

Conquering chemo!!

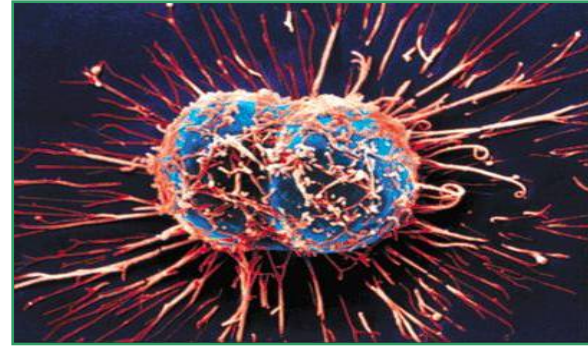
Presented By:

Center for Cancer Care & Research

Topics

- Defining cancer
- Understanding chemotherapy
- Outlining the side-effects of chemo
- Symptom management

Defining cancer

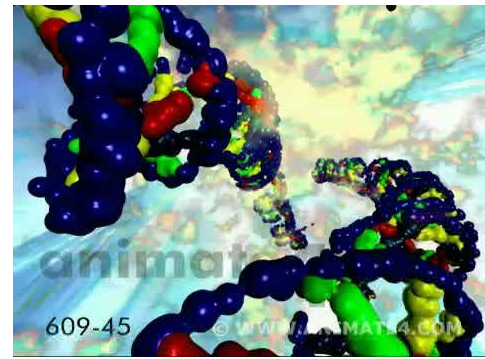


Normal body cells grow, divide, and die in an orderly fashion. Cells in most parts of the body divide only to replace worn-out or dying cells and to repair injuries.

Cancer develops when cells in a part of the body begin to grow out of control.

Cancer cells are different from normal cells. Instead of dying, they outlive normal cells and continue to grow and divide, to form new abnormal cells.

Defining cancer



Cancer cells develop because of damage to DNA. This substance is in every cell and directs all its activities.

Most of the time when DNA becomes damaged the body is able to repair it. In cancer cells, the damaged DNA is not repaired.

People can inherit damaged DNA, which accounts for inherited cancers. Many times though, a person's DNA becomes damaged by exposure to something in the environment, like smoking,

Chemotherapy



- What is it?
- How does it work?
- How is it used?
- What is the goal?
- How does my doctor choose which chemo to use?
- How often will I receive chemo?
- How is chemo given?
- What about medicine I already take?
- How will I know if it is working?

Chemotherapy



What is it?

Chemotherapy is a type of cancer treatment that uses medication to destroy cancer cells. The goal of all chemotherapy is to kill the cancerous cells, while using a dose that causes the least harm to the body's healthy cells.

How does it work?

Chemotherapy works by stopping or slowing down the growth of cancer cells. It is given by IV, pill, or injection. It then circulates through the bloodstream to all cells in the body and eliminates rapidly dividing cells.



How is chemo used?

- **Neo-adjuvant**: makes a tumor smaller before surgery or radiation therapy.
- **Adjuvant**: destroys cancer cells that may remain after surgery or radiation.
- **Concomitant**: given with radiation to make radiation more effective in destroying tumor cells.

What is the goal of chemo?

- **Remission**: when chemo destroys cancer cells to the point that your doctor can no longer detect them in your body.
- **Control cancer**: when chemo keeps cancer from spreading and slows its growth.
- **Palliative care**: when chemo shrinks tumors that are causing pain or pressure to help relieve symptoms.

How does my doctor choose which chemo to use?

The choice of chemotherapy the doctor choose is determined by these factors:

1. The type of cancer you have. Some chemo medicines are used for many types of cancer. Some chemo are specific for certain cancers.
2. Whether you have had chemo before.
3. If you have any other medical conditions such as a heart disease or diabetes.

How often will I receive chemo?

The type of chemo you receive will usually determine how often you come for treatment.

Chemo can be given once weekly, every two weeks, or every 3 weeks.

Usually, if you are not coming in for chemo the doctors will follow up weekly for blood work, at least in the beginning of treatment.

If you miss a dose of chemo, depending on your doctor, you may or may not make up the missed dose.

How will I receive chemo?

Most chemo is given by IV. Your doctor may suggest that you get a port or PICC placed prior to chemotherapy.

Some people may be able to receive their medication through a vein in the arm.

If a port is placed suggest EMLA cream and bring gum or mint candy to alleviate the taste of the heparin flush.

Other chemo may be given by injection in the arm, or even in pill form.

What about medicine I already take?



Take only medicines that are approved by your doctor.

Make sure your doctor is aware of **EVERY** medication that you are taking. This includes any over the counter, and herbal medicines you take regularly.

What about medicines I already take?

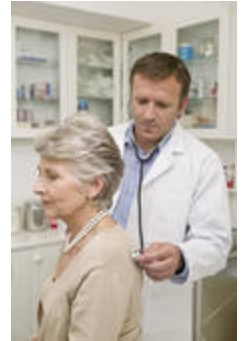


Some of your medication may need to be adjusted throughout treatment. This may include medications for high blood pressure and diabetes.

If you are taking this type of medication you may need to monitor your blood pressure or diabetes more closely and tell your doctor of any changes.

How do I know if chemo is working?

Your doctor will give you physical exams and medical tests throughout your treatment.



They will monitor your blood tests and you may have scans to determine if the cancer is shrinking. Although sometimes this may only be done at the end of treatment.



How do I know if chemo is working?

- You cannot tell if chemo is working based on side-effects. Some people may think that the more severe the side-effect is the better the chemo is working. This is not the case.
- If your side-effects are intolerable and are not controlled with your current medication, notify your doctor.
- Also, if you are not experiencing side-effects it doesn't mean the chemo is not working. In fact, it means the medication we give to prevent side-effects are working.

What causes the side-effects of chemo?

- Chemotherapy is designed to kill fast-growing cancer cells. But it can also affect healthy cells that grow quickly.
- These include cells that line your mouth and intestines, cells in your bone marrow that make blood cells, and cells that make your hair grow. Chemotherapy causes side effects when it harms these healthy cells.

Anemia



Red blood cells carry oxygen throughout your body. **Anemia** is when you have too few red blood cells to carry the oxygen your body needs.

Your heart works harder when your body does not get enough oxygen. This can make it feel like your heart is pounding or beating very fast.

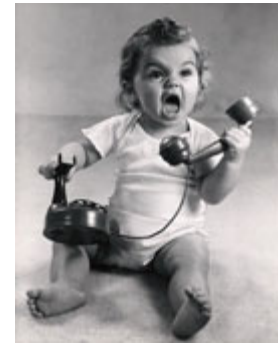
Anemia can also make you feel short of breath, weak, dizzy, faint, or very tired.

Ways to manage anemia



- Get plenty of rest
- Limit your activities
- Accept help
- Eat a well-balanced diet
- Stand up slowly

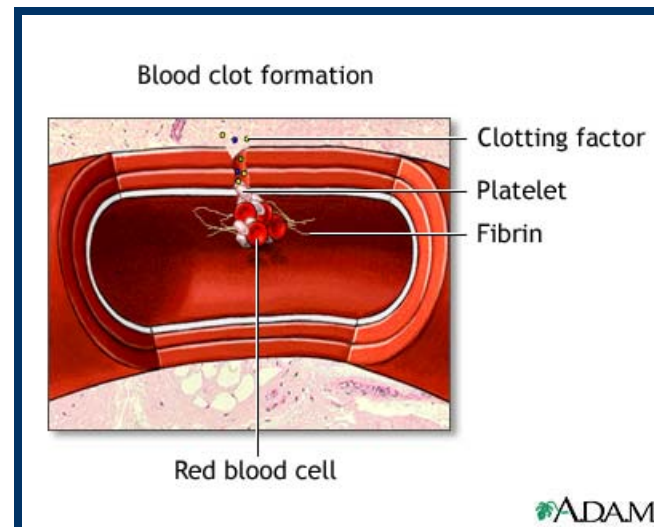
When to call the doctor



- Your level of fatigue changes or you are not able to do your usual activities
- You feel dizzy or like you are going to faint
- You feel short of breath
- It feels like your heart is pounding or beating very fast

Bleeding

- **Platelets** are cells that make your blood clot when you bleed. Chemotherapy can lower the number of platelets because it affects your bone marrow's ability to make them.



Bleeding

- A low platelet count is called **thrombocytopenia**. This condition may cause bruises (even when you have not been hit or have not bumped into anything), bleeding from your nose or in your mouth, or a rash of tiny, red dots.



Ways to manage low platelets

- Brush your teeth with a very soft toothbrush
- Blow your nose gently
- Be careful when using scissors, knives, or other sharp objects
- Use an electric shaver instead of a razor
- Apply gentle but firm pressure to any cuts you get until the bleeding stops

Ways to manage low platelets

Do not:

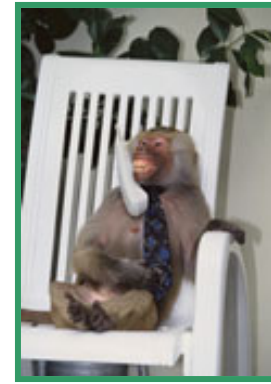
- Use dental floss or toothpicks
- Play sports or do other activities during which you could get hurt
- Use tampons, enemas, or suppositories.

Ways to manage low platelets

Check with your doctor before:

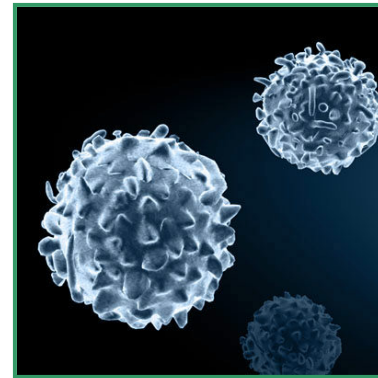
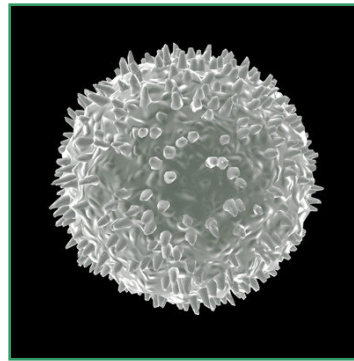
- Drinking beer, wine, or other types of alcohol
- Having sex
- Taking vitamins, herbs, minerals, dietary supplements, aspirin, or other over-the-counter medicines. Some of these products can change how chemotherapy works.

When to call the doctor



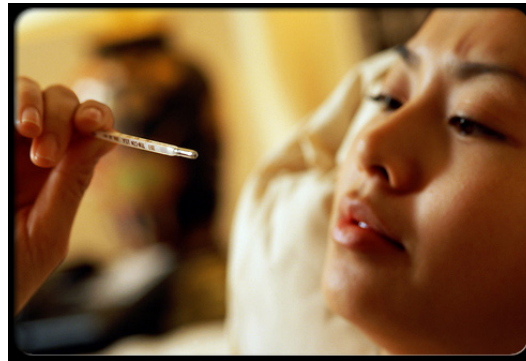
- Bruises, especially if you did not bump into anything
- Small, red spots on your skin
- Red- or pink-colored urine
- Black or bloody bowel movements
- Bleeding from your gums or nose
- Heavy bleeding during your menstrual period or a prolonged period
- Vaginal bleeding not caused by your period
- Headaches or changes in your vision

Infection



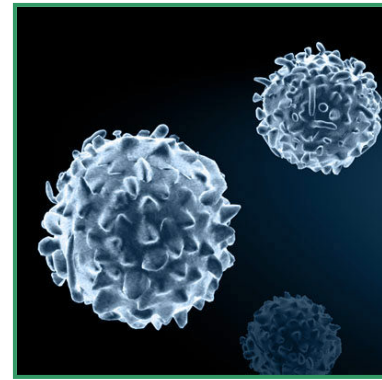
- Some types of chemotherapy make it harder for your bone marrow to produce new **white blood cells**. White blood cells help your body fight infection. Therefore, it is important to avoid infections, since chemotherapy decreases the number of your white blood cells.
- There are many types of white blood cells. One type is called **neutrophil**. When your neutrophil count is low, it is called **neutropenia**. Your doctor or nurse may do blood tests to find out whether you have neutropenia.

Infection



- It is important to watch for signs of infection when you have neutropenia. Check for fever at least once a day, or as often as your doctor or nurse tells you to. You may find it best to use a digital thermometer.
- Call your doctor if your temperature is **100.5°F** or higher.

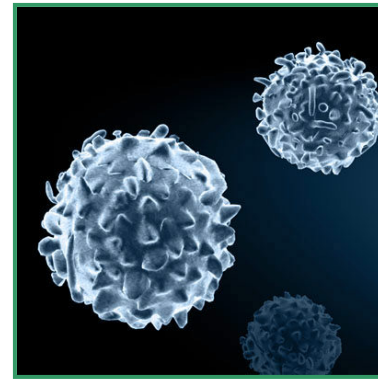
Ways to manage low white blood cells



- Your doctor will check your white blood cell count throughout your treatment.
- Wash your hands often with soap and water.
- Carry hand sanitizer for times when you are not near soap and water.
- Use sanitizing wipes to clean surfaces and items that you touch. This includes public telephones, ATM machines, doorknobs, and other common items.

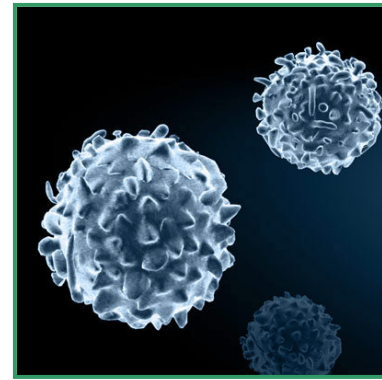


Ways to manage low white blood cells



- Be careful not to cut or nick yourself.
- Do not cut or tear your nail cuticles.
- Use an electric shaver instead of a razor.
- Watch for signs of infection around your IV site
- Maintain good mouth care.
- Take good care of your skin.
- Clean cuts right away
- Be careful around animals.

Ways to manage low white blood cells



Be gentle and thoroughly clean yourself after a bowel movement.

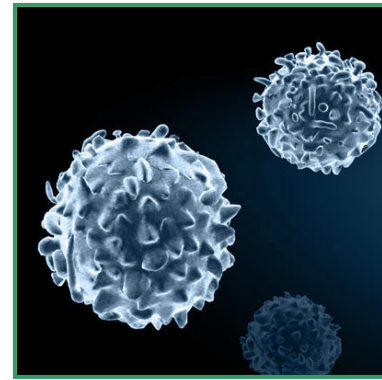


Stay away from people who are sick.



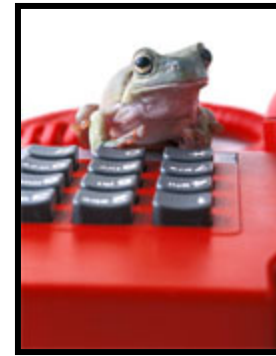
Stay away from crowds.

Ways to manage low white blood cells



- **Do not get a flu shot or other type of vaccine without first asking your doctor or nurse.** Some vaccines contain a live virus, which you should not be exposed to.
- **Do not eat raw or undercooked fish, seafood, meat, chicken, or eggs.** These may have bacteria that can cause infection.
- **Wash raw vegetables and fruits well before eating them.**

When to call the doctor



- **Call your doctor right away (even on the weekend or in the middle of the night) if you think you have an infection.**
- Call if you have a fever of **100.5°F** or higher, or when you have chills or sweats.
- Do not take aspirin, acetaminophen (such as Tylenol®), ibuprofen products, or any other drugs that reduce fever without first talking with your doctor.
- Other signs of infection include:
 - Redness
 - Swelling
 - Rash
 - Chills
 - Cough
 - Earache
 - Headache
 - Stiff neck
 - Bloody or cloudy urine
 - Painful or frequent need to urinate
 - Sinus pain or pressure

How to reach a doctor after hours and on the weekends.

Call the physicians answering service at

687-1321

Tell the operator that you need to speak with your doctor.

The operator will ask

- your name
- your doctors name
- your date of birth
- your symptoms.

They may ask you to hold, or the doctor will call you back.

Mouth and throat changes



- Some types of chemotherapy harm fast-growing cells, such as those that line your mouth, throat, and lips. This can affect your teeth, gums, the lining of your mouth, and the glands that make saliva.
- Most mouth problems go away a few days after chemotherapy is over.

Mouth changes may include

- Dry mouth (having little or no saliva)
- Changes in taste and smell (such as when food tastes like metal or chalk, has no taste, or does not taste or smell like it used to)
- Infections of your gums, teeth, or tongue
- Increased sensitivity to hot or cold foods
- Mouth sores
- Trouble eating when your mouth gets very sore

Managing mouth changes

- **Visit a dentist before starting chemotherapy.**
- **Check your mouth and tongue every day.**
- **Keep your mouth moist.**

Eating with a sore mouth

- Choose foods that are moist, soft, and easy to chew or swallow.
- Use a blender to puree cooked foods so that they are easier to eat.
- Take small bites of food, chew slowly, and sip liquids while you eat.
- Soften food with gravy, sauces, broth, yogurt, or other liquids.
- Eat foods that are cool or at room temperature. You may find that warm and hot foods hurt your mouth or throat.
- Suck on ice chips or popsicles. These can relieve mouth pain.

Things to avoid with a sore mouth

- Sharp or crunchy foods.
- Spicy foods.
- Citrus fruits or juices such as orange, lemon, and grapefruit.
- Beer, wine, and other types of alcohol.
- Toothpicks or other sharp objects.
- Tobacco products.

Keep it clean



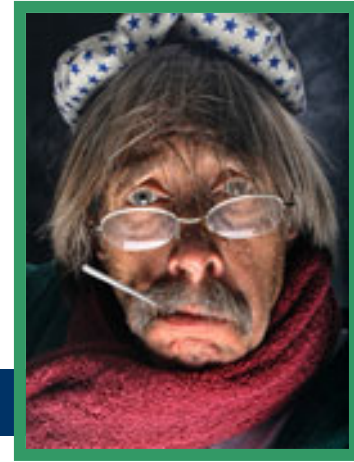
- Brush your teeth, gums, and tongue after each meal and at bedtime.
- Use an extra-soft toothbrush.
- *Do not use mouthwash that has alcohol.*
Instead, rinse your mouth 3 to 4 times a day with a solution of 1/4 teaspoon baking soda and 1/8 teaspoon salt in 1 cup of warm water. Follow this with a plain water rinse.

Keep it clean



- Gently floss your teeth every day. If your gums bleed or hurt, avoid those areas but floss your other teeth. Ask your doctor or nurse about flossing if your platelet count is low. (See the section called "Bleeding" for more information on platelets.)
- If you wear dentures, make sure they fit well and keep them clean. Also, limit the length of time that you wear them.

Nausea and vomiting



- Some types of chemotherapy can cause nausea, vomiting, or both. Nausea is when you feel sick to your stomach, like you are going to throw up.
- Nausea and vomiting can occur hours after chemotherapy or even days later.

Managing nausea



- **Prevent nausea.** One way to prevent vomiting is to prevent nausea. Try having bland, easy-to-digest foods and drinks that do not upset your stomach.
- **Stay away from foods and drinks with strong smells and sometimes foods that are cooking.**
- **Try small bites of popsicles or fruit ices.**
- **Suck on mints or tart candies.**
- **Plan when it's best for you to eat and drink.**
- **Eat small meals and snacks.**

Managing nausea



- Your doctor will give you a prescription to help prevent nausea during and after chemotherapy. Be sure to take these drugs as ordered and let your doctor or nurse know if they do not work.
- In addition to your prescription, you will also be given an anti-nausea medication in your IV before you receive chemotherapy.

Appetite changes



- Chemotherapy can cause appetite changes. You may lose your appetite because of nausea, mouth and throat problems that make it painful to eat, or drugs that cause you to lose your taste for food.
- Appetite loss may last for a day, a few weeks, or even months.

Appetite changes



- It is important to eat well, even when you have no appetite. This means eating and drinking foods that have plenty of protein, vitamins, and calories.
- Eating well helps your body fight infection and repair tissues that are damaged by chemotherapy.
- Not eating well can lead to weight loss, weakness, and fatigue.

Managing appetite loss



- Eat 5 to 6 small meals a day.
- Set a schedule for eating meals and snacks.
- Drink milkshakes, smoothies, juice or soups if you do not feel like eating solids.
- Use plastic eating utensils.
- Be a little active.
- Change your routine.

Constipation



- Drugs such as chemotherapy and pain medicine can cause constipation.
- It can also happen when people are not active and spend a lot of time sitting or lying down.
- Constipation can also be due to eating foods that are low in fiber or not drinking enough fluids.

Ways to manage constipation



- Drink at least 8 cups of water or other fluids each day.
- Be active every day.
- Ask your doctor or nurse about foods that are high in fiber.
- Refer to the chemo and you book and eating hints book for ideas.

When to call the doctor



If you have not had a bowel movement in
2 days.

Your doctor may suggest a fiber supplement, laxative, stool softener, or enema.

Senekot S is the laxative of choice in this facility.

Do not use these treatments without first checking with your doctor or nurse.

Diarrhea



Diarrhea is frequent bowel movements that may be soft, loose, or watery.

Chemotherapy can cause diarrhea because it harms healthy cells that line your large and small bowel.

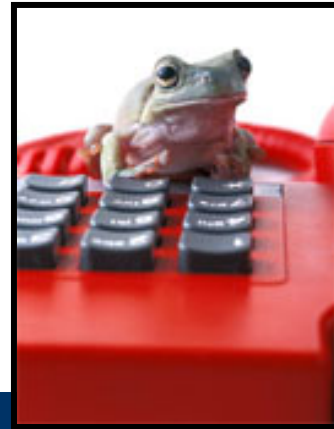
Diarrhea can also be caused by infections or drugs used to treat constipation.

Ways to manage diarrhea



- **Eat 5 or 6 small meals and snacks each day instead of 3 large meals.**
- **Ask your doctor about foods that are high in salts such as sodium and potassium.**
- **Drink 8 to 12 cups of clear liquids each day.**

When to call the doctor about diarrhea



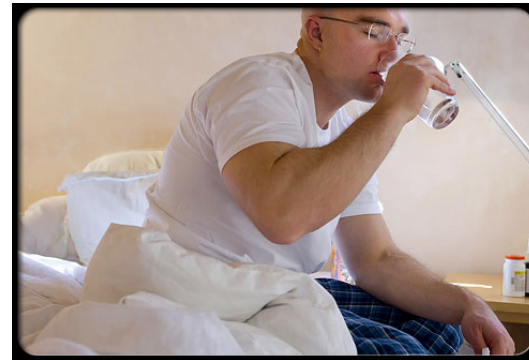
- Let your doctor know if your diarrhea lasts for more than 24 hours or if you have pain and cramping along with diarrhea.
- Your doctor may prescribe a medicine to control the diarrhea. This facility usually recommends Immodium .
- You may also need IV fluids to replace the water and nutrients you lost.

What to avoid when you have diarrhea

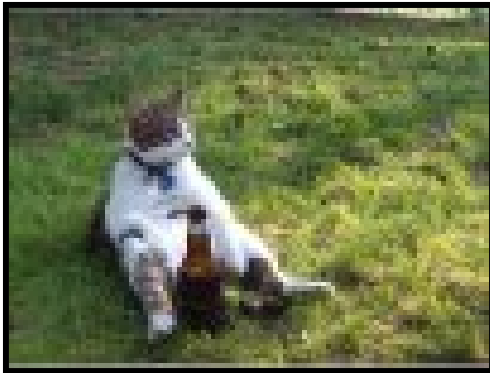
- Drinks that are very hot or very cold
- Beer, wine, and other types of alcohol
- Milk or milk products,
- Spicy foods
- Greasy and fried foods
- Foods or drinks with caffeine,
- Foods or drinks that cause gas
- Foods that are high in fiber



DRINK DRINK DRINK!!



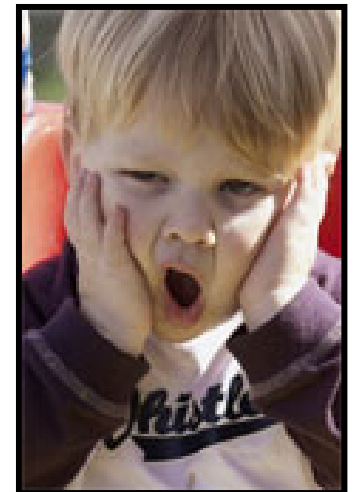
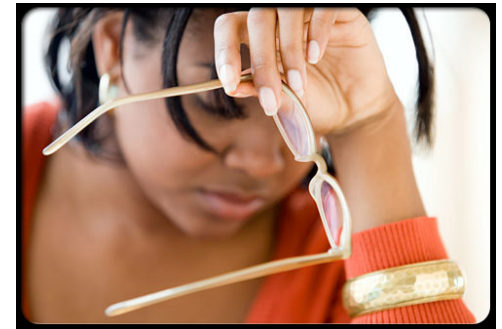
NOT THIS KIND OF DRINKING!



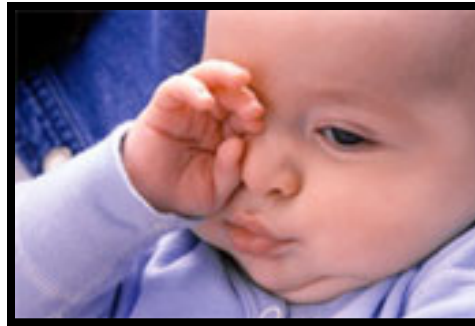
Fatigue



- Fatigue from chemotherapy can range from a mild to extreme feeling of being tired.
- Many people describe fatigue as feeling weak, weary, worn out, heavy, or slow.
- Resting does not always help.



Fatigue



- Many people say they feel fatigue during chemotherapy and even for weeks or months after treatment is over.
- Fatigue can be caused by the type of chemotherapy, the effort of making frequent visits to the doctor, or feelings such as stress, anxiety, and depression. If you receive radiation therapy along with chemotherapy, your fatigue may be more severe.

Ways to manage fatigue



- Relax.
- Eat and drink well.
- Plan time to rest.
- Be active but do not try to do too much.
- Plan a work schedule that works for you.
- Let others help.
- Learn from others who have cancer.
- Keep a diary of how you feel each day.

Hair loss



- Hair loss (also called **alopecia**) is when some or all of your hair falls out. This can happen anywhere on your body.
- Hair loss often starts 2 weeks after chemotherapy begins. Your scalp may hurt a day or so before your hair starts to fall out.
- Almost always, your hair will grow back 2 to 3 months after chemotherapy is over.

Ways to manage hair loss



- **If you plan to buy a wig, do so while you still have hair.** The American Cancer Society has wigs and a list of local wig shops.
- **Ask if your insurance company will pay for a wig.**
- **You may want to cut your hair short before chemo.**
- **Once your hair starts to fall out, you may want to shave it.**

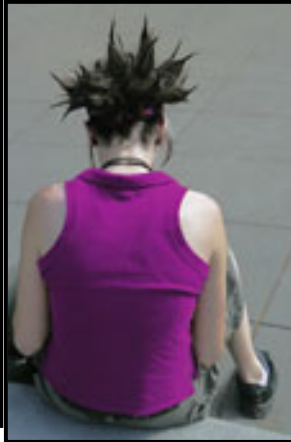
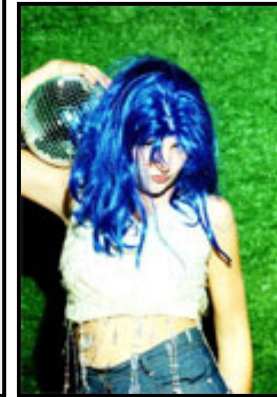
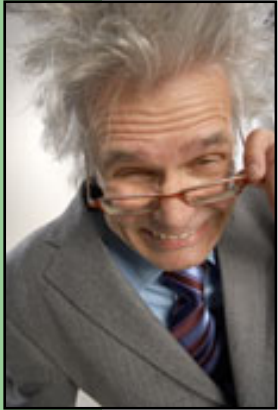
After hair loss

- **Protect your scalp.**
- **Stay warm.**
- **Sleep on a satin pillow case.** Satin creates less friction than cotton when you sleep on it. Therefore, you may find satin pillow cases more comfortable.
- **Talk about your feelings.**





Potential hair styles after chemo!



Skin and nail changes

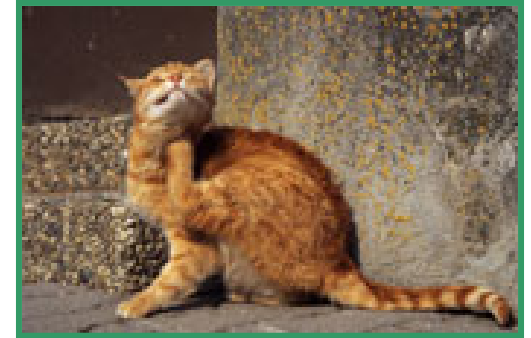


Some types of chemotherapy can damage the fast-growing cells in your skin and nails.

Minor skin changes may include:

- **Itching, dryness, redness, rashes, and peeling
Darker veins.**
- **Sensitivity to the sun**
- **Nail problems.**

Managing skin changes



If you experience itching, dryness, redness, rashes or peeling try these suggestions. If they do not help call your doctor.

- Take quick showers or sponge baths instead of long, hot baths.
- Pat (do not rub) yourself dry after bathing.
- Wash with a mild, moisturizing soap.
- Put on cream or lotion while your skin is still damp after washing.
- Do not use perfume, cologne, or aftershave lotion that has alcohol.
- Take a colloidal oatmeal bath (special powder you add to bath water) when your whole body itches.

Managing skin changes



Chemo can cause sensitivity to the sun.

Avoid direct sunlight if possible. When outside in the sun. Wear light-colored pants, long-sleeve shirts, and hats with wide brims when outside

Use sunscreen lotion on your skin and lips.

Do not use tanning beds.

Managing nail changes



- Wear gloves when washing dishes, working in the garden, or cleaning the house.
- Use products to make your nails stronger. (Stop using these products if they hurt your nails or skin.)
- Let your doctor or nurse know if your cuticles are red and painful.

Urine, kidney and bladder changes

Some types of chemotherapy damage cells in the kidneys and bladder.

Report any of these symptoms to your doctor:

Burning or pain when you begin to urinate or after you empty your bladder

Frequent, more urgent need to urinate

Not being able to urinate

Not able to control the flow of urine from the bladder (**incontinence**)

Blood in the urine

Fever

Chills

Urine that is orange, red, green, or dark yellow or has a strong medicine odor

Managing urine changes



- **Your doctor or nurse will take urine and blood samples to check how well your bladder and kidneys are working.**
- **Drink plenty of fluids.** Fluids will help flush the chemotherapy out of your bladder and kidneys.
- **Limit drinks that contain caffeine** (such as black tea, coffee, and some cola products).

Sexual changes in women



- In women, chemotherapy may damage the ovaries, which can cause changes in hormone levels.
- Hormone changes can lead to problems like vaginal dryness and early menopause.
- Symptoms of menopause (for women not yet in menopause). These symptoms include:
 - Hot flashes
 - Vaginal dryness
 - Feeling irritable
 - Irregular or no menstrual periods
- Being too tired worried, stressed, or depressed to have sex

Managing sexual changes in women

- Sex. Ask your doctor or nurse if it is okay for you to have sex during chemotherapy. Most women can have sex, but it is a good idea to ask.
- Medications. Talk with your doctor, nurse, or pharmacist about medications that help with sexual problems. These include products to relieve vaginal dryness or a vaginal cream or suppository to reduce the chance of infection.

Managing sexual changes in women

- **Wear cotton underwear (cotton underpants and pantyhose with cotton linings).**
- **Do not wear tight pants or shorts.**
- **Use a water-based vaginal lubricant (such as K-Y Jelly® or Astroglide®) when you have sex.**
- **If sex is still painful because of dryness, ask your doctor or nurse about medications to help restore moisture in your vagina.**
- **Cope with hot flashes by:**
 - Dressing in layers, with an extra sweater or jacket that you can take off.
 - Being active. This includes walking, riding a bike, or other types of exercise.
 - Reducing stress. Try yoga, meditation, or other ways to relax.

Sexual changes in men

- Not being able to reach climax
- Impotence (not being able to get or keep an erection)
- Being too tired to have sex or not being interested in having sex
- Feeling too worried, stressed, or depressed to have sex

Managing sexual changes in men

Talk with your doctor or nurse about:

- Sex. Ask your doctor or nurse if it is okay for you to have sex during chemotherapy. Most men can have sex, but it is a good idea to ask.
- Use a condom when you have sex, since traces of chemotherapy may be in your semen.

For men and women



- **Be open and honest with your spouse or partner.** Talk about your feelings and concerns.
- **Explore new ways to show love.**
- **Talk with a doctor, nurse, social worker, or counselor.**

Nervous system changes



Chemotherapy can cause damage to your nervous system. Many nervous system problems get better within a year of when you finish chemotherapy, but some may last the rest of your life.

- Tingling, burning, weakness, or numbness in your hands or feet
- Feeling colder than normal
- Weak, sore, tired, or achy muscles
- Trouble picking up objects or buttoning your clothes
- Confusion and memory problems



Managing nervous system changes

Let your doctor or nurse know right away if you notice any nervous system changes

- **Be careful when handling knives, scissors, and other sharp or dangerous objects.**
- **Avoid falling. Steady yourself when you walk by using a cane or other device.**
- **Wear gloves when working in the garden, cooking, or washing dishes.**
- **Rest when you need to.**
- **Talk to your doctor or nurse if you notice memory problems, feel confused, or are depressed.**
- **Ask your doctor for pain medicine if you need it.**

For 48 hours after receiving chemotherapy

- Toilets should be flushed twice after use.
- Caregivers must wear gloves if they come in contact with any body fluids.
- Wash any soiled linens twice with hot water.
- Place any soiled absorbent undergarments in a sealed plastic bag before putting in the trash.

Process of getting chemo

- You may or may not see your doctor every visit, some appointments may be for blood work and chemo only.
- You may bring food, puzzles, books or computers to your chemo appointment.
- Take advantage of our Arts in Medicine program.

Keep a positive outlook and don't forget to laugh!!!!!!

