Treatment for Advanced Breast Cancer

This information explains what advanced breast cancer is, the treatments that are used to manage it, and how to manage the symptoms you may experience during treatment. It also includes information about supportive resources that you may find helpful during treatment. If you have any questions or would like more information, talk with a member of your healthcare team.

Learning you have advanced breast cancer can lead to feelings of uncertainty. We believe that with time, information, and the support of your healthcare team, you can become more empowered and better prepared to face this diagnosis.

Understanding Advanced Breast Cancer

Advanced breast cancer (also called metastatic or stage 4 breast cancer) is the spread of cancer from the breast to the skin, lymph nodes, or another part of the body such as the liver, lungs, or bones.

Some people have advanced breast cancer when they are first diagnosed. However, it’s more common to develop advanced breast cancer when the disease comes back somewhere else in the body, even after previous treatment.

Advanced breast cancer is a chronic condition. This means that it requires care for the rest of your life. The goal of treatment is to control it for as long as possible so that you can carry on most of your usual activities.

Planning Your Care

There are many treatments available for advanced breast cancer. Choosing a
treatment that’s right for you depends on many factors.

To create your care plan, your doctor will review your medical history, examine you, and review your test results. They may also refer you to specialists for certain treatments, such as radiation therapy or surgery. Your doctor will discuss your care plan with you in detail. Don’t compare your care plan to someone else’s. The same plan may not be right for everyone.

You may have tests done to see how the cancer is responding to treatment. Sometimes the cancer may continue to grow even with treatment. If this happens, your doctor will talk with you about changing your care plan. New treatments are developed all the time, increasing your options for therapy.

**Preventing pregnancy: Information for Women**

It’s important to prevent pregnancy while you’re getting cancer treatment. If you become pregnant with an egg that has been damaged by exposure to radiation, chemotherapy, or other anticancer medications, you may have an increased risk for miscarriage or birth defects. Becoming pregnant can also prevent you from receiving the best diagnostic tests and treatments for your cancer, as these may harm a fetus.

- Don’t use birth control pills or other forms of birth control (contraception) that have hormones. These contain the hormones estrogen and progesterone. These hormones may support the growth of tumors.
- Use barrier methods of birth control (such as condoms or dental dams). You may also talk with your gynecologist about having a non-hormonal copper-based IUD placed in your uterus.
- Don’t rely on your partner withdrawing before ejaculation (“pulling out”) or on avoiding sex during fertile times of your menstrual cycle (the “rhythm method”). These methods aren’t effective in preventing pregnancy.

You might still be at risk of getting pregnant for some time after your periods stop so continue to use non-hormonal birth control (such as a copper intrauterine device (IUD) and male condoms) until your doctor tells you that you can stop.
If you’re hoping to have (more) children in the future, ask your doctor if fertility preservation with egg or embryo freezing before treatment would be safe for you. Although it would not be safe for you to carry a pregnancy yourself, another woman could possibly carry a pregnancy for you in the future. If you would like more information about your future family building options, ask your doctor for a referral to one of our Fertility Nurse Specialists.

**Preventing pregnancy: Information for men**

It’s important to prevent pregnancy while you’re getting cancer treatment. If a woman becomes pregnant from sperm damaged by exposure to radiation, chemotherapy, or other anticancer medications, there could be an increased risk for miscarriage or birth defects. If your female partner(s) is able to get pregnant and isn’t using a form of birth control, use a condom each time you have sex.

If you’re hoping to have (more) children in the future, you could consider sperm banking before treatment. If you would like more information about your future family building options, ask your doctor for a referral to one of our Fertility Nurse Specialists.

**Treatment Options for Advanced Breast Cancer**

**Chemotherapy**

Most people with advanced breast cancer will receive chemotherapy at some point during their treatment. Chemotherapy can kill cells in many ways by stopping their ability to multiply. Some chemotherapies are available as a pill, but most are given through an intravenous (IV) catheter (a thin, flexible tube).

Chemotherapy works by killing cells that divide quickly. This includes cancer cells, but it also includes some healthy cells that divide quickly such as:

- Blood cells
- Hair
- Nails
Cells that line your mouth, throat, stomach, and intestines

You may have side effects such as:

- Lower blood counts
- Hair thinning or hair loss
- Changes in your nails
- Nausea
- Vomiting
- Diarrhea (loose or water bowel movements)

The side effects of chemotherapy depend on which medication you’re receiving and how much is given. For example, not all chemotherapy causes nausea, vomiting, or hair loss. Your doctors and nurses will talk with you about the side effects you can expect.

**Hormone therapy**

Estrogen and progesterone are hormones. Some cancers grow when exposed to these hormones. When this is the case, antihormonal medications may be used to treat the cancer. We often refer to this as “hormone therapy.”

Hormone therapy blocks natural hormones in the body that might help cancer cells grow. Some hormone therapies are taken orally (by mouth) and some given by injection (shot).

Hormone therapy can cause changes in your hormone levels. For women, this can change or stop menstrual periods, make you unable to get pregnant (infertile), or cause side effects related to menopause. Men might experience hot flashes and difficulty maintaining an erection (get hard for sex). Both men and women may notice a decrease in their sexual desire.

**Targeted therapy**

Targeted therapy works by attacking specific genes or proteins that are common in cancer cells, without harming normal cells. Antibody therapy is an example of
targeted therapy.

Whether or not your doctor suggests targeted therapy depends on the type of breast cancer you have. Some targeted therapies have fewer side effects than chemotherapy, but there can still be some. Your doctor and nurse will talk with you about what side effects you can expect.

**Implanted Ports**

You may need an implanted port (also known as a “port”) at some time during your treatment for advanced breast cancer. A port is like an artificial vein. It will make it easier for your healthcare team to access your blood vessels for medications and tests. A port may be referred to by a brand name, such as BardPort®, Mediport®, PowerPort®, or Port-A-Cath®.

A port has many uses. It may be used to:

- Give you IV medication.
- Give you IV fluids.
- Draw blood for tests.
- Give you chemotherapy continuously for several days. Sometimes, chemotherapy must be given in a vein larger than the ones in your arms. The port allows the medication to be delivered into your bloodstream through a large vein near your heart.

There are many benefits to having a port, including fewer delays and needle sticks when trying to find a good vein for treatment. With ports, there is also less of a risk that chemotherapy will leak out of your veins and cause damage to the surrounding tissue.

A port is placed during a short procedure, and can be used that same day if needed. Once your incision (surgical cut) from the procedure is healed, you can swim, bathe, and resume all of your normal activities even with a port.

If you would like to learn more about ports, you can read the resource *About Your Implanted Port* ([www.mskcc.org/pe/implanted_port](http://www.mskcc.org/pe/implanted_port)). If you have any questions
about ports, talk with your doctor or nurse.

**Clinical Trials (Research Studies)**

You may also have a clinical trial be part of your care plan for advanced breast cancer. A clinical trial is a research study that tests a new treatment to see how well it works. This may include studying a new medication or combination of medications to treat breast cancer, a new dose or schedule of a medication, new tests to measure your response to a treatment, or new types of supportive care.

Clinical trials may also include surveys to help us better understand your needs. Clinical trials may involve studying your tumor or normal tissues and cells. The information we learn from clinical trials helps us learn how to provide better care for people with cancer.

Below are some commonly asked questions about clinical trials. For more information, or to learn if there are any clinical trials that are right for you, talk with your doctor. You can also visit our website at [www.mskcc.org/cancer-care/clinical-trials](http://www.mskcc.org/cancer-care/clinical-trials).

You may change your mind about being on a clinical trial at any time.

**How much does it cost to be on a clinical trial?**

You generally don’t have to pay extra out-of-pocket costs for treatments studied as part of a trial. Every trial is different, but the clinical trial’s sponsor usually pays for all research-related costs and any special testing.

You or your insurance company will need to pay for any routine tests, treatments, or procedures that would be required as part of standard cancer treatment. However, some health plans don’t pay for these costs once you join a clinical trial. Before you join a clinical trial, you will receive an informed consent document that spells out exactly what you’ll have to pay for and what you won’t.

If you have any questions regarding what your plan covers, call your insurance company. Memorial Sloan Kettering (MSK) also has financial counselors available to help you. You can reach a financial counselor by calling 646-227-9978.
What are the benefits of going on a clinical trial?
Clinical trials may offer you access to new medications and other treatments, sometimes years before they are widely available. However, not all new treatments are better. For example, you aren’t guaranteed that the trial medication is more effective or safer than other options. Clinical trials are designed to get answers to research questions in the safest way possible.

What do the different phases of clinical trials mean?
New treatments must pass through different phases before they can be released to the general public. If the treatment is successful in one phase, it will move to the next one. You would participate in only 1 phase of a trial.

- **Phase I:** These trials are testing new medication in people for the first time. The goals of these studies are to find the safest doses, the best ways to give the medication, and how often to give them. You would be closely monitored for side effects. Phase I clinical trials enroll only a small number of people.

- **Phase II:** These trials examine how safe new medications are and how well they work. These studies often focus on 1 type of cancer.

- **Phase III:** These trials compare how a new medication or treatment works compared to the current standard of care or another experimental treatment. People who take part in the trial are randomly assigned to receive either the new or the standard treatment. Phase III trials take place after successful phase I and II studies. These trials often include large numbers of people possibly from other hospitals or across the country.

- **Phase IV:** These trials aren’t common and they take place after the medication is widely available. They help us learn more about how safe the treatments are and how well they work over time.

Advance Care Planning
Advance care planning involves protecting your right to make decisions about your healthcare. Advance care planning allows you to think about important health issues when you’re healthy and don’t need to make these decisions right away.
Planning your care when you aren’t under too much emotional stress will help you get the care you would want if you’re not able to make decisions on your own. Planning in advance helps put your loved ones at ease because they don’t have to guess what you would want and worry whether they’ve made the right decision.

We recommend that you talk with a member of your healthcare team about your wishes early in your treatment and anytime you feel like things have changed. They can help you make sure your choices are documented in a way that is recognized by the law.

Written instructions on how you want medical decisions to be made if you’re unable to communicate or make the decisions yourself are called advance directives. The 2 most common types of advance directives are a Health Care Proxy and a living will.

- A Health Care Proxy is a legal document that identifies the person you want to make medical decisions on your behalf if you’re unable to make them for yourself.
- A living will is a document that states your wishes about your medical care. It goes into effect if you develop an irreversible condition that prevents you from making your own medical decisions, such as if you become terminally ill or permanently unconscious. In the document, you specify which treatments you do or don’t want to receive if you’re in this situation.

For more information about advance care planning, read the resource *Advance Care Planning* (www.mskcc.org/pe/advance_care_planning).

**Possible Side Effects and How to Manage Them**

Advanced breast cancer affects the way you feel, physically and emotionally. Some side effects may be from the cancer itself, while others may be from the treatment(s). You may experience some, all, or none of these side effects. Your doctor and nurse will tell you which side effects you’re most likely to experience.

If you experience any side effects or have any questions, call your doctor or nurse or send a message through the patient portal (MyMSK) at my.mskcc.org. Do not
wait for your next appointment. Your doctor may be able to give you advice or a prescription to help you feel better.

**Allergic reactions**
Some medications can cause an allergic reaction while they’re being given. You will get medication to prevent this, if needed. If you get medication to take at home before your treatment, take it as directed and tell your healthcare team if you did not take it. You will also be closely monitored by your nurse during your treatment. Your doctor and nurse will tell you if any of the medications you’re getting can cause a reaction.

**Constipation**
Constipation is having fewer bowel movements than what is normal for you or having hard stool. It’s a common side effect of medications used to treat pain and nausea. Some chemotherapy can also cause constipation.

**What you can do:**
- Drink 8 to 10 (8-ounce) glasses of decaffeinated liquids daily, if you can.
- Eat foods that are high in fiber. Fruits, vegetables, whole grains, prunes, and prune juice contain fiber.
- Exercise if you can. Walking is an excellent way to keep active, and it helps decrease constipation.
- Ask your doctor or nurse if you can take medications such as docusate sodium (Colace®), senna (Senokot®), or polyethylene glycol (MiraLAX®).
- Ask your doctor or nurse to refer you to a dietitian for more suggestions.

**Things to avoid:**
- Using suppositories (medication take through the rectum, vagina, or penis)
- Using rectal thermometers
- Using enemas

**Contact your doctor or nurse if you:**
- Have not had a bowel movement or passed gas for more than 3 days
- Have hard stools or difficulty moving your bowels for more than 3 days

For more information about how to manage constipation, read the resource *Constipation* ([www.mskcc.org/pe/constipation](http://www.mskcc.org/pe/constipation)).

**Diarrhea**

Diarrhea is loose or watery stool caused by irritation of the lining of your stomach and intestines.

**What you can do:**

- Drink 8 to 10 (8-ounce) glasses of liquids each day so that you don’t get dehydrated. Make sure to drink both water and drinks that contain electrolytes, such as Gatorade®, Pedialyte®, broths, or juices.
- Eat foods on the BRATY diet:
  - Bananas
  - Rice
  - Applesauce
  - Toast (white)
  - Yogurt
- Eat canned fruit and smooth peanut butter. These may help bind your bowel movements.
- Ask your doctor or nurse if you can take bismuth subsalicylate (Kaopectate®) or loperamide (Imodium A-D®).
- Keep your rectal area clean and dry to help decrease skin irritation.
- Try warm sitz baths to help with rectal irritation. You can also apply a soothing cream such as petroleum jelly (Vaseline®), vitamin A and D cream (A&D®), or hemorrhoidal cream.
- Drink beverages at room temperature. Hot beverages may stimulate your bowels and ice cold beverages may cause cramping.
Don’t use suppositories.

Apply a warm cloth to your abdominal (belly) area. This may soothe cramping.

Ask your doctor or nurse to refer you to a dietitian for more suggestions.

**Things to avoid:**

- Foods that contain high amounts of fiber (such as bran, oats, whole wheat or whole grain breads and cereal, brown rice, beans)
- Foods and drinks that contain caffeine or high amounts of artificial sweeteners or sugar (such as coffee, tea, sodas, and other soft drinks). They may stimulate your bowel.
- Dairy products
- Foods that make you bloated or gassy (such as cabbage and beans)
- Raw fruits and vegetables. Have canned fruits and cooked vegetables that won’t make you gassy like green beans or carrots.
- Stool softeners
- Rectal suppositories

**Contact your doctor or nurse if you have:**

- 3 or more loose, watery stools in 1 day
- Diarrhea, despite 2 days of eating the BRATY diet
- Rectal irritation that doesn’t go away
- Blood in your stool

For more information about how to manage diarrhea and what foods you should and shouldn’t eat, read the resource *Diarrhea* ([www.mskcc.org/pe/diarrhea](http://www.mskcc.org/pe/diarrhea)).

**Emotional changes**

The diagnosis and treatment of cancer can be a very stressful and overwhelming event. You may feel depressed, anxious, confused, afraid, or angry. You may have strong feelings about any permanent changes. These changes can have an impact
on your emotional well-being.

Help is available for you at any time. If you would like counseling, your nurse can give you a referral to see a social worker, psychiatrist, or counselor.

**What you can do:**

- Talk to those close to you about your feelings and the changes you’re going through. Friends and family can support and comfort you. Open communication will help you to understand each other better.
- Don’t hesitate to ask for help. Accept when others offer you support.

A member of the Department of Psychiatry and Behavioral Sciences can help you with:

- Difficulty relating to others.
- Depression, irritability, or trouble sleeping.
- Anxiety and panic attacks.
- Learning relaxation techniques.

For more information or to schedule an appointment, call the Counseling Center at 646-888-0200.

A social worker can help you with:

- Referrals to community services and resources.
- Emotional concerns such as depression and anxiety.
- Finding support groups or family counseling. Many people find support groups helpful. You can get more information about these groups by speaking with one of our social workers.

For more information or to schedule an appointment, call the Social Work Department at 212-639-7020.

Some people find soft music or relaxation techniques helpful. CDs are available in
most bookstores and in the Evelyn H. Lauder Breast Center Boutique located at 300 East 66th Street.

For more information about complementary therapies, call the MSK Integrative Medicine Service at 646-888-0800 or go to: www.mskcc.org/cancer-care/integrative-medicine.

Eye and vision changes

Some chemotherapy medications may cause dry eyes or increased tearing. If this happens, you can use wetting drops or allergy eyedrops.

If you have blurry vision during your treatment, see your eye doctor. It may be because your eyes are dry or tearing.

Fatigue

Fatigue is feeling unusually tired, weak, or as though you have no energy. Fatigue from treatment can range from a mild to extreme tiredness.

What you can do:

- If you feel tired, take a rest break.
- Try to be active to keep your energy levels up. For example, go for a walk outside or on a treadmill.
- Plan activities on days you know you’ll have more energy.
- Don’t be afraid to ask your family and friends for help with tasks or activities that make you feel tired.
- Drink enough liquids. Try to drink about 8 (8-ounce) glasses of non-caffeinated liquids every day.
- Eat a well-balanced diet including protein sources (such as chicken, fish, eggs, lentils or peanut butter), grains (such as pasta, rice, breads and cereals), and fruits and vegetables.
- Check with your doctor or nurse before starting any vitamins or supplements.
- Talk with your doctor or nurse.
For more information about how to manage fatigue, read the resource *Managing Cancer-Related Fatigue* ([www.mskcc.org/pe/managing_fatigue](http://www.mskcc.org/pe/managing_fatigue)).

**Hair loss (alopecia)**

Some chemotherapy medications cause hair loss. Hair loss usually starts about 2 to 4 weeks after the first chemotherapy treatment. If you do lose your hair, it will begin to grow back once you’re no longer taking that chemotherapy treatment. Some hormonal therapies can mildly affect your hair as well.

Some chemotherapy medications may also cause your eyelashes and eyebrows to fall out. If this happens, it’s temporary. They will grow back in after you have stopped taking that chemotherapy medication.

Generally, hair loss is affected by:

- The type, dose, and length of time you take the medication(s).
- The amount of hair you have before treatment.
- The amount of chemical processing (e.g., perm, dye) the hair had before treatment.

**What you can do:**

- Talk with your doctor or nurse about getting a prescription for a wig or hair piece before you start treatment. People who lose their hair from cancer treatment may have insurance coverage for a wig. Check with your insurance provider for more information.
- Get information about the Look Good Feel Better Program. Online programs are available for women and men and provide practical tips on topics such as managing skin and nail changes and hair loss.
  - Women can register for a *Look Good Feel Better* class to learn strategies for applying makeup and buying and wearing wigs or other head coverings. Call 800-227-2345 to sign up.
  - Men can find information at [lookgoodfeelbetter.org/programs/men/](http://lookgoodfeelbetter.org/programs/men/)
  - For more information, visit our *Look Good Feel Better* website at
Use a mild shampoo.

Use a low heat setting when blow-drying your hair.

Wear scarves and soft terry cloth turbans, if they appeal to you. They are very comfortable and add variety.

Speak with your doctor about scalp cooling. For more information, read the resource *Managing Hair Loss with Scalp Cooling During Chemotherapy for Solid Tumors* (www.mskcc.org/pe/scalp_cooling).

**Things to avoid:**

- Bleaching or perming your hair. You may use vegetable-based hair coloring.
- Using hot curlers

For more information about hair loss during your cancer treatment, read the resource *Hair Loss and Your Cancer Treatment* (www.mskcc.org/pe/hair_loss_cancer_treatment).

**Heart problems**

Some chemotherapy can affect the way your heart functions. You may have a fast heartbeat, feel fatigued, or be short of breath. Your doctor will tell you need to get any heart tests based on the treatment you’re receiving.

**Tell your doctor or nurse if you have:**

- Fast or irregular heartbeats.
- Trouble breathing or shortness of breath
- Chest pain or heaviness

**Low red blood cell count (anemia)**

Anemia is when your body doesn’t make enough red blood cells. Red blood cells carry oxygen through your body. When you don’t have enough red blood cells, you
may feel fatigued or short of breath. Anemia can occur 7 to 14 days after each chemotherapy treatment but is more likely to occur after months of chemotherapy treatment.

What you can do:

- Eat foods that have iron, which may lessen your chance of becoming anemic.
  - Iron-rich foods include lean meat, chicken, fish, dried apricots, raisins, beans, and lentils. For more information on how to get your daily dose of iron, read the resource *Iron in Your Diet* ([www.mskcc.org/pe/iron_diet](http://www.mskcc.org/pe/iron_diet)).
- Choose activities that will help you save energy.
- Take iron supplements if your doctor prescribes them for you.

Things to avoid:

- Anything that makes you feel tired
- High altitudes, which can make you very dizzy

Contact your doctor or nurse if you have:

- Dizziness
- Severe fatigue
- Shortness of breath
- Chest pain or pressure

Low white blood cell count (leukopenia)

A low white blood cell count raises your risk of getting an infection. Low counts can occur 7 to 14 days after each chemotherapy treatment but may last longer in some cases.

What you can do:

- Take your temperature by mouth every 4 hours if you think you have a fever or you have body aches or chills. Call your doctor or nurse if it’s above 100.4 °F (38
°C). This is very important, especially 7 to 14 days after each treatment.

- Ask your nurse or doctor if you may take acetaminophen (Tylenol®).
- Always wash your hands for at least 20 seconds after using the toilet and before eating.
- Protect your hands from cuts and burns:
  - Don’t cut your cuticles. Push them back instead.
  - Wear gloves when you wash the dishes, cook, or garden.
  - Keep your skin moisturized to avoid skin cracking.
- If you have a cut, wash it with soap and water right away. Watch for signs of infection (such as redness, swelling, or pus). If any develop, call your doctor.

**Things to avoid:**

- Being around people who are sick or who have been exposed to anything you can catch, such as chickenpox, shingles, strep throat, tuberculosis (TB), the flu, or measles, or the common cold.
- Dental work or surgery. Check with your doctor or nurse first.
- Using tampons or douching.
- Using dental floss.
- Using rectal thermometers, suppositories, or enemas.
- Live virus vaccines, such as the shingles vaccine, MMR, chickenpox vaccine, and the nasal spray flu vaccine.
- Being around anyone who has received a live virus vaccine or nasal mist vaccine for 7 to 10 days after they received it.

**Contact your doctor or nurse:**

- If you have redness, swelling, or pus leaking from a wound.
- If you have a temperature of 100.4° F (38° C) or higher.
- If you have chills or body aches, with or without fever.
Before you receive any vaccines.

**Low platelet count (thrombocytopenia)**

A low platelet count lowers your body’s ability to stop bleeding or bruising. This side effect is less common than having low red or white blood cell counts. You may have a low platelet count 10 to 14 days after chemotherapy, but this is more common after months of chemotherapy.

Ask your doctor if you can take anti-inflammatory medication such as ibuprofen (Advil®, Motrin®) or naproxen (Aleve®, Naprosyn®). These medications can increase bleeding. Notify your doctor if you take aspirin or blood thinners for other health conditions.

**What you can do:**

- Use a soft toothbrush for your teeth and gums.
- If you currently floss your teeth, you may continue to do so gently. If you don’t floss regularly, don’t start now.
- Be careful not to cut or bump yourself.
- Watch for any unexplained bruises or red spots on your skin.

**Things to avoid:**

- Sharp objects (such as cuticle scissors, straight razors, sharp knives).
- Using rectal thermometers or suppositories.
- Dental work or surgery.
- Contact sports or anything that may result in bumping or banging.
- Having more than 3 alcoholic drinks per week. Alcohol can affect your body’s ability to form clots by affecting how your liver works.

**Contact your doctor or nurse if you have:**

- Blood in your urine, bowel movements, vomit, or when you cough
- Unexplained bruising or bleeding from your nose or gums
Changes in your vision

Headaches or any signs of a stroke, such as weakness on 1 side

For more information about ways to lower your risk of bleeding, read the resource Low Platelet Count (www.mskcc.org/pe/low_platelet_count).

Memory changes

Some people find they can’t think as clearly or as quickly as they did before treatment. You may find that you:

- Have difficulty concentrating or focusing.
- Have difficulty doing more than 1 thing at a time.
- Have trouble remembering things.

These symptoms can be caused by various factors. Fatigue, mood changes, stress, anxiety, normal aging, hormonal changes, the disease and anesthesia (medication to make you sleepy) can affect your thinking for some period of time.

We are studying the impact that the medications we use for treating breast cancer can have on thinking. We hope to learn why problems with thinking occur, how long they last, and who develops them. We also hope to find out how to manage these problems until they get better.

Many people don’t experience any problems with their memory. We can’t predict who might have them, but they often go away over time. If this is something you’re worried about, talk with your doctor. They can also tell you about any studies that you might be eligible to participate in, if you’re interested.

If you do experience any memory changes, an occupational therapist (OT) can help you maintain participation in everyday activities and can provide helpful strategies for improving attention, concentration, and memory.

What you can do:

- Make sure you get enough sleep.
• Eat a well balanced diet.
• Read and socialize to keep yourself stimulated.
• Seek counseling if you have anxiety or depression because they can add to memory problems.

**Things to avoid:**

• Unnecessary medication that can make you sleepy.
• Stress, as much as possible. It can be distracting.

**Contact your doctor or nurse if:**

• The changes in memory are preventing you from doing your normal daily activities.
• You also have headaches.
• You also have trouble with your vision or balance.

**Mouth sores (mucositis)**

Some treatments can cause painful areas or sores in the mouth or throat. These are often temporary.

**What you can do:**

• Rinse your mouth 4 times a day using a mixture of 1 to 2 teaspoons of baking soda or salt in 1 quart of water, or using an alcohol-free mouthwash. Don’t swallow the solution.
• Gargle with the salt solution or using mouthwash in the morning, after each meal, at bedtime, and after vomiting.
• Keep your lips moist with lip balm or ointments to prevent drying.
• If you have dentures, remove them during rinses and before bedtime.
• Eat soft foods.
• Ask your nurse or doctor to refer you to a dietitian if you’re unable to eat.
Tell your doctor or nurse if you get cold sores frequently.

**Things to avoid:**

- Mouthwashes that may have alcohol or hydrogen peroxide. These can make the sores worse. If you would like to buy a commercial mouthwash, try Biotene®.
- Acidic, salty, coarse, sharp, and spicy foods
- Foods that are hot to touch

**Contact your doctor or nurse if:**

- You have mouth sores that are painful or prevent you from eating or drinking.
- You have pain in your mouth or throat when eating or swallowing.
- You can’t drink enough liquids to keep yourself hydrated.

For more information about how to manage mouth sores, read the resource *Mouth Care During Your Cancer Treatment* (www.mskcc.org/pe/mouth_care).

**Muscle, bone, and joint problems**

Some treatments can affect your muscles, bones, or joints. You may develop:

- Bone pain
- Joint stiffness or pain
- Decreased bone density

**What you can do:**

- Exercise, if you can. Walking is an excellent form of exercise.
- Ask your doctor if you can take anti-inflammatory medication such as ibuprofen (Advil®, Motrin®) or naproxen (Aleve®, Naprosyn®).
- Ask your doctor if you should take vitamin D.

**Contact your doctor or nurse if:**
• You’re very uncomfortable
• You’ve developed new pain
• Your legs are weak or you have trouble walking
• Your hands or fingers feel stiff

**Nausea, vomiting, and loss of appetite**

Some chemotherapy causes nausea and vomiting. This is because chemotherapy irritates either the areas of the brain that control nausea or the cells lining the mouth, throat, stomach, and intestines.

There are medications that are very good at preventing or controlling nausea. If the chemotherapy you will receive can cause nausea and vomiting, you will get anti-nausea medication before, after, or both for each chemotherapy treatment. This will reduce the chance that you will have nausea. You will also get a prescription to take home with you. Your nurse will tell you how to take the medication. Taking it the right way will give it the best chance to work.

Nausea can make you want to stop eating. Not eating and drinking will keep your body from getting the energy it needs to repair itself from the effects of your chemotherapy. Here are some ways to help you lessen your nausea. You can also read the resource *Eating Well During Your Cancer Treatment* ([www.mskcc.org/pe/eating_cancer_treatment](http://www.mskcc.org/pe/eating_cancer_treatment)).

**What you can do:**

• Take your anti-nausea medication as instructed by your doctor or nurse. Don’t try to hold off taking the medication to see if the nausea will go away.

• Eat dry starchy foods (such as crackers or pretzels) or hard candy to help prevent nausea.

• Eat small, frequent meals. Stop eating before you feel too full.

• Drink 8 to 10 (8-ounce) glasses of liquids every day. This will prevent dehydration from vomiting. Sip a little bit at a time to avoid more nausea.
  - Water, juices diluted with water, or liquids containing electrolytes (such as
Pedialyte®, Gatorade®, Powerade®, and other sports drinks) are good choices.

- Practice relaxing. Listen to soft music, breathe deeply, do yoga, or meditate. You might also try to think of pleasant things to distract yourself.
- Ask your doctor or nurse to refer you to a dietitian for more suggestions.

**Things to avoid:**

- Drinks that have caffeine (such as coffee, tea, soda)
- Fried, greasy, creamy, or spicy foods
- Eating or cooking foods that have a strong odor

**Call your doctor or nurse if you:**

- Are vomiting
- Have nausea that doesn’t stop even if you take your anti-nausea medication
- Are unable to keep food and drinks down due to vomiting
- Feel light-headed or dizzy
- Have heartburn or stomach pain

For more information on nausea and vomiting during chemotherapy, read the resource *Nausea and Vomiting Due to Chemotherapy* (www.mskcc.org/pe/nausea_vomiting_chemotherapy).

**Neuropathy (numbness or tingling hands and feet)**

Some chemotherapy can affect the nerves in your hands or feet. You could develop some numbness or tingling in your fingers, toes, or both. This may be temporary or permanent depending on how long you’re on chemotherapy. Your doctor may prescribe you medication or change the dose of your chemotherapy to help make the neuropathy less bothersome.

**What you can do:**

- Be very careful to avoid burning yourself when using the stove, oven, or iron.
You may not be able to feel heat as much as you used to.

**What to avoid:**

- Using heating pads or hot packs

**Tell your doctor or nurse if you have:**

- Problems holding a pen or closing buttons
- Pain, burning, or tingling in your fingers or toes
- Trouble walking or feeling the ground when you walk

For more information about neuropathy, read the resource *About Peripheral Neuropathy* ([www.mskcc.org/pe/about_peripheral_neuropathy](http://www.mskcc.org/pe/about_peripheral_neuropathy)).

**Pain**

Getting chemotherapy isn’t painful. However, some chemotherapy or the medications given to prevent low blood counts can cause aches between treatments. Some hormonal therapies can cause achy joints.

Tell your doctor or nurse if you have pain. Your doctor can adjust your medication or prescribe another medication to make you more comfortable.

You may experience different kinds of pain, including:

- Mild pain that comes and goes may be controlled with over-the-counter medications.
- More severe or chronic pain may be managed with prescription medications, acupuncture, acupressure, massage therapy, and, in some cases, radiation therapy.

You and your doctor can discuss what will work best for you. If you choose to take medications to treat your pain, talk with your doctor or nurse about the side effects. Constipation, nausea, and sleepiness are common side effects from pain medications.
MSK also has a Palliative Medicine Service. These doctors and nurses can help you manage pain and other symptoms, such as shortness of breath, nausea, and emotional issues (such as sadness, depression, and anxiety). For more information about the Palliative Medicine Service go to www.mskcc.org/cancer-care/palliative-care, or speak with your doctor about making an appointment.

**Sexual Intimacy and Cancer Treatment**

Breast cancer may change the way your chest or breasts look. This may be due to a tumor, radiation, or surgery. Although these changes can be covered by clothing, side effects such as hair loss may change the way you look in ways that can’t be hidden as easily. Changes in your body from chemotherapy and hormone therapy may affect:

- How you feel about yourself.
- Your comfort with exposing your body to another person.
- Your desire for sex
- How your body responds sexually.

**What you can do:**

- Talk with your partner. It’s the most important way to learn what you both are feeling. You may find that they’re worried about causing you pain or discomfort during sex.
- Talk with a member of your healthcare team.

**Resources for women**

- See a specialist in our Female Sexual Medicine and Women’s Health Program. For more information or to make an appointment, call 646-888-5076.
- Read additional resources, such as *Sex and the Woman with Cancer*, available from the American Cancer Society by calling 800-ACS-2345 (800-227-2345).

**Resources for men**
Sexual side effects in women

Some treatments can affect the level of your body’s hormones such as estrogen and progesterone. When this happens it can result in the following:

Menstrual cycle (period) changes
Some treatments may cause your periods to change (to heavy or light), become irregular, or stop. Your treatment plan may also include medication or surgery to stop your periods.

Mood changes
Due to changes in your hormones, you may experience changes in your mood.

Hot flashes
You may have hot flashes (sweats) that interfere with your daily routine or your sleep. For more information on how to manage hot flashes, read the resource Managing Your Hot Flashes Without Hormones (www.mskcc.org/pe/managing_hot_flashes).

What you can do:

- Check with your doctor before taking any herbs. Don’t use herbal remedies (such as oil of evening primrose, cohosh, or red clover). They can work like estrogen, which might stimulate breast tumors.
- Wear comfortable, loose-fitting cotton clothing.
- Ask your doctor or nurse how to manage or treat menopausal symptoms.
- Avoid hot foods and beverages, spicy food, caffeine, and alcohol.
- Drink 8 to 10 (8-ounce) glasses of liquids each day so that you don’t get
dehydrated.

For more information, read the resource *Managing the Health Effects of Menopause and Early Menopause* (www.mskcc.org/pe/managing_menopause).

**Vaginal dryness**

Hormonal treatments and menopause can cause changes to your body. These changes can affect your vagina. It can become drier, less elastic, narrower, and shorter.

You may or may not notice these changes. For example, if you're sexually active, vaginal intercourse may be painful. If you aren't having vaginal intercourse sexually active, this may not be a concern for you. However, these changes can make it hard for your doctor to do a pelvic exam. These exams are important to have after your treatment.

What you can do:

- Use vaginal moisturizers regularly, such as Replens®, Hyalo GYN®, KY Silk-E®, and vitamin E gel caps.

- Use lubricants during sexual activity to minimize discomfort. Examples include water-based lubricants (such as Astroglide®, K-Y® Jelly, or Liquid Silk®) or silicone lubricants (such as KY Intrigue® or Pjur® Eros Body Glide).

- Make foreplay last longer. This may increase your arousal.

- Assure your partner that vaginal dryness is a side effect of the treatment, not your lack of desire.

- Try different positions. Some may be better than others.

- See a specialist in our Female Sexual Medicine and Women’s Health Program. For more information or to make an appointment, call 646-888-5076.

For more information, read the resource *Improving Your Vulvovaginal Health* (www.mskcc.org/pe/improving_vulvovaginal_health).

**Skin changes**
Some cancer treatments can cause changes to your skin. You may have darkening of your skin, nails, tongue, and the veins in which you received the chemotherapy. You may also have general skin changes, including:

- Dryness
- Itchiness
- Cracking
- Sensitivity to sunlight

What you can do:

- Apply body lotion and hand creams while your skin is wet after you shower or bathe. We recommend using Eucerin®, CeraVe®, or Aquaphor®.
- Use a sunscreen with an SPF of 30 or higher every day.
- Wear broad-brimmed hats or baseball caps.
- Wear long-sleeved clothing when in the sun.
- Wear light-colored clothing.

Things to avoid:

- Long, hot baths or showers
- Being in direct sunlight

Contact your doctor or nurse if:

- Your skin is peeling or blistering.
- You have a rash.
- You have any new bumps on your skin.

**Taste changes**

Having a metallic taste in your mouth is common during treatment. Some foods may taste bland or unpleasant.
What you can do:

- Chew flavored gum.
- Suck hard candy to lessen the metallic taste. If it happens while you’re getting chemotherapy, ask your nurse for a candy.
- Ask your doctor or nurse to refer you to a dietitian for more suggestions.

Things to avoid:

- Eating foods that cause an unpleasant taste.

**Weight changes**

Some people gain weight during treatment, while others lose weight.

Weight gain can be due to:

- Fatigue, which decreases your activity level and causes you to burn fewer calories.
- Eating a lot of carbohydrates. Eating carbohydrates may help relieve nausea in some people.
- Overeating because some people are afraid that weight loss means they are sick.
- Drinking more juices and drinks high in sugar.
- Starting menopause during or after treatment can cause the metabolism to change.

What you can do

- Eat a well-balanced diet and avoid extra calories.
- Exercise regularly.
- Ask your doctor or nurse to refer you to a dietitian for more suggestions.

Weight loss can be due to:
- Nausea from medications.
- Mouth sores which make it hard to eat.
- The effects of cancer.
- Loss of appetite from medication, constipation or depression.

What you can do:

- Eat a well-balanced diet.
- Eat small frequent meals if you can’t finish a large meal.
- Add extra calories to your meals and by snacking in between.
- Ask your doctor if there are medications that can improve your appetite.
- Ask your doctor or nurse to refer you to a dietitian for more suggestions.

For more information, read the resource *Eating Well During Your Cancer Treatment* ([www.mskcc.org/pe/eating_cancer_treatment](http://www.mskcc.org/pe/eating_cancer_treatment)).

To learn more about cancer-related side effects, visit the American Cancer Society website at [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects)

**Frequently Asked Questions**

**Does someone need to come with me each time I have treatment?**

During your treatments you may receive medications that can make you very drowsy. If so, it wouldn’t be safe for you to drive a car or travel alone. It may be more convenient for a friend or family member to pick you up at the end of your treatment.

After your first treatment, you will have a better idea of how you feel and what works best for you. You can also ask your doctor or nurse whether you’re likely to feel drowsy after getting your medications.

**What can I eat before and after chemotherapy? Are there any foods to**
avoid?

It’s best to eat small regular meals before chemotherapy to prevent a heavy and full feeling. Food safety is important during treatment. Avoid raw or undercooked meat, fish, and poultry and unpasteurized products. Ask your nurse if you should review the resource *Low-Microbial Diet* ([www.mskcc.org/pe/low_microbial_diet](http://www.mskcc.org/pe/low_microbial_diet)).

Drink plenty of non-caffeinated liquids before and after your chemotherapy appointment to stay well hydrated.

**Do I still need to take my antinausea medication if I’m not nauseous?**

Always take your anti-nausea medication as instructed. Nausea and vomiting can occur on the same day or as late as the second or third day after chemotherapy.

Some medication works best if you take it before you become nauseated. If you’re still nauseated while taking your medication as instructed, call your doctor or nurse.

**Why wasn’t I able to receive my chemotherapy when it was scheduled?**

Chemotherapy works on both cancer cells and normal cells. Your chemotherapy is scheduled so that your body has time to recover between treatments. This allows normal cells to be replaced.

Your body may need more time to reverse the effects of chemotherapy (such as to allow mouth sores to heal or blood counts to rise to normal). Your doctor will decide if your chemotherapy should be postponed.

**My chemotherapy treatment was delayed because my ANC was low. What is an ANC?**

An ANC is an absolute neutrophil count. A neutrophil is a white blood cell that helps fight bacteria.

Your ANC is expected to fall 7 to 14 days after chemotherapy. If your ANC is low, your doctor may delay your treatment until it’s back to normal.
Can I do something to increase my blood counts?

Your blood counts will recover over time. Your doctor may prescribe medication to maintain or raise your white blood cell count. These are usually shots given between treatments. Sometimes treatment will be delayed to allow time for your blood counts to recover.

There is no evidence that vitamins or a special diet will speed the recovery of your blood counts. However, if your iron levels are low, you may be more likely to have anemia and may be advised to take iron supplements.

I have chills or a temperature above 100.4° F (38° C), but the doctor’s office is closed. How can I reach a doctor?

You can always reach a doctor. During evenings, weekends, or holidays, call the hospital operator at 212-639-2000. Ask for the doctor covering your doctor.

I haven’t lost my hair yet and my counts haven’t dropped. Does this mean that the chemotherapy isn’t working?

Not having side effects such as hair loss, lowered blood counts, or nausea doesn’t mean that the chemotherapy isn’t working. Different therapies cause different side effects, to varying degrees. Also, different people can react differently to the same treatment. Your doctor and nurse will monitor your progress and response to treatment.

What can I take for a headache?

You may take acetaminophen (Tylenol® or Extra Strength Tylenol®) for a headache.

If you feel that you have a fever or chills, check your temperature before you take acetaminophen. Otherwise, the acetaminophen may lower your temperature and hide a fever, which is usually the first sign of infection. Call your doctor or nurse if you have chills or a temperature greater than 100.4° F (38° C).

Ask your doctor or nurse if you may take medications containing aspirin or
Ibuprofen, since they may increase the chance for bleeding with some chemotherapy. Your nurse can give you a list of medications to avoid.

I've been having problems urinating. Is this normal?

Some chemotherapy can irritate the bladder. Side effects can be urgency, burning, or blood in the urine. These may be signs of an infection or irritation.

Call your doctor if you have any of these symptoms. You may need to give a urine sample to see what’s causing the symptoms.

Make sure that you drink 8 to 10 (8-ounce) glasses of liquids each day and empty your bladder frequently.

Can I still take my other prescription medications?

In most cases, you can continue to take your prescription medications. Tell your doctor the names of all the medications that you take, including patches and creams. Also tell your doctor about any herbs and supplements you take. These include the ones you need a prescription for and the ones you buy over the counter.

Some medications, herbs, or supplements change the way the chemotherapy works. Don’t start any new medications before checking with your doctor.

Can I take vitamins or mineral supplements?

Avoid most vitamins, mineral, herbal, or other dietary supplements. They might interfere with your treatment or affect your cancer. They might also increase the side effects of your treatment.

Talk with your doctor or dietitian about any vitamin, mineral, herbal or other dietary supplements you’re taking or may be interested in taking.

Can I drink alcohol?

Many chemotherapy and other medications are processed by the liver. So is alcohol, which can:
• Limit your liver’s ability to process the chemotherapy, causing more side effects.
• Interact with some medications and make them less effective.
• Cause your body to lose too much water.
• Cause too much drowsiness.

For these reasons, we recommend you limit alcohol during chemotherapy. If you feel you must drink, speak with your doctor or nurse.

**Can I have dental work?**

Don’t have any dental procedure that can cause bleeding as this may allow bacteria to enter your bloodstream. If your blood counts are low, you’re at a higher risk for a serious infection.

Check with your doctor before you schedule any dental work, including cleanings or surgery.

**Can I color or perm my hair?**

We advise you not to color or perm your hair. Chemicals are irritating to the hair follicles, which can speed up how fast your hair falls out during chemotherapy. If you must dye your hair, use a vegetable-based dye or discuss this further with your doctor.

**Is a wig or hair piece covered by insurance?**

People who lose their hair from cancer treatment may have insurance coverage for a wig or hair piece. In this case, your doctor should write a prescription for a “total cranial prosthesis for chemotherapy-induced alopecia” and include the breast cancer diagnosis code (C50.919) on the prescription. Check with your insurance company for details.

**Can I travel while I get chemotherapy?**
You may be able to travel, but this depends on your treatment and where you’re going. Before you make any plans, discuss them with your doctor. Your doctor will advise you on precautions to take depending on where you’re going.

It may also be necessary for you and your doctor to plan a treatment holiday or break week from your treatment so you can take extended trips. Consider getting travel insurance in case you have to cancel your trip for any reason.

**Will I be able to continue working?**

Many people with advanced breast cancer continue to work. Whether you can work depends on the type of work, side effects of treatment, and symptoms of your breast cancer. Speak with your doctor or nurse if you’re struggling to continue working or would like to take a leave of absence from work.

**Resources and Support Services at MSK**

We have many ways to support and help our patients understand and cope with cancer.

**Art Therapy**  
646-888-5397  
The art therapy group meets weekly in the group room, which is located within the library in the Evelyn H. Lauder Breast Center. It offers patients and families a chance to relax and be creative.

**Counseling Center**  
646-888-0200  
Many people find that counseling helps them deal with emotions during cancer treatment. We provide counseling for individuals, couples, families, and groups, as well as medications to help if you feel anxious or depressed.

**Evelyn H. Lauder Breast Center Boutique**  
646-888-5330  
Our boutique is located on the 2nd floor of the Evelyn H. Lauder Breast Center and is open Monday through Friday from 9:00 AM to 5:00 PM. You can browse or talk
with our experienced fitter for prostheses or breast forms. The boutique offers a large selection of headwear and head coverings, prosthetics, specialty bras, and bathing suits.

**Clinical Genetics Service**
646-888-4050
MSK’s Clinical Genetics Service offers genetic testing and counseling about you and your family members’ risk of getting certain cancers that are hereditary (passed through your genes).

**Integrative Medicine Program**
646-888-0800
Our Integrative Medicine Service offers many therapies to complement traditional medical care. Some of our services include music therapy, mind/body therapies, dance and movement therapy, yoga, and touch therapy. Our services are available to patients, their families and caregivers, and the general public. The Bendheim Integrative Medicine Center is located at 1429 First Avenue, at East 74th Street.

**Library**
646-888-5993
The library located in the Evelyn H. Lauder Breast Center has books and videos on breast health topics. Library materials are for use on-site. However, staff can help you make copies if there is information you want to take home. Many pamphlets are also available for you to keep. The library has computers with access to the Internet.

**Look Good Feel Better**
800-227-2345
Learn techniques to help you feel better about your appearance by taking a workshop or visiting the program online at [www.lookgoodfeelbetter.org](http://www.lookgoodfeelbetter.org)

**Nutritional Counseling**
646-888-4880
Our Nutrition Service offers nutritional counseling with one of our certified dietitians. Your dietitian will review your current eating habits and give advice on what to eat during and after treatment.
Occupational and Physical Therapy
646-888-1900
We offer a variety of rehabilitation services, including occupational and physical therapy. Physical therapy can help you to move and function better and improve your overall fitness and health. Occupational therapy can help you regain and build skills to help you function independently. Rehabilitation services can help you decrease pain and regain your independence. We offer both inpatient and outpatient services.

Palliative Medicine Service
646-888-2726
Our Palliative Medicine Service is dedicated to relieving pain and improving the quality of life for patients at MSK. Palliative care includes any treatment given to relieve the symptoms caused by cancer. Patients can get palliative care at any point during treatment.

Our doctors and nurses specialize in helping patients manage physical symptoms, such as pain, shortness of breath, and nausea, as well as emotional issues, such as sadness, depression, and anxiety. We work with the patient’s primary team, providing an extra layer of support. If you feel that you or your loved one may benefit from the care provided by the Palliative Medicine Service, talk with your doctor.

Patient-to-Patient Support Program
212-639-5007
Our Patient-to-Patient Support Program gives patients in active treatment and their caregivers the chance to speak with former patients and caregivers. Many patients and caregivers have found it helpful to speak with someone who has been through a similar treatment. These conversations may take place in person, over the phone, or through email.

Social Work
212-639-7020
Our social workers provide emotional support and guidance to patients and their families and friends. Some of our services include ongoing programs for patients
who are in treatment and their caregivers and in-person and online support groups. We can also help with practical issues such as transportation problems and financial concerns. Social workers are available on every patient floor of the main hospital and at all of the outpatient facilities, including our regional clinics.

**Sexual Health Program**
Cancer and cancer treatments can have an impact on your sexual health. MSK’s Sexual Health Program can help you take action and address sexual health issues before, during, or after your treatment.

- Our Male Sexual and Reproductive Medicine Program helps male patients who are dealing with cancer-related sexual health challenges, including erectile dysfunction. For more information, or to make an appointment, please call 646-888-6024.

- Our Female Sexual Medicine and Women’s Health Program helps female patients who are dealing with cancer-related sexual health challenges, including premature menopause and fertility issues. For more information, or to make an appointment, please call 646-888-5076.

**Tobacco Treatment Program**
212-610-0507
Our Tobacco Treatment Program at MSK can help you stop using tobacco, whether or not you’re a patient at MSK. We use a wide range of approaches to help you quit including medications and behavioral techniques. We are located at 641 Lexington Avenue between East 54th and East 55th Streets on the 7th floor.

**External Resources**

**American Cancer Society (ACS)**
[www.cancer.org](http://www.cancer.org)
800-ACS-2345 (800-227-2345)
Offers a variety of information and services, including Hope Lodge, a free place for patients and caregivers to stay during cancer treatment.

**CancerCare**
His Breast Cancer Awareness
www.hisbreastcancer.org
Offers education and information on male breast cancer.

Male Breast Cancer Coalition
malebreastcancercoalition.org
Patient advocacy organization that educates about male breast cancer.

Susan G. Komen
ww5.komen.org/BreastCancer/BreastCancerinMen.html
Provides information and support services for men with breast cancer.

SHARE
www.sharecancersupport.org
866-891-2392
Offers support groups for survivors of breast, metastatic breast, and ovarian cancer in Manhattan, Queens, Brooklyn, and Staten Island.

If you have any questions, contact a member of your healthcare team directly. If you're a patient at MSK and you need to reach a provider after 5:00 PM, during the weekend, or on a holiday, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.