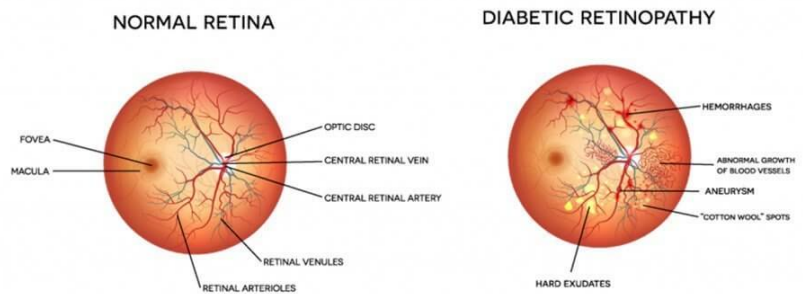


What is Diabetic Retinopathy (DR)?

Diabetic retinopathy is caused by high blood sugar levels that damage the blood vessels within the retina. Due to chronicity, even a well-controlled diabetic may still experience some diabetic retinopathy changes. There are 2 types of diabetic retinopathy: the beginning stages are known as Nonproliferative Diabetic Retinopathy (NPDR) and the more severe stages are known as Proliferative Diabetic Retinopathy (PDR). NPDR involves damaged blood vessels can swell and leak plasma and/or blood causing visual impairments. Patients with PDR will experience the same disease processes in addition to formation of unwanted, weak, new blood vessels growth as the circulatory system tries to maintain adequate oxygen levels within the retina. Severe cases of diabetic retinopathy can result in vitreous hemorrhages, retinal detachments, glaucoma, and blindness.

Signs and Symptoms of Diabetic Retinopathy

- Blurred and/or fluctuating vision
- Dark or missing areas in your vision
- Sudden vision loss



Types and Treatment of Diabetic Retinopathy



Photo credit: <https://invisioncare.com/diabetic-retinopathy/>

- All diabetic patients with or without diabetic retinopathy have similar recommendations:
 - Improve diet
 - Increase exercise
 - Avoid smoking, including secondhand smoke
 - Maintain a healthy blood pressure and cholesterol
 - Maintain a low A1c (6.9 or lower is ideal)
 - Maintain routine dental cleanings and podiatry visits
- **Nonproliferative Diabetic Retinopathy (NPDR):** Diabetic macular edema (DME) is the most common finding. DME is treated with intravitreal injections or laser depending on the severity and the patient's medical history.
- **Proliferative Diabetic Retinopathy (PDR):** Vitreous hemorrhage is the most common finding, it may require laser treatment (pan retinal photocoagulation (PRP)) or intravitreal injections to stop and prevent further growth of weak, leaking blood vessels. Patient's with PDR may also develop diabetic macular edema (DME). DME may be treated with intravitreal injections or laser depending on the severity and the patient's medical history. Patients that experience a vitreous hemorrhage may require a surgical procedure called a vitrectomy to remove the blood from the vitreous.

Injection FAQ

Are intravitreal injections safe?

Yes! As with any procedure in the eye there is a risk of bleeding and infection, but St. Luke's takes extra caution in prepping patients for their injection. Patients are draped, skin is cleaned, and sterile field are created to minimize infection.

- To help us minimize infection further:
 - ✓ Do not wear eye makeup
 - ✓ Keep eyebrows trimmed
 - ✓ Do not submerge your head underwater for 3 days after injection (showers are okay)
- Call to report pain and/or large decrease in vision

Do intravitreal injections hurt?

We do our best to minimize all pain. Each patient is given plenty of time to allow their eye(s) to numb. Most patient's report a pressure feeling, but not sharp pain.

What can I expect after an injection?

There is no down time after receiving an injection. You will notice what looks like oil and water mixing in your vision for a short time. You may also notice an increase in floaters, some of these floaters will go away with time.