

POSSIBLE SIDE EFFECTS

ANEMIA

Chemotherapy, radiation therapy and blood loss during surgery are all common causes of anemia in cancer patients. Over 60% of patients treated with chemotherapy develop anemia. This is because chemotherapy agents kill rapidly dividing cells in the body, including cancer cells and normal cells. Chemotherapy kills red blood cells, which are responsible for transporting oxygen to all of the body's organs. When there are too few red blood cells, your body tissues don't get enough oxygen to do their work. Lack of oxygen to your body tissues can cause you to become short of breath, weak, tired or dizzy.

A simple laboratory test known as a CBC (complete blood count) measures the levels of the three basic blood cells: white cells, red cells and platelets. In the United States, the CBC is typically reported in the following format:

- **White blood cells:** White blood cells help protect individuals from infections.
- **Red blood cells:** Red blood cells carry oxygen from the lungs to the rest of the body.
- **Hemoglobin (Hb or Hgb):** Hemoglobin is the part of the red cell that carries the oxygen.
- **Hematocrit (HCT):** Another way of measuring the amount of Hemoglobin.
- **Platelets:** Platelets are the cells that form blood clots that stop bleeding.
- **Absolute neutrophil count:** Neutrophils are the main white blood cell for fighting or preventing bacterial or fungal infections.

When a CBC is performed, the results will indicate the amount of hemoglobin in the red blood cells. Patients with a hemoglobin count that falls below the normal range have anemia. Anemia can be treated by increasing the hemoglobin level with medicines that contain a blood cell growth factor that increases red blood cell production or by blood transfusions.

Symptoms of Anemia

- Extreme tiredness or weakness
- Difficulty climbing stairs
- Shortness of breath with mild exertion
- Inability to concentrate
- Rapid heartbeat with mild exertion
- Chest pain
- Headache
- Paleness including lips, gums, lining of the eyelids, nail beds and palms
- Dizziness or fainting when moving from a lying to standing position
- Difficulty sleeping or sleeping much more than usual
- Depression
- Numbness or coldness in the hands and/or feet

Tips to Deal with Anemia

- Let your health care team know about your symptoms
- Eat a well-balanced diet and drink plenty of fluids
- Get plenty of rest
- Prioritize your activities
- Conserve your energy by letting friends and family help you
- Get up slowly from a sitting position. When lying down, first sit up then stand. This will help prevent dizziness

Iron is a part of hemoglobin, a protein in blood that carries oxygen from the lungs to the rest of the body. It is also part of an enzyme system that helps release energy from food. A lack of iron can cause you to feel tired and listless, to be pale and to be more susceptible to infection. Iron supplements do not take the place of a healthy diet and in fact, too much iron can be toxic. Your doctor will prescribe an iron supplement if it is necessary.

Excellent Sources of Iron

- Instant or quick cooking cream of wheat, instant oatmeal, instant grits
- Liver, kidney and other glandular organs
- Seafood - oysters, shrimp, clams
- Lean meats - beef, pork, veal, poultry, turkey
- Legumes - navy beans, lentils, soybeans, split peas, lima beans - any bean that can be dried
- Whole grain and enriched cereals
- Blackstrap molasses (1 Tablespoon)
- Dried fruits - 5 apricots; 6 figs; 6 prunes; 1 /2 cup of raisins, peaches, or pears

Good Sources of Iron

- Egg yolks
- Dark green leafy vegetables - spinach, turnip greens, kale
- Tomato and prune juice
- Enriched flour and flour products (Wonder Kids bread for example)
- Potatoes, enriched noodles
- Nuts
- Wheat germ

To Increase Iron Absorption

- Eat an iron-rich food along with a Vitamin C rich food.
Examples: beef and broccoli, iron fortified cereals and strawberries, whole grain toast and orange juice
- Eat grains and vegetables with meat.
- Take calcium supplements at a different time than iron.

These Drugs Decrease Iron Absorption

- Antacids
- Bicarbonate/baking soda
- Cholestyramine
- Acetylsalicylic acid (aspirin)
- Zinc

APPETITE PROBLEMS

Anorexia is the lack or loss of appetite, which results in the inability to eat and can lead to drastic weight loss. In cancer patients, anorexia results from chemotherapy and radiation treatments as well as physical and psychological causes. We encourage you to do whatever you can to stimulate your appetite. During cancer therapy, new tissue is replaced at a faster rate than usual; therefore, you need larger amounts of protein and calories, as well as other nutrients, in your diet. Anorexia and its resulting weight loss can compromise cancer treatment, thereby resulting in a poor prognosis.

To Increase Appetite

- Eat 5-6 small, high-calorie, high-protein meals per day.
- Keep a variety of nutritious snacks handy for nibbling
 - granola and supplement bars
 - cheese and crackers
 - peanut butter and jelly on toast
 - cereal with milk.
- Take advantage of "GOOD" days to increase your food intake.
- Make mealtimes a pleasant and relaxing experience. Bring out the good china, music and candles or flowers to create an enjoyable atmosphere.
- Use time-saving meals that require little or no preparation such as ready-to-eat prepared dinners, mixes and casseroles.
- Light exercise 1 hour prior to meals may help you feel hungry.
- Limit low-calorie foods such as coffee, tea, water, gelatin, fruits and vegetables.
- Drink calorie/protein-containing fluids such as whole milk, juice and/or dietary supplement drinks such as Boost or Ensure.
- Change the seasoning and flavoring of foods to accommodate taste changes.
- Marinate meats with sweet marinade or sauces like teriyaki.
- Avoid foods with an overpowering aroma.
- Avoid foods that cause bloating or gas (ex. cabbage, broccoli, etc.).
- Cold or room temperature foods sometimes taste better than hot foods.
- Don't drink beverages during meals. This may cause a feeling of fullness. Drink liquids between meals.
- Vary your diet with foods that you usually do not eat. If your taste buds have changed temporarily due to treatment, you won't be disappointed.

- Try making breakfast your main meal, since your appetite may be better earlier in the day.
- Rinse your mouth after meals with ½ teaspoon salt and ½ teaspoon baking soda in one cup of water. This will help keep your mouth clean and help prevent any bad taste that might develop.
- Take prescribed nausea medication ½ hour before meals as instructed.

Symptoms

- Weakness or tiredness
- Loss of appetite
- Weight loss
- Nausea
- Altered taste
- Feeling of fullness early
- Constipation

Notify Your Physician

- Loss of 5 pounds or more
- Pain with eating
- Only able to eat one meal per day

CONSTIPATION

People with cancer may develop constipation as a side effect of chemotherapy. Lack of activity, poor food and fluid intake, general weakness, and/or pain medication can contribute to this usually temporary problem. Prevention of constipation is preferable to treatment. Maintaining dietary intake of fiber and fluids as well as being as active as you can are important. Each person has different bowel habits. If stool is difficult to pass, or your normal routine has changed, you need to notify your physician or nurse.

To Help Prevent or Relieve Constipation

- Your regular diet should include whatever has helped you have a bowel movement before cancer treatment began
- Drink plenty of liquids: 8-10 full glasses each day are needed
- Add fiber to your diet with
 - fruits and vegetables
 - whole grain breads and cereals
 - dried fruits (raisins, prunes, dates or apricots)
 - nuts
 (If you cannot chew or swallow easily, try grating these foods or using a blender)

- Routinely add one or two tablespoons of bran to cooked cereal, casseroles, eggs, or baked goods
- Choose high fiber snack foods
 - sesame breadsticks
 - date-nut bread
 - oatmeal cookies, fig newtons, raisin bars
 - corn chips
 - granola bars
- Prune juice or hot lemon water in the morning or at night may be helpful (warm liquids ½ hour prior to meals often stimulate bowel activity)
- Avoid “binding” foods that can cause hard stools such as chocolates, cheese, rice, meat and eggs
- Light exercise, such as walking, will stimulate digestion
- Set aside a time when you will not be rushed to quietly sit on the commode
- Check with your medical staff before using a laxative and/or stool softener

Symptoms

- Less frequent bowel movements
- Hard stool
- Difficulty or straining with bowel movement
- Bloating, abdominal cramping or pain
- Loss of appetite
- Leaking stool in the presence of other symptoms

Notify Physician if the Following Occur

- Painful abdominal bloating
- Inability to eat
- Extreme nausea or vomiting
- No bowel movements for 2 days more than what is normal for your system

DEPRESSION

Cancer can attack the spirit as well as the body, making healing and recovery even more difficult. Don't be overly concerned if you are moderately depressed or sad. It is only natural to experience some depression as well as feelings of helplessness and uncertainty when faced with a potentially life-threatening illness. Some stress is to be expected. It can vary from normal worries about your condition/illness to distress that has a significant impact on your ability to function. The key is being able to deal with this stress without compromising your treatment plan.

We will provide you with coping strategies to help reduce anxiety and depression. We will also work with you to find effective ways for you to deal with treatment side effects,

using imagery, relaxation therapy, and other frequently-used interventions for emotional and physical relief. Our goal is to help improve your quality of life as you achieve a sense of control and peace of mind.

Signs of Depression

- Feeling anxious
- Lack of or diminished interest in most things or activities
- Sleep difficulties
- Loss of appetite
- Restlessness
- Feeling tired
- Waking up early and being unable to return to sleep
- Irritability
- Inability to concentrate

Developing an optimistic attitude along with a hope for the future may aid you in your recovery. Without question being positive has a beneficial affect on a person's quality of life. By focusing on positive, rather than negative emotions, you may be able to turn the beginning stages of depression around.

- Keep a list of all the things you are grateful for handy. If you start feeling blue, take it out and think about the good things in your life.
- Develop a list of positive affirmations that are meaningful to you. Your list might include statements like:
 - I know that most of what I fear will never happen.
 - More laughter is coming into my life because I'm seeking it.
 - I am not a victim; I am a victor.
 - Today, I celebrate the parts of me that are well.
 - As much as I want to please everyone I have to make my treatment decisions based on what's best for me.
 - Whatever body parts I've given up, I'm still the same wonderful me.
 - No matter what my physical limitations are, my mind can take me to a happier place.
- Keep a list of all the things you are grateful for handy. If you start feeling blue, take out your list and think about all the good things in your life.
- Look for things to be positive about.
- Take the time to appreciate nature.
- Smile more often. A smile will reflect in your voice and in interactions with other people.
- Never hesitate to seek professional help if you feel your depression is increasing. Seeking help is a sign of strength, not weakness.

DIARRHEA

Chemotherapy and radiation often act on rapidly dividing cells, such as tumor cells. Cells in the lining of the intestine, hair follicles, mouth, and bone marrow are also rapidly dividing, so they can become damaged by chemotherapy or radiation. Diarrhea can also be triggered by stress, antibiotics, some foods, food supplements, stool softeners and laxatives.

Therapy related diarrhea, which can range from mild to severe, can prevent your intestinal track from absorbing necessary nutrients and fluids. If untreated, it may worsen and could lead to dehydration. Early intervention will help avoid prolonged interruptions in your treatment.

When to Report your Diarrhea

Please do not be afraid or embarrassed to call your doctor or nurse. Please call us during office hours if you notice any of the early signs described below:

Early Signs

- Change in normal bowel habits
- More stools per day than before chemotherapy was started
- Softer or loose stools, even mushy stools
- Increased cramping or gas, or both
- Pain or feeling weak.
- Fever above 100.5 degrees, together with diarrhea, can be a sign of infection and needs to be reported
- Increased body temperature
- Chills, sweating, feeling flushed or hot

Other Important Changes to Report

Dehydration (fluid loss) caused by loss of water through stools can cause

- Dry mouth
- Decreased urination or darker, yellower urine, or both
- Dizziness or feeling light-headed
- Weakness or fainting
- Leg cramps can be an early sign of electrolyte imbalances (occurs when salt and potassium are not correctly balanced)
- Weight loss - loss of fluid and nutrients through frequent stools

Taking Care of Diarrhea

Start taking Imodium A-D (over-the-counter medication) or generic equivalent (Loperamide) at the first sign of diarrhea

- 1st dose – take 2 caplets at the first sign of diarrhea
- During the day – take 1 caplet every 2 hours (or after each loose stool) until diarrhea stop
- At night – take 2 caplets at bedtime and every 4 hours until morning or until diarrhea stop
- STOP taking Imodium A-D if you are no longer having diarrhea

- Do not take more than 8 caplets within a 24 hour period

Call the office if you have taken Imodium A-D for 24 hours and still have diarrhea.

Managing Diarrhea-What to Eat and Drink

- Force fluids to replace those lost by diarrhea.
- Drink a variety of fluids, at least 8 to 10 large glasses of liquids a day.
- Water should be only part of the 8 to 10 glasses a day; it does not replace lost minerals.
- Drink slowly; drink small quantities often.
- Gatorade or other sports drinks replace lost salt and potassium.
- Clear soup or broth replaces lost salt.
- Sodas - let stand until fizz has decreased to prevent more gas or bloating.

Avoid these Foods and Beverages

- Fatty, fried, greasy, or spicy foods
- Dried fruits, beans, popcorn, and nuts
- Chocolate
- High fiber foods
 - bran and some cereals
 - raw fruits and vegetables with tough skins or seed and onion
- Alcohol
- Milk and dairy products. They can make diarrhea worse and should not be eaten for at least a week after the diarrhea has resolved, because temporary lactose intolerance can develop with diarrhea.
- Whole grain breads and cereals
- Nuts, dried fruits or foods made with these items
- Sugar free candy or gum
- Coffee even decaffeinated coffee
- AVOID very hot or very cold beverages

Eat Small Meals Often

- Bananas help replace lost nutrients
- Rice easily digested and binding because it is a starch
- Apple sauce provides sugars for energy
- Toast easy to tolerate and a starch that will cause binding

When these Foods are Well Tolerated, Start Adding Other Foods

- Bland low fiber foods
- Chicken white meat without the skin
- Scrambled eggs
- Crackers, white bread, and pasta noodles without sauce
- Canned or cooked fruits without skins

Skin Care Related to Diarrhea

- Clean your anal area after each bowel movement. Use warm water and mild soap (Dove, Ivory or unscented Lever 2000). Rinse well and pat dry. Use soft towels or alcohol free baby wipes.
- Take sitz bath or sit in a tub of warm water.

Wear loose fitting clothing. Expose anal area to air as much as possible.