

Eye health 101 Dr. Gordon's top tips



An alternative to glaucoma medications

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October 2012

VISION CARE



ASK YOUR PHYSICIAN ABOUT HOW AN EXCITING NEW TECHNOLOGY FOR GLAUCOMA-(the World's smallest medical implant) could provide an alternative to glaucoma medication





Eye exams at any age are vital to preserving your vision health and ensuring a bright future for you and your family.

Good vision health starts regular eye exams

he ongoing vision health crisis faced by Canadians should be a cause for much dismay. Yet many are still unaware of how a simple eye exam can prevent vision loss, and in some cases, complete blindness.

Checkups are key

The solution, in many of the cases, is relatively simple—get your eyes checked regularly. The truth is many Canadians are unaware of how a simple eye exam can help them avoid vision loss.

If you don't have a vision problem, visiting an eye doctor has its advantages. You can build a beneficial relationship with a specialist who can provide advice on matters related to eye health and vision loss prevention. If you do have a vision problem, an eye exam could make a critical difference in improving or preserving your sight.

A recent study conducted by CNIB and the University of Waterloo School of Optometry shows us the alarming impact that vision loss is having in



the lives of Canadians. One in seven study participants were found to be living with reduced vision-and of that group, 70 percent could correct the problem by simply wearing the right glasses or contact lenses.

See what you're missing

Think for a moment what that means. There are many people who could be seeing more clearly, but simply aren't because they haven't taken the time to get their eyes checked and their prescriptions adjusted. What impact might this be having in their day-to-

EYE HEALTH 101: DR. GORDON'S TOP TIPS

Get regular eye exams

Many serious eye conditions have no symptoms in their early stages and can only be discovered through routine eye exams with an optometrist.

Check your family history

Eye diseases like glaucoma and AMD can be genetic. This could put you at greater risk if your parents or siblings have either disease.

Change your lifestyle

Simple lifestyle changes like eating a healthy diet, quitting smoking and wearing UV-protective sunglasses year-round can help prevent vision loss.

day lives? What aren't they seeing? Could they be developing an eye disease without even knowing it? The results of the study also suggested that more than one-third of Canadians over 40-many of whom have normal vision—could have eye disease.

See your optometrist now

Many serious eye conditions, like age-related macular degeneration and glaucoma, have no symptoms in their early stages, and can only be diagnosed through routine eye exams. The earlier these conditions are detected, the more likely it is that they can be treated successfully and the process of vision loss stopped or slowed.

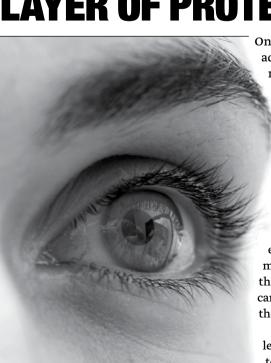
Since 75 percent of vision loss is preventable or treatable if detected early by an eye exam, Canadians need to get out and see their optometrist

We simply have to start giving the same priority to our vision health as to our heart health, dental health or any other facet of our wellbeing. So let's stop taking our eyes for granted, and see our way to a healthier future.

DR KEITH GORDON

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UV CONTACT LENSES PROVIDE AN EXTRA LAYER OF PROTECTION AGAINST SUN DAMAGE



Spend a sunny afternoon on a restaurant patio just watching people go by and you'll notice an endless parade of sunglasses, in styles as varied as the people sporting them.

One thing is clear: Canadians love their shades, not just for their cool

factor but also for their ability to dim the glare of the sun. What Canadians aren't so clear about is how the sun's ultraviolet radiation-commonly known as UV rays—can cause short- and longterm damage to their eyes. Many will be even more surprised to learn that their contact lenses can provide protection from these harmful UV rays. "The average contact

lens provides 10 percent to 20 percent UV protection," explains Dr. Stephen Cohen, an eye physician

and surgeon in Tucson, Arizona. "There are also a few select lenses on the market that offer the highest levels of UV protection, as much as

100 percent."

A real risk of damage

Most people today are aware that overexposing themselves to the sun can lead to premature aging of the skin, skin disorders, and even skin cancer. But when it comes to the effect of sun on the eyes, many people are still in the dark.

Case in point: ever heard of photokeratitis? It's not exactly a household term but it's something that happens to a lot of people—sunburn of the eye with symptoms that include redness, sensitivity to light, and teary eyes. Prolonged exposure to UV rays can also cause blurred vision, changes in colour perception, cataracts that literally cloud the lens of the eye, and macular degeneration-damage to the retina that leads to vision loss.

Triad of protection

To prevent sun damage to the eyes, Dr. Cohen recommends a "triad of protection" that includes a brimmed hat, sunglasses that filter UV rays, and contact lenses-for those who wear them-with UV-blocking capabilities. Health Canada

also advises avoiding exposure to bright

sunlight, particularly between 11 a.m. and 4 p.m. during the summer months, when the sun's rays are strongest.

While sunglasses with high-level UV blocking can go a long way towards preventing sun-damaged eyes, they're not enough, says Dr. Cohen. "Even those with 100 percent protec-

tion will block only the UV that reaches the glasses, but not the UV that come in from the sides of the glasses, or from underneath," he says. People who wear contacts can get

extra sun protection for their eyes by choosing lenses with high UV blocking. Dr. Cohen points to next-generation lenses that can block UV by as much as 80 to 100 percent. These lenses, which are meant for day and nighttime use, have a clear, non-tinted coating that provides an invisible layer of protection without adding weight or thickness. "This is the equivalent of sunscreen

for your eyes," says Dr. Cohen. "If you wear contact lenses, then this is something you need to have."

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Life at first sight April, Yvonne Felix saw her husband's for the first time.

"It was wonderful to see my boys... I loved seeing Noah. He's been in my life for six years; to see the face that goes with his little personality was wonderful."

Introducing Kamra™ inlay technology Making reading glasses a thing

Spotlight on blue light Learn about the damages LED

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Canadian Ophthalmological Society, Opticians Council of Canada, Canadian Association of Optometrists

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National Post, OCTOBER 2012 This section was created by Mediaplanet and did not involve the National Post or its **Editorial Departments**



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ADD TO YOUR VISION CARE WITH SUPPLEMENTS

A healthy diet alone may not meet the needs of people with vision loss. Improvements in cataract prevention and Age-Related Macular Degeneration (AMD) are well documented.

Lutein

Lutein is a member of the carotenoid family as is beta carotene and zeaxanthin. Supplementation trials have shown impressive results for AMD utilizing these nutrients. To obtain the amounts of lutein typically used in these studies (10mg) a person would have to consume approximately 6 cups of broccoli or 9 cups of carrots every day.

Omega-3 fish oil

Omega-3 fish oil provides a nutrient, DHA, which is an integral component of the retina and macula in particular. Studies utilizing DHA have shown reason for optimism for persons with eye disorders. Vegetables oils containing no DHA are prevalent in the North American diet today. Obtaining adequate amounts of DHA as used in the TOZAL and AREDS II study from diet alone may be cumbersome.

Antioxidants

Antioxidants are another aspect of study that has demonstrated success for vision disorders. Vitamins and minerals such as A, C, E, and zinc are basic yet proven nutritional antioxidants that may be over looked.

Ensuring adequate dosage and a consistent supply of vision specific nutrients may be difficult through diet alone. Daily supplementation with a scientifically formulated product is convenient and has a proven track record.

SOURCE: PLATINUM NATURALS

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INSPIRATION

Life at first sight: Building the miracle of vision

For 40 minutes last April, Yvonne Felix saw her husband's and two sons' faces for the first time.

Her husband Joe looked younger than she had thought. She saw the person her six year old son Noah had grown into, and the huge smile that sparkles from her eight month old son Thomas' face.

Technological marvel

This miracle was made possible by a new assistive device created by eSight, an Ottawa-based technology company. The company is testing a prototype of eSight Eyewear, glasses that incorporate a high-resolution video camera and virtual display in each eye, modifying what the wearer is looking at to maximize remaining sight.

Yvonnewas diagnosed with Stargardt disease, a form of macular degeneration at the age of seven. Now, at 31, the Hamilton artist has just two percent of her

Stargardt disease is rare, but macular degeneration is not.The age-related form affects over 1 million Canadians and is the leading cause of blindness for people over the age of 50. As in Yvonne's case, it slowly destroys central vision and remaining peripheral sight lacks depth perception, colour vision, contrast,

"It was wonderful to see my boys," shared Yvonne. "I loved seeing Noah. He's been in my life for six years; to see the face that goes with his little personality was wonderful," she said.

Making adjustments

A graduate of the Dundas Valley School of Art's public and community art diploma program, Yvonne's art involves large scale, permanent installations, such as an oversized granite magnifying glass outside Hamilton Police Services.

"I have found different methods and ways to be an artist that don't require



my sight," says Yvonne, who develops a concept and then assembles a team of engineers, architects, and fabricators to create the piece with her.

"I don't feel sight is required to achieve the goals that I have," said Yvonne, "but the eSight made me realize how much more I could accomplish using the assistive device.

"I'm looking forward to reading bedtime stories to my kids and helping them with homework," she says. "These may seem like very small things, but to me they are the world of difference."

Fundraising for vision health

To purchase the device when it is released next year, Yvonne is

fundraising. She recently collaborated with Mindham Fine Jewellery in Toronto to create the Blind Eye Collection of pendants and earrings. Delicately rendered in sterling silver, the pieces depict the blind spot that obscures Yvonne's central vision and are available online at www.yvonnefelixartwork.com. Partial proceeds will also support the Foundation Fighting Blindness and sight-saving research at Canadian hospitals and universities.

Assistive devices are a temporary solution for Yvonne. She believes research will one day find cures for retinal diseases and she wants to help make that happen.

"Vision loss can be devastating. Even

if the research doesn't cure my eye disease, if I can help someone else see again, I want to do that," said Yvonne.

Daily gratitude

Yvonne is proud of the life she's built but she has "low" days too, something she says isn't talked about enough.

"When I hit those bad times, I allow myself a two minute pity-party—it's important to allow yourself to be human sometimes-but as soon as the timer goes off and the two minutes are over I think of all the things in my life that I'm grateful for: I have a home, wonderful children, supportive family and friends. I choose to use my remaining sight to help myself and help others," she said.

FOR MORE INFORMATION

Experience eSight Eyewear at the Foundation Fighting **Blindness Vision Quest** conferences in Edmonton, October 13 and Toronto, **November 3. For more** information visit www.ffb.ca or call 1.800.461.3331.

> **ERIN GEORGE MANAGER, COMMUNICATIONS FOUNDATION FIGHT BLINDNESS**

editorial@mediaplanet.com

Sponsoring a cataract surgery... \$33 Giving a mother her sight back... priceless



There is no question, the digital age has changed people's lifestyles. Time has become a precious commodity in our day. The use of electronic devices like smartphones, tablets, and e-readers not only keep us efficient and connected, but have also placed new stress on our eyes. We are forced to focus and refocus our gaze all day long, as we use these conveniences.



SEEING THE DIGITAL AGE CLEARLY WITH HOYA LENSES

This new and continued demand on our visual system can be eased by modern lens solutions like the Hoya Nulux Active. This is a specialized aspheric single vision lens that helps eyes adjust easier between viewing near and distance, especially effective with the use of cell phones, computers and PDAs.



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Have you had this happen to you? You have great distance vision, can spot a hawk's nest at 500 meters, but you go to the drugstore to buy some shampoo, and all of a sudden, the words disappear from the bottle—too blurry to be deciphered because you forgot your reading glasses. I am sure any of us over 45 have had this or similar scenarios occur to us.

Changing the eye's power

close, we need to change the optical power of our eye to bring the print into focus. We can accomplish this by increasing the thickness of our natural lens of the eye. This happens with the help of the ciliary muscle, the internal muscle of the eye, without any effort on our part. This is all well and good when we are younger, but

It turns out that in order to see up



and Vision Sciences Toronto Western Hospital

David Rootman,

MD, FRCSC

University

of Toronto;

things change, including the ability to dynamically change the power of our eye without even thinking about it.

There are options: we can suffer with our over the counter reading glasses or get a more stylish pair of bifocal or multifocal glasses. It's a shame to wear glasses all the time, especially if your distance vision is naturally good, or has previously been corrected by the wonder of laser eye surgery. Another solution is to wear contacts, and there are good bifocal contacts out there. Monovision may work, a technique whereby a contact lens for close up focus is worn in one eye. This works for some people and there are many fans of it. The trouble is that one eye is always out of focus, either close up or in the distance. If you can get used to the blur, it is a decent option; many people cannot.

What can be done to keep our good distance vision and still be able to read into our middle age and later without the bother of reading glasses? There is an exciting option that has been available in Europe, Asia, and the Middle East for a five years now and was just approved in Canada.

A simple solution

LEFT: The KAMRA™ corneal insert enables you to see things up close and far away. RIGHT: This innovation eliminates the need to wear eyeglass

The KAMRA™ is a corneal insert. The insert is a very thin, small flat ring, shaped like a doughnut. It is inserted into the cornea under a LASIK flap or into a pocket. Using LASIK technology, we can insert an extremely thin (5 micron) inlay into the cornea and give us near vision without compromising distance vision.

The technology works on a simple pinhole camera effect. When we look through a very small opening, or take a photo with a very small aperture, we get a clearly focused image. Therefore by inserting the inlay in front of our pupil, within the cornea, we get focus up close and in the distance. The solution is truly simple and remarkable. This device has been implanted in over 15,000 patients worldwide and 12 eye doctors so far have had the proced-

Now we have another option to solve the reading vision problem, and next time, we'll be able to go shopping without our reading glasses.

DR. DAVID ROOTMAN, MD, FRCSC

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There is a distinct increase in eye injuries typically reported around Halloween; however, eye injuries related to cosmetic contact lenses can happen year-round. Cosmetic contact lenses can be used to change eye colour, or to create an effect such as "vampire" or "cat" eyes.

Tips on non-prescription cosmetic contact lenses:

Seek an eye care professional who will provide you with a proper contact lens assessment. Never wear lenses that are torn or discoloured. Always inspect contact lenses before using them. Cosmetic contact lenses purchased from a nonregulated source could be defective, used, expired, and may not be approved in Canada or the United States.

■ Never share lenses with others. Swapping contact lenses significantly increases the risk of lens contamination and the spread of infection.

Do not sleep in contact lenses unless you have been provided with an appropriate extended wear lens by a licensed eye care professional.

The Opticians Council of Canada recommends that everybody consult a Licensed Optician whenever they purchase an eye product, whether it be contact lenses, eyeglasses, or low vision aids. Licensed Opticians are trained to recommend and safely fit a range of devices, and can also provide training on contact lens use and instruction on hygiene.

> **SOURCE: OPTICIANS COUNCIL OF CANADA**

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Spotlight on blue light: How digital devices affect our eyes

We see it everyday—in the bright glare of the sun, the glow of fluorescent light bulbs in our workplace, and in the bright images flashing on our flat-screen, LED televisions, and electronic devices.

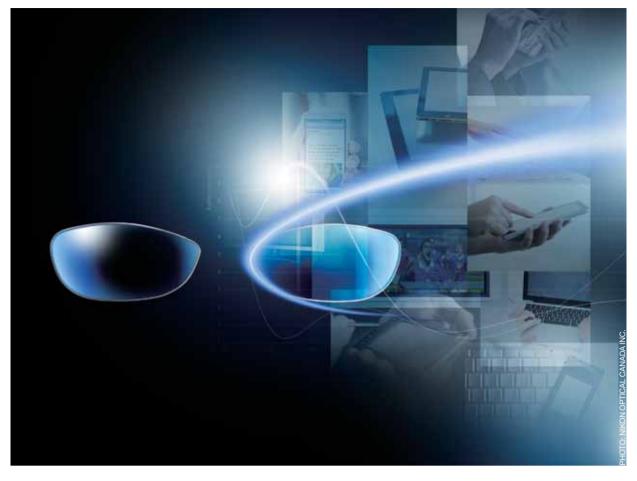
It's blue light, the most intense portion of the light spectrum that's visible to human eyes. Today, with people spending so many hours in their day working, watching and playing with their computers and mobile electronic devices, exposure to blue light is reaching unprecedented levels.

Risk of over-exposure

"Blue light has the highest energy of all the colours in the visible light spectrum, and it has a short wave length similar to the particles of air around you," explains Chantal Gravel, senior technical consultant at Nikon Optical Canada Inc. The company makes eyeglass lenses and coatings and is part of Nikon Corporation, best known for its cameras and photographylenses.

"When blue light hits air particles, it scatters, which causes a glare effect," adds Ms. Gravel. "And when blue light gets into your eye, some of it will scatter so it will not focus well on your retina, causing eye fatigue."

In a recent survey by The Vision Council, a global organization that represents the optical industry, more



than one-third of U.S. adults said they spend four to six hours a day with digital or electronic devices. The survey also found that about 14 percent of young adults—ranging in age from 18 to 34 years old—used digital devices an average of 12 hours daily.

Not surprisingly,70 percent of adults

who took part in the survey reported eye strain while using their digital devices. In its 2012 report on eye safety in a digital age, The Vision Council noted that many electronics are now made with LED (light-emitting diode) technology, which emits intense blue light.

Increased eye risks

"LED technology is wonderful because it produces this fantastic colour contrast and makes images look more real," says Ms. Gravel. "They're also very thin, small, cheap and easy to produce, and don't require much energy to work. But they do emit a lot of blue light."

FILTERING
LENSES CAN
REDUCE
DAMAGING EYE
STRAIN CAUSED
BY BLUE LIGHT

While eye fatigue is usually temporary in most people, routine exposure to blue light can accelerate aging of the retina and cause permanent damage to eye cells, increasing the risk of vision loss. Some studies also point to blue light exposure as a risk factor for uveal melanoma, a cancer of the eye.

Protect your vision

Reducing exposure to LED light sources is a good way to protect eyes from an excess of blue light, says Ms. Gravel. This is especially important for children, whose eyes are still developing.

It's also a good idea to use eyewear designed to filter blue light. Earlier this year, Nikon introduced the first and only eyeglass lens coating of its kind in North America called SeeCoat Blue with the ability to block 10 percent of incoming blue light, featured in the E-Life series.

"That slightly changes the colour contrast and allows you to stare at your screen longer without experiencing eye fatigue," says Ms. Gravel, noting that this technology would likely not be suitable for people looking for colour precision, such as graphic designers or photographers.

The clear coating, which adds a very subtle yellow tinge to the lens, would also work for people who don't wear prescription eyeglasses but spend a lot of time in front of a computer.

MARJO JOHNE

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ISSUES IN THE VISION INDUSTRY



Dr. Mark Cohen Leading Corneal Researcher; Co-Founder LASIK MD



Dr. Paul Rafuse Associate Professor, Dalhousie University; Ophthalmological Society, Eye Physicians and Surgeons of Canada



Dr. Karl Citek Professor of Optometry, College of Optometry

■ Question: How is the vision industry responding to current issues and new developments?

■ Answer: Vision care specialists are advocating for consumer protections to make products safer and working on advancements, giving patients more options in corrective

Non-corrective lenses

Halloween is a scary time of year for more reasons than the ghosts and goblins that haunt our neighbourhood streets. Too many young people are making cosmetic contact lenses part of their costume, purchasing something that should be classed as a medical device in unregulated premises such as party supply stores, flea markets, and on

"It is a particular problem among teenagers," says Dr. Paul Rafuse, a Halifax ophthalmologist, associate professor at Dalhousie University and President of the Canadian Ophthalmological Society, Eye Physicians and Surgeons of Canada.

"The damage can be significant." says Dr. Rafuse. This can range from corneal abrasions or scarring to

There is virtually no difference between corrective and cosmetic contact lenses in the way they are inserted and interact with the eye. "Yet because there's no regulation on cosmetic lenses, there is no professional oversight of proper fit, cleaning or any ongoing follow-up," says Dr. Rafuse.

This will change when new legislation, Bill C-313, receives final approval. Currently in the Senate after its passage in Parliament, the bill will classify non-corrective contact lenses as medical devices and require manufacturers and distributors to acquire a licenses for sales in Canada.

All three optical professionsopticians, optometrists and ophthalmologists-have advocated on behalf of the legislation and Dr. Rafuse says its passage "adds a significant step in improving consumer safety."

In addition to prevention, advancements in new techniques and procedures are giving patients with vision conditions more options.

Advancements in LASIK

First performed in 1990, the surgery has seen several technological breakthroughs and safety features

- **Eye trackers:** allows the laser to compensate for eye movements during surgery
- Custom Wavefront treatments: an advancement in treating night vision conditions

■ Thinner, safer flap makers: creates very thin LASIK flaps and flaps on corneas with fragile surfaces

- **■** Femtosecond technology: alternative method of creating flaps for patients with certain eye conditions
- **Topoguided treatments:** allows correction of almost any problem due to irregular corneal shape

Safe and effective

"LASIK is widely accepted as the safest elective procedure in the world," says Dr. Mark Cohen, a leading corneal researcher and a co-founder and National Medical Director of LASIK MD.

Standard LASIK is effective and affordable for simple vision correction, says Dr. Cohen. "Patients with large pupils, thin corneas, or high prescriptions generally opt for Custom Wavefront LASIK treatment." It covers more of the eye and conserves more corneal tissue, he adds.

"LASIK is stable in the long term, with less than one percent of patients needing a retreatment following surgery."

Sun damage prevolent in all seasons

An area of vision health receiving increasing attention is that of eye protection from harmful Ultraviolet (UV) rays.

"The problem is that people who are wearing corrective lenses or regular sunglasses mistakenly believe their eyes are protected," says Dr. Karl Citek, professor of optometry at Pacific University Oregon. "They're not aware of the harm that reaches the eye vertically or horizontally that hits the back side of the lens."

The solution, Dr. Citek says, is specialized coating on the inside of glasses to block UV rays from reaching the eye.

> **DIANA MCLAREN** editorial@mediaplanet.com

An alternative to glaucoma medications

Approximately 67 million people worldwide have glaucoma, with more than 400,000 people in Canada.

As your chances of developing glaucoma increase with age, the general aging of the population is only going to cause those numbers to increase. About half of individuals with glaucoma don't even know they have it; it's painless, and the resulting vision loss is silent, slow, and progressive.

When aqueous humor is prevented from flowing out of the eye via its normal pathways, it builds up and creates pressure that can cause damage to the optic nerve. Once the optic nerve is damaged, it cannot be repaired. When someone is diagnosed with glaucoma, the treatment focuses on controlling pressure within the eye. The majority of patients with mild to moderate glaucoma will spend the rest of their lives instilling multiple ophthalmic drops to control the buildup of aqueous humor.

"Lowering eye pressure with multiple eye drops has been our mainstay of treatment for glaucoma. However, side effects, inconvenience, forgetting to put the drops in at the right time, costs, and lack of effectiveness are ongoing issues. Furthermore, eye drops do not treat the root cause of elevated eye pressure—which is obstruction of the normal microscopic drainage veins in the eye," adds Dr. Ike Ahmed, eye surgeon at The Credit Valley Hospital and Assistant Professor in the Department of Ophthalmology and Vision Sciences at the University of Toronto.

Treating the root cause Medicine has been trending towards procedures that are less invasive

and improve the quality of life for



patients, and technology in glaucoma treatments is finally catching up. The iStent® Trabecular Micro-Bypass Stent is a highly innovative device that creates a permanent channel through the blockage to restore the eye's natural aqueous outflow. Restoring this natural outflow lowers and controls pressure in the eye.

Dr. Ahmed notes that "using micro-stents to treat the underlying blockages that occur in glaucoma is breakthrough technology that has been shown to be extremely safe. The micro-stent can be placed on its own or in combination with cataract surgery. Currently, we are using it for patients with more mild to moderate levels of glaucoma damage and found that most patients achieve a signifi-

cant amount of lowering of their eye pressure with a reduction of medication use. This is really exciting news for our patients."

Dr. John Blaylock, a Refractive Cataract Specialist at Valley Laser Eye Center, also adds that "once you lose your vision, you can never get it back again. iStent can be inserted in a minimally invasive procedure that may be performed at the same time as cataract surgery for patients with mild to moderate open-angle glaucoma. iStent keeps the pressure in your eye at a safe level, reducing or possibly eliminating your need for medication."

How it works

iStent works much like the stents used to prevent heart attacks and strokes by opening clogged vessels

to increase the flow of fluid. Once implanted, it begins to work immediately and continuously controls pressure in your eye by increasing its ability to drain fluid. In a recent clinical study, 72 percent of patients that received iStent remained medication free at 12 months. This device has been approved in Canada since August of 2009, is widely available and has been successfully implanted in many patients since then.

If you are a patient with mild to moderate glaucoma and taking one or more glaucoma medications, ask your doctor if a procedure like this is an option for you.

POLYDOR STROUTHOS

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EYES NEED PROTECTION FROM DAMAGING UV RAYS

Increased awareness of the harm caused by Ultraviolet (UV) rays has seen a growth in products and regulations to protect our skin. What's less well known is just how damaging these UV rays can be to our eyes.

"People think if they're not looking directly into the sun, or it's a cloudy day, they're not at any risk," says Dr. Karl Citek, professor of optometry at Pacific University Oregon and a leading researcher in UV damage and the impact of backside reflection.

"In fact, UV reflects off many surfaces, for example water or snow. Even if you are wearing glasses light will reflect from the back surface of the lens," Dr. Citek says.

He uses the analogy of a mirror with a flat surface. You not only see what's directly in front of you-but also what's behind or off to the side. "The problem with most spec-

tacles, especially if they are flat, is that the back surface behaves just like a mirror." And the current sunglass fashion

-oversized and flat-only makes the problem worse, Dr. Citek says.

Special coating for the backside of the lens, such as that found in Crizal lenses, is formulated to protect the wearer from this reflection.

The damage can run deep

Just how damaging UV rays are to your eye depends on several factors: ozone

levels, how long you spend outdoors, whether you're wearing an uncoated lens, what size and shape your glasses are and where they're positioned on your face.

The most common form of shortterm damage is photokeratitis. While it's painful, most mild cases are over between 24-48 hours and the cornea heals itself, Dr. Citek says.

"If exposure is repeated or longterm, damage is not only on the surface. It's inside the eye. This increases

the potential for formation of cataracts. Damage can also occur to cells at the side of the cornea which can cause

mon frames and lenses will be rela-

an abnormal growth that may have to be removed surgically." Dr. Citek says that the most com-

tively flat in design, not contoured like sunglasses. If you spend a lot of time outdoors, good anti-reflective coating and wide temples offer the best protection for your eyes. When you are outdoors at any time

of the year, well-fitting sunglasses, also available in prescriptions, provide the best vertical and horizontal protection. Dr. Citek says to look for sunglass frames with the following features:

- Contoured, and resting close to your eyes
- No larger than the frame of your face: brow to cheek and side of nose to side of head

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DRY EYE SOLUTIONS

Do your eyes frequently feel scratchy, itchy, or tired? If so, you may be suffering from keratoconjunctivitis sicca, commonly known as dry eye. Symptoms varying from mild, occasional discomfort all the way to chronic, debilitating pain, with up to ten percent of the Canadian population suffering from dry eye. For most of us that means going to a drug store and picking up artificial tears that can provide temporary relief. If you have ever had to examine the artificial tear section, you know there are a vast number of products available. So how do you know which is the best

Traditional options

choice?

The majority of tears available today are based on cellulose polymers, for example hydroxypropyl methylcellulose (HPMC), carboxymethyl cellulose (CMC), or polyvinyl alcohol (PVA) derivatives of varying concentrations and viscosities. Many of these products have been available since the late 1960s. The lower concentration solutions are sold as drops and those with the higher concentra-

tions are sold as gels or ointments. Traditionally-formulated artificial tears are quickly eliminated from the surface of the eye by evaporation. They can also be pushed off by blinking, due to their lower viscosity. As a result, they need to be applied a few times a day in a case of mild dry eye, or twice an hour in more severe cases. Gels and ointments, more concentrated and viscous formulations, often reduce the number of applications. Although, they also tend to blur vision and are difficult and messy

Overcoming the drawbacks

to apply.

Newer hyaluronan-based artificial tears have largely overcome these limitations because they provide easy to apply and long-lasting relief without blurring vision.

Hyaluronan is a special viscoelas-

tic substance that allows the tears to lubricate and hydrate the surface of the eye for an extended period of time. It gives these artificial tears a unique, blink-activated property. When the eyelids close, it allows this solution to spread out evenly across the surface of the eye to moisten and lubricate the corneal surface. As the eyelids open, the hyaluronan solution captures the water, holding it for release with the next blink.

The most technologically advanced formulations combine high molecular weight hyaluronan with glycerin, which work by interacting with both the water and oily layers of the natural tear film to provide comfortable and long-lasting relief from symptoms of dry eye.

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WARNING: UV-absorbing contact fenses are NOT substitutes for protective UV-absorbing eyewear such as UV-absorbing goggles or sunglasses because they do not completely cover the eye and surrounding area. You should continue to use UV-absorbing eyewear as directed, NOTE; Long-term exposure to UV radiation is one of the risk factors associated with cataracts. Exposure is based on a number of factors such as environmental conditions (altitude, geography, cloud cover) and personal factors (extent and nature of outdoor activities). UV-blocking contact lenses help provide protection against harmful UV radiation. However, clinical studies have not been done to demonstrate that wearing UV-blocking contact lenses reduces the risk of developing cataracts or other eye disorders, Consult your eye care professional for more information.

Important information for contact lens wearers: ACUVUE® Brand Contact Lenses are available by prescription only for vision correction. An eye care professional will determine whether contact lenses are right for you. Atthough rare, serious eye problems can develop while wearing contact lenses. To help avoid these problems, follow the wear and replacement schedule and the lens care instructions provided by your eye care professional. Do not wear contact lenses if you have an eye infection, or experience eye discomfort, excessive tearing, vision changes, redness or other eye problems. If one of these conditions occurs, contact your eye care professional immediately. For more information on proper wear, care and safety, talk to your eye care professional and ask for a Patient Instruction Guide, call 1-800-267-5098 or visit acuvue.ca.

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