes, finding precancerous conditions early, chemoprevention (any medicine to treat a precancerous condition or to keep cancer from starting), and risk-reducing surgeries.<sup>10</sup>

## LAB WORK

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Basic lab work should be done for anyone who has or is suspected of having cancer. These labs may include:

- **Complete blood count:** A complete blood count (also known as a CBC) is a blood test used to evaluate overall health. The test measures several blood components, including red blood cells, white blood cells, hemoglobin, hematocrit (the proportion of red blood cells to fluid in the blood), and platelets.
- **Tumor markers:** Also known as biomarkers, tumor markers are substances found in urine, blood, or body tissue. These substances are usually proteins made by both healthy and cancerous cells in the body but may also be mutations, changes, or patterns in a tumor's DNA.

## MAJOR LIFESTYLE SUPPORTS

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Once a person is diagnosed with cancer, their healthcare practitioner will consider the kind of cancer, the age and health of the patient, and the size and growth rate of cancer cells when creating a treatment plan. Because every patient is bio-individual, a personalized approach to care can be helpful. Adopting a holistic perspective can be incredibly supportive for individuals living with a cancer diagnosis. Here are some lifestyle supports for multidimensional health during cancer treatment.

- **Essential oils:** Essential oils are for more than just relaxation and stress reduction. They have been shown to be able to target cancer cells and increase the efficacy of some commonly used chemotherapy drugs.<sup>11</sup>
- **Meditation:** Known to help relieve anxiety, stress, and fatigue as well as improve sleep and mood, meditation can be a valuable tool in the mental, emotional, and hormonal ways a body deals with cancer.
- **Movement and exercise:** It's well known that continuing to move the body during cancer can improve physical and mental health during every phase of treatment.

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## THERAPEUTIC DIETARY, SUPPLEMENTAL, AND MEDICINAL SUPPORTS

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Therapeutic dietary, supplemental, and medicinal supports can also be used during cancer treatment. These can include:

- **Mediterranean diet:** Given its protective effects in reducing oxidative and inflammatory processes and avoiding DNA damage, abnormal cell proliferation and survival, inflammation, and metastasis, the Mediterranean diet is considered a powerful and manageable method to help fight cancer.<sup>12</sup>
- **Ketogenic eating:** Some believe the high-fat, low-carb ketogenic eating approach may help treat some types of cancer by starving cancer cells of the sugar they may feed on. This approach to starving tumors requires more research but could potentially help prevent or treat cancer.
- **Antioxidant- and phytochemical-rich dietary patterns:** Found mainly in fruits, vegetables, nuts, and seeds, antioxidants and phytochemicals are known to have anti-inflammatory properties and help protect cells from free radical damage.
- **Cruciferous vegetables:** Cruciferous veggies have high levels of sulfur and sulforaphane, a potent chemical responsible for removing harmful environmental pollutants from our cells.
- **Medicinal mushrooms:** In Asia, mushrooms have long been used safely for cancer treatment, either alone or in combination with radiation or chemotherapy. Some kinds of mushrooms, such as reishi or chaga, are linked to a boost in immune system function, which may make those with cancer better able to fight cancer cells.
- **Intravenous (IV) nutrition:** IV nutrition can deliver vitamins, such as high-dose vitamin C, amino acids, minerals, and other nutrients directly into the bloodstream for immediate absorption. This delivery method may be suitable for cancer patients prone to dehydration.

- **Chemotherapy:** Chemotherapy is a drug treatment that uses powerful chemicals to kill fast-growing cells in the body. It's most often used to treat cancer because cancer cells grow and multiply more quickly than most other cells. Though effective against some cancers, chemotherapy treatment also carries a risk of side effects.

In addition to the treatments listed above, other therapies may be used for those with cancer, including:

- **Radiation:** Radiation therapy uses beams of intense energy to kill cancer cells. It damages cells by destroying the genetic material that controls how cells grow and divide. Both healthy and cancerous cells are damaged by radiation therapy, but the goal of using it is to destroy as few normal, healthy cells as possible.
- **Proton therapy:** Proton therapy delivers a beam of proton particles that conforms to the shape of a tumor; some experts believe it's safer than traditional radiation because it minimizes damage to nearby healthy tissues.

While this guide includes a lot of information, it's not an exhaustive list of all medications, lab work, and treatment modalities. There are many approaches to health, and every individual may choose their own route to manage symptoms and disease. Providers may choose other treatment methods, too.

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## FOOTNOTES

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