



病人教育

放射/造影服務部



釷-90 放射治療

治療肝臟腫瘤

本手冊解釋什麼是釷-90 放射治療，以及進行這種治療時的預期步驟。

我為何需要這種治療？

你的醫生在你的肝臟中發現一個（或一些）腫瘤。這些可能是肝臟原發性腫瘤（多半是肝癌）或從你身體的其他器官擴散到肝臟的腫瘤。治療肝臟腫瘤的方案有許多，但是某些方案對某些人是最佳的方案。我們的專家小組認為，釷-90 (Y-90) 放射治療目前是你最佳的方案。釷-90 放射治療將輻射直接送進供血給腫瘤的血管。

這種治療不會治好肝臟腫瘤。但是，它常常可以將腫瘤控制住或縮小。除了這種治療，也會建議你考慮其他方案（例如化療或外科手術）。

釷-90 放射治療如何起作用？

使用放射治療來治療多種類型的腫瘤已有數十年歷史。但是，若進行體外放射治療，殺死肝臟腫瘤所需的輻射劑量會嚴重傷害肝臟的健康部分。

釷-90 至一種微創治療。這意味著只使用小型的醫療工具並且不用打開你的身體。也就是說，比起一般外科手術，你的身體將會恢復得更快。

這種治療是將數以百萬計的放射性微球體 (radioactive beads) 直接注射入向腫瘤供血的動脈。這些微球體留在腫瘤周圍的血管中，從而可讓很強的輻射直接到達腫瘤。這種治療對肝臟的健康部分或其他組織（例如腸和皮膚）的影響非常小。

這些微球體發出輻射的時間約為 10 天，但是它們在注射後將會持續發揮療效。

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在釷-90 放射治療中使用什麼微球體？

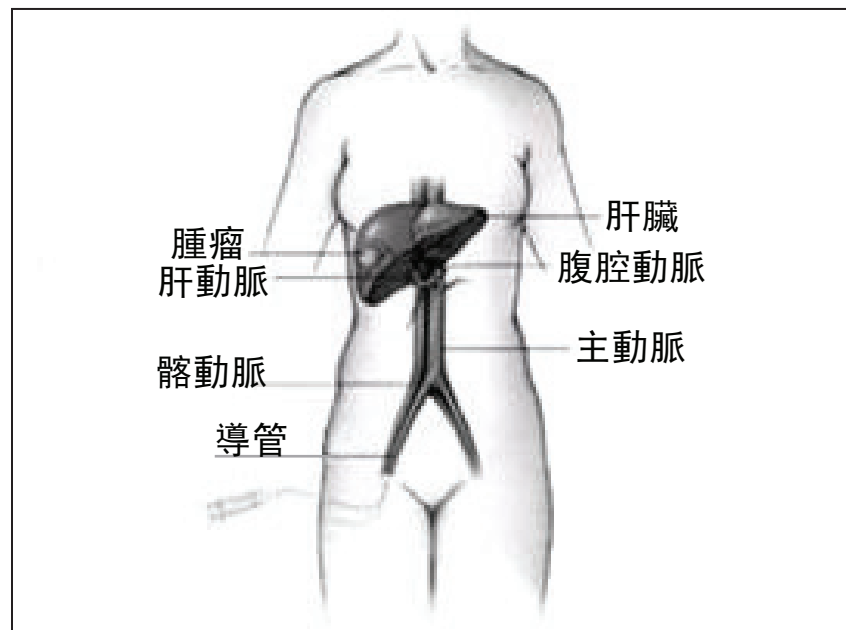
可以使用兩種微球體進行這種治療：*TheraSpheres* 和 *SIR-Spheres*。微球體是用塑膠或玻璃做的。

- *SIR-Spheres* 是由聯邦食品藥物管理局 (FDA) 認可用於從結腸癌擴散至肝臟的肝臟腫瘤病人。
- *TheraSphere* 是經認可作為人道主義裝置 (HUD) 用於治療原發性肝癌。HUD 是獲准用於治療為數不多的患有特別疾病的病人的裝置。

我們經常使用醫療產品來治療不同於其最初認可使用的疾病。*TheraSpheres* 和 *SIR-Spheres* 這兩種微球體已安全和有效地用於治療成千上萬患有肝臟腫瘤的病人。我們將為你選擇一種最有效的微球體。

這種手術如何進行？

釷-90 放射治療是由一名介入放射專家執行，介入放射專家是專門用微創手術（以 X 光導向）來治療肝臟腫瘤的醫生。這種治療是在數月內分幾個步驟（手術）完成的。



導管插入部位，導管用來注射示蹤劑或用來置放含有釷-90 塗層的微球體

步驟 1：血管造影

步驟 1 是一種叫做**血管造影**的手術。這項手術需要 2 至 4 小時完成。

在這項手術過程中：

- 你將躺在一張 X 光枱上。
- 你所感到的唯一的不舒服是當向你的皮膚施行局部**麻醉**（麻藥）時，你會有一種短暫的燒灼感。
- 醫生將一條細小的塑膠管（**導管**）插入到你腹股溝內的動脈中，並逆行進入肝動脈。X 光將幫助醫生將該導管導入到正確的位置。
- **血管造影**（X 光照片）可幫助醫生看到有多少血液流入你的肝臟，醫生可據此確定是否可以為你使用釷-90 治療。
 - 如果血管造影顯示釷-90 治療不能用於你，那麼，此項手術將結束。
 - 如果血管造影證實釷-90 治療可用於你，你的醫生將繼續進行下一步治療。
- 醫生將用一些細金屬線（**線圈**）將不該接受輻射的血管封閉住，並將一種無害的**示蹤劑**注射入你的肝動脈。血管造影顯示出有多少示蹤劑進入你肝臟周圍的組織。
- 然後，將你送到樓下大廳的核子醫學科進行掃描。此項掃描將顯示出有多少示蹤劑離開你的肝臟並進入到肺部或其他器官。
 - 如果有太多示蹤劑聚集在肝臟外面的組織，釷-90 治療將對你無效，此項手術亦到此結束。
 - 如果掃描顯示肝臟外面的組織只有極少或沒有示蹤劑，你將准許進入步驟 2。

步驟 2：釷-90 輸注

如果你在步驟 1 後獲准接受釷-90 治療，我們將為你計算出精確的輻射劑量，並在一個特定的時間將其送到醫院。在步驟 1 之後約 2 個星期，你將進行第二次門診手術。

- 醫生將用另一根導管置入你腹股溝內的動脈中。如上次那樣，該導管將逆行進入肝臟。
- 然後，將含有釷-90 塗層的微球體緩慢地注射入你的肝動脈。
- 這項手術需要約 1 小時完成。

步驟 3：第 2 次釷-90 輸注（如果需要的話）

我們通常在步驟 2 中只治療肝臟的一半。所以需要進行第二次釷-90 輸注來治療肝臟其他部分的病人，將在步驟 2 後 4 至 6 周進行另一次釷-90 輸注。

步驟 4：掃描

在你做完最後一次釷-90 輸注後約 1 個月，你將要做一次**磁共振成像 (MRI) 掃描或電腦斷層 (CT) 掃描**。這種掃描將顯示腫瘤對治療的反應。你的醫生將審閱這些掃描、你的驗血結果以及你的總體健康情況。如果需要的話，他們會告訴你任何其他治療。

做完釷-90 輸注後，我是否需要採取任何特殊的預防措施？

釷-90 微球體所釋放的輻射放射距離不到半英寸。你的醫生可能會在治療之後限制你的活動，但這取決於你接受的是哪種治療。你可能需要在一段短時間內不能和其他人接觸。

有任何風險或副作用嗎？

做完釷-90 放射治療後，最常見的副作用是疲倦。這種疲倦可能是輕微的或嚴重的，可持續達幾個星期。

其他副作用包括：

- 食欲差
- 輕微肚痛
- 輕微發燒
- 作嘔

這些症狀應該在 1 至 2 周內逐漸消失。

還有其他一些較少發生但有時會很嚴重的副作用或並發症。在你開始治療之前，你的醫生會將這些風險告訴你。請確保你的所有問題在治療前都得到解答。

手術前

- 會有一個護士協調員在你手術前一天的下午打電話給你。如果你的手術是在星期一進行，該護士會在前一周星期五打電話給你。該護士將給你最後的指示，並回答你提出的任何問題。
- 如果你的英語不是很好，不能明白這些指示或手術細節，請立即告訴我們。我們會安排一個醫院翻譯員協助你。**家人或朋友也許不能為你翻譯。**

- 你多半需要在手術前的 14 天內完成所有驗血。有時候，我們是在你來到醫院做手術時為你驗血。我們會告訴你我們是否在那天之前需要你的血液樣本。
- 如果你在過去對造影劑（X 光染色劑）曾有過過敏或不良反應，請撥打本手冊最後一頁上其中一個電話號碼聯繫我們的護士協調員。你可能需要在手術前服食這種過敏的藥物。
- 如果你的腎功能不正常，而我們需要為你注射 X 光染色劑時，我們會開一種藥讓你在手術前和手術後服食。這種藥幫助保護你的腎臟。
- 如果你在服用任何血液稀釋藥物（例如 Coumadin、Lovenox、Fragmin 或 Plavix），你可能需要在手術前 3 至 9 天停用這些藥物。你將獲得有關這方面的指示。
- 如果你患有糖尿病並在注射胰島素或甲福明二甲雙胍（二甲雙胍），你將在手術那天獲得有關停用或調整劑量的指示。

鎮定藥

- 在輸入鈾-90 前，將透過靜脈給你注射鎮定藥（類似 Valium 和嗎啡）。這種藥會使你困倦欲睡，幫助你放鬆，並減輕你不舒服的感覺。你仍然會保持清醒。這種方法稱為清醒鎮定。手術完成後，你會仍然感到困倦欲睡一段時間。
- 對於某些人，使用清醒鎮定是不安全的。如果你是這樣的人，你將需要使用麻醉劑（在手術期間使你睡覺的藥物）。

如果你有以下情況，請**立即**告訴我們：

- 過去接受普通手術時需要麻醉
- 患有睡眠窒息或慢性呼吸性疾病（你在睡覺時可能要使用 CPAP 或 BiPAP 裝置）
- 使用大劑量的麻醉止痛藥
- 患有嚴重的心臟病、肺病或腎病
- 因為背部或呼吸問題不能平躺 2 至 3 個小時
- 在醫療手術期間很難安靜地躺著
- 體重超過 300 磅（136 公斤）

手術前一天

為注射鎮定劑做準備時，必須嚴格遵守以下指示：

- 手術前一天，你可以如常進食。
- 從手術前 6 小時開始，你只能飲清流質（透明的液體，例如水、雪碧、紅莓汁或淡茶）。
- 從手術前 2 小時開始：
 - 不能用口進食任何東西。
 - 如果你必須服藥，只能飲一口水送藥。
 - 切勿服用維他命或其他營養補充藥。空腹服用這些藥會引起腹部不適。
- 你必須有一個成年人負責開車送你回家，並在那天的剩餘時間陪伴你。你不能自己開車回家，或乘坐公共汽車、的士或穿梭巴士回家。

手術當天

- 手術當天，服用所有你常用的其他藥物。切勿漏服這些藥物，除非你的醫生或護士叫你停止服用。
- 你每次來醫院進行這次手術中的其中一個步驟時，都應隨身攜帶一份你服用的所有藥物的清單。
- 請準備留在醫院大半天時間。有時候手術要延遲開始，這是經常發生的，因為我們需要治療其他突發的和急症的病人。如果出現這種情況，謝謝你的耐心等待。
- 除非護士協調員已經告訴你，否則，請到醫院 3 樓（主層）的入院部報到。入院部位於大廳右側，詢問台後面。
- 將會有一個醫護助理給你一件醫院衣服穿上，並給你一個袋裝你的私人物品。這時你可能要去如廁排清大小便。
- 會有一個職員帶你到術前準備區。在那裏，護士將為你做健康評估。你的家人或朋友可以在那裏陪著你。
- 開始靜脈注射。將透過靜脈給你注射液體和藥物。
- 放射科醫生或醫師助理將會向你介紹這次手術，並要求你簽署一份同意書，如果你尚未簽署的話。這時你可以向醫生問問題。

手術

- 護士將帶你到放射室。該護士將會在整個手術過程中陪伴著你。
- 如果需要，將安排一個翻譯員在手術室內，或者讓翻譯員能夠透過對講機聽到你的聲音以及和你對話。
- 你將要躺在平面的 X 光枱上進行手術。
- 我們將在你的身體上放置一些電線，以幫助我們監視你的心率。
- 你的手臂將套上一個血壓套。該套會不時充氣以檢查你的血壓。
- 放射技師將用一種專用肥皂為你清潔手術部位周圍的皮膚。如果你有任何過敏，請告訴該技師。該技師可能需要為你剃去某些手術部位皮膚上的體毛。
- 我們的整個醫療小組都會要求你確認你的姓名，並告訴你我們計劃做些什麼。這是為了你的安全。
- 然後，你的護士將給你注入一些藥，以便在手術開始前使你感到困倦欲睡和放鬆。

手術後

- 我們將在放射科裏對你手術後的情況進行短時間的嚴密監視。
- 然後你要進入醫院的觀察室。那裏有另一個護士將繼續監視你手術後的情況。
- 大部分時間，你都能夠吃喝東西，你的家人可以探訪你。
- 你將需要在床上休息 2 至 6 小時。**在這段時間裏，你必須將腿保持低於腹股溝穿刺部位，以便控制出血。**
- 當你完全清醒、能夠進食、如廁和行走後，你便可以回家了。
- 這種手術做完後很少出現問題。如果出現問題，我們可能需要將你留在醫院，以便我們能夠監視你的病情或為你治療。
- 在你離開醫院前，你的護士將會告訴你你能夠進行哪些活動，如何護理你的手術切口以及其他重要指示。

有任何問題嗎？

你的問題很重要。如果你有任何問題或疑慮，請致電你的醫生或保健提供者。UWMC 診所的醫護人員也可以隨時提供幫助。

放射/造影服務部：
206-598-6200

回到家後

- 你可能需要遵循一些特別的預防措施，因為你對其他人有潛在的放射危險。在你離開醫院前，你的護士將會將這些措施告訴你。
- 當天的其餘時間應在家休息。確保有一個家人、朋友或照顧者幫助你。你可能會感到困倦欲睡，或有些短期失憶。
- 在 24 小時內，切勿：
 - 駕駛汽車或操作機器
 - 喝酒
 - 作出重要的個人決定或簽署法律文件
 - 負責照顧另一個人
- 你可以在第二天開始淋浴或盆浴。
- 釷-90 治療後通常只有輕微的疼痛。如果你的醫生同意你服用醋氨酚 (Tylenol)，這種藥應該可以舒緩你感到的任何不舒服症狀。如果你的醫生預期你會有更嚴重的疼痛，將會給你開處方來購買更強的止痛藥。
- 一旦開始進食，便可以恢復服用你的藥物。只服用你的醫生為你開的或同意你服用的藥物。
- 醫生可能會開給你一些藥物，幫助預防感染或胃潰瘍。服用開給你的所有藥物，直到服完為止。

何時打電話給我們

如果你出現以下情況，立即打電話給我們：

- 腹股溝穿刺部位出現流血或紅腫
- 穿刺部位以下的腿部出現變涼、疼痛或感覺減弱
- 新出現的肚痛
- 嘔吐、發燒或發冷

打電話給誰

介入放射科護士協調員.....206-598-6897
手術安排部.....206-598-6209
下班時間（下午 5 點至上午 7 點），周末和假節日
找值班的介入放射科醫護人員.....206-598-6190

如果你要看急診

直接去最近的急診室，或致電 9-1-1。切勿等待聯繫我們的某個醫護人員。

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206-598-6200



Yttrium-90 Radiotherapy

Treatment for liver tumors

This handout explains what Yttrium-90 radiotherapy is and what to expect when you have it done.

Why do I need this treatment?

Your doctors have found a tumor (or tumors) in your liver. These may have started in your liver (most likely *hepatocellular carcinoma, or HCC*) or spread to it from another part of your body. There are many treatments for liver tumors, but certain ones work best for certain people.

Our team of experts believes that Yttrium-90 (Y-90) radiotherapy is the best option for you at this time. Y-90 radiotherapy sends radiation directly into the blood vessels that feed the tumors.

This treatment does not cure liver tumors. But, it often controls or shrinks them. After this therapy, other options (such as chemotherapy or surgery) may also be advised for you.

How does Y-90 radiotherapy work?

Radiation therapy has been used for decades in the treatment of many types of tumors. But, the doses of external radiation needed to kill liver tumors would seriously harm the healthy parts of the liver.

Y-90 is a minimally invasive treatment. This means that only small medical tools are used and your body is not opened up. This means your body will recover more quickly than it would after regular surgery.

In this treatment, millions of tiny radioactive beads are injected directly into the arteries that supply blood to your tumor. These beads will stay in the blood vessels around your tumor(s). This allows very strong radiation to reach the tumors directly. There is very little effect on healthy parts of your liver or other tissues in the area such as your intestines or skin.

The beads emit radiation for about 10 days, but they will keep working for several months after they are injected.

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What beads are used in Y-90 radiotherapy?

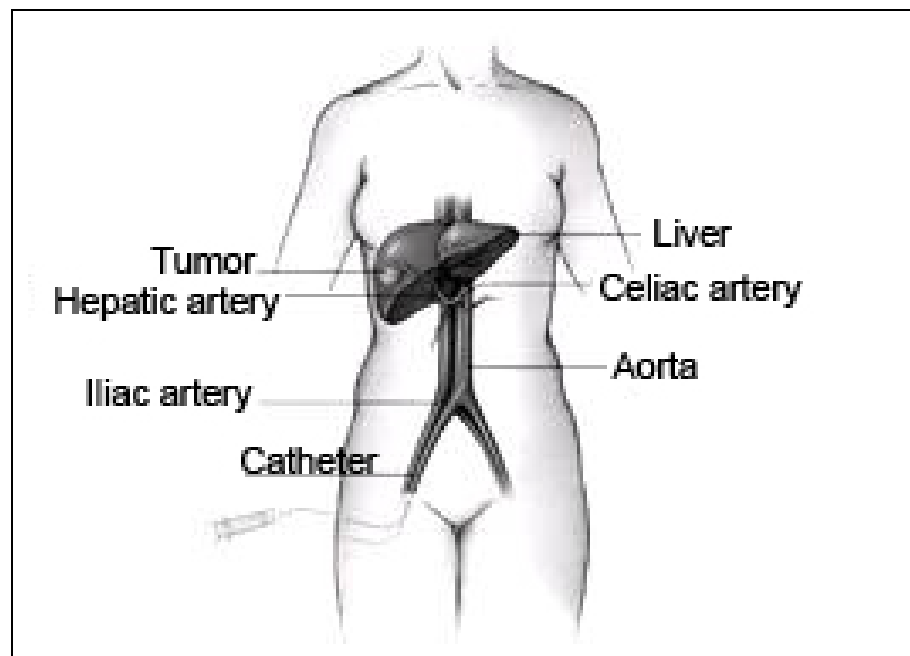
Two types of beads can be used for this treatment: *TheraSpheres* and *SIR-Spheres*. The beads are made of either plastic or glass.

- SIR-Spheres are approved by the Food and Drug Administration (FDA) for people with tumors in the liver that have spread from colon cancer.
- TheraSphere is approved as a *humanitarian use device* (HUD) to treat hepatocellular carcinoma. An HUD is a device that has been approved for treating a small number of people with a specific health condition.

We often use medical products for a different disease than they were first approved for. Both TheraSpheres and SIR-Spheres have been used safely and effectively in thousands of patients with liver tumors. We will choose the type of bead that will work best for you.

How is the procedure done?

Y-90 radiotherapy is done by an *interventional radiologist*, a doctor who specializes in treating liver tumors with minimally invasive procedures done using X-ray guidance. The treatment is done in several steps (procedures) over the course of a few months.



Insertion site for catheter that is used to inject tracer or place beads coated with Y-90

Step 1: Mapping Angiogram

Step 1 is a procedure called a *mapping angiogram*. It takes 2 to 4 hours.

During this procedure:

- You will lie on an X-ray table.
- The only discomfort you will feel is a short burning sensation when the local *anesthetic* (numbing medicine) is applied to your skin.
- A small plastic tube (*catheter*) is put into an artery in your groin and threaded to the liver arteries. X-rays will help your doctor guide this catheter to the right place.
- *Angiograms* (X-ray pictures) are done to help your doctor see how blood flows to your liver. This will tell your doctor if we can use Y-90 therapy for you.
 - If the angiogram shows that Y-90 therapy is not possible for you, the procedure will end.
 - If the angiogram confirms that Y-90 therapy is possible, your doctor will go ahead with the next steps.
- Your doctor will use small metal wires (*coils*) to block off blood vessels that should not receive radiation. A harmless *tracer agent* will be injected into your liver arteries. A mapping angiogram shows how much tracer enters the tissues around your liver
- Then, you will be taken to the nuclear medicine department down the hall for a scan. This scan will show how much of the tracer has left your liver and entered your lungs or other organs.
 - If too much tracer gathers in the tissue outside your liver, Y-90 treatment will not work for you, and the procedure ends here.
 - If the scan shows little or no tracer in the tissue outside your liver, you will be approved to go to Step 2.

Step 2: Y-90 Infusion

If you are approved for Y-90 therapy after Step 1, your precise dose of radiation will be calculated and delivered to the hospital at a specific time. About 2 weeks after Step 1, you will have a second outpatient procedure.

- You will have another catheter placed in the artery in your groin. Like the last time, the catheter will be threaded to your liver.
- Then, the beads coated with Y-90 will be slowly injected into your liver artery.
- This procedure takes about 1 hour.

Step 3: 2nd Y-90 Infusion (if needed)

We often treat only half of the liver in Step 2. People who need a second Y-90 infusion to treat other parts of the liver will have another Y-90 infusion session 4 to 6 weeks after Step 2.

Step 4: Scans

About 1 month after your last Y-90 infusion, you will have a *magnetic resonance imaging* (MRI) or *computed tomography* (CT) scan. This scan will show how the tumors have responded to the treatment. Your doctor will review these scans, your blood test results, and your overall health. They will talk with you about any other treatments, if needed.

Are there any special precautions I need to take after the Y-90 infusions?

The radiation released by the Y-90 beads travels less than ½ inch. Depending on the type of treatment you receive, your doctor may restrict your activities after treatment. You may need to limit your contact with others for a short time.

Are there any risks or side effects?

The most common side effect after Y-90 radiotherapy is fatigue. This can be mild or severe. It can last up to a few weeks.

Other side effects include:

- Poor appetite
- Mild abdominal pain
- Slight fever
- Nausea

These symptoms should slowly go away over 1 to 2 weeks.

There are other much less common but sometimes serious side effects and complications. Your doctors will talk with you about these risks before you start treatment. Please make sure all of your questions are answered before your treatment begins.

Before Your Procedure

- 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 give you final instructions and answer any questions you have.
- If you do not understand English well enough to understand these instructions or the details of the procedure, tell us as soon as possible. We will arrange for a hospital interpreter to assist you. **A family member or friend may not interpret for you.**

- 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 let you know if we need a blood sample before that day.
- If you have had an allergy or bad reaction to *contrast* (X-ray dye) in the past, please call our nurse coordinators at one of the numbers on the last page of this handout. You may need to take medicine for this allergy before the procedure.
- If your kidney function is not normal and we need to give you X-ray dye, we may prescribe a medicine for you to take before and after your procedure. This medicine will help protect your kidneys.
- 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 the procedure. You will receive instructions about this.
- If you have diabetes and take insulin or metformin (Glucophage), you will receive instructions about holding or adjusting your dose for the days your procedures are done.

Sedation

- Before your Y-90 infusions, you will be given a sedative medicine (similar to Valium and morphine) through your IV. This medicine will make you sleepy, help you relax, and lessen your discomfort. You will stay awake. This is called *conscious sedation*. You will still be sleepy for a while after the procedure.
- For some people, using conscious sedation is not safe. If this is true for you, you will need *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 chronic breathing problems (you might use a CPAP or BiPAP device while sleeping)
- Use high doses of narcotic painkiller
- Have severe heart, lung, or kidney disease
- Cannot lie flat for about 2 to 3 hours because of back or breathing problems
- Have a hard time lying still during medical procedures
- Weigh more than 300 pounds (136 kilograms)

Day Before Your Procedure

To prepare for sedation, follow these instructions closely:

- The day before your procedure, you may eat as usual.
- Starting **6 hours** before your procedure, you may only have *clear liquids* (liquid you can see through, such as water, Sprite, 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.
- You **must** have a responsible adult drive you home and stay with you the rest of the day. **You may NOT drive yourself home or take a bus, taxi, or shuttle.**

On the Day of Your Procedure

- Take all of your other usual medicines on the day of the procedure. Do **not** skip them unless your doctor or nurse tells you to.
- Bring a list of all the medicines you take, each time you come to the hospital for one of the steps of this procedure.
- 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 with unexpected and urgent problems. Thank you for your patience if this occurs.
- Unless the nurse coordinator tells you 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.
- A medical assistant will give you a hospital gown to put on and a bag for your belongings. 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 health assessment. Your family or friend can be with you there.
- 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 and ask you to sign a consent form if this has not already been done. You will be able to ask questions at that time.

Your Procedure

- The nurse will take you to the radiology suite. This nurse will be with you for the entire procedure.
- If needed, an interpreter will be in the room or will be able to talk with you and hear you through an intercom.
- You will lie on a flat X-ray table for the procedure.
- Wires will be placed on your body to help us monitor your heart rate.
- You will have a cuff around your arm. It will inflate from time to time to check your blood pressure.
- A radiology technologist will clean your skin around your groin area with a special soap. Tell this person if you have any allergies. The technologist may need to shave some hair in the area where the doctor will be working.
- The entire medical team will ask you to confirm your name and will tell you what we plan to do. This is for your safety.
- Then, your nurse will give you medicine to make you feel drowsy and relaxed before we begin.

After Your Procedure

- We will watch you closely for a short time in the Radiology department.
- You will then go to a short-stay unit in the hospital. A different nurse will monitor you there.
- Most times, you will be able to eat and drink, and your family may visit you.
- You will need to rest in bed for 2 to 6 hours. **You must keep your leg below the groin puncture site perfectly still for that time to control bleeding.**
- When you are fully awake and are able to eat, use the restroom, and walk, you will be able to go home.
- Problems after this procedure are rare. If they occur, we may need to keep you in the hospital so that we can monitor you or treat you.
- Before you leave the hospital, your nurse will tell you what activities you can do, how to take care of your incision, and other important instructions.

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC clinic staff are also available to help.

Radiology/Imaging Services:
206-598-6200

When You Get Home

- You may need to follow special precautions because of the potential radiation risk to others. Your nurse will give you these instructions before you leave the hospital.
- 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 sleepy or have some short-term memory loss.
- For 24 hours, do **not**:
 - Drive a car or use machinery
 - Drink alcohol
 - Make important personal decisions or sign legal documents
 - Be responsible for the care of another person
- You may shower or bathe the next day.
- There is usually only minor pain after Y-90 therapy. If your doctor says it is OK for you to take acetaminophen (Tylenol), this should ease any discomfort. If your doctor expects you to have more severe pain, you will receive a prescription for a stronger pain medicine.
- Resume taking your usual medicines as soon as you start to eat. Take **only** the medicines that your doctors prescribed or approved.
- You may be given medicines to help prevent infection or stomach ulcers. Take all of your prescribed drugs until they are finished.

When to Call

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

- Bleeding or swelling at the groin puncture site
- New coolness, pain, or decreased sensation in your leg below the puncture site
- New abdominal pain
- Vomiting, fever or chills

Who to Call

Interventional Radiology nurse 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

If You Have an Emergency

Go directly to the nearest Emergency Room or call 9-1-1. Do not wait to contact one of our staff.

UW Medicine

UNIVERSITY OF WASHINGTON
MEDICAL CENTER

Radiology/Imaging Services

Box 357115

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