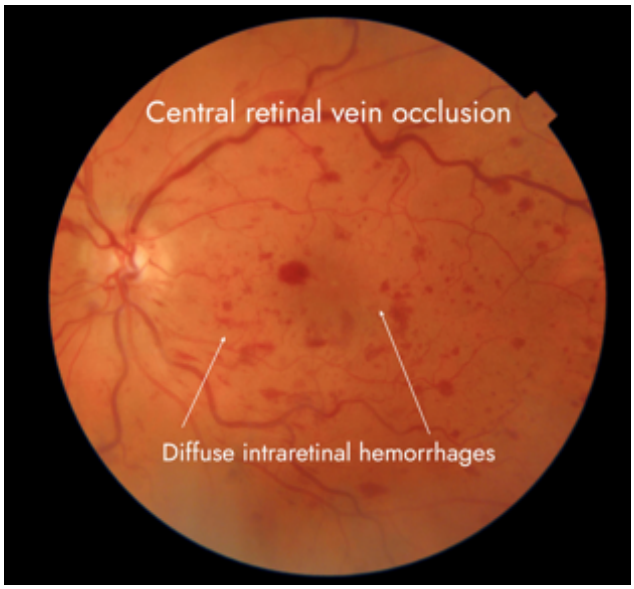
Retinal Vein Occlusion

WATERLOO REGIONAL EYE PROGRAM

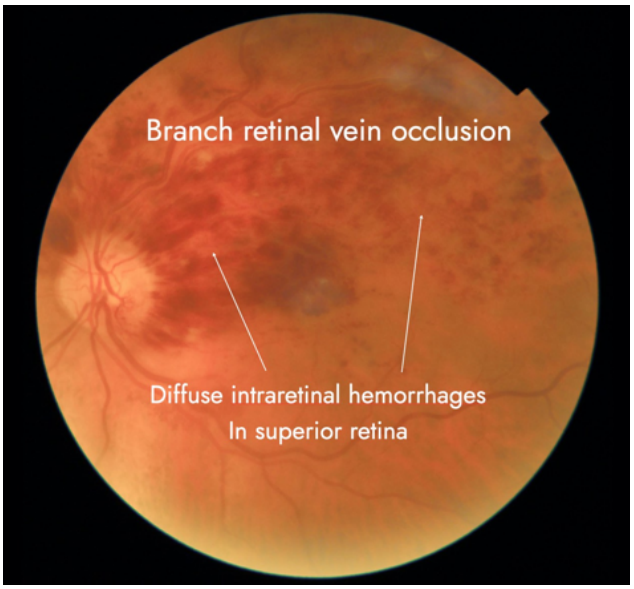
What is Retinal Vein Occlusion (RVO)?

A blockage (occlusion) of a vein in the retina can lead to sudden painless blurry vision in adults. When a retinal vein comes temporarily blocked, the blood backs up and leaks into the retinal layers. This blockage causes temporary lack of oxygen to the retina tissues and can lead to permanent retinal damage and secondary vision loss.



Central retinal vein occlusion (CRVO)

The blockage happen in the larger central vein, which impacts the entire retina.



Branch retinal vein occlusion (BRVO)

The blockage happens in one of the smaller retinal veins and only impacts that section of retina.

What causes a retinal vein occlusion?

Generally the cause of RVO is unknown. Common predispositions or risk factors include:

- High blood pressure
- Glaucoma
- Cardiovascular risk factors (diabetes, high cholesterol, smoking)
- Rare blood clotting disorders

What can I do to prevent a retinal vein occlusion?

We do not understand why some patients get RVO. The best way to reduce your risk of RVO is by controlling the underlying predispositions. If you have a RVO at a young age (<50 years) and have no other risk factors, then it may be worth doing testing for rare blood clotting disorders with your family doctor.

Illustrations by Mavis Chen

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How do you treat a retinal vein occlusion?

Patients who have RVO should be immediately referred to an ophthalmologist to be monitored for at least 6-12 months and assessed for retinal damage. Patients should also see their family doctor to be assessed for risk factors.

Patients with RVO can get chronic swelling of the retina, called macular edema, which causes painless blurry vision. Macular edema can often be managed with anti-VEGF injections to stabilise the vision. These medications are injected into the vitreous gel in the eye. Permanent damage to the retinal blood vessels after RVO may make ongoing anti-VEGF injections necessary to preserve central vision.

Patients with RVO are at risk of a severe secondary complication where abnormal blood vessels (neovascularization) start to grow. If not identified quickly, it carries a significant risk of blindness. Neovascularization can only be identified by an eye exam and requires urgent treatment with laser and sometimes eye injections.

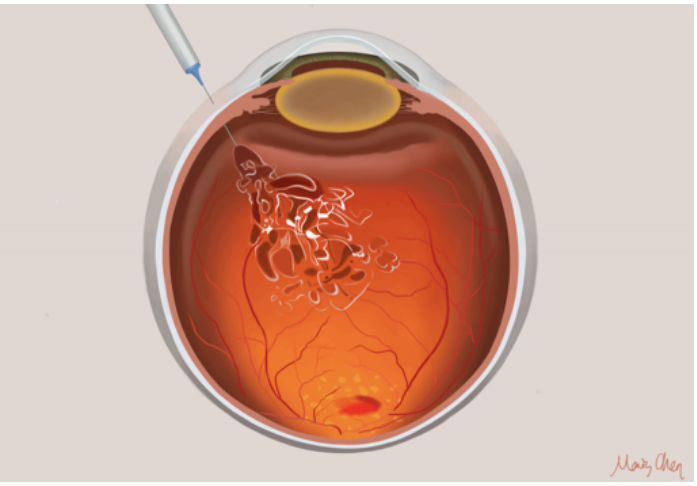
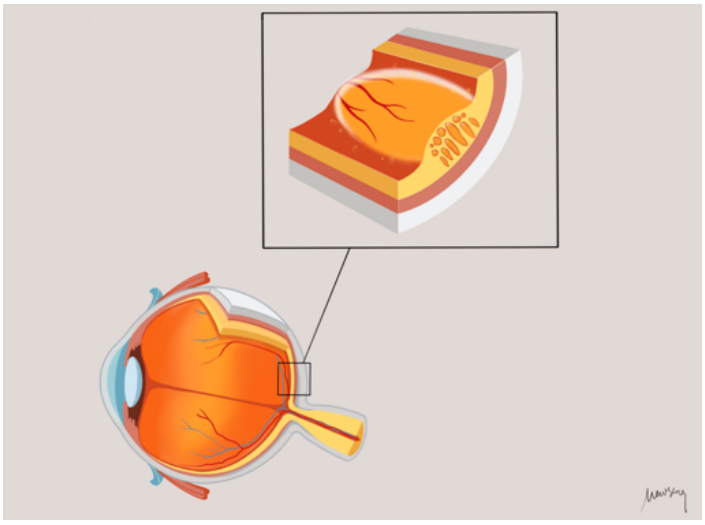
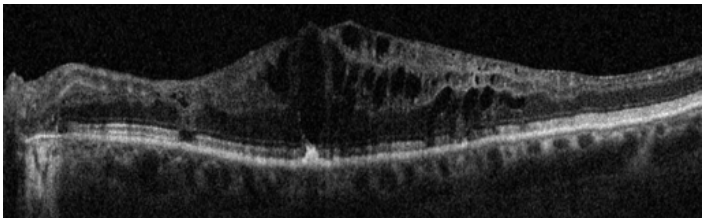


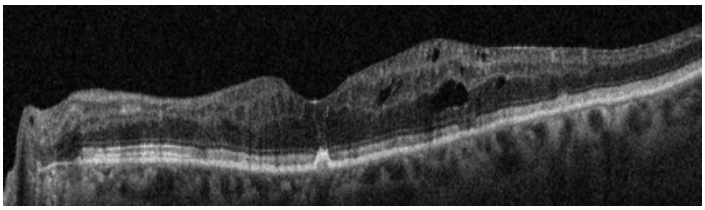
Illustration of anti-VEGF injection



Macular edema - blood vessels leak fluid into the retina causing blurred vision



OCT macular edema from retinal vein occlusion



OCT resolution of edema after anti-VEGF Injections

To learn more about retinal vein occlusion, scan this code or visit www.waterlooeye.ca

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