

Migraines, Retinal Detachments, and Strokes

Migraines, retinal detachments, and strokes can often be confused and mistaken for one another. It is imperative to distinguish between these conditions, as they require different forms of action.

Migraine

A migraine is a term that encompasses multiple, related conditions. By definition, a migraine is a vascular disease, meaning it affects the body's blood supply. There are several types of migraines and it is important to recognize the differences.

Migraine with/without aura

Migraines are triggered by numerous factors such as hormonal changes, stress, diet, and changes in sleeping patterns. A migraine consists of throbbing pain on the sides of the head and behind the eyes. Possible symptoms accompanying the pain include nausea, vomiting, blurred vision, sensitivity to light and sound, and dizziness. Migraines can be accompanied by an aura where you may see flashing lights. These headaches tend to last 4 to 72 hours.

Ocular/Retinal Migraine

An ocular or retinal migraine is known as a migraine without a headache. During an ocular migraine, the blood vessels involved will go through a constriction phase where the blood supply to the eye is diminished. This causes the photoreceptors, which are light-receiving receptors at the back of the eye, to have a compromised blood supply. When this occurs, the photoreceptors will react even without "photopic phenomenon" (or signals of light). This can result in:

- blurred vision,
- seeing zigzag lines
- mirages
- seeing a broken glass effect
- temporary loss in parts of your vision

The key to recognizing an ocular migraine is that these photopic visual experiences are an "excitable event" in your vision.

Retinal Detachment

A retinal detachment is an emergency and can be repaired with good visual outcome if the patient acts in a timely manner. The retina is a tissue located at the back of the eye and its function gives us the ability to see. If a patient has a retinal hole or tear, they can prevent a retinal detachment from occurring by seeking medical help immediately. If the patient waits too long, fluid will build up behind the affected area and cause the retina to detach in the macula (location of the retina that processes the central vision). The outcome of this condition will result in poor visual acuity.

Symptoms are accompanied by flashing lights in your side vision and include:

- seeing showers of dots
- loss of side vision
- seeing a curtain over your vision

There is no pain associated with a retinal detachment. If you think you have these symptoms, see your eye doctor the same day or go to the emergency room.

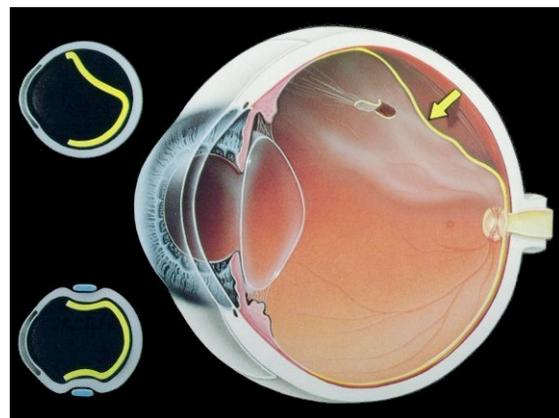


Figure 1. Retinal Detachment. *The yellow line represents the retina*



• **Dr. P.A. Spear** • **Dr. K. Marcovitch** • **Dr. G.M. Somerville** • **Dr. David Ng** • **Dr. N. Tucker**
• **Dr. L.M Vajoczki** • **Dr. W. Hatch** • **Dr. A. Macdonald** • **Dr. A. Yu**
2200 Yonge Street, Suite 600, Toronto, ON M4S 2C6 Ph: (416) 486-6084 F: (416) 638-7379 www.torontoeyeclinic.com

Stroke

A stroke is an emergency and immediate treatment is required. A stroke occurs when there is an interruption of blood flow to the brain or rupturing of blood vessels in the brain. This results in a sudden loss in brain function.

The visual disturbance accompanied by a stroke usually has a “dimming event”, as though someone has taken a dimmer switch and turned it down. This contrasts with a migraine, which causes an “excitable event”. All of the symptoms of a stroke occur very suddenly. They can be temporary or persistent.

Symptoms of a stroke include:

- weakness or numbness in the face, arms or legs
- difficulty in speech production
- difficulty understanding speech
- severe and unusual headache
- loss in balance
- decreased vision or loss of visual field

If you think you have any of these symptoms, call 9-1-1 immediately.