

Photodynamic Therapy (PDT)



What is PDT?

Photodynamic therapy is a two-step treatment used to help treat symptoms caused by cancer or its treatment. It is called two-step since both a drug and laser treatment are used. Photodynamic therapy is most often used to help people who have cancer of the esophagus or lung. This treatment is given while you are in the hospital.

Here is information about the treatment, how to prepare for it, and how to care for yourself afterwards.

How is PDT done?

Step 1 First you will be given a drug called Photofrin™ through an IV (intravenous). This drug is a **photosensitive** drug. This is because the main side effect of this drug is that it makes people sensitive to bright light and sunlight for approximately 1 month.

Step 2 Approximately 48 hours (2 days) later you will be taken to the operating room for laser treatment. You will receive general anesthesia to put you to sleep. While you are asleep the doctor will use a camera and a scope to give you the laser treatment.

For treatment of the lung, the laser treatment will be given through a bronchoscope.

For treatment of the esophagus, you will receive the laser treatment through an esophagoscope.

48 Hours later

Then, another 2 days later, Step 2 will be repeated again.

Based on the results of this treatment, your doctor will decide on what follow up treatment is needed.

How does PDT work?

Once the Photofrin™ is injected, it travels through your body, clinging mostly to cancer cells. The wavelength of the laser light causes a chemical reaction which destroys cancer cells.

Neither the drug or the light (laser) alone can destroy cancer cells, they must be used together.

Possible Side Effects

The main side effect is photosensitivity. You will have strong sensitivity to bright light or sunlight for 4 – 6 weeks after this treatment. This begins as soon as you receive the drug, Photofrin™.

After receiving Photofrin™, your skin will react to even mild sunlight after only a few minutes of exposure. A photosensitive reaction looks and feels like sunburn. It will be red, swollen and may blister. This may cause long term skin discoloration.

Most people have little or no discomfort during this procedure. Rarely people may have problems with fever, nausea or constipation after the procedure.

You may have swelling or inflammation in the area of the cancer or tumor. This may cause some discomfort or a small amount of pain 1-2 days after the treatment. You will have pain medication available if needed.

How should I take care of myself after having PDT?

Use these photosensitivity precautions for 4-6 weeks after receiving the drug Photofrin™:

- Avoid being in direct sunlight for 4 – 6 weeks.
- Avoid strong indoor lighting such as halogen lamps, examination lights, dentist's lamps.
- Avoid direct sunlight through windows or skylights. Pull blinds or draperies closed over windows.
- Wear protective clothing and sunglasses when you are outside – even if it is a cloudy day. You should wear long-sleeved shirts, long pants or skirt, gloves, wide-brimmed hat, socks, shoes and sunglasses. Prepare to have these clothing needs brought for you to wear when you leave the hospital.
- Note that wearing sunscreen does NOT protect your skin from this reaction.
- When you travel by car, avoid sitting right by the window. It is better that you ride in middle of the rear seat of a car for example.
- Avoid helmet-type hairdryers. This is the type that would be used in a hair salon.

Safe Activities

- You may watch TV, go to a movie or work in front of a computer. These are not harmful.
- It is good for you to be exposed to some dim indoor light. Do not stay in total darkness.

When to call the doctor

Call your doctor immediately if your skin becomes red or blistered at any point after the treatment.

How do I know when I am no longer light sensitive?

Four (4) weeks after receiving Photofrin™ you can test your light sensitivity like this:

- Cut a hole 2" in diameter in a small paper bag. Place the bag over your hand. Expose your hand (in the bag) to direct sunlight for 10 minutes.
- If your skin reacts within 24 hours, then continue with photosensitivity precautions for another week. Then repeat this test.
- If no reaction occurs within 24 hours, gradually increase your exposure to bright light and sunlight. Continue to watch for skin reactions.

For further information:

- Talk to your doctor or nurse.
- See brochures about the use of Photofrin™
- Patient education handout: Bronchoscopy

If you would like more written information, please call the Library for Health Information at (614)293-3707. You can also make the request by e-mail: health-info@osu.edu.

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- ▶ Upon request all patient education handouts are available in other formats for people with special hearing, vision and language needs, call (614) 293-3191.