

# Retinal Imaging

Digital retinal imaging uses high-resolution imaging systems to take pictures of the inside of your eye. This helps opticians assess the health of your retina, and detect signs of—and manage eye and health conditions such as—glaucoma, diabetes, and macular degeneration.

Finding retinal disorders as early as possible is critical in preventing serious disease progression or even vision loss.

## Early Detection = A Better View

A comprehensive eye exam, including a thorough retinal exam, can detect early signs of numerous diseases that affect not only your eyes and your sight, but also your overall health. Digital retinal imaging helps your optician find possible signs of a number of diseases that first appear in the retina. In these instances, patients typically don't experience any pain or other symptoms.

## Here are just some of the diseases retinal imaging can help opticians see more closely:

1. **Age-related Macular Degeneration**—Macular degeneration is usually signified by leaking of fluid or bleeding in the back of the eye. This causes central vision loss.
2. **Cancer**—A dark spot at the back of the eye may signal a melanoma, which can grow unnoticed within the retina. If caught early, melanomas can be treated before they cause serious damage and travel to other areas of the body through the bloodstream.
3. **Diabetic Retinopathy**—Diabetes can cause changes in the blood vessels of the retina, like swelling and leakage or the creation of new blood vessels. Blindness can result without early detection.
4. **Glaucoma**—Pressure against the optic nerve and compression of the eye's blood vessels may indicate glaucoma. This disease causes permanent and irreversible vision loss.
5. **Hypertension (High Blood Pressure)**—Signs of high blood pressure often appear first in the eye. Indicators can include narrowing of the blood vessels, spots on the retina, or bleeding in the back of the eye.
6. **Retinal Detachment**—Retinas can lift or pull away from the wall of the eye. If not properly treated, this can cause permanent vision loss.



## A Piece of History

In addition to helping detect diseases early, retinal images provide a permanent and historical record of changes in your eye. Images can be compared side by side, year after year, to discover even subtle changes and help monitor your health.

Retinal images also make it easier for your optician to educate you about your health and wellness. The two of you can review your images together, and your optician can point out the various structures of the retina and explain treatment options for any conditions revealed by the pictures. The more you know about eye diseases, the more likely it is that you will understand and follow recommendations for treatment and prevention.