
Understanding Photodynamic Therapy for Age-Related Macular Degeneration (AMD)

Photodynamic therapy is a treatment for the eye. It's used to treat age-related macular degeneration (AMD). AMD is a condition that can lead to loss of eyesight. Photodynamic therapy uses a light-sensitive medicine combined with a laser to seal off abnormal blood vessels in your eye. It doesn't usually restore eyesight that you have already lost. But it may slow down the damage to your central vision.

What is AMD?

The retina is a very thin layer of cells in the back of your eye. It converts light into electrical signals and sends them to your brain. The macula is the center part of your retina. It gives you detailed vision in the middle of your visual field. AMD damages your macula. The macula may become thinner, and deposits of material can develop beneath it. Blood vessels may start growing beneath your macula. This can cause bleeding and leakage of fluid beneath your macula. This blood and extra fluid can lead to eyesight loss in your central vision.

AMD has 2 types: dry and wet. Abnormal blood vessel growth is present in only the wet type. AMD is a common cause of severe eyesight loss in older adults. In rare cases, it can result in total blindness. Because AMD affects the macula, you may still have your side (peripheral) vision. But you may have a slow or sudden loss of central vision.

Why photodynamic therapy for AMD is done

Photodynamic therapy is 1 type of treatment for AMD. It's a choice only for certain people with wet type AMD. It may be advised if your eyesight loss comes on slowly over time, instead of suddenly. The treatment is used less often now that there is medicine to slow down the growth of abnormal blood vessels. Your healthcare provider may advise the therapy in addition to medicine.

How photodynamic therapy for AMD is done

You will get an injection of a light-sensitive medicine through an IV (intravenous) line in the arm. Eye drops will be used to dilate your pupil. It will stay dilated for several hours after the procedure. A special type of contact lens will be put into the affected eye. This lens helps focus a beam of laser light on the retina using a tool called a slit lamp. Your eye care provider will shine a laser in the exact spot in your eye for about 1 to 2 minutes. This will activate the light-sensitive medicine. It will form blood clots in the abnormal vessels beneath your macula. This seals off the abnormal blood vessels.

Risks of photodynamic therapy

All procedures have risks. The risks of this procedure include:

- Temporary loss of visual sharpness, which in rare cases can be severe
- A new blind spot

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- Reactions in the skin where you had the light-activated medicine injected
 - Back pain because of injection of the medicine
 - Photosensitivity reactions like sunburn, if exposed to sunlight right after the procedure
 - Only short-term relief from AMD symptoms, because the blood vessels open again

Your risks may differ according to your age, your general health, and the type of your AMD. Ask your healthcare provider which risks apply most to you.