



HYPERTENSIVE RETINOPATHY

What is hypertensive retinopathy?

Hypertension (high blood pressure) is a risk factor for many organs in your body, including your eye. The most common condition it can cause in the eye is **hypertensive retinopathy**—damage to the blood vessels in your **retina**.

How hypertension affects vision

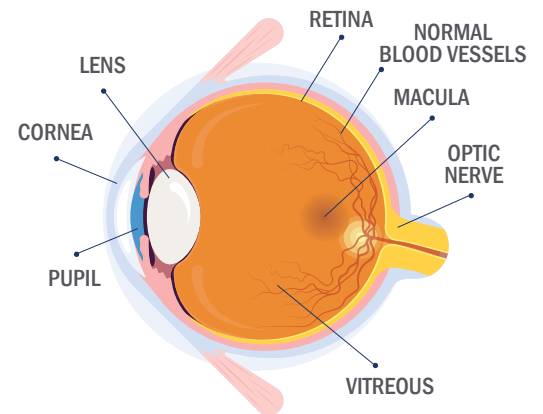
Light enters your eye and is detected by the **retina**, light-sensing nerve tissue at the back of your eye. The information it receives is transmitted through the **optic nerve** to the brain, where it is interpreted as the images you see.

Blood vessels play an important role in maintaining the health of your retina and optic nerve by supplying them with oxygen and nutrients. Arteries and arterioles bring oxygen-rich blood to your tissues and veins drain depleted blood from your tissues.

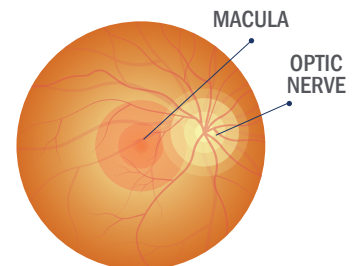
High blood pressure can cause damage to the blood vessels in the retina and optic nerve, limiting its function. Damage includes:

- Bleeding
- Swelling (edema)
- Fluffy white patches (**cotton wool spots**)
- Build up of protein and lipids (**exudates**)
- Changes in the blood vessels, such as thickening/narrowing (**arteriosclerosis**), hardening (**sclerosis**) artery/vein crossing (**AV nicking**)
- Swelling of the optic nerve, blurred vision
- In some cases, blockages (**occlusions**), which can cause severe loss of vision or blindness

HEALTHY EYE

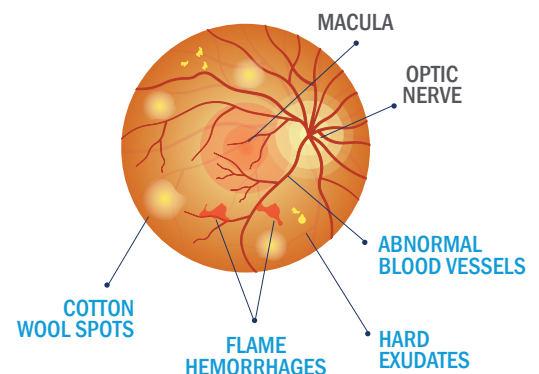


ANGLED VIEW



AFFECTED EYE

ANGLED VIEW



Examination and diagnostic testing

If you have mild to moderate hypertensive retinopathy, you probably will not experience symptoms—it is usually discovered during a routine eye exam. If the disease is more severe, you might experience headaches and vision problems.

For official diagnosis, your doctor may use different diagnostic imaging tools, including **fundus photography**, **fluorescein angiography** and **optical coherence tomography (OCT)**.

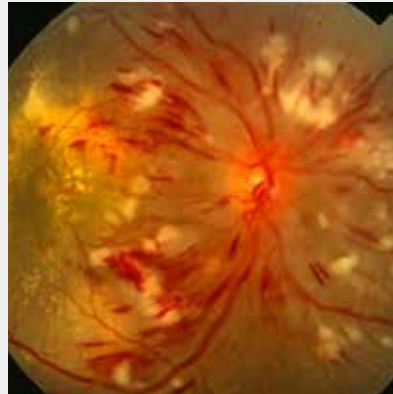
WHAT YOUR DOCTOR SEES ON FUNDUS PHOTOS

Healthy Eye



Normal retina

Affected Eye



Severe hypertensive retinopathy with cotton wool spots and hemorrhaging

Treating hypertensive retinopathy

The primary focus of treatment is reducing blood pressure. A healthy diet high in fruits and vegetables, physical activity, reducing salt intake and limiting caffeine and alcohol can help. If you smoke, take steps to quit. If you're overweight, your doctor may recommend losing weight as a strategy.

Your doctor may prescribe blood pressure medications such as diuretics, beta-blockers or ACE inhibitors. Your retina physician may retain close contact for consistent follow up.

ONE OF THE MOST EFFECTIVE THINGS YOU CAN DO TO PREVENT HYPERTENSIVE RETINOPATHY IS TO QUIT SMOKING. IT IS A MAJOR RISK FACTOR FOR HIGH BLOOD PRESSURE, WHICH CAN LEAD TO RETINAL BLOCKAGES AND MACULAR DEGENERATION.

What should I do to prevent hypertensive retinopathy?

- Control your blood pressure under the guidance of your primary care physician
- Take any hypertension medication as prescribed
- Get a blood pressure cuff and check your blood pressure at home regularly
- Record your blood pressure in a log daily
- Bring your log with you when you see your primary care physician or ophthalmologist
- Keep your blood sugar and cholesterol under control
- Quit smoking
- Maintain regular eye exams

Scan here to watch a video featuring our own Dr. Patrick Staropoli discussing hypertensive retinopathy

