
Infrared Coagulation

What is infrared coagulation?

Infrared coagulation (IRC) is a method used to treat anal precancers and warts. With this type of surgery, no tissue is cut away. Instead, the procedure uses visible and infrared light to destroy abnormal tissue by quickly heating tissue until it is destroyed.

Why do I need infrared coagulation?

You probably had an anal Pap test that detected abnormal cells in your anus. An anal biopsy taken during your previous high resolution anoscopy exam also confirmed that abnormal anal cells are present. These abnormal cells are not cancer. A normal cell must go through many stages or changes before it becomes cancerous. The abnormal cells in your anus are called anal precancer. These cells are no longer normal but have not yet become cancerous. But these abnormal cells may eventually turn into cancer. In order to prevent you from developing anal cancer later, these abnormal cells must be removed. IRC is one of the ways that abnormal precancer cells and warts are removed from the anus.

When will the IRC procedure be done?

Please schedule your appointment for IRC as soon as possible. We **do not** use the IRC procedure on women who are pregnant. If there is any chance that you are pregnant, please notify us now. IRC also should not be performed when you have an anal infection. If you have an anal infection, please notify us immediately.

Where will the IRC procedure be done?

The IRC procedure will be done at the MCGHealth Cancer Center, probably in the same room where your high resolution anoscopy exam was done. There may be a video screen in the room that will allow you to see what we do, if you wish. You will not have to go to an operating room or stay in the hospital.

What should I do to prepare for the treatment?

- The best thing to do in preparation for your appointment is to relax. There is no need to worry. We have now identified what caused your abnormal anal Pap test. The good news is that it can be easily and quickly treated.
- You may take 400 mg of ibuprofen (two Advil tablets) at least 1 hour before the IRC treatment. The medication may reduce the discomfort you may feel during or after the procedure.
- You should try to have a bowel movement prior to your appointment. If not, you may use an enema to rinse the anal canal before the procedure.
- If you have bleeding problems (hemophilia), a heart pacemaker, take a blood thinner (such as daily aspirin, coumadin, heparin), experience poor healing, have an allergy to any medicines or iodine, a history of diabetes or a heart valve problem, please notify us before the procedure.

What happens during the IRC procedure?

The procedure, as well as the risks involved, will be explained to you. You will be asked to sign an informed consent stating that you understand the risks and potential complications involved in the procedure and that you agree to have the treatment. Next, you will lie on your left side on the examination table with your feet supported. Some topical numbing cream will then be placed in the anal area. After a few minutes, an anoscope will be inserted to see the abnormal area to be treated. Then, some numbing medication will be injected around the abnormal anal tissue to make sure this area is completely numb before beginning the IRC procedure. The anesthetic medicine is similar to the kind you may have received at the dentist's office prior to having a cavity filled. Some people do not feel the injections, while others may feel a quick pinch. To identify the abnormal cells once again, your anus will be painted with vinegar that makes the abnormal cells temporarily turn white. Then an iodine solution that makes abnormal cells turn yellow and normal tissue turn brown will be applied to your anus. Once numb, the IRC probe (the size of a pencil) will be placed on the abnormal tissue. Within 2 seconds, the area will be treated. However, because the probe is so small, and anal lesions are usually larger, multiple treatments may be necessary to remove all the abnormal tissue in this one visit. Sometimes with very large lesions or multiple lesions, only partial treatment is possible at one visit. If so, you will be told to return to finish the remaining treatment(s) in the future. When all the abnormal tissue has been removed, the base of the wound will be treated to stop any bleeding. This means that the IRC will be used to seal blood vessels closed. A thick mustard colored medicine will then be swabbed on the anus to stop any further bleeding. The actual IRC procedure usually only takes 15 to 30 minutes.

How effective is IRC?

A single IRC treatment can be expected to cure 50 to 90 percent of patients. Individuals with very large lesions may expect a slightly lower cure rate. Treatment failure rates may be higher in patients who smoke tobacco products. You can increase the chances of this treatment being successful by not smoking. Finally, your anal Pap tests may not be entirely normal after IRC for various reasons. A mildly abnormal result will probably not require further treatment.

What should I expect after treatment?

Immediately following, you will have a thin pink to clear discharge (due to the procedure) or thick brownish-black discharge (a normal result of the IRC and chemical agent applied at the end of the procedure). You may feel some discomfort, which can be treated with aspirin, Tylenol, ibuprofen (Advil or Motrin) or another pain medicine. You may notice some slight anal spotting. Heavy bleeding during the first 48 hours after surgery should be reported to us immediately. Minor bleeding may also be noticed during your bowel movements, but this is generally considered normal.

What are the risks of IRC?

The IRC procedure is considered to be safe. However, as with any type of surgery, complications can occur. Possible complications due to IRC include:

- **Bleeding:** A small amount of bleeding is expected during IRC. Occasionally, bleeding may be excessive. However, there are many ways that we can stop bleeding. We can use IRC or chemical agents to seal blood vessels closed.
- **Pain:** It is not uncommon to have some mild to moderate discomfort following IRC. However, this is easily controlled with oral pain medication. Please let us know if you will need a prescription for pain medicine.
- **Incontinence:** Incontinence (inability to control bowel movements) is extremely rare following IRC. If present, it may last only one to two weeks.
- **Infection:** There is a very slight risk (less than five percent) of infection following IRC. This is particularly true if you have an anal infection before IRC. If you experience anal

pain, fever and an anal discharge with a bad odor after treatment, is it possible that you have an infection. See us immediately so that we can evaluate and then treat these infections with antibiotics.

How should I take care of myself after the treatment?

- Do not have anal sexual intercourse for two to four weeks to allow the wound to heal.
- Do not put anything in the anus or use an enema for two to four weeks.
- If spotting or bleeding persists longer than four weeks, call us. A little bleeding with bowel movements is normal for two to four weeks.
- The numbing medication will keep the treatment area numb for only a short period. Some but not all patients experience post-procedure pain for several days. Take pain medication as necessary.
- You may soak in a warm bath for five to 10 minutes several times a day starting on the day of treatment.
- A diet rich in fruits and vegetables (fiber) and lots of water will help to prevent constipation. You may use stool softeners to aid in this process. It is best to avoid hot and spicy foods, alcohol and caffeine.
- A brownish-black or pink discharge is normal for a few weeks. However, if a foul smelling anal discharge develops and is accompanied by anal pain and fever, call us immediately.
- If you develop brisk, bright red bleeding with clots, call us immediately.
- If you smoke tobacco products, stop.
- Most importantly, return for an examination and follow-up anal Pap test and high resolution anoscopy, six and 12 months following the IRC. We cannot determine if your treatment was successful until you have had three consecutively normal anal Pap tests six and 12 months after treatment. Therefore, keeping these appointments is extremely important. Please notify the office if you are unable to come for any of your follow-up visits. Also notify us of any changes in your address or telephone number. In the event that your treatment was not successful, your follow-up anal Pap tests and exams should detect the remaining or new abnormal cells to allow us to treat the abnormal tissue again to prevent it from becoming cancer.
- Provided your anal Pap tests and high resolution anoscopy are normal during the first year following surgery, you must have an anal Pap test done once a year for the rest of your life.

What should I do if I can't come to my appointment?

Occasionally, patients are not able to come for their scheduled appointment for various reasons. If you do not notify us to cancel your appointment, other people who need an appointment cannot be seen. Please call us as soon as possible if you know you will be unable to come.

Who can I contact if I have questions?

We are glad to answer any questions you may have. It is normal that you may be a little nervous about this procedure, just as you would be before any type of procedure. It may be comforting to keep in mind that IRC is less complicated than the type of surgery done in the operating room. If you have any questions prior to or following IRC, please call the triage nurse at the MCGHealth Cancer Center at 706-721-6744.