

UW Medicine

Angiography: Radiofrequency Ablation to Treat Solid Tumor

What to expect

This handout explains radiofrequency ablation and what to expect when you have this treatment for solid tumors.

What is radiofrequency ablation?

Radiofrequency ablation (RFA) is a medical treatment that uses heat to destroy (ablate) abnormal cells, such as a tumor. The heat is created by a high-frequency current.

Why do I need RFA?

Your doctors have found a tumor (or tumors) in your body. There are many treatments for tumors, but certain ones work best for certain people. Our team of experts believes that RFA is the best treatment option for you at this time.

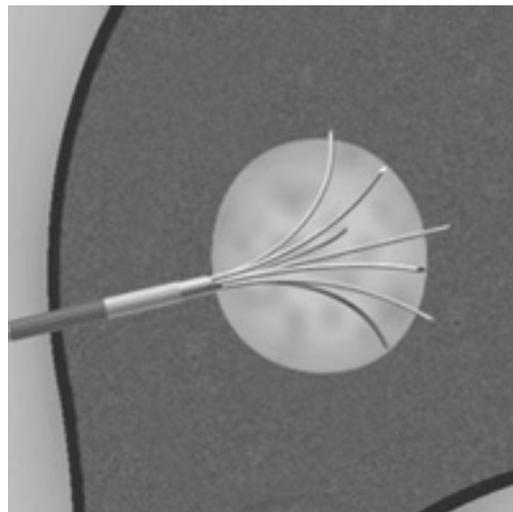
Sometimes, RFA is able to destroy the tumor. After this, your doctor may advise other options such as *chemotherapy*, *chemoembolization*, or surgery.

How does RFA work?

In RFA, a special probe is inserted through your skin into the tumor. The probe is guided into the tumor using images from computed tomography (CT) scans or ultrasound.

The probe has wires that go into and near the tumor. An electric current is passed through the probe, which heats and destroys the cancer cells.

Only the tumor itself and a small border of normal tissue around it will be destroyed. A scar will form where the tumor was. This scar will shrink over time.

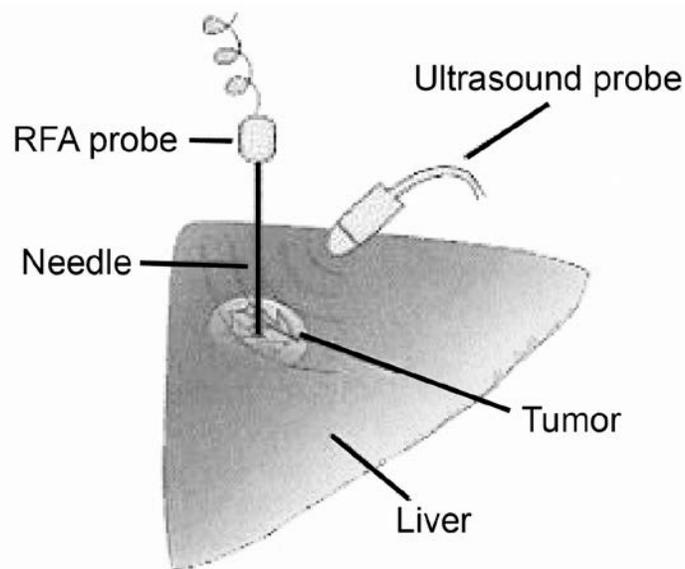


This drawing shows the RFA heat probe with wires going into a tumor.

How is RFA done?

RFA is done by an *interventional radiologist*, a doctor who specializes in this type of procedure. Because you must be completely still during the treatment, we will give you *general anesthesia* (medicine to make you sleep). You will have a breathing tube to help you breathe. A member of the anesthesia care team will monitor and care for you.

- The procedure is done in an interventional radiology suite or in a *computed tomography* (CT) scanner. It takes about 1 to 3 hours, depending on the size and number of tumors being treated.
- Once you are asleep, a radiology technologist will clean your skin around the area of your procedure with a special soap. The technologist may need to shave some hair in the area where the doctor will be working.



This drawing shows the needle of an RFA probe going into a liver tumor. The ultrasound probe sends and receives sound waves that create images on a computer.

- Your doctor will insert the needle of the RFA probe into your tumor. The probe may need to be inserted more than once into the same tumor. If you have many tumors, several of them may be treated.
- The probe is removed after the tumor is destroyed. The only sign of the treatment will be small $\frac{1}{4}$ inch nicks in your skin where the probes were placed.

Are there any side effects?

- All medical procedures such as this involve some risk. Most patients do very well after this procedure, without any major problems.
- You may have some pain and bruising around the puncture site. This may last for several days.
- The most common serious problem after RFA is bleeding into the abdomen from where the probe was inserted.
- Infection and stomach ulcers are also risks involved in having this procedure.
- Very rarely, the bowel or other organ may be injured. This can be very serious. Your doctor will take great care to avoid this kind of injury.

Your doctor will talk with you about these risks before the procedure. Please ask any questions you have. Make sure that all of your concerns are addressed.

Before Your Procedure

- **Pre-anesthesia visit.** You will be given *general anesthesia* (medicine to make you sleep) during your RFA. Before we give you this medicine, you will meet with an anesthesia care provider to go over your health history. We will schedule this visit for you.
- **Arrival time.** If you are an *outpatient* (not staying in the hospital), a nurse coordinator will call you the afternoon before your procedure. If your procedure is on a Monday, the nurse will call you the Friday before. The nurse will:
 - Tell you when to arrive at the hospital
 - Give you reminders about what to do before your procedure
 - Answer any questions you have
- **Interpreter services.** If you do not understand English well enough to understand these instructions or the details of the procedure, tell us as soon as possible. **A family member or friend may not interpret for you.** We will arrange for a hospital interpreter to assist you. This service is free.
- **Blood tests.** You most likely will need blood tests done within 14 days of your procedure. Sometimes, we do this when you arrive for your procedure. We will tell you if we need a blood sample before that day.
- **Blood-thinning medicines.** If you take a blood thinner such as Lovenox, Coumadin, or Plavix, you may need to stop taking it for 2 to 7 days before the procedure. The length of time depends on which

medicine you are taking. If you have not been told what to do, contact your primary doctor or the clinic that prescribed your medicine. Tell them you are having an RFA and ask when to stop taking your blood-thinning medicine.

IMPORTANT: If you have ever had a heart stent, a prosthetic heart valve, a pulmonary embolism, or have atrial fibrillation with a history of a stroke, you **must** contact the provider who writes your blood-thinning prescription and find out how to change your dose before your RFA.

- **Changes to diabetes medicines.** If you have diabetes and take insulin or an oral diabetes medicine, we will give you instructions about holding or adjusting your dose for the day of your procedure.

Day Before Your Procedure

- The day before your procedure, you may eat as usual.
- Plan for a responsible adult to drive you home after your procedure and stay with you the rest of the day. **You may NOT drive yourself home or take a bus, taxi, or shuttle on your own.** If you need to take a bus, taxi, or shuttle, the responsible adult **must** ride with you.

On the Day of Your Procedure

At Home

- Take your usual medicines on the day of the procedure, unless the doctor or a nurse tells you to hold them.
- Starting **6 hours** before your procedure, **stop eating solid foods.** You may only have *clear liquids* (liquid you can see through), such as water, broth, cranberry juice, or weak tea.
- Starting **2 hours** before your procedure, take **nothing** at all by mouth.
 - If you must take medicines, take them with **only** a sip of water.
 - Do not take vitamins or other supplements. They can upset an empty stomach.
- Bring with you a list of all the medicines you take.
- 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 with unexpected and urgent problems. Thank you for your patience if this occurs.

At the Hospital

- Unless you are told otherwise, check in at Admitting on the 3rd (main) floor of the hospital. Admitting is to the right and behind the Information Desk in the lobby.
- After you check in at Admitting, take the Pacific elevators to the 2nd floor. Check in at the Radiology Front Desk.
- A staff member will take you to a pre-procedure area. There, a nurse will ask you some questions about your health. Your family or a friend can be with you there.
- An *intravenous* (IV) line will be started. You will be given fluids and medicines through the IV.
- An interventional radiologist will talk with you about the procedure and ask you to sign a consent form if you have not already signed one. You will be able to ask questions at this time.
- The anesthesia care provider will also meet with you to go over your health history.

Your Procedure

- The anesthesia care provider will take you to the radiology suite. They will be with you for the entire procedure.
- You will lie flat on an exam table.
- X-rays and ultrasound will be used during your procedure.
- We will use these devices to help monitor you during your procedure:
 - Wires on your chest will help us watch your heart
 - A cuff around your arm will let us check your blood pressure
- Your anesthesia care provider will give you medicine to make you sleep. This person will monitor you during and after the procedure.

What happens after the procedure?

- After the procedure, we will move you to the PACU (Peri-Anesthesia Care Unit). When you wake up, we will move you to a nursing unit. Nurses will watch you closely for any signs of bleeding or infection.
- You will feel sleepy for the rest of the day, but you should feel normal by the next day. As you wake up more, you will be able to drink liquids and then eat solid food.
- You should then be able to return to your usual activities.

When You Get Home

- Relax at home for the rest of the day. Make sure you have a family member, friend, or caregiver to help you.
- You may feel drowsy or have some short-term memory loss.
- For 24 hours, do **not**:
 - Drive a car or use machinery
 - Drink alcohol
 - Make important decisions or sign legal documents
 - Be responsible for the care of another person
- You should have only mild to moderate pain after your RFA. If your doctor says it is OK for you to take acetaminophen (Tylenol), this should ease any discomfort you have. If your doctor expects you to have more severe pain, you will receive a prescription for a stronger pain medicine.
- Resume taking your medicines as soon as you start to eat. Take **only** the medicines that your doctors prescribed or approved.
- We may give you medicines to help prevent infection or stomach ulcers. Take all of your medicines as prescribed until they are gone.

When to Call

Call us **right away** if you have:

- Abdominal pain
- Fever higher than 101°F (38.3°C) or chills
- Dizziness
- Vomiting

Who to Call

UWMC Radiology Patient Care Coordinator.....206.598.6897

Procedure scheduling.....206.598.6209

After hours (between 5 p.m. and 7 a.m.), and on weekends and holidays
Ask for the Interventional Radiology Fellow on call 206.598.6190

Urgent Care

If you need urgent care, go to the nearest Emergency Room or call 911 right away. Do not wait to talk with one of our staff.

Questions?

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

UWMC Imaging Services:
206.598.6200