

Fatigue and Cancer Fatigue

What Is Fatigue?

Fatigue can be confused with tiredness. Everyone gets tired. In fact, it is an expected feeling after certain activities or at the end of the day. Usually, we know why we're tired and a good night's sleep will solve the problem. Fatigue is less precise, less cause-and-effect. Fatigue is a daily lack of energy; an unusual or excessive whole-body tiredness, not relieved by sleep. It can be acute (lasting a month or less) or chronic (lasting from 1 month to 6 months or longer). Fatigue can have a profound negative impact on a person's ability to function and quality of life.

What Is Cancer-Related Fatigue?

Cancer-related fatigue (CRF - sometimes simply called "cancer fatigue") is one of the most common side effects of cancer and its treatments. It is often described as "paralyzing." Usually, it comes on suddenly, does not result from activity or exertion, and is not relieved by rest or sleep. It may not end - even when treatment is complete.

What Causes Cancer-Related Fatigue?

The exact reason for cancer fatigue is unknown. CRF may be related to both the disease process and treatments including surgery, chemotherapy, and radiation therapy. Cancer treatments commonly associated with CRF are:

- **Chemotherapy** - Any chemotherapy drug may result in fatigue. This may vary from person to person. Some people say it lasts only a couple of days. Others feel the CRF persists through and beyond completion of treatment. Drugs such as vincristine, vinblastine, and cisplatin often cause CRF.
- **Radiation therapy** - Radiation therapy can cause cumulative fatigue (fatigue that increases over time). This can occur regardless of treatment site. CRF usually lasts from 3-4 weeks after treatment stops but can continue for up to 2-3 months.
- **Bone Marrow Transplant** - This aggressive form of treatment can cause CRF that lasts up to one year.
- **Biologic therapy** - Cytokines are natural cell proteins, such as interferons and interleukins that are normally released by white blood cells in response to infection. These cytokines carry messages that regulate other elements of the immune and

endocrine systems. In high amounts, these cytokines can be toxic and lead to persistent fatigue.

Other factors that may contribute to cancer-related fatigue include:

- Anemia. Anemia can result from blood counts that are reduced by treatments, reducing the oxygen-carrying ability (hemoglobin) of the blood. About 7 in 10 patients experience anemia during chemotherapy.
- Combination therapy. Patients experiencing more than one treatment at the same time or one after the other may experience more CRF.
- Tumor induced "hypermetabolic" state. Tumor cells compete for nutrients, often at the expense of the normal cell's growth and metabolism. Weight loss, decreased appetite, and fatigue are common results.
- Decreased nutrition from the side effects of treatments (i.e. nausea, vomiting, mouth sores, taste changes, heartburn, and diarrhea).
- Hypothyroidism. If the thyroid gland is under-active, metabolism may slow down so that the body does not burn food fast enough to provide adequate energy. This is a common condition in general but may happen after radiation therapy to the lymph nodes in the neck.
- Medications used to treat side effects such as nausea, pain, depression, anxiety, and seizures can contribute to CRF.
- Pain. Research shows that chronic, severe pain increases fatigue.
- Many patients try to maintain their normal daily routine and activities during treatments. Modification may be necessary in order to conserve energy.
- Stress can worsen feelings of fatigue. This can include any type of stress; from dealing with the disease and the unknowns to worrying about daily accomplishments to worry about not meeting the expectations of others.
- Depression and fatigue often go hand in hand. It may not be clear as to which started first. Families may be confused as well. One way to sort this out is to try to understand how much of a problem is caused by the depressed feelings. Are you depressed all the time? Were you depressed before your cancer diagnosis? Are you preoccupied with feeling worthless and useless? If the answers to these questions are yes, you may need treatment for depression.

Combating Cancer Fatigue:

The best way to combat fatigue is to treat the underlying cause. Unfortunately, the exact cause may be unknown or there are multiple causes. There are some medical interventions that may assist some causes such as anemia or hypothyroidism. Other causes must be managed on an individual basis. The following are tips you can use to combat fatigue: Energy conservation, Nutrition, Exercise, and Stress Management.

Cancer-Related Fatigue Assessment:

- Think of your personal energy stores as a "bank." Deposits and withdrawals have to be made over the course of the day or the week to ensure a balance between energy conservation, restoration and expenditure.
- Keep a diary for one week to identify the time of day when you are either most fatigued or have the most energy. Note what you think may be contributing factors.
- Be alert to the warning signs of impending cancer fatigue - tired eyes, tired legs, whole-body tiredness, stiff shoulders, decreased energy or a lack of energy, inability to concentrate, weakness or malaise, boredom or lack of motivation, sleepiness, increased irritability, nervousness, anxiety or impatience.

Energy Conservation During Cancer Fatigue:

Plan ahead and organize your work:

- Change storage of items to reduce trips or reaching
- Delegate when needed
- Combine motions and activities and simplify details

Schedule rest:

- Balance periods of rest and work
- Rest before fatigue
- Frequent, short rests are beneficial

Pace yourself:

- Moderate pace is better than rushing through activities
- Reduce sudden or prolonged strains
- Alternate sitting and standing

Practice proper body mechanics to combat cancer fatigue:

- When sitting, use a chair with good support
- Adjust work heights - work without bending over
- Bend at the knees and hips, not at the back
- Carry several smaller loads or use a cart

Limit overhead work:

- Use long handled tools
- Store items lower

- Delegate

Limit isometric work:

- Breathe evenly, do not hold your breath
- Wear comfortable clothes to allow for free and easy breathing

Identify effects of your environment that may cause cancer-related fatigue:

- Avoid extremes of temperature
- Eliminate smoke or noxious fumes
- Avoid long, hot showers or baths

Prioritize:

- Decide what activities are important to you, and what could be delegated
- Use your energy on important tasks

Nutrition to combat cancer fatigue:

CRF is often made worse if you are not eating enough or if you are not eating the right foods. Maintaining good nutrition can help you feel better and have more overall energy. The following are strategies to help improve nutritional intake:

Basic calorie needs:

- Estimated calorie needs for person with cancer is 15 calories per pound of weight if your weight has been stable. Add 500 calories per day if you have lost weight.
- Example: A person who weighs 150 lbs. needs about 2250 calories per day to maintain weight.

Protein rebuilds and repairs damaged (and normally aging) body tissue:

- Estimated protein needs are 0.5 - 0.6 grams of protein per pound of body weight.
- Example: A 150 lb. person needs 75-90 grams of protein per day.
- The best sources of protein include foods from the dairy group (8 oz. milk = 8 grams protein) and meats (meat, fish, or poultry = 7grams of protein per ounce).

Fluid Needs:

- A minimum of 8 cups of fluid per day will prevent dehydration. (That is 64 ounces, 2 quarts, or 1 half-gallon).
- Fluids can include juice, milk, broth, milkshakes, Jello® and other beverages Of course, water is fine too.

- Beverages containing caffeine do NOT count.
- Fluid losses from excess vomiting or diarrhea will require extra fluids.

Supplemental Vitamins:

- A good idea if dietary intake of sufficient nutrients is in doubt.
- A recommended supplement would be a multivitamin that provides at least 100% of the recommended daily allowances (RDA) for most nutrients.
- Vitamin supplements do not provide calories, which are essential for energy production. So vitamins cannot substitute for adequate food intake.

Role of a Dietitian in fighting cancer fatigue:

- Provides suggestions to work around any eating symptoms that may be interfering with intake (i.e. early feeling of fullness, swallowing difficulty, or taste changes).
- Suggests ways of maximizing calories and proteins in smaller amounts of food (i.e. powdered milk, instant breakfast drinks, and other commercial supplements, or food additives).

Cancer-Related Fatigue and Exercise:

Decreased physical activity, which may be the result of illness or of treatment, can lead to tiredness and lack of energy. Scientists have found that even healthy athletes forced to spend extended periods in bed or sitting in chairs develop feelings of anxiety, depression, weakness, fatigue, and nausea. Regular moderate exercise can prevent these feelings, and help a person feel energetic and stay active. Even during cancer therapy, it is often possible to continue exercise.

Benefits of exercise:

- Lower blood pressure
- Improvement in the heart's pumping ability
- More energetic feeling, less fatigue
- Increased endurance
- Stronger tendons, ligaments, joints, and bones
- Easing the pain or stiffness or arthritic joints
- A more positive attitude, less strain and tension
- Better sleeping patterns
- Improved appetite

What is the right kind of exercise?

- A good exercise plan starts slowly, allowing your body time to adjust.

- It is important that you do something to exercise the whole body on a regular basis. Regular means every day, or, at least every other day.
- The right kind of exercise never makes you feel sore, stiff, or exhausted.
- Any kind of exercise is O.K. Walking, stationary bike, or swimming (if the immune system is O.K.) are examples of types of exercise.

What is the wrong kind of exercise?

- Even more dangerous than doing no exercise is exercising only occasionally and doing too much, too fast.
- If you experience soreness, stiffness, exhaustion, or feel out of breath as a result of your exercise, you are overdoing it.

Stress Management:

Managing stress can play an important role in combating fatigue. The following are suggestions:

- Adjust your expectations. For example, if you have a list of ten things you want to accomplish today, pare it down to two and leave the rest for other days. A sense of accomplishment goes a long way to reducing stress.
- Help others to understand and support you. Family and friends can be helpful if they can "put themselves in your shoes" and understand what fatigue means to you. Cancer support groups can be a source of support as well. Other people with cancer truly understand what you are going through.
- Relaxation techniques such as audio tapes that teach deep breathing or visualization can help reduce stress and minimize cancer fatigue.
- Activities that divert your attention away from fatigue can also be helpful. For example, activities such as knitting, reading, or listening to music require little physical energy but require attention.
- If your stress seems out of control, talk to a health care provider. They are here to help.

Talk To Your Health Care Provider:

Although CRF is a common, and often expected, side effect of cancer and its treatments, you should feel free to mention such feelings to the people providing your care. There are times when fatigue may be a clue to an underlying medical problem. Other times, there may be medical interventions to assist in controlling some of the causes of fatigue. Finally, there may be suggestions that are more specific to your situation that would help in combating your CRF. Be sure to let your doctor or nurse know if any of the following are present:

- Fatigue that limits your ability to care for yourself.

- Increasing shortness of breath with minimal exertion
- Uncontrolled pain
- Inability to control side effects from treatments (i.e. nausea, vomiting, diarrhea, or loss of appetite).
- Uncontrollable anxiety or nervousness
- Ongoing depression

What Your Health Care Provider May Recommend:

The first step in treating fatigue is knowing the problem exists. Many people don't bother to mention fatigue to their doctors because they believe it is normal. It is vital that you discuss this and all symptoms or side effects with your health care provider. Then, efforts can be directed at determining the cause of the problem and prescribing appropriate treatment. Your particular cancer treatment regimen, with its known side effects may provide clues for your doctor or health care professional. A simple blood test, for example, can determine if you are anemic.

There is no single medication available to treat fatigue. However, there are medications available that can treat some of the underlying causes. Make sure you speak with your health care professional if you are feeling fatigued.

Note: We strongly encourage you to talk with your health care professional about your specific medical condition and treatments. The information contained about cancer fatigue in this website is meant to be helpful and educational, but is not a substitute for medical advice.