

Patient Treatment Information

CMF

Your chemotherapy treatment is called CMF. It is commonly used to treat breast cancer and has also been used to treat other diseases. CMF is made up of three chemotherapy drugs:

- cyclophosphamide (syeh-kloe-FOSS-fa-mide)
- methotrexate (meth-o-TREX-ate)
- 5-fluorouracil (5FU), (five-flure-oh-YOOR-a-sill)

These drugs prevent cancer cells from dividing and growing, and can eventually cause the cancer cells to shrink and die.

What Do I Need to Know Before Starting Chemotherapy?

Be sure to tell your healthcare provider about any prescription or over-the-counter products you are taking, including dietary supplements, vitamins, herbal medicines and homeopathic remedies.

Use an effective birth control method while you are being treated. Chemotherapy drugs can cause harm to a fetus, so be sure to tell your healthcare provider right away if you or your partner become pregnant.

Avoid breastfeeding during treatment. It is not known if chemotherapy drugs pass into breast milk.

Some chemotherapy drugs can cause sterility. Talk with your healthcare provider about your options if you want to have children in the future.

Do not get any immunizations or vaccinations while taking chemotherapy drugs without the approval of your healthcare provider.

What Do I Need to Know Before Starting This Treatment?

Cyclophosphamide can cause delayed wound healing.

Cyclophosphamide can cause bleeding in the bladder. Talk with your healthcare provider about drinking extra fluids and emptying your bladder frequently to reduce the risk of this side effect. Call your healthcare provider right away if you have painful, frequent or difficult urination or blood in the urine.

Methotrexate can damage the liver. Avoid drinking alcohol while taking this medicine since it can increase the risk of liver damage.

Methotrexate can make the skin more sensitive to the sun. Try to stay out of direct sunlight and wear protective clothing, sunglasses and sunscreen when outside.

High doses of methotrexate can cause headache, confusion, sleepiness, coordination problems, seizures and vision changes. Tell your healthcare provider if you have any of these symptoms.

5-FU can cause heart problems such as an irregular heart beat, angina, electrocardiographic (EKG) changes heart attack and heart failure. These side effects may be more common in patients with a history of heart disease. Call your healthcare provider immediately if you develop heart problems.

Your treatment can interact with other medicines, including:

- Non-steroidal anti-inflammatory drugs such as aspirin, ibuprofen or naproxen
- Phenytoin (Dilantin)
- Warfarin (Coumadin)
- Cimetidine (Tagamet)
- Digoxin (Lanoxin)
- Penicillins and sulfa drugs

You should not take this treatment if you:

- Are allergic to cyclophosphamide, methotrexate, 5FU or any components of these drugs.
- Have a condition known as dihydropyrimidine dehydrogenase (DPD) deficiency.

How Is the Treatment Given?

Your healthcare provider will give you your treatment by injection into a vein. The dose you receive will be based on your weight and height. Your healthcare provider will determine the number of treatments you receive.

You may be given medicines to help prevent and control nausea and vomiting before you receive your treatment. These medicines may be given either by mouth or by injection into a vein.

What Are the Important Side Effects?

All drugs can cause side effects, but every person reacts differently to each drug. The following chart lists important side effects that can occur with your treatment, how often the side effect occurs (common, less common or rare), how to recognize and minimize side effects and possible treatments. Call your healthcare provider if you have any questions or concerns about side effects.

Potential Side Effects	How to Minimize Side Effects	Possible Treatments
<p>Infection (Common)</p> <ul style="list-style-type: none"> • Fever and chills • Painful urination • Sore throat and cough • Nasal congestion • Swelling or redness of the skin at the site of a wound 	<ul style="list-style-type: none"> • Wash your hands often. • Brush and floss your teeth daily. • Clean cuts right away with warm water, soap and antiseptic. • When your white blood cell count is low, stay away from crowds and people with colds or other illnesses. 	<ul style="list-style-type: none"> • You may be given medicine to increase your white blood cell count. • You may be given an antibiotic to treat or prevent infection. • Your healthcare provider may decrease your chemotherapy dose or delay further chemotherapy.
<p>Anemia (Common)</p> <ul style="list-style-type: none"> • Fatigue or weakness • Dizziness • Pale skin • Feeling out of breath • Feeling cold 	<ul style="list-style-type: none"> • Plan rest periods throughout the day. • Organize daily activities so that you conserve your energy. • Try to eat a well balanced diet and drink plenty of fluids. • When changing positions from sitting or lying down, stand up slowly to avoid getting dizzy. 	<ul style="list-style-type: none"> • You may be given medicine to increase your red blood cell count. • Your healthcare provider may decrease your chemotherapy dose or delay further chemotherapy.
<p>Mouth Sores and Pain (Common)</p> <ul style="list-style-type: none"> • Pain, swelling and redness of the mouth, tongue and throat • “Coated tongue” • Difficulty talking, swallowing or eating • Bleeding ulcers and infection 	<ul style="list-style-type: none"> • Brush teeth two to four times a day using a soft bristle brush and fluoride toothpaste. • Use non-waxed dental floss daily. • Ask your healthcare provider to recommend a mouthwash that does not contain alcohol. • Sip water during the day and use sugar-free candy or chewing gum to keep your mouth wet. • Eat food cold or at room temperature. • Eat soft or pureed food. • Avoid food that is acidic, spicy, salty, dry or rough, such as toast. 	<ul style="list-style-type: none"> • You may be given medicine to help treat pain. • You may be given medicine to treat fungal or viral infections.
<p>Nausea/Vomiting (Common)</p> <ul style="list-style-type: none"> • Feeling queasy or sick to your stomach 	<ul style="list-style-type: none"> • Eat small, frequent meals and bland foods—such as bananas, rice, applesauce and toast. • Eat food cold or at room temperature so the smell of food will not bother you. • Avoid fried, spicy or fatty foods. • Eat and drink slowly. • Drink plenty of liquids during the day, but to avoid bloating, do not drink during meals. 	<ul style="list-style-type: none"> • You will be given medicine to help reduce nausea and vomiting.

Potential Side Effects	How to Minimize Side Effects	Possible Treatments
<p>Diarrhea (Common)</p> <ul style="list-style-type: none"> Loose or watery stools several times a day Abdominal cramping, gas and bloating 	<ul style="list-style-type: none"> Eat small, frequent meals and bland foods—such as bananas, rice, applesauce and toast. Avoid caffeine; alcohol; raw fruits and vegetables; raw eggs; undercooked meats; spicy, fatty and greasy foods; milk and dairy products; foods that cause gas, such as beans and other legumes; high fiber and high-fat foods; foods left un-refrigerated for more than two hours (one hour for egg dishes and cream or mayonnaise-based foods); bulk laxatives; and stool softeners. 	<ul style="list-style-type: none"> Drink eight to ten glasses of clear liquids every day. Your healthcare provider may prescribe medicine to help treat diarrhea.
<p>Alopecia or Hair Loss (Common)</p> <ul style="list-style-type: none"> More than normal amount of hair loss in your brush, in the shower or on your pillow after sleeping Loss of body hair 	<p>Alopecia cannot be prevented but here are tips to help with hair loss:</p> <ul style="list-style-type: none"> Use a soft hairbrush. Do not use brush rollers, color treat your hair or get a permanent. Avoid daily hair washing, use a mild shampoo and avoid using a hairdryer, or use a low setting if you must use one. Have your hair cut short; this will make it look fuller. Your insurance might cover a wig. If you would like a wig, ask your healthcare provider for a prescription for a "hair prosthesis". Your hair color and style can be better matched if you shop for a wig before losing a lot of hair. Use sunscreen or wear a hat or scarf to protect your scalp from the sun. 	
<p>Anorexia or Appetite Loss (Less Common)</p> <ul style="list-style-type: none"> Not having an appetite Feeling too nauseous to eat Metallic or medicinal taste Change in taste causing dislike for certain foods 	<ul style="list-style-type: none"> Try eating six to eight small meals or snacks each day instead of three larger meals. Vary your diet and try new foods and recipes. Take a walk before meals, when possible. This may make you feel hungrier. Eat with friends or family. When eating alone, listen to the radio or watch TV. 	<ul style="list-style-type: none"> Cook dinners ahead of time and freeze them in small portions so that cooking smells are minimized. Let others help with food, but ask that foods be prepared in small portions that can be frozen. And don't hesitate to let them know which foods to avoid. Add mild spices to change flavor. It might be helpful to have a program, such as Meals on Wheels, deliver food to you.
<p>Neuropathy (Less Common)</p> <ul style="list-style-type: none"> Numbness or tingling feeling in the hands or feet Muscle cramps Loss of balance Difficulty buttoning buttons or picking up objects Decreased awareness of heat or cold in fingertips and toes Difficulty hearing 	<ul style="list-style-type: none"> Try to avoid the cold or extreme heat. Wear mittens or gloves, socks and scarves. If your fingers are numb, be careful with sharp objects. Beware of hot coffee mugs, pots and pans and dishwasher—you may not feel the heat until you are burned. If you feel unsteady, be careful on stairs and in the shower. 	<ul style="list-style-type: none"> Your healthcare provider may decrease your chemotherapy dose or delay further chemotherapy.
<p>Constipation (Less Common)</p> <ul style="list-style-type: none"> Difficulty in passing stools Decrease in the normal frequency of bowel movements Small, hard dry stools Bloating, gas, cramps and pain 	<ul style="list-style-type: none"> Drink plenty of fluids to help loosen your bowels. Drink warm or hot liquids if you do not have mouth sores. Eat foods that are high in fiber, such as bran, vegetables, whole wheat breads, and fruit. Add prunes or prune juice, which act as laxatives. Exercise can help loosen bowels. 	<ul style="list-style-type: none"> Your healthcare provider may recommend a stool softener.
<p>Bleeding (Rare)</p> <ul style="list-style-type: none"> Unusual bleeding, easy bruising Black or tar-like stools Blood in your urine Pinpoint red spots on your skin Bleeding gums or nosebleeds 	<ul style="list-style-type: none"> Avoid aspirin and aspirin-like drugs, such as ibuprofen. Use caution with sharp objects, such as razors and nail cutters. Avoid activities that can cause cuts, bumps and bruises. 	<ul style="list-style-type: none"> You may be given medicine to increase your platelet count. Your healthcare provider may decrease your chemotherapy dose or delay further chemotherapy.

Are There Other Possible Side Effects?

The following chart lists additional side effects found with this treatment. It does not list all possible side effects. For more information, talk with your healthcare provider.

Common Side Effects	Less Common Side Effects	Rare Side Effects
<ul style="list-style-type: none"> • Skin reactions such as rash and discoloration • Elevations of liver function tests • Darkening of nail beds • Stopping of menstrual periods in women or premature menopause • Fatigue • Chills and fever 	<ul style="list-style-type: none"> • Weakness • Dry skin • Heartburn, stomach ulcers or bleeding • Congestion or sneezing • Eye irritation • Kidney damage • Skin changes in areas previously treated with radiation • Blurred vision • Dizziness 	<ul style="list-style-type: none"> • Sensitivity of the skin to the sun • Headache • Heart or lung problems • Scarring of lung tissue • Rash or itching • Secondary cancer or leukemia • Lung inflammation or infections with a fever, cough and shortness of breath • Damage or death to soft tissue or bone when given with radiation

When Should I Contact My Healthcare Provider?

Contact your healthcare provider if you have any of the following symptoms:

- Vomiting that is severe or lasts several hours
- Diarrhea that causes an additional four bowel movements a day, diarrhea at night or diarrhea with fever, cramps or bloody stools
- Shaking chills or fever higher than 100.5 degrees F
- Painful or frequent urination or blood in your urine
- Unusual bleeding, easy bruising or pinpoint red spots on your skin
- Inability to eat or weight loss
- Irregular or rapid heart beat
- Chest pain, chest tightness or shortness of breath
- Dizziness or feeling lightheaded
- Confusion, sleepiness, coordination problems, seizures or vision changes
- Pain, redness, swelling or sores in your mouth or throat that interfere with eating

Notes

Disclaimer. The drug information presented is time-sensitive and current as of the date stated below. It is not a substitute for the expertise, skill, knowledge and judgment of healthcare practitioners. Additional, important information about this product, including “black box” warnings and precautions, is available from the manufacturer and other sources. ONMARK PROVIDES THIS DRUG INFORMATION ON AN “AS IS” BASIS. ALL WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED.

Limitation of Liability. Onmark shall not be liable for any improper or incorrect use of the information described and contained herein and assumes no responsibility for anyone’s use of the information. IN NO EVENT SHALL ONMARK BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OR SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS INFORMATION, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This document is a complimentary service provided by Onmark for its members. www.onmarkservices.com
 © 2006 Onmark, Inc. Onmark is a trademark of Oncology Therapeutics Network

November 2006

