

Patient Treatment Information

TCH

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

- docetaxel (doe-se-TAX-el) or Taxotere® (TAX-o-teer)
- carboplatin (KAR-boe-pla-tin) or Paraplatin® (pair-a-PLA-tin)
- trastuzumab (tras-TOO-ze-mab) or Herceptin® (her-SEP-tin)

Docetaxel and carboplatin prevent cancer cells from dividing and growing, and can eventually cause the cancer cells to shrink and die. Trastuzumab is a new type of drug, called a monoclonal antibody, which targets cancer cells more precisely than chemotherapy drugs.

What Do I Need to Know Before Starting Treatment?

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 taking these drugs. 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 these 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 TCH?

Docetaxel, carboplatin and trastuzumab can all cause allergic reactions. Tell your healthcare provider right away if you develop a rash, itching, fever, chills, shortness of breath, chest tightness, trouble breathing, hives or a rash while you are being treated.

Docetaxel can cause edema, or fluid retention. This means your body is holding extra water. It usually begins after the fourth treatment and gradually goes away within weeks or months after the treatment is complete. Symptoms include a slight weight gain or swelling in the feet and legs. In rare cases, fluid can accumulate in the chest and around the heart.

Your healthcare provider will prescribe a medicine called dexamethasone to help reduce the risk of fluid retention and allergic reactions. It is important that you take the medicine as directed. If you miss a dose or take the medicine at the wrong time, tell your healthcare provider before your treatment.

Trastuzumab can cause heart problems, such as an irregular heartbeat and, in rare cases, heart failure. Those who have heart disease or who have received certain chemotherapy drugs are at higher risk for heart damage. Tell your healthcare provider if you have been treated with chemotherapy or if you have heart disease. Call your healthcare provider immediately if you have shortness of breath, increased cough, rapid heartbeat or swelling of the feet or ankles.

Trastuzumab commonly causes a mild to moderate infusion reaction with the first treatment. The symptoms usually occur during treatment or within 24 hours of treatment. The most common symptoms are chills and fever, but can also include nausea, vomiting, headache, dizziness, shortness of breath and body pain. In rare cases, the infusion reaction can be severe, causing lung problems and trouble breathing.

In rare cases, the allergic reactions and heart problems caused by TCH can be severe and life-threatening.

Your treatment can interact with other medicines, including:

- Ketoconazole (Nizoral®), fluconazole (Diflucan®) or itraconazole (Sporanox®)
- Cimetidine (Tagamet®)
- Diltiazem (Cardizem®, Cartia®, Diltia XT®, Tiazac®, Dilacor XR®), verapamil (Calan®, Covera-HS®, Isoptin®, Verelan®) or nifedipine (Adalat®, Procardia®)

- Drugs that cause harm to the kidney, such as amphotericin B and aminoglycosides, including tobramycin, gentamicin and amikacin

Please note this list is a summary and does not contain all possible drug interactions. Contact your healthcare provider if you are taking any medications that can interact with your treatment.

You should not take TCH if you are allergic to docetaxel, carboplatin, trastuzumab, Chinese hamster ovary cell proteins or any other components of these drugs. Tell your healthcare provider if you are allergic to benzyl alcohol. You can still take trastuzumab, but it will have to be mixed differently.

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.

If you are given any medicine to take at home, do not share it with others. Sharing this medication with anyone else could be harmful.

When Should I Call My Healthcare Provider?

Call your healthcare provider right away if you have any of the following symptoms:

- Shaking chills or fever of 100.5 degrees F or higher
- Unusual bleeding, easy bruising or pinpoint red spots on your skin
- Vomiting that is severe or lasts several hours
- Painful or frequent urination or blood in your urine
- Diarrhea that causes an additional four bowel movements a day, diarrhea that lasts more than one day, diarrhea at night or diarrhea with fever, cramps or bloody stools
- Irregular or rapid heart beat, chest pain, chest tightness or shortness of breath
- Dizziness or feeling lightheaded
- Inability to eat or weight loss

What Are the Possible Side Effects?

All drugs can cause side effects, but every person reacts differently to each drug. The following chart lists the possible side effects that can occur with your treatment, how to recognize and minimize symptoms and possible treatments. The side effects are grouped by how often the side effect occurs: Common (occurs in more than 25 percent of patients), Less Common (occurs in 5 to 25 percent of patients) or Rare (occurs in less than 5 percent of patients).

Side Effect	How to Minimize Side Effect	Possible Treatments
Risk of Infection (Common) <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.
Nausea/Vomiting (Common. Symptoms are generally mild to moderate but can be severe.) <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, drink small amounts of liquid during meals. 	<ul style="list-style-type: none"> • You will be given medicine to help reduce nausea and vomiting.

Side Effect	How to Minimize Side Effect	Possible Treatments
<p>Alopecia or Hair Loss (Common. Usually causes complete hair loss.)</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>Neuropathy (Common. Symptoms are generally mild.)</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>Mouth Sores and Pain (Common. Symptoms are generally mild.)</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 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>Fluid Retention (Common. Symptoms are generally mild.)</p> <ul style="list-style-type: none"> • Swelling around the eyes, lower legs, ankles, feet or abdominal area • Rapid weight gain 	<ul style="list-style-type: none"> • Check your weight regularly. • Try to avoid eating salty foods, as this can cause fluid retention. 	<ul style="list-style-type: none"> • You may be given a diuretic (water pill) to reduce the amount of fluid in your body. • Your healthcare provider may decrease your chemotherapy dose or delay further chemotherapy.
<p>Nail Changes (Common)</p> <ul style="list-style-type: none"> • Darkening of the nails that usually grows out with the nail • Vertical or horizontal bands on the nails 	<ul style="list-style-type: none"> • Trim nails often and keep them clean. • Wear gloves for cleaning and gardening to minimize damage and prevent infection. • Don't wear nail polish or false fingernails until the nails have grown out and returned to normal. 	<ul style="list-style-type: none"> • You may be given an antibiotic if there is an infection in the nail bed.
<p>Anemia (Less 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. • 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>Bleeding (Less Common)</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 need to decrease the dose or delay further chemotherapy.

Side Effect	How to Minimize Side Effect	Possible Treatments
<p>Diarrhea (Less Common. Symptoms are generally mild to moderate.)</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>Rash (Less Common. Symptoms are generally mild to moderate.)</p> <ul style="list-style-type: none"> Usually mild and short-lived Generally appears on the arms and trunk (occasionally on the face) May be itchy May appear as a flat, discolored area on the skin or as a small raised bump 	<ul style="list-style-type: none"> Avoid prolonged exposure to heat. Use creams or moisturizers regularly. Try wearing cotton gloves on your hands. Avoid using perfume, cologne or aftershave since these products can be irritating to the skin 	<ul style="list-style-type: none"> Your healthcare provider may prescribe creams (mild steroids, antihistamines or antibiotics) to help treat the rash. The rash may improve on its own without any treatment.

What Are the Other Possible Side Effects?

The chart below lists additional side effects found with the individual drugs in 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"> Weakness and fatigue Headache Muscle or joint pain Coughing Stopping of menstrual periods or premature menopause 	<ul style="list-style-type: none"> Congestion or sneezing Shortness of breath Eye irritation or excessive tearing Darkening of the soles of the feet or palms Nosebleeds Dizziness 	<ul style="list-style-type: none"> Scarring of lung tissue Ulceration of the colon Hearing loss or ringing in the ears High or low blood pressure Abnormal heart beat Heart failure

Notes

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References:

1. Slamon D, et al. Phase III randomized trial comparing doxorubicin and cyclophosphamide followed by docetaxel (AC→T) with doxorubicin and cyclophosphamide followed by docetaxel and trastuzumab (ACTH) with docetaxel, carboplatin and trastuzumab (TCH) in HER2 positive early breast cancer patients: BCIRG 006 study. SABCs 2005; abstract 1.
2. Robert N, et al. BCIRG 006: Docetaxel and trastuzumab-based regimens improve DFS and OS over AC-T in node positive and high risk node negative HER2 positive early breast cancer patients: Quality of life (QOL) at 36 months follow-up. Proc Am Soc Clin Oncol. 2007; abstract 19647.
3. Slamon D. et al. BCIRG 006: 2nd interim analysis phase III randomized trial comparing doxorubicin and cyclophosphamide followed by docetaxel (AC→T) with doxorubicin and cyclophosphamide followed by docetaxel and trastuzumab (AC→TH) with docetaxel, carboplatin and trastuzumab (TCH) in Her2neu positive early breast cancer patients. SABCs 2006; abstract 52.
4. BCIRG 007 (TH vs TCH) presentation available at:
http://www.bcirg.org/NR/rdonlyres/eu6u67daxlu5jattaa7jvonq4qlgbidbsq7qcwcomb2lrigp7xrkyqwuhv6spufszsfggk47auknhryfnwisa7eakwc/BCIRG_007_ASCO_presentation_final.pdf