Side Effect Management





What it is and why it occurs

Constipation and diarrhea are common side effects of cancer treatment, and adequate hydration is important with both conditions.

For dietary management of these and other common side effects, such as nausea, lack of appetite, and weight changes, consider seeing an oncology dietitian. A Registered Dietitian can help to maintain strong nutritional status through all the changes experienced during treatment.

Way to Manage

⇒ Keep a record of your bowel movements. Show this record to your doctor or nurse and talk about what is normal for you. This makes it easier to figure out whether you have constipation.

Activity

- Be active every day.
- Light daily exercise is recommended to help maintain and stimulate regular bowel activity.
- To promote regularity, have a set time each day when you can sit on the commode uninterrupted and quietly.

Medications for treatment of constipation:

Bulk-forming laxatives:

Psyllium Methylcellulose

Wheat dextrin

Osmotic agents:

Polyethylene glycol (macrogol)

Lactulose

Sorbitol

Magnesium sulfate

Magnesium citrate

Sulfactants (softeners):

Docusate sodium Docusate calcium

Stimulant laxatives:

Bisacodyl Senna

Remember

- Report abnormal (your inability to pass stools, diarrhea, or stools containing blood or green mucus) to your doctor or nurse.
- Avoid enemas or suppositories unless discussed with your doctor or nurse. They can be harmful if used too often.

Diarrhea



Constipation and diarrhea are common side effects of cancer treatment, and adequate hydration is important with both conditions.

For dietary management of these and other common side effects, such as nausea, lack of appetite, and weight changes, consider seeing an oncology dietitian. A Registered Dietitian can help to maintain strong nutritional status through all the changes experienced during treatment.

It is important to call your doctor when you have diarrhea. The doctor will want to know:

How many bowel movements per 24 hours you are having now compared to before the diarrhea began?

Are your stools softer? Watery?

Is there blood, food, or mucus in your stools? What color are your stools?

How many days have you had diarrhea?

Do you have any other symptoms, such as nausea, vomiting, pain, dizziness, fainting, chills, fever, weight loss, tiredness, loss of bowel control, or decreased urine output?

Other Important Changes to Report

- 1. Dehydration: Fluid loss caused by loss of water through stools can cause:
 - Dry mouth
 - Decreased urination or darker, yellower urine
 - Dizziness or feeling light-headed
 - Weakness or fainting
- **2. Electrolyte Imbalances:** When salt and potassium are not correctly balanced, leg cramps can be an early sign.
- 3. Weight loss
- 4. Signs to report, so your doctor can decide if you need to be examined or treated:
 - Increased body temperature (fever)
 - Chills, sweating, feeling flushed or hot
 - Unable to keep your body warm

Management of Diarrhea What to Eat and Drink

Avoid fluids that increase bowel activity: drinks with caffeine, prune juice, and alcohol.
 Drink a variety of fluids, at least 8 to 10 large glasses of liquids a day, unless you are on a fluid restriction.
 Water should be only part of the 8 to 10 glasses a day; it does not replace lost minerals. Drink small quantities often.
 Sports drinks are a good source of fluids, and replace lost salt and potassium.
 Clear soup or broth replace lost salt.
 Let sodas stand until fizz has decreased to prevent more gas or bloating and to replace salt.
 Eat small meals often.
 Cigarette smoking should also be avoided.

With prolonged diarrhea, some people experience skin soreness around their anal area.

Things that may help after having a bowel movement:

Use a small, squeezable bottle to spray the anal area clean with plain, warm water.
 Gently pat the anal area dry—do not rub.

□ If you are on antibiotics and having diarrhea, contact your doctor.

- Use a flushable wet wipe rather than toilet paper.
- Applying a thin coat of Vaseline, Aquaphor, or A+D Ointment may help.
- Sit in a lukewarm bath for 10-15 minutes 3 or 4 times a day. A portable "sitz" bath, which is a plastic basin that fits into the toilet is very helpful. Ask your nurse about getting one.
- Preparation H may be helpful if hemorrhoids should flare up during an episode of diarrhea.

Over-the-counter medications your physician may recommend:

Before buying any of these medications, discuss them with your physician or nurse.

Loperamide hydrochloride: Usually 4 mg times one dose, then 2 mg by mouth after each loose stool, up to 16 mg/day.

Lomotil: Usually 1-2 tabs by mouth every 6 hours as needed. Up to 8 tabs a day.

Certain probiotic preparations such as *Lactobacillus casei* DN-114001 and VSL #3.

Bulk-forming agents (psyllium fiber, methylcellulose, and pectin) absorb water and enhance stool bulk.

Paregoric or tincture of opium may be used, alternating with loperamide.

Cholestyramine is a bulk salt sequestering agent, taken after each meal and at bedtime.

Hydration Ideas

It is important to stay well hydrated during your treatments. It is always a good idea to include one serving of a sports drink or Pedialyte every day to keep your electrolytes from being depleted.

Try to drink 6 to 8 glasses (8 oz.) of fluids per day

- Gatorade, Powerade, or other sports drinks
- Pedialyte
- Broth, soups
- Water
- Juice
- Popsicles
- Fruit-flavored drinks
- Jell-O
- Milk, milkshakes
- Liquid meal replacement (Ensure, Boost, Carnation Instant Breakfast)

Fatigue

Cancer-Related Fatigue Definition:

A distressing, persistent, sense of physical, emotional and/or cognitive tiredness or exhaustion related to cancer or cancer treatment that is not proportional to recent activity and interferes with usual functioning.

Fatigue is a common symptom of cancer and the specific mechanism is unknown. The symptom is experienced by 80% of individuals who receive chemotherapy, biotherapy, and/or radiotherapy. Below are suggested strategies promoted by the National Comprehensive Cancer Network (NCCN) Guidelines.

General Strategies

- Self-monitoring of fatigue levels
- Energy conservation
 - Set priorities and realistic expectations
 - ♦ Pace
 - ◊ Delegate
 - Schedule activities at times of peak energy
 - Postpone nonessential activities Limit naps to less than 1 hour
 - Structured daily routine
 - Attend to one activity at a time
- Use distractions (music, games, reading, socializing)
- Find meaning in the current situation
 - Emphasis on meaningful interactions
 - Promote self-interest and goals
- Consider referrals to appropriate specialists or supportive care providers

Non-pharmacological

Physical activity

•	i flysical activity					
	 Maintain optimal level of activity 					

- □ Caution may be considered in determining activity levels based on:
 - Anemia
 - Bone metastases
 - Comorbid illnesses or metastases
 - Endurance and resistance
 - Fever or active infection
 - Late effects of treatment
 - Safety issues or fall risk
 - Thrombocytopenia
- Yoga
- Referrals to rehab, physical therapy, occupational therapy, and physical medicine
- Physically based therapies
 - Massage
- Psychosocial interventions
 - Cognitive behavioral therapy/behavioral therapy
 - Psychoeducational therapies/educational therapies
 - Supportive expressive therapies
- Nutritional consults



- Cognitive behavioral therapy for sleep
 - □ Stimulus control, sleep restriction, sleep hygiene
- Bright white light therapy



Pharmacological

- Consider psychostimulants after ruling out other causes
- Treat for pain, emotional distress, and anemia if present
- Optimize treatment for sleep dysfunction, nutritional imbalance, and comorbidities

Helping you and your loved ones get through cancer treatments while maintaining your quality of life is the healthcare teams' goal. Please work with your providers by sharing your concerns and letting us help provide the resources you need.

Hair Loss (Alopecia)

Hair loss is a common side effect of cancer treatment and is called "alopecia". The hair follicles (hair roots) are rapidly growing cells that are sensitive to the effects of chemotherapy drugs and radiation.

Treatments stop the hair roots from growing and hair becomes fragile, dull, dry, breaks easily and the scalp may become tender. Not all chemotherapy drugs or radiation causes hair loss.

Hair loss is individual, varies in amount, and depends on the specific type of drug(s) used and where the radiation treatment is given.

Hair Loss During Chemotherapy:

Typically, hair loss begins 1-2 weeks after the start of chemotherapy and can affect hair anywhere on the face, scalp, or body. It is usually most noticeable on the scalp and occurs during brushing, washing, or combing of your hair. Loss may stop at severe thinning or continue to total baldness. Usually hair loss due to chemotherapy is not permanent and re-growth of hair occurs 4-8 weeks after treatment finally ends.

The Food and Drug Administration recently approved cooling caps to prevent hair loss during chemotherapy. Research is very limited. If considering this option, please discuss the benefits and potential complications with your physician before purchasing or renting.

Hair Loss During Radiation Therapy:

Hair loss from radiation therapy only happens on the part of your body being treated. This is not the same as hair loss from chemotherapy which can happen all over your body. For instance, you may lose some or all of the hair on your head when you get radiation to your brain.

You may start losing hair in your treatment area 2-3 weeks after your first radiation therapy session. It takes about a week for all the hair in your treatment area to fall out. Your hair may grow back 3-6 months after treatment is over. Sometimes, though, the dose of radiation is so high that your hair never grows back.

Whether hair loss is from chemotherapy or radiation, once your hair starts to grow back, it may not look or feel the way it did before. Your hair may be thinner, or curly instead of straight. Or it may be darker or lighter in color than it was before.

Things you can do to help:

- Have your hair cut in a short, easy-to-manage style before treatment and hair loss begin.
- If you shave your head, use an electric razor to avoid nicking yourself. Make sure the
- device has been properly cleaned.
- If you decide to wear a head cover, select and become accustomed to hats, turbans, or scarves before losing your hair.
- Choose cotton fabrics for comfort and easy care. Wear a basic turban as a base. Start with a 26 x 36-inch square scarf or head wrap, the bigger the better.
- Shop for a wig before you lose all your hair (for color match and style), but not before you have some hair loss, for proper fitting.
- Begin wearing your wig as soon as hair loss begins and make it a part of your lifestyle for easier adjustment.
- Wash your hair and scalp every 3-4 days with a gentle shampoo and use a crème rinse or conditioner. Use lukewarm to cool water and pat dry with a soft towel.
- Use soft hair brushes and low heat when drying your hair.
- Wear a hair net or night cap during sleep to minimize shedding of hair. Sleep on a satin pillowcase to minimize hair tangling.
- Use eyebrow pencil or false eyelashes, if necessary.

Wigs

Wigs are available for men, women, and children in either human hair or synthetic and can be either machine-made or hand-tied custom wigs. The costs can vary significantly depending on the quality and style. Synthetic wigs can be less expensive, easier to wear and care for, and can be easily cleaned and resume their style with little work.

After purchasing a ready-made wig, it can be taken to a stylist to be trimmed and shaped for a more flattering natural look. It does not have to be worn "as is" out of the box. Wigs obtained for cancer patients are a tax-deductible medical expense. Many major insurance companies will also cover the cost of the wigs if they are requested by a physician. The insurance companies refer to these wigs as a "Full Cranial Prosthesis".

Things to Avoid:

- * Minimize the use of the following until your chemotherapy treatments are completed: Hair dryers, hot curlers, and curling irons.
- Direct sunlight on the scalp (may cause a sunburn.)
- * Rubber bands, hair clips, barrettes, and bobby pins (all tend to pull on the hair and may cause extra hair loss).
- * Excessive shampooing, brushing, combing, or rubbing of your hair. A wide toothcomb may help.
- * Consult your doctor before considering unproven remedies that promise hair re-growth.

Infertility

What it is and why it occurs

Some types of chemotherapy and/or radiation can cause infertility. For a woman, this means that you may not be able to get pregnant. For a man, this means you may not be able to get a woman pregnant.

In women, therapy may damage the ovaries. This damage can lower the number of healthy eggs or lower the hormones produced by them. The drop in hormones can lead to early menopause. Early menopause and fewer healthy eggs can cause infertility. In men, therapy may damage sperm cells, which grow and divide quickly. Infertility may occur because therapy lowers the number of sperm, makes sperm less able to move, or causes other types of damage.

Whether or not you become infertile depends on the type of chemotherapy and/or radiation you get, your age, and whether you have other health problems. Infertility can last the rest of your life.

Ways to manage

For WOMEN, talk with your healthcare provider about:

 Whether you want to have children. You may want to preserve your eggs to use after treatment ends or see a fertility specialist before starting treatment.

- Birth control. It is very important that you do not get pregnant while getting therapy. These drugs can hurt the fetus, especially in the first 3 months of pregnancy
- Pregnancy. If you still have menstrual periods, your doctor or nurse may ask you to have a pregnancy test before you start therapy.

For MEN, talk with your healthcare provider about:

- Whether you want to have children. Before you start chemotherapy, let your doctor or nurse know if you might want to father children in the future. He or she may talk with you about ways to preserve your sperm to use in the future or refer you to a fertility specialist.
- Birth control. Your spouse or partner must not get pregnant while you are getting therapy. Therapy can damage your sperm and cause birth defects.

Resources for Patient Education About Cancer and Fertility

Fertility and men with Cancer http://bit.ly/1w2kZw

Fertility and women with Cancer http://bit.ly/1Je2MWO Cancer.net

Fertility preservation http://bit.ly/1rtJ5Ue

Livestrong Fertility Brochure http://bit.ly/11QPOLXk

Oncology Consortium-Northwestern University Myoncofertility.org

www.myoncofertility.org SaveMyFertility.org

Sexual Changes

What they are and why they occur

In women, chemotherapy and/or radiation may damage the ovaries, which can cause changes in hormone levels. Hormone changes can lead to problems like vaginal dryness and early menopause.

In men, chemotherapy and/or radiation can cause changes in hormone levels, decreased blood supply to the penis, or damage to the nerves that control the penis, all of which can lead to impotence.

Whether or not you have sexual changes during therapy depends on whether you have had these problems before, the type of therapy you are getting, your age, and whether you have any other illnesses. Some problems, such as loss of interest in sex, are likely to improve once therapy is over.

Problems for WOMEN include:

- Symptoms of menopause (for women not yet in menopause).

 May include: Hot flashes, vaginal dryness, vaginal discharge
 - **May include:** Hot flashes, vaginal dryness, vaginal discharge or itching, irregular or no menstrual periods, feeling irritable
- Bladder or vaginal infections

- Being too tired to have sex or not being interested in having sex
- Feeling too worried, stressed, or depressed to have sex



Problems for MEN include:

- 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

Ways to manage

For WOMEN: Talk to your healthcare provider:

- Sex. Ask your doctor or nurse if it is okay for you to have sex during therapy.
- **Birth control.** It is very important that you not get pregnant while having chemotherapy.
- **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.
 - 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 healthcare provider about medications or therapies to help restore moisture in your vagina.

Cope with hot flashes by:

- * Dressing in layers.
- * Being active. This includes walking or other types of exercise.
- * Reducing stress. Try yoga, meditation, or other ways to relax.

For MEN: Talk to your healthcare provider:

• **Sex.** Ask if it is okay for you to have sex during therapy. Most men can have sex, but it is a good idea to ask. Also, ask if you should 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. You and your spouse or partner may want to show your love for each other in new ways while you go through therapy. For instance, if you are having sex less often, you may want to hug and cuddle more, bathe together, give each other massages, or try other activities that make you feel close to each other.
- → Talk with your healthcare provider, social worker, or counselor. If you and your spouse or partner are concerned about sexual problems, you may want to talk with someone who can help. This can be a psychiatrist, psychologist, social worker, marriage counselor, sex therapist, or clergy member.

Nervous System Changes (Neuropathy) What they are and why they occur

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. Symptoms may include:

- Tingling, burning, weakness, or numbness in your hands or feet
- Feeling colder than normal
- Pain when walking
- Weak, sore, tired, or achy muscles
- Being clumsy and/or losing your balance
- Trouble picking up objects or buttoning your clothes
- Shaking or trembling
- Hearing loss
- Stomach pain, such as constipation or heartburn
- Fatigue
- Confusion and memory problems
- Dizziness
- Depression

Ways to manage

- Let your healthcare provider know right away if you notice any symptoms. It is important to treat these problems as soon as possible.
- Be careful when handling knives, scissors, and other sharp or dangerous objects.
- Avoid falling. Walk slowly, hold onto handrails when using the stairs, and put no-slip bath mats in your bathtub or shower. Make sure there are no area rugs or cords to trip over.
- Always wear sneakers, tennis shoes, or other footwear with rubber soles.
- Check the temperature of your bath water with a thermometer. This will keep you from getting burned by water that is too hot.
- Be extra careful to avoid burning or cutting yourself while cooking. Wear gloves when working in the garden, cooking, or washing dishes.
- Rest when you need to.
- Steady yourself when you walk by using a cane or other device.
- Talk to your healthcare provider if you notice memory problems, feel confused, or are depressed.

Ask your healthcare provider for pain medicine if you need it.



Bone Marrow Suppression

Bone marrow (tissue inside the bones) is the place in the body where white blood cells, red blood cells, and platelets are made. White blood cells fight infection, red blood cells carry oxygen, and platelets help to clot blood and promote healing.

Chemotherapy drugs, and sometimes radiation therapy, can affect the bone marrow and cause a decrease in the number of blood cells (low blood cell count). These effects are temporary and manageable. Your doctor will take frequent blood tests (blood cell counts) to detect early signs of bone marrow suppression and will keep you informed of your blood cell count before each treatment. It is not unusual for your blood cell count to decrease after treatment. It will usually return to normal before your next treatment. If not, treatment may be postponed.

Low White Blood Cell Count (Neutropenia)

A decreased number of white blood cells (WBC) will make you more susceptible to infection during cancer therapy. It is important that you avoid getting infections and that you identify them early if they do occur.

How to Avoid Getting an Infection

- Wash your hands before meals and before and after using the bathroom.
- Avoid touching your eyes, nose, or mouth without washing your hands first.
- Avoid crowds or people with colds or other infections.
- Protect your skin from cuts, scratches, or injury.
- Bathe and inspect your skin daily. Look for areas that are hot, red, or painful. (Any breaks in the skin are potential sites for infection.)
- Keep your mouth clean and moist. Check the inside of your mouth daily. Look for red, white, or yellow patches and report to your doctor any areas that burn, or feel dry or painful. (Cancer therapy can cause ulcerations in the mouth which can lead to infection.)
- Use sanitizing wipes to clean items used by multiple people: phones, ATMs, remotes, computers, etc.
- Be careful around animals. If possible, do not clean litter boxes, pick up waste, or clean bird cages or fish tanks. Wash hands after touching.
- Report itching, tenderness, or pain during bowel movement.
- Avoid using enemas or rectal thermometers. (Breaks in the skin in the rectal areas can cause infection.)
- Keep a log of your WBC counts so that you will know when you are most vulnerable to infection. (See understanding your CBC, pages 16-17.)
- If you develop chills or feel warm, take your temperature.
- Make sure people who touch you wash their hands first.

- Eat a well-balanced diet daily and wash the skins of fresh fruits and vegetables well before eating.
- Do not receive any live viral vaccinations without checking with your doctor first.

Signs of Infection

- ♦ Report fevers of 100.5° F or greater to your doctor or nurse at once.
- Report these signs of potential infection: Coughs, nasal congestion, runny nose, urinary frequency or burning upon urination, difficulty swallowing or eating, abdominal pain, diarrhea, heartburn, skin redness, or warmth.
- ♦ The usual signs of infection may be absent, report to your doctor or nurse any time you feel "funny" or "different".

Low Red Blood Cell Count (Anemia)

A decreased number of red blood cells (anemia) can make your heart work harder to meet your oxygen needs.

- Rest frequently and alternate rest time with periods of activity.
- Keep warm. Wear an extra sweater or jacket if you feel chilly.
- Eat a well-balanced diet.
- Accept help from family and friends.
- Stand up slowly.
- Signs of anemia:
 - Fatigue
 - Feeling dizzy or faint
 - Shortness of breath
 - Pounding heart
 - Fast/racing heartbeats

Low Platelet Count (Thrombocytopenia)

Platelets help the blood to clot if there is an injury. A decreased number of platelets may cause you to bruise or bleed more than usual, even with a small injury.

To prevent bleeding, observe the following precautions:

- Avoid over-the-counter medications without consulting your doctor or nurse. Certain medications can trigger bleeding. Do not take aspirin, ibuprofen, Alka-Seltzer, or cold remedies.
- High blood pressure can trigger bleeding. Take blood pressure medications as ordered.
- Use a soft bristle toothbrush.
- Use electric razors for shaving.
- Do not perform deep massage.
- Women with menses should use pads not tampons, and inform their doctor if they
 experience breakthrough bleeding during sexual intercourse.

- Protect yourself by wearing gloves when gardening or reaching into a hot oven.
- Wear shoes or slippers when up and walking to protect your feet.
- Move with caution to avoid falls.
- Observe extra precautions when working with sharp objects such as knives, scissors, garden tools, etc.
- No rectal insertion of suppositories, enemas, or thermometers.
- When blood is drawn or injections are given, apply gentle pressure over the needle site for 5 minutes or more.
- If you develop a nosebleed, press the nostrils together firmly with your fingers or put ice in a soft cloth and press firmly against the nostrils.
- Do not strain when blowing the nose or scratch the inside of the nose.

Important signs and symptoms to report to your physician right away:

- Little red or purple spots on the skin or in the mouth.
- New or increased bleeding or bruising.
- Blood in the urine, stool, or vomit.
- Frequent controlled nose bleeds or if you are unable to stop a nose bleed. A fall or injury.

Remember

The effects on your blood counts are **TEMPORARY** and **INDIVIDUALIZED**. Follow the instructions given to you on this information sheet to prevent or minimize any problems. Report any concerns or questions to your doctor or nurse.



Understanding your CBC

One of the most important blood tests people with cancer get routinely is a complete blood count or CBC. A CBC measures the levels, or counts, of the different types of cells in the blood. Since cancer and its treatments can cause blood counts to drop, getting regular CBCs is very important. Regular testing can help catch a low or high value so it can be treated before it becomes serious.

This guide will help you understand your CBC. Your results will be different from those shown in the example on the back page but you can learn what the results mean and when to discuss them with your doctor.

Know your Count!

If you have cancer you need to know your hemoglobin (Hb or Hgb), hematocrit (HCT), platelets, and white cells, especially if you are receiving chemotherapy.

Each time your CBC is checked, record it in the diary below.

Date	Hb or Hgb	НСТ	Platelets	WBC	Use this space to describe how you are feeling (Tired? Weak? etc.)

Results column: Shows counts that fall within the normal range. Flag column: Shows counts that are lower ("L") or higher ("H") than the normal range.

Reference Interval (or Reference Range) column: Shows the normal range for each measurement. Different labs may use different reference intervals. The ranges for your test results may be slightly different, depending on where your results are processed.

Sample CBC for a Patient With Cancer

A CBC measures the levels of three basic blood cells — white cells, red cells, and platelets.

White blood cells: Help protect you from infections. For this patient, the total white cell count is 7.2-within the normal range of 4.0 to 10.5.

Red blood cells: Carry oxygen from your lungs to the rest of your body. This patient has a red cell count of 3.25 – lower than the normal range of 4.20 to 5.40 and therefore it is shown in the flag column.

Hemoglobin (Hb or Hgb): the part of the red cell that carries the oxygen. Our sample patient's Hb count is 10.0, which is below the normal range of 12.0 to 16.0. The hematocrit (HCT), another way of measuring the amount of Hb, is also low. This means that they have mild anemia and may be starting to notice symptoms.

Platelets: The cells that form blood clots that stop bleeding. The platelet count for this patient is normal. Differential: part of the CBC that shows counts for the five main kinds of white cells, whether as percentages (the first 5 counts) or as the number of cells (the second 5 counts). This patient has a lower-than-normal poly count (short for lymphocytes), which could be a sign of a bacterial or viral infection.

Test	Result	Flag	Units	Reference Interval
CBC WITH DIFFERENTIAL				
White Blood Count	7.2		X 10-3	4.0 – 10.5
Red Blood Count		3.25 L	X 10-6	4.20-5.40
Hemoglobin		10.01 L	g/dL	12.0 – 16.0
Hematocrit		28.9 L	%	37.0 – 47.0
Platelets	302		X 10-3	140-415
Polys		43 L	%	45-76
Lymphs		48 H	%	17-44
Monocytes	7		%	3-10
Eos	2		%	0-4
Basos	0		%	0-2
Polys (absolute)	3.1		X 10-3	1.8-7.8
Lymphs (absolute)	3.5		X 10-3	0.7-4.5
Monocytes	0.5		X 10-3	0.1-1.0
Eos (absolute)	0.1		X 10-3	0.0 - 0.4
Basos (absolute)	0.0		X 10-3	0.0 - 0.2

Ways to learn more about cancer and side effects of cancer

American Cancer Society offers a variety of services to people with cancer and their families

Call: 1-800-ACS-2345 (1-800-227-2345)

TY: 1-866-228-4327

Visit http://www.cancer.org

