



### Y-90 Patient population

- Approximately 140,000 Americans are diagnosed with colorectal cancer every year. Half of these patients will have metastases to their liver and succumb to their disease due to progressive liver decompensation.
- Hepatic-directed radioembolization with Y-90 microspheres has been associated with a clinically significant improvement in time to liver failure and survival in patient with chemotherapy-refractory colorectal cancer with liver predominant disease.



Please call us at **317-621-5555** to setup an appointment with one of our board certified Interventional Radiologists who are experts in Yttrium-90 Radioembolization.

To learn more about Yttrium-90 Radioembolization, please visit:

**[www.radiologyofindiana.com](http://www.radiologyofindiana.com)**



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## YTTRIUM-90 RADIOEMBOLIZATION LIVER CANCER TREATMENT



An innovative  
and Highly Effective  
Development in Liver  
Cancer Treatment

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## What Is Y90, Or Radioembolization?

The procedure delivers powerful doses of radiation exactly where it's needed, and just as important, avoids exposing radiation in areas where it's not needed. A highly trained physician—like the interventional radiologists at Radiology of Indiana—uses advanced x-ray technology to guide small doses of radiation by precisely guiding an injection through blood vessels to the affected area. The injection contains microscopic glass beads that carry radiation to the cancer cells in the liver, cutting off their supply of blood and oxygen, preventing them from growing.

Y90 is not a cure, but it can significantly slow the growth of the disease and provide relief of some symptoms.

*Unfortunately, about 18,500 cases of liver cancer are diagnosed each year. It is twice as common in men than women and frequently is seen in patients with cirrhosis.*

## A Scientifically-Based Palliative Alternative to Radio and Chemotherapies

For patients with a primary or metastatic liver cancer diagnosis, the treatment road ahead can be both long and arduous. Unfortunately, about 18,500 cases of liver cancer are diagnosed each year. It is twice as common in men than women and frequently is seen in patients with cirrhosis.

Treatment is often made difficult because liver tumors are often inoperable and chemotherapy drugs have been ineffective in curing liver cancer. But there's some good news, in the form of new treatment options that can extend and improve the quality of life.

## What is the procedure?

- Liver-direct therapy that is a minimally invasive procedure that combines embolization and radiation therapy to treat liver cancer in patients that are not surgical candidates.
- Palliative treatment, not a cure.
- Resin beads filled with radioactive isotope yttrium-90 are delivered to the liver tumor through blood vessels.
- Outpatient procedure and patients are able to go home after a few hours of observation with minimal restrictions.

## Treatment Plan

- The patient will come to the hospital on multiple occasions.
- After the initial consultation, the patient will have three actual procedure days:
  1. Angiography or Mapping Appointment
  2. Right lobe treatment
  3. Left lobe treatment
- The patient will have a few follow up appointments a couple of months after procedure and again at 1 year in the Radiology of Indiana Interventional Radiology clinic.

## Adverse effects

- Post-embolization syndrome lasting approximately 1 week includes symptoms of abdominal discomfort, nausea, loss of appetite, mild fever and lack of energy or fatigue.
- More serious complications include gastric ulcers and radiation induced liver disease ranging from hepatitis to cirrhosis or liver failure (<1%).

## Precautions for patients

- The first 24 hours following the procedure: thorough hand washing after using the bathroom, dispose of bodily fluids in the toilet.
- Sleep away from your spouse for the first 3 days following treatment.
- Avoid picking up small children for the first 3 days after treatment.
- May not become pregnant for at least two months following the procedure.
- Can resume normal contact with others.

