

Understanding cancer treatment side effects

Although all cancer treatments have the potential to cause side effects, it is important to be aware that some side effects are preventable. Your healthcare team can give you tips to manage them and most side effects go away after treatment has ended. To get the most out of your treatment, it's important to know what side effects to expect and what you can do if they occur.

KNOWING WHAT TO EXPECT:

Knowing which side effects to expect can help you be better prepared to cope if they do occur.

Table 1 lists some common side effects of different cancer treatments. The chances of experiencing these side effects vary from person to person, between specific treatment regimens, and between different cancer types. Before you start treatment, your healthcare team will advise you on which side effects you may expect from your specific treatment.

Table 1: Cancer treatment side effects

TYPE OF CANCER TREATMENT	POSSIBLE SIDE EFFECTS
Surgery	<ul style="list-style-type: none"> ▶ infection ▶ pain ▶ bleeding ▶ fatigue ▶ loss of function in the area where the surgery was done (e.g., urinary incontinence or problems getting an erection after prostate surgery, bowel incontinence after colorectal cancer surgery, or breathing problems after lung surgery)
Radiation	<ul style="list-style-type: none"> ▶ fatigue ▶ mouth sores ▶ skin changes (redness, dryness, tenderness) ▶ infection ▶ erectile dysfunction ▶ urinary or bowel incontinence (depending on where radiation is applied; urinary incontinence may occur after prostate cancer radiation and bowel incontinence may occur after colorectal cancer radiation)
Hormone therapy	<ul style="list-style-type: none"> ▶ hot flashes and sweating ▶ breast tenderness ▶ loss of sex drive ▶ osteoporosis ▶ erectile dysfunction ▶ vaginal dryness
Chemotherapy	<ul style="list-style-type: none"> ▶ nausea and vomiting ▶ diarrhea ▶ hair loss ▶ mouth sores ▶ fatigue ▶ infection ▶ bleeding ▶ neuropathy (nerve changes; may cause numbness or tingling in the hands or feet, or throat tightness) ▶ skin rashes and hand-foot syndrome (dry, red, peeling skin on the palms and soles)

COPING WITH SIDE EFFECTS:

If you do experience side effects, it's important to know what you can do about them. Your doctor, pharmacist, and nurse can help you learn more about how to cope with side effects. Always let your health professional know about any side effects you are experiencing. Table 2 lists some ways to cope with common side effects. Do not take any medication without talking to your doctor first.

Table 2: Tips for prevention and management of common cancer treatment side effects

SIDE EFFECT	WAYS TO COPE
nausea and vomiting	<ul style="list-style-type: none"> ▶ Check with your doctor to see if you can be prescribed anti-nausea medications or more effective anti-nausea medications. ▶ Make some changes to your diet: eat small, light meals several times a day; avoid fatty or strong-smelling foods; and try sucking on ice chips or clear fluids. ▶ Try eating foods that are cold or at room temperature. ▶ Avoid preparing food - the smell can make you nauseous. ▶ Get plenty of rest and minimize movement while you are resting.
mouth sores	<ul style="list-style-type: none"> ▶ Talk to your doctor or pharmacist about medicated mouth rinses or ointments. ▶ Practice good oral hygiene. Ask your doctor whether to continue flossing your teeth. ▶ Ask your doctor, pharmacist, or nurse about preventative measures such as baking soda rinses. ▶ Visit a dentist regularly to make sure your teeth and gums are healthy (or your dentures are in good condition).
fatigue	<ul style="list-style-type: none"> ▶ Conserve energy: whenever possible, sit instead of stand; use prepared convenience foods; and use a cart to carry heavy items. ▶ Organize your time and prioritize activities so you don't have to rush. ▶ Delegate some of your tasks to others. ▶ Plan your work and activities for times when you are at your peak energy levels. ▶ Mild exercise can help keep up energy levels. ▶ Eat a healthy diet. ▶ Get plenty of rest.
hair loss	<ul style="list-style-type: none"> ▶ Use a wig or head wrap. Ideally, buy it before treatment so you will have it when you need it; see if it can be adjusted, as you may need a smaller wig after you lose your hair. ▶ To reduce hair loss, handle your hair gently: avoid excessive hair brushing or using heat on your hair (e.g., blow dryers, curling irons). ▶ Wear a hair net at night - this can stop hair from falling out in clumps.

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SIDE EFFECT	WAYS TO COPE (continued from previous page)
skin care, skin rashes and hand-foot syndrome	<p>General instructions for skin care:</p> <ul style="list-style-type: none"> ▶ Apply moisturizers to your skin frequently. ▶ Protect your skin from the sun with sunscreen or clothing. ▶ Protect your skin from the cold by wearing warm clothing. ▶ Avoid products containing perfumes. ▶ Avoid long hot baths. ▶ Keep your skin clean, but don't scrub. Gently pat your skin dry after washing. <p>For skin rashes: follow the general instructions for skin care above, plus:</p> <ul style="list-style-type: none"> ▶ If your rash causes discomfort, let your doctor know. Your doctor may recommend medicated creams or medications taken by mouth to help manage your rash. ▶ Let your doctor know if you have a fever, flu-like symptoms, blistering or peeling skin, or a rash involving large areas of the body. These could be symptoms of a severe skin rash. You should also call your doctor if you have a rash affecting your mouth or nose, a fever, or a painful rash. ▶ Get emergency medical attention if you have hives with swelling of the face or throat, or difficulty breathing. These are symptoms of a serious allergic reaction. ▶ In some cases, your doctor may decide to adjust your treatment if you experience a skin rash. <p>For hand-foot syndrome: follow the general instructions for skin care above, plus:</p> <ul style="list-style-type: none"> ▶ If your feet have calluses, have a pedicure before you start treatment. ▶ Don't expose your hands and feet to heat: bathe in warm water, and soak your hands and feet in cold water for 15 minutes 3 to 4 times a day as directed by your doctor. ▶ Do not rub or put pressure on hands or feet (e.g., avoid gripping objects, applying tight dressings, and unnecessary walking or running). ▶ Wear comfortable, loose-fitting, well-cushioned shoes. ▶ Tell your doctor if your palms or soles are red or tender. ▶ If you have pain due to hand-foot syndrome, talk to your doctor about using a non-prescription pain reliever. Your doctor may also recommend other medications to treat hand-foot syndrome
infections	<ul style="list-style-type: none"> ▶ Avoid large crowds and people who are ill. ▶ Don't clean fish tanks or handle pet feces. ▶ Wash your hands frequently. ▶ Eat a healthy diet with plenty of fluids (make sure you clean and cook your food well to avoid food-borne infections). ▶ If you have had surgery, follow your healthcare provider's instructions on caring for your wound. ▶ If you develop a fever, get immediate medical attention. You should also let your doctor know if you have other symptoms of an infection, such as redness or swelling around an injection site or a cut, coughing up mucus, or a sore throat.
bleeding	<ul style="list-style-type: none"> ▶ Have regular blood tests as recommended by your doctor. These tests can help the doctor tell whether you are at risk of bleeding. ▶ If you notice signs of bleeding (such as black or bloody stools, unexplained bruising, blood in the urine, nosebleeds, vomiting blood, or coughing up blood), get immediate medical attention.

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SIDE EFFECT	WAYS TO COPE (continued from previous page)
neuropathy (nerve changes)	<ul style="list-style-type: none"> ▶ Let your doctor know if you are having symptoms of nerve changes (such as tingling or numbness in the hands and feet or throat tightness) that are interfering with your daily activities. Your doctor may prescribe a medication to help you feel more comfortable. ▶ Cold temperatures can trigger the symptoms of nerve changes. Don't touch cold objects, do not breathe deeply in the cold air, and do not put ice packs on your body. Do cover your skin when going outdoors in cold temperatures, use gloves when taking things out of the freezer, and avoid eating cold foods or drinking cold beverages.
incontinence	<ul style="list-style-type: none"> ▶ If you are experiencing urinary incontinence (bladder control problems that cause you to leak urine) or bowel incontinence (problems controlling the bowels, leading to leakage of bowel contents), talk to your doctor, pharmacist, or nurse about treatment options. Often, these conditions can be managed with medications, exercises, and devices.
erectile dysfunction	<ul style="list-style-type: none"> ▶ If you are having erectile dysfunction (trouble getting or keeping an erection), talk to your doctor. Your doctor can investigate the cause and recommend treatment options. ▶ Get your partner involved. Talk to your partner about your erectile dysfunction and how you can work together to cope. You may want to visit the doctor together to discuss treatment options.
diarrhea	<ul style="list-style-type: none"> ▶ Before starting treatment, tell your doctor if you have any bowel problems or if you are taking laxatives. ▶ Your doctor may recommend a medication to help control diarrhea. <p>Tell your doctor, pharmacist, or nurse right away if:</p> <ul style="list-style-type: none"> ▶ you notice diarrhea or stomach cramps during your treatment or a few hours after treatment ▶ you have diarrhea for the first time during your treatment (even if it starts several days after your treatment). ▶ you cannot get the diarrhea under control (using a recommended medication) within 24 hours ▶ you have diarrhea and a fever ▶ you have diarrhea and vomiting for more than 12 hours ▶ you are getting dehydrated (you may notice lightheadedness, dizziness, fainting, pale skin, decreased urination, and confusion or irritability)
osteoporosis	<ul style="list-style-type: none"> ▶ Before starting treatment, let your doctor know if you have osteoporosis or low bone mass (thin bones) and whether osteoporosis runs in your family. You should also let your doctor know whether you are using corticosteroids (e.g., prednisone) or epilepsy medications as these medications can increase your risk of osteoporosis. ▶ Follow your doctor's treatment plan for reducing your risk of osteoporosis. This may include bone mineral density (BMD) scans, increasing your calcium and vitamin D intake, and medications to prevent osteoporosis.
hot flashes	<ul style="list-style-type: none"> ▶ Dress in layers so that you can quickly remove a layer when a hot flash starts. ▶ Keep a fan handy so you can turn it on during a hot flash (when possible, you can also open a window). ▶ Drink a cool drink or place a cool cloth on your head during hot flashes. ▶ If your hot flashes are severe or bothersome, speak to your doctor, nurse, or pharmacist.

WORKING WITH YOUR DOCTOR, NURSE, AND PHARMACIST:

The side effects listed here are just a summary. Not everyone who uses these treatments will experience these side effects, and some people may experience side effects other than the ones listed here.

Because each person's risk is different, there is no way to predict for sure which side effects you may experience. However, it's important to know that some side effects may be preventable, manageable, or reversible. Be sure to discuss the risks and benefits of your treatment with your doctor, nurse, and pharmacist.

 **Print this tool** and bring it when you visit your healthcare professional.