



**MidwestRetina**  
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## ***Histoplasmosis Information***

### ***What is Histoplasmosis?***

*Histoplasmosis is a disease caused by a fungus, which is commonly found in the soil mostly in the Midwestern United States. There are two basic types of histoplasmosis, systemic and ocular. Systemic histoplasmosis produces an influenza-like illness with fever and weakness that usually lasts about two weeks. After recovery, the infection can leave small, usually harmless scars throughout the body. The eye can be involved and the scars can be detected during an examination of the retina. Visual problems never develop during the initial, acute infection.*

### ***What Is Ocular Histoplasmosis?***

*Most people with healed "histo" scars in the eye do not develop further problems. However, abnormal blood vessels, also known as Choroidal Neovascularization or CNV, may begin to grow through the healed histoplasmosis scars many years later. CNV may cause bleeding and further scarring which can damage the retina. If the CNV is near the central part of the retina (the macula), reading vision may be damaged. Early diagnosis and treatment of CNV is very important for the best possible outcome. Visual problems from ocular histo can occur long after the initial infection.*

### ***How Will I Know if I Am Developing Ocular Histoplasmosis?***

*Most people with active ocular histoplasmosis have blurred or distorted vision in one or both eyes. Distorted vision is a very important symptom and should be reported promptly to your doctor. This may appear as straight lines looking wavy (doorways, telephone poles, flagpoles, etc.). Many people with decreased*

*vision in one eye may not realize they have a problem because the remaining good eye compensates so well. It is very important to check each eye separately. Ocular histoplasmosis may affect both eyes, although the second eye may not become involved for many years.*

*Ocular histoplasmosis is diagnosed with an eye examination involving dilation of the pupils. A special photographic diagnostic test commonly used is Fluorescein Angiography (FA). In this test, a plant-based dye is injected through an arm vein and a series of pictures are taken of the eye as the dye circulates through the retina. Another diagnostic test that may be performed is an Optical Coherence Tomography (OCT). Both methods of obtaining pictures of the retina are helpful in diagnosis and may also serve as a road map for possible treatment and/or retreatment.*

### ***What Treatment Is Available for Ocular Histoplasmosis?***

*There are no eye drops or antibiotics known to be effective in ocular histoplasmosis. Most cases of ocular histoplasmosis are treated with medications known as antibodies to vascular endothelial growth factor (Anti-VEGF). These are drugs that are used intraocularly to prevent the growth and eliminate new blood vessel development. They usually need to be injected several times. Avastin and Lucentis are two commonly used Anti-VEGF medications. The injection is a quick and comfortable office procedure. Treatment plans are customized for each patient, but often consist of three monthly treatments. Often, retreatments are needed. Two types of laser treatments are available, Photodynamic Therapy (PDT) and thermal laser. PDT consists of an intravenous infusion of a drug (Visudyne) followed by an application of laser in the eye for 83 seconds. This aims to collapse the CNV from the inside as opposed to thermal laser which uses heat to cauterize the CNV from the outside of the vessel.*

## **What Is Laser Treatment Like?**

*Laser is a precisely focused beam of light, which can seal (cauterize) tissue in the retina. The laser beam seals CNV but will not help already damaged retinal tissue to function better. If some of the visual decrease is due to swelling from leaky blood vessels rather than scar tissue per se, then laser may actually help vision by allowing the swelling to subside. Laser surgery is done in the office and is not painful. After the treatment, you will be free to return home. Unfortunately, despite any method used, recurrence of the CNV is common and additional treatment may be needed. Even if vision is not improved, laser therapy may help to limit visual loss and minimize damage that would have occurred without treatment. Laser treatments are sometimes combined with Anti-VEGF injections.*

## **What is Anti-VEGF Treatment?**

*These are drugs that prevent the growth and eliminate abnormal blood vessel development. They usually need to be injected several times.*

## **Can I Prevent Ocular Histoplasmosis?**

*The factors that cause active histo are poorly understood at this time. The body's immune system may play a role. No special diet or medical treatment has been shown to prevent the formation of CNV. If you have macular histo scars, you should monitor your vision at home with an "Amsler Grid", or a piece of graph paper and report any sign of distortion or decreased vision to your doctor promptly. Remember, the earlier the diagnosis and treatment, the better the visual outcome. Currently, there is no treatment for inactive histo scars.*

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