

Glaucoma Research Society of Canada News & Information



We Support New Ideas

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Spring 2019

Staying Fit Might Cut Glaucoma Risk

Previous studies noted that physical activity lowers intraocular pressure. A recent study suggests that meeting physical activity guidelines and being physically fit may reduce the risk of developing glaucoma by 40 to 50%.

Among nearly 10,000 people in a long-term study, even those who exercised less than the recommended 150 minutes a week had a lower risk of glaucoma than those who were completely sedentary. - *Medicine and Science in Sports and Exercise, September 2018*

Cause of Pigmentary Glaucoma Identified

In research partially funded by the GRSC, an international team of scientists have discovered a gene that causes pigmentary glaucoma, a type of glaucoma that strikes males in their 20s and 30s. The discovery may lead to new therapies for the condition according to Michael Walter, professor and chair of medical genetics at the University of Alberta who led the study.

- *Human Molecular Genetics, January 2019*

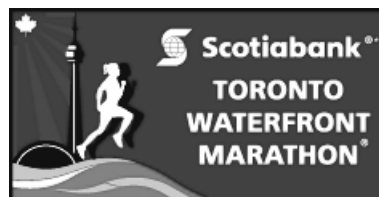
Mindfulness Meditation Reduces IOP

In a randomized controlled trial, researchers found that mindfulness-based stress reduction can lower intraocular pressure, normalize typical stress biomarkers and modulate gene expression in glaucoma. They suggested that mindfulness meditation may be recommended as adjunctive therapy for primary open angle glaucoma

- *Journal of Glaucoma, September 2018*

Calling All Members!

We need you, your families & friends
to walk or run in the



Sunday, October 20, 2019
and help raise money for glaucoma research

Thank You 2018 Participants & Donors

Last year the Glaucoma Research Society of Canada's participation in the Marathon raised nearly \$51,700 for research! This year with your help, we can do even better.

Some 2018 Participants



*GRSC Board members:
Dr. Catherine Birt, Dr. Mark Shaffer & Thomas Gottlieb*



Patti & Kevin Birch



Dr. Rajiv Bindlish
Answers
Your Questions
about Glaucoma

I was diagnosed with early stage glaucoma during a routine eye exam 2 years ago. Since then I have noticed that my peripheral vision is not as sharp as it once was, and I keep bumping my head. Should I see an eye specialist?

I suggest your family doctor or optometrist refer you to an ophthalmologist for a full glaucoma assessment including an eye exam, optic nerve imaging and visual field testing. This will help make the correct diagnosis and determine the best way to lower intraocular pressure (IOP) – the only treatment for glaucoma.

Would applying a warm damp compress for 10 minutes a day reduce the IOP in the aqueous humour of my eyes?

No - there is no clinical evidence that a warm compress will reduce IOP either by reducing aqueous production or enhancing aqueous outflow.

Eye clinics in Germany offer Eyetronic treatment for glaucoma. Is this electrical optic nerve stimulation a valid treatment?

Although promising, the Eyetronic procedure and study have been done in only one site in Germany and have not been validated with a second study or by an alternate site.

Usually before any treatments become accepted, they are tested in multiple sites and have multiple studies to validate that the treatment works.

One must be very careful when a clinic touts a procedure that a patient has to pay for and is the only clinic to report the procedure's success.

I have been diagnosed with open angle glaucoma with normal eye pressure of 16, how soon will I experience peripheral vision loss?

Glaucoma progression may take years to occur and varies among individuals. Frequent eye exams with optic nerve imaging and visual field testing are the best way to detect glaucoma progression. Recent studies recommend doing 6 visual fields in the first 2 years of diagnosis.

I have normal tension glaucoma with vascular-caused optic nerve changes, are eye drops still required to lower eye pressure?

The Normal Tension Treatment trial showed that despite treatment some patients' glaucoma worsened and without treatment some patients' glaucoma did not worsen. It concluded that eye pressure reduction is generally beneficial. Regrettably, only lowering pressure has been shown to help with the disease. We have no way to treat the presumed vascular component involved in some patients with glaucoma.

Will using steroid cream for a skin condition accelerate glaucoma's progression?

All steroid medications can potentially cause eye pressure elevation and lead to the development or worsening of glaucoma. The most common steroid medication that causes eye pressure elevation is topical steroid eye drops instilled directly into the eye, followed by topical steroid creams applied around the eyelids, and by orally ingested steroids.

Inhaled steroids for lung conditions and steroid nasal sprays and creams applied to body parts are less likely to cause elevated eye pressure, but I recommend getting your eye pressure checked about 2 weeks after starting any steroid medication to see if it has an effect on you.

Please note: glaucoma patients are especially at risk of a pressure spike with steroid use.

I lost my peripheral vision due to a pituitary tumor which compressed my optic chiasm. The tumor was removed, but my peripheral vision has not returned.

Compression of the optic chiasm from a pituitary tumor can lead to loss of peripheral vision as retinal ganglion fibres that start in the eye travel down the optic nerve to the chiasm and then finally to the brain. After surgery to remove the tumor, there is less compression on the chiasm and ganglion fibres, so as long as the fibres haven't been destroyed by the compression they may possibly recover to some extent and your peripheral vision may return but the process will take time.

Is there a drug that will make more blood in my brain to help with neuronal regeneration? Will stem cell treatment help?

No treatment or medication has been proven to stimulate blood flow to the brain. Gingko Bilboa has been studied but no clinical study has proven that it works. Stem cell research is still experimental and not available for clinical application. Some people who have sought stem cell treatment in unregulated clinics have had bad outcomes.

I take numerous drugs to control my asthma and various allergies. Are there specific eye drops I should avoid?

Avoid Beta Blocker eye drops such as Timolol, Cosopt, Azarga, Combigan, DuoTrav or Xalacom as they can make your asthma caused breathing issues worse.

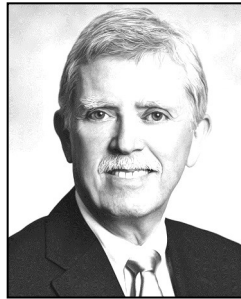
MARK YOUR CALENDAR

You're Invited to the Glaucoma Research Society of Canada's

Annual Supporters' Meeting

**Wednesday, October 16, 2019
CNIB Conference Centre
1929 Bayview Avenue, Toronto**

President's Message



The GRSC raised more than \$51,700 from participating in the Scotiabank Toronto Waterfront Marathon last October and has received generous support from donors, including bequests.

The Society is extremely grateful for the ongoing generosity of its supporters.

On the front page of this newsletter are details about the 2019 Waterfront Marathon. We encourage you to take part or support participants in it.

We received 22 applications for research grants and expect to announce the successful applicants and their grants by the end of April.

To continue to issue grants and fund needed research, the Society requires a continuing inflow of money. Information about various ways to provide support is set out on a special insert included with this newsletter.

I hope that you've had a chance to look at our upgraded website and found it easy to navigate. More work remains to be done on the research module.

At the Supporters' Meeting last October, Dr. Jeremy Sivak's presentation - *Glaucoma Research: Towards a Neuroprotective Treatment* - was well received, as was the popular Question and Answer forum that followed the presentation. The enclosed insert includes highlights of the meeting.
- James M. Parks, President

**Email Your Questions
about Glaucoma to
info@glaucomaresearch.ca
or Call**

416-483-0200 1-877-483-0204

Looking for Information about Glaucoma?

Check Out the Resources Page on Our Website

The GRSC office gets lots of questions about where to get information about glaucoma.

A detailed list is available in the Resource section of our website - www.glaucomaresearch.ca

Two websites are especially good for patient information:

World Glaucoma Association's Patient Education Website - www.glaucomapatients.org

Glaucoma Research Foundation in San Francisco - www.glaucoma.org

Eye Donations Needed

Information gathered from eyes with glaucoma can help researchers find the cure for this blinding disease. But eye donations are rare, and donations of eyes with glaucoma, rarer still. This precious material will be used by GRSC-funded scientists and the Human Eye Biobank initiative www.humaneyebank.ca for translational research.

If you are interested in donating your eyes after death, visit www.beadonor.ca to register your consent to donate. You can register your consent in person or by mail when renewing your health card with ServiceOntario.

For more information and frequently asked questions about eye donations, visit the Eye Bank of Canada, Ontario Division website at www.eyebankofcanada.kensingtonhealth.org

The Glaucoma Research Society of Canada is a national registered charity funding research into finding a cure for glaucoma. Since 1989, the GRSC has raised nearly five million dollars for research.
Charitable Registration No 889178695 RR0001

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