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2024

Fatigue and Cancer



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Did you know that top cancer centers across the United States work together to improve cancer care? This alliance of leading cancer centers is called the National Comprehensive Cancer Network® (NCCN®).



Cancer care is always changing. NCCN develops evidence-based cancer care recommendations used by health care providers worldwide. These frequently updated recommendations are the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®). The NCCN Guidelines for Patients plainly explain these expert recommendations for people with cancer and caregivers.

These NCCN Guidelines for Patients are based on the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Cancer-Related Fatigue, Version 2.2024 — October 30, 2023.

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About cancer-related fatigue

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Fatigue is a common side effect of most cancer treatments. But people with cancer often suffer from other health or emotional problems that are causing or worsening their fatigue. Your care team can help you understand the cause of your fatigue and how best to treat it.



Cancer survivors consider cancer-related fatigue to be the **most distressing** symptom of cancer and its treatment. Even more distressing than pain, nausea, or vomiting. After treatment, cancer-related fatigue is the reason many people are slow to return to work.

What is cancer-related fatigue?

Experts call fatigue that happens in people with cancer, "cancer-related fatigue." They define it as the experience of physical, emotional, and/or mental exhaustion related to cancer or its treatment. Cancer-related fatigue is not the typical tiredness that follows an active or long day. It is a lack of energy that is distressing, does not improve with normal amounts of rest or sleep, and disrupts daily life.

Many cancer survivors continue to suffer from cancer-related fatigue for months or years after treatment ends. This makes it hard to enjoy the roles and activities that make life meaningful. This often long-term problem is likely more common than we realize. Many people think it is a normal part of cancer treatment and do not tell their care team about it. And doctors don't always make an official diagnosis or provide treatment recommendations for cancer-related fatigue.

Screening

Cancer-related fatigue is a subjective (personal) experience. You are the best source of information to your health care provider. This is called self-reporting.

Ideally, your health care provider will check your tiredness level using a checklist or questionnaire as follows:

- At your first visit
- On a regular basis during and after cancer treatment
- As needed based on your symptoms

To decide if further evaluation is needed, your doctor may start with a simple question, such as "How would you rate your fatigue on a scale of 0 (no fatigue) to 10 (worst fatigue you can imagine) over the past 7 days?" Younger people may be asked to rate their tiredness on a smaller scale, or just asked if they are "tired" or "not tired."

Finding the cause(s) of your fatigue

As a first step, your provider will want to learn more about your fatigue, including:

- When did it start?
- How often do you have it?
- Has it changed over time?
- Does anything make it better or worse?
- How much does it disrupt your daily life?

The next step is to investigate whether there are treatable causes of your symptoms. Conditions that can cause or worsen cancer-related fatigue include:

- Anemia (low red blood cells)
- Pain
- Sleep-related problems
- Depression
- Anxiety
- Diet or nutrition-related problems
- Infection
- Changes in thyroid function
- Rheumatologic or autoimmune disorder

The best approach or treatment for your fatigue will be guided by your doctor's understanding of its cause. Fatigue cannot always be completely relieved. Your care team can provide resources and information on coping with this often long-term problem.

Team-based care

Help for cancer-related fatigue depends upon the cause of your fatigue. If your care team has done everything they can to relieve your fatigue, it may be helpful to see a specialist. Your health care provider may refer you to a specialist in one or more of the following areas:

Physical medicine/rehabilitation –

Physical therapy is the use of exercises and physical activities to help strengthen muscles and restore movement. Occupational therapy helps you overcome any physical and mental challenges that are interfering with your daily activities. Exercise specialists design exercise plans in order to improve health.

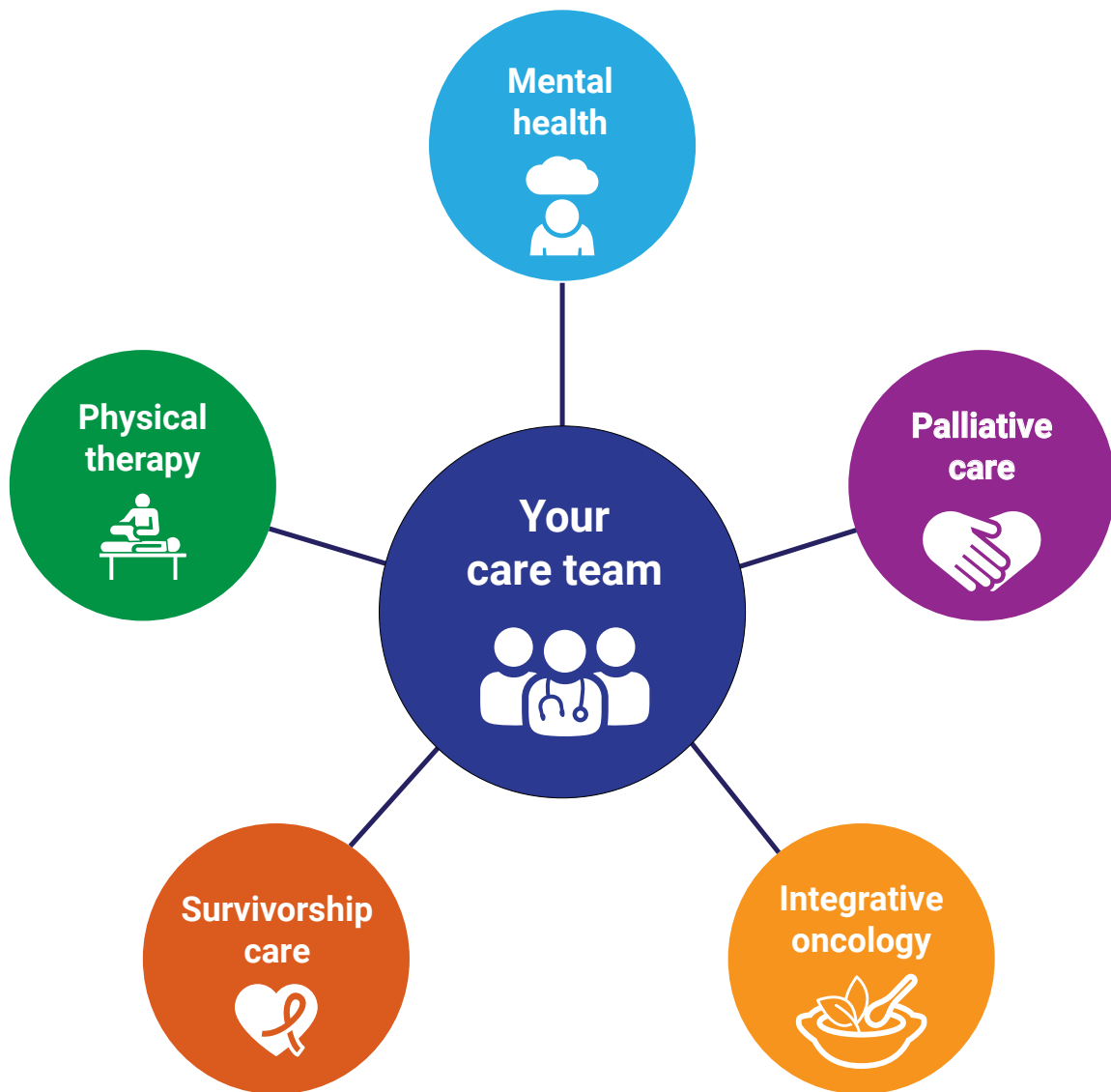
Mental health – Mental health providers can help those struggling with anxiety, depression, or other problems during and after cancer treatment. Types of mental health professionals include psychologists, psychiatrists, licensed professional counselors (LPCs), licensed clinical social workers (LCSWs), and psychiatric nurse practitioners.

Palliative care – Care given to improve quality of life during cancer treatment, especially for advanced cancers. The goal is to prevent or treat the symptoms of cancer and its treatment, such as pain and cancer-related fatigue. It also addresses the mental, social, and spiritual problems faced by those with cancer.

Integrative oncology – An approach to cancer care that combines normal cancer treatment with complementary therapies such as yoga, acupuncture, meditation, and tai chi. Adding these elements to your care may help

Referral to specialists

If your care team has done everything they can to relieve your fatigue, it may be helpful to see a specialist. Receiving care from one or more specialists may lead to better outcomes. Some specialties, such as integrative oncology and survivorship care, may not be available in all areas.



lessen cancer symptoms and improve overall well-being.

Survivorship care – This care focuses on your health and well-being from the time you are diagnosed until the end of life. It addresses the physical, mental, emotional, social, and financial effects of life after a cancer diagnosis. Survivorship also includes care for late effects of treatment and recurrence.

Key points

What is cancer-related fatigue?

- Cancer-related fatigue is an overwhelming sense of exhaustion related to cancer or its treatment.
- It is a lack of energy that is distressing, does not improve with normal amounts of rest or sleep, and disrupts daily life.
- Cancer-related fatigue is often a long-term problem. This makes it hard to fully participate in the things you enjoy.

Screening

- Ideally, your provider will ask about fatigue at your first visit and on a regular basis during and after cancer treatment.
- Providers often use a single screening question to check fatigue level and help decide if further testing is needed.
- Your care team can provide information and resources on coping with this often long-term problem.

Team-based care

- If your care team has done everything they can to relieve your fatigue, it may be helpful to see a specialist.
- Your provider may refer you to one or more experts in physical rehabilitation, mental health, palliative care, integrative oncology, or survivorship care.

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Treatment for cancer-related fatigue

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During and after cancer treatment

The interventions (treatments) for cancer-related fatigue that work best are described next. If other causes of your fatigue have been treated or ruled out, these interventions are recommended during and after cancer treatment.

Physical activity

The treatment for cancer-related fatigue that is most strongly supported by evidence is exercise. Physical activity is encouraged during and after cancer treatment.

There isn't a specific amount that is known to be best for everyone with cancer. Try to be as active as possible. Evidence suggests that those with cancer who exercise 3 to 5 hours per week may have better outcomes and fewer side effects, including fatigue. You can break up the 3 to 5 hours per week into short, 10- to 15-minute sessions at different times of day, based on your energy level. This can be especially helpful when fatigue is severe.

Any new exercise program should be designed according to your age, type of cancer, and physical fitness level. The program should be adjusted as your cancer status and your overall health change. Your doctor may suggest a cancer-specific exercise program, if available.

There are 2 main components to most exercise programs. Cardiovascular endurance ("cardio") is one focus. These activities—like walking, jogging, and swimming—get your heart pumping and your blood moving. This improves heart and blood vessel health.

The other main component is weight training, also called resistance or strength training. It uses a form of resistance to increase muscle strength. The resistance can come from a band, a free weight, or your own body weight. Resistance training works best when you do it on a regular basis.

If you have any of the health issues listed below, caution is needed when considering an exercise program. Ask your care team if physical activity is safe for you before starting.

- Bone metastases (tumors)
- A high risk of bruising or bleeding due to a low level of platelets (thrombocytopenia)
- A low level of red blood cells (anemia)
- Current fever or infection
- Recent surgery
- Swelling (lymphedema)
- Physical limits due to tumors or other health problems
- A high risk of falling or other safety issues

If you are done with treatment, your doctor will also consider possible late effects, such as heart and blood vessel problems.

Yoga

Yoga involves exercise, meditation (focusing thoughts), and control of breathing and emotions. These practices are thought to help balance the body and mind. Yoga has been found to reduce fatigue, improve sleep quality, and lessen anxiety and depression in people with cancer.

There are many different styles of yoga. Some are gentle while others are vigorous. Yoga should be practiced under the guidance of a well-trained instructor. Before starting, talk to your care team about whether yoga is appropriate for you, and which type(s) might be best.

Cognitive behavioral therapy

Cognitive behavioral therapy (CBT) is a method of influencing thoughts in order to promote changes in behavior. CBT is provided by a mental health professional, often a behavioral therapist.

Anyone can develop unhealthy or inaccurate thought patterns. And it can be hard to look at your own thoughts objectively. A form of CBT called cognitive restructuring helps you notice stress-producing or other negative thoughts as they occur. Once you notice them, you can take steps to change or reframe them.

Mindfulness is the practice of paying attention in the current moment. Stress reduction programs that focus on being mindful can teach you how to deal with daily stressors.

Yoga

There is good evidence that yoga reduces fatigue, especially when practiced on a regular basis. Yoga is recommended for the treatment of cancer-related fatigue during and after cancer treatment.



Supportive expressive therapies

These practices and therapies help you express your emotions, connect with others, and build a support system. Doing so may lower stress and improve fatigue.

Many people with cancer find support groups to be helpful. There are often both in-person and online options. If your hospital or community doesn't have support groups for people with cancer, check out the websites listed in this book.

Speaking with a licensed therapist or counselor may also be helpful. In addition to emotional support, these professionals can provide practical advice and strategies for coping with fatigue.

Journaling is another type of supportive expression. Writing down your thoughts and feelings can help reduce stress and anxiety. Many people with cancer find that journaling gives them a sense of control over their experience. Recording your thoughts on paper or electronically doesn't have to take long. Even just 5 or 10 minutes a day is helpful.

Acupuncture

In acupuncture, a licensed or certified provider inserts thin needles through the skin at specific points on your body. You may have mild discomfort or tingling when some of the needles are inserted. Other needles you may not feel at all. Acupuncture should not be painful. It is common to feel very relaxed afterwards.

Acupuncture can help relieve pain and lessen fatigue. While it is generally safe, acupuncture may not be recommended—or may need to be tailored—for those with certain health issues, such as a high risk of bleeding or infection. Ask your care team if acupuncture is safe for you.

Massage therapy

Massage therapy is a treatment in which the soft tissues of the body are kneaded, rubbed, and stroked. It can help relieve stress, pain, and cancer-related fatigue. Other health benefits may include lowered blood pressure and improved circulation.

Before booking with a massage therapist, confirm that they are familiar with cancer massage. There are health risks to having a massage from a provider that is not trained in cancer-specific needs.

CBT for insomnia

People suffering from insomnia cannot fall asleep, stay asleep, or get restful sleep. CBT for insomnia (CBT-I) is a structured program that can improve sleep quality and lessen fatigue.

There are different forms of CBT for insomnia. Limiting the activities that you do in bed to only sleeping and sex is called stimulus control. Sleep restriction involves limiting your time in bed to the time you are actually sleeping.

Sleep hygiene is a set of healthy sleep habits. These habits can help you fall and stay asleep. They include setting regular sleep patterns, optimizing your sleep environment, and being physically active early in the day.

Massage therapy

There is good evidence that massage reduces fatigue. Massage is recommended for the treatment of cancer-related fatigue during and after treatment.



Bright white light therapy

Bright white light therapy (BWLTL) involves being close to very high fluorescent light. The light comes from a box or device designed for use at home. The light stimulates the part of the brain that regulates circadian cycles.

More research is needed on this treatment approach. For example, we do not know the best time of day to do bright white light therapy, or how long each session should last.

Nutrition check-up

Cancer treatment often causes nausea, vomiting, diarrhea, mouth sores, changes in taste, and loss of appetite. Many people end up eating and drinking less overall as a result.

Speaking with a nutritionist or registered dietitian may be helpful. These experts can help guide your eating and drinking based on your health and circumstances.

Medications

If all other causes of your fatigue have been treated or ruled out, your provider may speak with you about medications that could be considered. This will depend on your goals and circumstances.



Choosing a Complementary Health Practitioner

It is important to do your research when looking for a complementary health provider, such as an acupuncturist, massage therapist, or homeopathic practitioner.

For tips on choosing a provider that meets your needs, see the following website:

<https://www.nccih.nih.gov/health/tips/things-to-know-when-selecting-a-complementary-health-practitioner>

At the end of life

Cancer-related fatigue is common at the end of life. It often occurs with other symptoms such as pain and trouble breathing. While cancer-related fatigue typically worsens as the cancer worsens, symptoms are different for everyone. While some people are tired all the time, for others it is unpredictable and may come on suddenly.

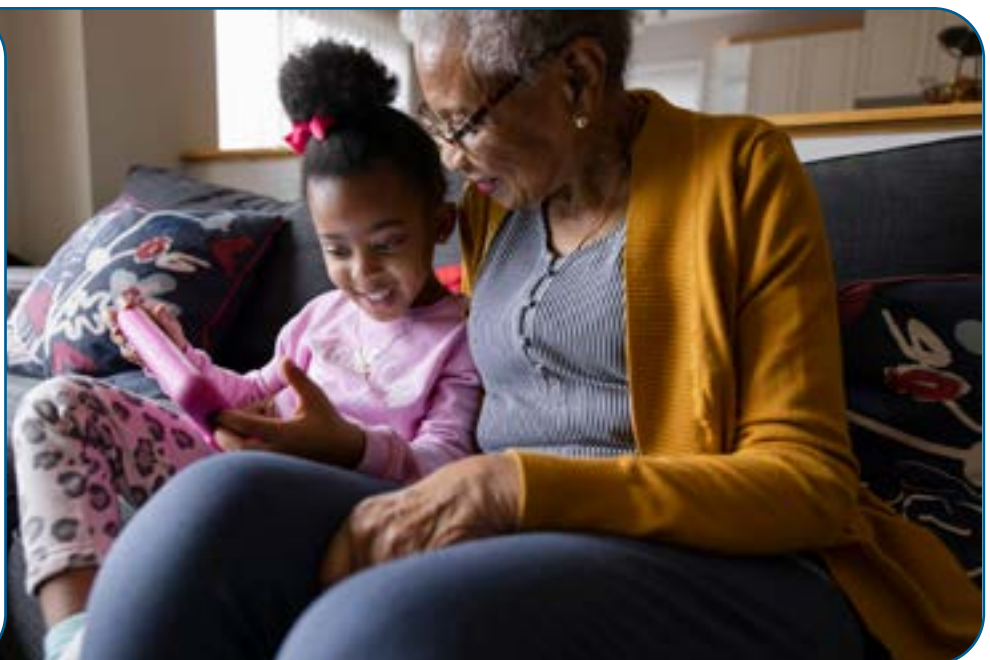
As cancer-related fatigue worsens, the more likely it is to disrupt daily life and cause emotional distress. If you are a caregiver, this is good to know so that you can plan accordingly.

In addition, the health problems listed below are more common in those at the end of life. All of these conditions can cause or worsen cancer-related fatigue.

- Anemia
- Medication side effects and interactions
- Trouble thinking clearly due to cognitive impairment, delirium, or other problems
- Side effects of recent treatment
- Poor nutrition

Managing cancer-related fatigue, pain, and other symptoms is a major focus of care for those at the end of life. If you or someone you care for is suffering from advanced cancer, ask your care team for information on managing fatigue and other symptoms.

For those with advanced cancer, fatigue may worsen at the end of life. Many choose to focus on spending time with loved ones, doing things that do not require a lot of energy. If it aligns with your goals, being active is encouraged when possible.



Physical activity

Although cancer-related fatigue may be worst at the end of life, some people choose to be active. Research suggests that physical activity can improve fatigue in those with incurable cancer at the end of life, including those in hospice care.

If it aligns with your goals, being more active is encouraged when possible. Your doctor will speak with you about safely increasing your activity level.

Your overall health plays a key role in deciding what you can do safely. If you have any of the following, the plan should be customized:

- Bone tumors
- An increased risk of bruising or bleeding due to a low level of platelets
- A low level of red blood cells (anemia)
- Fever or active infection
- Physical limits due to tumors or other health problems

Your safety is a key factor that your health care provider will consider. Those at the end of life may be more likely to fall or get other injuries.

Medications

If all other causes of your fatigue have been treated or ruled out, your provider may speak with you about medications that could be considered. This will depend on your goals and circumstances.

Corticosteroids, such as prednisone and dexamethasone, may provide short-term relief for fatigue. Because they are not safe to use long-term, corticosteroids are usually only given to those at the end of life, or to those with side effects from brain or bone tumors.

Key points

During and after treatment

- The treatments found to work best for cancer-related fatigue include exercise, yoga, massage, and cognitive behavioral therapies.
- Acupuncture and bright white light therapy are also options that may improve fatigue.

At the end of life

- Help for cancer-related fatigue, pain, and other symptoms is the major focus of care for those at the end of life.
- If it aligns with your goals, physical activity can help lessen cancer-related fatigue at the end of life.
- Depending on your goals and circumstances, your provider may speak with you about medications that could be considered.



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and help make the
NCCN Guidelines for Patients
better for everyone!**

[NCCN.org/patients/comments](https://www.nccn.org/patients/comments)

Resources

AIM at Melanoma

aimatmelanoma.org

Be the Match

BeTheMatch.org/one-on-one

Breastcancer.org

Breastcancer.org

Breast Cancer Alliance

breastcanceralliance.org

DiepC Foundation

DiepCfoundation.org

FORCE: Facing Our Risk of Cancer Empowered

facingourrisk.org

National Bone Marrow Transplant Link (nbmtLINK)

nbmtlink.org

Ovarcome

Ovarcome.org

Ovarian Cancer Research Alliance

ocrahope.org

Sharsheret

sharsheret.org

Skin Cancer Education & Research Foundation

Skincancerinfo.org

The Leukemia & Lymphoma Society

LLS.org/PatientSupport

Triage Cancer

triagecancer.org

Unite for HER

Uniteforher.org

Supportive care resources

More information on supportive care is available at:

NCCN.org/patientguidelines and on the [NCCN Patient Guides for Cancer](#) app.





Words to know

bright white light therapy (BWLTL)

Exposure to very bright white light emitted from a light therapy box or lamp.

cancer-related fatigue

The experience of physical, emotional, and/or mental exhaustion related to cancer or its treatment.

cognitive behavioral therapy (CBT)

A type of psychotherapy that helps people change their behavior by changing their thoughts and feelings.

insomnia

The inability to fall asleep, stay asleep, or get restful sleep.

journaling

Describing your thoughts on paper. Journaling can help you process feelings, release emotions, and find clarity. This may improve cancer-related fatigue.

massage

A treatment in which the soft tissues of the body are kneaded, rubbed, and stroked. May improve cancer-related fatigue, relieve stress and pain, lower blood pressure, and improve blood flow.

yoga

A system of practices used to balance the mind and body through exercise, focusing thoughts, and control of breathing and emotions.

NCCN Contributors

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Philadelphia, Pennsylvania
800.789.7366 • pennmedicine.org/cancer

**Case Comprehensive Cancer Center/
University Hospitals Seidman Cancer Center and
Cleveland Clinic Taussig Cancer Institute**
Cleveland, Ohio
UH Seidman Cancer Center
800.641.2422 • uhhospitals.org/services/cancer-services
CC Taussig Cancer Institute
866.223.8100 • my.clevelandclinic.org/departments/cancer
Case CCC
216.844.8797 • case.edu/cancer

City of Hope National Medical Center
Duarte, California
800.826.4673 • cityofhope.org

**Dana-Farber/Brigham and Women's Cancer Center |
Mass General Cancer Center**
Boston, Massachusetts
617.732.5500 • youhaveus.org
617.726.5130 • massgeneral.org/cancer-center

Duke Cancer Institute
Durham, North Carolina
888.275.3853 • dukecancerinstitute.org

Fox Chase Cancer Center
Philadelphia, Pennsylvania
888.369.2427 • foxchase.org

Fred & Pamela Buffett Cancer Center
Omaha, Nebraska
402.559.5600 • unmc.edu/cancercenter

Fred Hutchinson Cancer Center
Seattle, Washington
206.667.5000 • fredhutch.org

Huntsman Cancer Institute at the University of Utah
Salt Lake City, Utah
800.824.2073 • healthcare.utah.edu/huntsmancancerinstitute

**Indiana University Melvin and Bren Simon
Comprehensive Cancer Center**
Indianapolis, Indiana
888.600.4822 • www.cancer.iu.edu

Mayo Clinic Comprehensive Cancer Center
Phoenix/Scottsdale, Arizona
Jacksonville, Florida
Rochester, Minnesota
480.301.8000 • Arizona
904.953.0853 • Florida
507.538.3270 • Minnesota
mayoclinic.org/cancercenter

Memorial Sloan Kettering Cancer Center
New York, New York
800.525.2225 • mskcc.org

Moffitt Cancer Center
Tampa, Florida
888.663.3488 • moffitt.org

O'Neal Comprehensive Cancer Center at UAB
Birmingham, Alabama
800.822.0933 • uab.edu/onealcancercenter

**Robert H. Lurie Comprehensive Cancer
Center of Northwestern University**
Chicago, Illinois
866.587.4322 • cancer.northwestern.edu

Roswell Park Comprehensive Cancer Center
Buffalo, New York
877.275.7724 • roswellpark.org

**Siteman Cancer Center at Barnes-Jewish Hospital
and Washington University School of Medicine**
St. Louis, Missouri
800.600.3606 • siteman.wustl.edu

**St. Jude Children's Research Hospital/
The University of Tennessee Health Science Center**
Memphis, Tennessee
866.278.5833 • stjude.org
901.448.5500 • uthsc.edu

Stanford Cancer Institute
Stanford, California
877.668.7535 • cancer.stanford.edu

**The Ohio State University Comprehensive Cancer Center -
James Cancer Hospital and Solove Research Institute**
Columbus, Ohio
800.293.5066 • cancer.osu.edu

**The Sidney Kimmel Comprehensive
Cancer Center at Johns Hopkins**
Baltimore, Maryland
410.955.8964
www.hopkinskimmelcancercenter.org

The UChicago Medicine Comprehensive Cancer Center
Chicago, Illinois
773.702.1000 • uchicagomedicine.org/cancer

The University of Texas MD Anderson Cancer Center
Houston, Texas
844.269.5922 • mdanderson.org

UC Davis Comprehensive Cancer Center
Sacramento, California
916.734.5959 • 800.770.9261
health.ucdavis.edu/cancer

UC San Diego Moores Cancer Center

La Jolla, California

858.822.6100 • cancer.ucsd.edu

UCLA Jonsson Comprehensive Cancer Center

Los Angeles, California

310.825.5268 • cancer.ucla.edu

UCSF Helen Diller Family Comprehensive Cancer Center

San Francisco, California

800.689.8273 • cancer.ucsf.edu

University of Colorado Cancer Center

Aurora, Colorado

720.848.0300 • coloradocancercenter.org

University of Michigan Rogel Cancer Center

Ann Arbor, Michigan

800.865.1125 • rogelcancercenter.org

University of Wisconsin Carbone Cancer Center

Madison, Wisconsin

608.265.1700 • uwhealth.org/cancer

UT Southwestern Simmons Comprehensive Cancer Center

Dallas, Texas

214.648.3111 • utsouthwestern.edu/simmons

Vanderbilt-Ingram Cancer Center

Nashville, Tennessee

877.936.8422 • vicc.org

Yale Cancer Center/Smilow Cancer Hospital

New Haven, Connecticut

855.4.SMILOW • yalecancercenter.org



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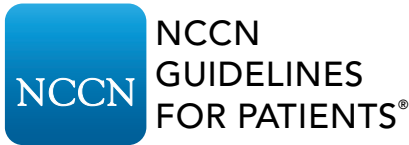
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Fatigue and Cancer

2024

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