

Transarterial Chemoembolization (TACE)

What to expect

This handout explains the purpose of transarterial chemoembolization. It describes what you can expect before, during, and after treatment.

What is transarterial chemoembolization?

Chemoembolization is used to treat tumors. It puts a large dose of *chemotherapy* (chemo) drugs right into the tumor. This puts more of the drugs right on the cancer cells and lessens the effect of the drugs on other tissues.

In *transarterial chemoembolization* (TACE), the small blood vessels that supply blood and nutrients to the tumor are also blocked (*embolized*). Blocking the blood supply slows tumor growth.

When is TACE used?

TACE is used most often to treat liver cancer. It can also be used to treat cancer that started in another area of the body but has spread to the liver. A group of experts on liver tumors has determined that TACE is the best treatment for you right now.

How does TACE work on liver tumors?

The liver is unique because it gets blood in 2 ways: from a large *portal vein* and from the *hepatic artery*.

Healthy liver tissue:

- Gets most of its blood supply from the portal vein
- Gets a much smaller amount of blood from the hepatic artery

But a liver tumor:

- Gets most of its blood supply from the hepatic artery
- Gets almost no blood supply from the portal vein

This means that if a chemotherapy drug is injected into the hepatic artery, most of the drug ends up in the tumor. Very little of the drug reaches healthy liver tissue.

How is it done?

TACE is done by an *interventional radiologist*, a doctor or advanced practice provider who specializes in this type of procedure.

- An *anesthetic* (numbing medicine) will be applied to your skin. It will sting for 5 to 10 seconds. Then the area will be numb, and you will not feel pain.
- Your doctor will make a very small incision (less than ¼ inch long) in your groin or wrist.



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- Your doctor will then thread a *catheter* (small plastic tube) from an artery in your groin or wrist into the artery in your liver that carries blood to the tumor. X-ray images will help your doctor put the catheter in exactly the right place. Chemotherapy is sent through the catheter into the tumor.
- Then, tiny beads are injected into the artery. These beads travel toward the tumor and block its blood supply (embolization).

What chemotherapy drugs are used?

Many different chemotherapy drugs may be used in your treatment. Most people receive only doxorubicin (Adriamycin).

What are the side effects?

We give you the chemotherapy drugs in a way that keeps them mostly in the liver. This means that your system will absorb the chemotherapy drugs very slowly.

This lessens, but does not get rid of, the short-term side effects that people often have from chemotherapy. The most common side effects are fever, chills, nausea, mild abdominal pain, and fatigue.

Are there any risks?

All medical procedures involve some risk. But the potential benefits of TACE far outweigh the risks.

The most common complications are:

- Bleeding or artery injury where the catheter is inserted.
- Liver function gets worse.
- Infections (such as a liver abscess). You will be given antibiotics prior to your procedure to reduce this risk.
- The risk of a serious complication is about 5% (5 out of 100 people). One of your doctors will talk with you about your risks before you start TACE. Please be sure to ask all of your questions and talk about any concerns you have.

Sedation

Before your procedure, you will be given a *sedative* (medicine to make you relax) through an *intravenous line* (IV) in one of your arm veins. You will stay awake but feel sleepy. This is called *moderate sedation*. You will still feel sleepy for a while after the procedure.

For some people, using moderate sedation is not safe. If this is true for you, you will need *general anesthesia* (medicine to make you sleep during the procedure).

Let us know **right away** if you:

- Have needed anesthesia for basic procedures in the past
- Have *sleep apnea* or other breathing problems (you might use a CPAP or BiPAP device while sleeping)
- Use high doses of prescription painkiller

- Have severe heart, lung, or kidney disease
- Cannot lie flat on your back for about 1 hour because of back or breathing problems
- Have a hard time lying still during medical procedures
- Weigh more than 300 pounds (136 kilograms)

If you have any of these health issues, we may need to give you different medicines. Instead of a sedative, you might receive:

- Only a *local anesthetic* (numbing medicine), such as lidocaine.
- *Minimal sedation* (a local anesthetic and a pain or anxiety medicine).
- *General anesthesia* (medicine to make you sleep). This medicine is given by an anesthesia care provider.

Before Your Procedure

A nurse will call you within 5 days of your procedure. The nurse will give you important instructions and answer any questions you have.

- If you do not understand English well enough to understand the instructions from the nurse or the details of the procedure, tell us right away. We will arrange for a hospital interpreter to help you. A family member or friend **cannot** interpret for you.
- Most patients need blood tests done before this procedure. We may be able to do your blood tests when you arrive for your procedure. We will tell you if we need a blood sample before that day.
- If you take any blood-thinning medicines (such as Coumadin, Lovenox, Fragmin, or Plavix), you may need to stop taking the medicine for 3 to 9 days before your procedure. Do NOT stop these medicines unless your doctor or nurse has told you to do so. We will give you instructions as needed.
- You must arrange for a responsible adult to drive you home after your procedure and stay with you the rest of the day. You **cannot** drive yourself home or take a bus, taxi, or shuttle.

The Day of Your Procedure

To prepare for sedation, follow these instructions exactly.

Starting at midnight, the night before your procedure

- Do not eat or drink anything.
- Do not take any of the medicines that you were told to stop before this procedure.
- If you must take medicines, take them with only a sip of water. Do not skip them unless your doctor or nurse tells you to.
- Do not take vitamins or other supplements. They can upset an empty stomach.

Bring with you to the hospital a list of all the medicines you take.

Please plan to spend most of the day in the hospital. If there is a delay in getting your procedure started, it is usually because we need to treat other people who have unexpected and urgent health issues. Thank you for your patience if this occurs.

At the Hospital

A staff member will give you a hospital gown to put on and a bag to put your belongings in. You may use the restroom at that time.

A staff member will take you to a pre-procedure area. There, a nurse will do a pre-procedure assessment. A family member or friend can be with you in the pre-procedure area.

An IV line will be started. You will be given fluids and medicines through the IV.

An interventional radiology doctor will talk with you about the procedure, answer any questions you have, and ask you to sign a consent form, if you have not already done this.

After Your Procedure

You will be moved to a room on the short-stay unit on the hospital. If you are an outpatient, plan to spend at least 1 night in the hospital. Most patients are sent home the day after the procedure. Some patients may need to stay 1 to 2 extra nights. Once you are settled in to your room:

- Your family member or friend will be able to be with you.
- You will need to rest flat on your back for 2 to 6 hours to allow your puncture site to heal.
- You will be able to eat and drink.

Before you get up to walk, we will assess you to make sure you can walk safely. A nurse or patient care technician (PCT) will help you get out of bed. You will be able to go home the same day when:

- You can eat, drink, and use the restroom
- Your nausea and pain are under control
- Your vital signs are stable

For 24 Hours

The medicine that you were given to make you sleepy will stay in your body for several hours. It could affect your judgment. You may also be lightheaded or feel dizzy. Because of this, for 24 hours:

- Do not use machines or power tools.
- Do not drink alcohol.
- Do not take medicines such as tranquilizers or sleeping pills unless your doctor has prescribed them.
- Do not make important decisions or sign legal documents.
- Do not be responsible for children, pets, or an adult who needs care.

To help your recovery:

- Do only light activities and get plenty of rest.
- Keep the puncture site covered with the dressing. Make sure it stays clean and dry.
- A responsible adult should stay with you overnight.
- Eat as usual.
- Drink lots of fluids.
- Resume taking your medicines as soon as you start to eat. Take **only** the medicines that your doctors prescribed or approved.

For 48 to 72 Hours

- Do not lift anything that weighs more than 5 to 10 pounds (a gallon of milk weighs almost 9 pounds).
- Do only gentle activities. This will allow your puncture site to heal.

Dressing Care

- For 24 hours, keep the puncture site covered with the dressing. Make sure it stays clean and dry.
- After 24 hours, remove the dressing and check the site for any signs that your wound needs care. See the list of symptoms under “When to Call,” below.
- You may shower after 24 hours. Do not scrub the puncture site. Allow warm soapy water to run gently over the site. After showering, gently pat the site dry with a clean towel.
- Do not apply lotion, ointment, or powder to the site. You may apply a new bandage.
- If you apply a new bandage, change it every day for the next few days. Always check the site when you remove the bandage.
- Do not take a bath, sit in a hot tub, go swimming, or allow your puncture site to be covered with water until it is fully healed.
- You may have a little discomfort at the site for 1 to 2 days.

When to Call

Call us right away if you have:

- Mild fever, pain, redness, swelling at the puncture site or dizziness
- Mild shortness of breath, chest tightness or chest pain
- Any other non-urgent questions or concerns

Call 911 and go to the nearest emergency department if you have:

- Severe bleeding or any bleeding that does not stop after you have applied gentle pressure for about 15 minutes
- Drainage from your incision
- Fever higher than 101°F (38.3°C) or chills
- Shortness of breath that is getting worse
- New chest pain
- Dizziness
- Vomiting
- Yellowing of your eyes or skin

Who to Call

Weekdays from 8 a.m. to 4:30 p.m., call Interventional Radiology at UWMC Montlake: 206.598.6209, option 2

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

UWMC – Montlake:
206.598.6209, option 2

After hours and on weekends and holidays:
Call 206.598.6190 and ask to page the Interventional Radiology resident on call.