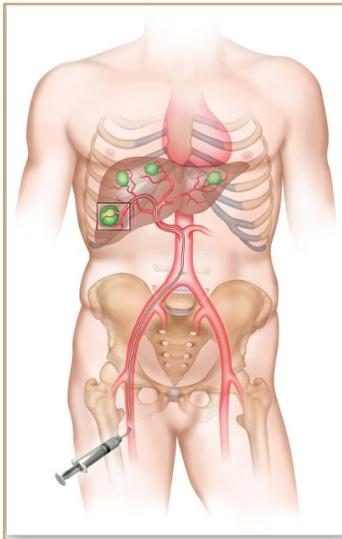




## Radioembolization (SirSpheres)

Radioembolization is used to treat primary liver cancer and other cancers that have metastasized to the liver. The preparatory angiogram is performed to map out the veins and arteries of the liver and block those that leave the liver and go to other organs. This is done to prevent radioactive resin from traveling to other organs when the treatment dose is given (at your next visit).



### Angiogram:

Using x-ray guidance, a small catheter is inserted into an artery, usually in the upper thigh region, and fed up to the liver. Special dye is first injected which allows pictures to be taken and the vessels surrounding the tumor to be visualized. Platinum coils are then placed in certain vessels the doctor feels are necessary.

You will receive medicine through your IV during the angiogram to relax you and make you sleepy as well as keep you comfortable.

### Diet:

There are no dietary restrictions specifically due to this procedure. If you had restrictions prior due to other treatments or diseases such as diabetes, cardiovascular disease, or renal disease, continue with these.

Drink 6 to 8 glasses of liquid each day. Or, follow your caregiver's advice if you must limit the amount of liquids you drink. Good liquids to drink are water, juices, and milk.

### Medications:

- You may restart your usual medications unless you have been told otherwise.
- Start taking Protonix 40 mg daily.
- If taking Glucophage (Metformin), this must be held for 2 days following this procedure.

### Site Care:

- Leave the dressing on for 24 hours, then you may remove and shower.
- Do not put any medicines on the wound.
- Replace band-aid until wound is closed, usually 24-48 hours.
- Do not soak wound (tub bath, swimming, Jacuzzi) until wound is completely healed (around 5 days).

## Activity

- You may drive yourself in 24 hours.
- No heavy lifting/moving, exercise, sports, stair climbing, or sex until wound is completely healed.
- Avoid “L” shape sitting until wound is healed.
- Avoid tight-fitting clothes until wound is healed.

## Expected Side Effects:

- You may have side effects from the medications used during the procedure to keep you comfortable. Many describe this feeling as a slight “hang-over”. Nausea may occur due to these medications but usually does not last longer than 12-24 hours.
- Aside from this and soreness at the catheter insertion site, you should not have many side effects.

## Special Precautions:

There are no special precautions following the preparatory angiogram. You do not need to use radiation safety precautions until after the treatment procedure (part 2).

## Follow-up

- If you are not already scheduled for your treatment procedure, you will be called shortly after this procedure to discuss open dates. Please call us if you have not heard from us within one week.
- You may again need labs prior to the treatment procedure.

## When to Get Medical and Emergency Help:

- If you have a temperature over 101.0°F
- If you have new pain or symptoms you are concerned about
- Your nausea is so severe you cannot keep down any food or fluids
- You have questions about your treatment or new prescriptions
- You have pain where the catheter was placed that is worsening more than improving

### **Go to your nearest Emergency Room if:**

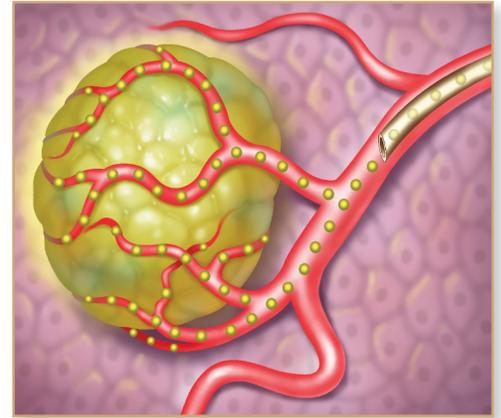
- Your treatment site starts bleeding and will not stop after 10 minutes of firm pressure
- You have shaking, chills or a temperature over 102°F
- Sudden shortness of breath
- Severe, worsening abdominal pain

**If you have questions or concerns about your procedure or post procedure symptoms, please call us at 763-432-4310 during office hours (M-F 7am-5pm).  
If after 5pm or weekend, please call 763-398-8710**



## Radioembolization Therapy (SirSpheres)

Radioembolization is used to treat primary liver cancer and other cancers that have metastasized to the liver. Radioembolization is used to deliver targeted internal radiation therapy directly to the tumor. This is delivered via resin that is combined with a radiation isotope called Y90. The “half-life” of the radiation is 64 hours. This means every 64 hours the level of radiation falls by half until it is effectively gone after two weeks. The spheres are injected into the artery supplying blood to the tumors and are trapped in the tumor’s vascular bed where they destroy the tumor cells by radiation. The radiation can penetrate only a half inch of tissue, so very little radiation is emitted from the body.



Using x-ray guidance, a small catheter is inserted into an artery, usually in the upper thigh region, and fed up to the liver. Special dye is first injected which allows pictures to be taken and the vessels surrounding the tumor to be visualized. Then the beads are injected into the liver directed at the tumor.

### You will typically have two treatments:

- The first treatment typically targets your right liver tumors. This will usually take place 1-2 weeks after the preparatory angiogram procedure.
- The second treatment typically targets your left liver tumor. This will usually take place 4-6 weeks after your first treatment and after a follow up visit and labs.

### Expected Side Effects:

All of the following signs are part of a normal recovery after Radioembolization. Within a month after the procedure you should be back to your usual self.

- Right upper abdominal pain for the first few days to weeks. It may radiate to the shoulder or back. You will be given medicine to help control the pain. This pain usually gets better within the first week.
- Extreme fatigue or tiredness for two to four weeks after the procedure.
- A poor appetite which may result in weight loss before your appetite returns – continue to eat even if you have no appetite. Small, frequent meals are the best way to prevent weight loss.
- It is normal to have a bruise and soreness where the angiogram catheter went in.

## Going Home after Treatment:

### Diet:

- There are no dietary restrictions due to this procedure. If you had restrictions prior to procedure due previous treatments or diseases such as diabetes, cardiovascular or renal disease, continue with these. Alcohol consumption is not recommended.
- Drink 6 to 8 glasses of liquid each day. It is especially important to do this if you are vomiting. If your fluid intake is restricted, please continue to follow. Good liquids to drink are water, juices, and milk.
- Nausea is not uncommon following this procedure. Eat light for the first 24 hours. Stay away from foods that trigger the nausea. A prescription for anti-nausea medicines has been given to you.

### Activity:

- Avoid lifting anything over 10 pounds or strenuous activity for three days following the procedure, or until site is completely healed ( whichever is longer).
- Expect to be tired initially with gradual improvement in the weeks following treatment. When your steroid taper dose is finished, you may notice worsening of fatigue for a few days. Some patients are so tired that they stay in bed most of the day for the first two weeks. If you are concerned about your activity level, please call us.

### Site Care:

- Leave dressing on for 24 hours, then you may gently remove and shower.
- Replace with band-aid until wound is healed, usually about 24-72 hours.
- Do not put any medications or ointments on wound.
- Do not soak or submerge until healed -about 5 days (no bathtubs, hot tubs, Jacuzzi, swimming)

## Reducing Radiation exposure to others:

### First 5 days after treatment:

- Arrangements should be made for others to provide childcare for infants and very young children.
- Sleep alone unless otherwise instructed by your doctor.
- Avoid kissing and physical contact with others.
- Avoid women who are pregnant and children under 18 years old.
- Keep a distance of an arm's length if you are going to be around someone else for more than 5 minutes.
- Any urine-soaked clothing or linens should be washed separately from other items.

# Radioembolization Therapy (SirSpheres)

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## Medications:

Usually, your pre-procedure medications do not change. You will be told before discharge if any of your medications change. The following medications will be prescribed to you upon discharge IN ADDITION to your normal medications:

1. Protonix (pantoprazole), a stomach acid reducer. Take this every day for 1 month regardless of stomach pain. Please take this medication until you see us in clinic for follow up. You have two refills on your prescription. Some patients continue this past their one month visit, and we will determine this when we see you.
2. Constipation medication, usually Colace. This is a stool softener. Take this if you have difficulty having bowel movements.
3. Narcotic pain medicine, usually oxycodone. Take this if you have pain, but not more frequently than every 6 hours.
  - Do not drive after taking this medicine, it causes drowsiness
  - If the bottle says it has Acetaminophen with it, do not take additional Tylenol while taking this medication.
  - This medicine causes constipation. If this is a problem for you, increase your fluid intake and take Colace which is a stool softener. Call us if you have not had a bowel movement in more than three days.
4. Zofran (ondansetron), anti-nausea medicine every 8 hours as needed.
5. Phenergan (promethazine), anti-nausea medicine. Take this if you have nausea, but not more frequently than every 6 hours. **This medicine causes drowsiness.**

## Pregnancy:

**Women of child bearing age should not become pregnant for at least 2 months post treatment. Contraceptive of your choice should be taken if required. You can get this from your primary care doctor**

## Breast Feeding:

**Women who are breast feeding should pump and discard their milk for 2 weeks. Do not store or give the pumped milk to a baby.**

## Follow Up:

- We want to see you in our clinic for a follow up visit three weeks after your first treatment, and one month after your second treatment. Labs will be drawn before or during your visit.
- We recommend calling your liver doctor/oncologist to set up a follow up appointment after your procedure. Every doctor is different in when they want to see their patients after treatment, but at a minimum, we would like you to be seen shortly after our final follow up visit.
- Follow up imaging is ordered either by Minneapolis Interventional Oncology or your oncologist, and is done 3 months after treatment. We do not obtain imaging before

# Radioembolization Therapy (SirSpheres)

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## Follow Up (cont.):

the two month mark unless it is for another purpose other than procedure follow up. If you have this scan done at an outside facility, please be sure to mail us a copy of the CD images for your interventional oncologist to review. We will contact you with the results.

**If you have questions or concerns about your procedure or post procedure symptoms, please call us at 763-432-4310 during office hours (M-F 7am-5pm).  
If after 5pm or weekend, please call 763-398-8710**