



DON'T LOSE SIGHT

THE CANADIAN ASSOCIATION OF OPTOMETRISTS

**BEST PRACTICES GUIDE
TO VISION CARE BENEFITS**

DON'T LOSE SIGHT

of Vision Care Benefits

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About the Canadian Association of Optometrists (CAO): The Canadian Association of Optometrists (CAO) is the national association for optometry. Recognized at home and internationally as a leading advocate for the profession, the CAO is the authoritative voice on the critical issues that affect its members and their practice. Established in 1948, the CAO represents over 5,400 members. To learn more about CAO please visit opto.ca.

2.2 billion

people worldwide
have vision
impairment
or blindness

5.5 million

Canadians live with
vision threatening
conditions

Vision loss cost the
Canadian economy
an estimated

\$15.8 billion
per year in 2007

The world is facing a vision health crisis that will affect all Canadians.

1. PREAMBLE

In the Fall of 2019, the World Health Organization launched its first world report on vision. The news is alarming: At least 2.2 billion people have vision impairment or blindness and more than one billion of these cases could have been prevented or have yet to be addressed.¹ This is not just a low- and middle-income country issue. The report highlights some of the reasons behind this:

- ➔ A myopia epidemic caused by increased time spent indoors and increased “near work” activities on phones and other devices. This has only been exacerbated by the COVID-19 crisis.
- ➔ Prevalence of diabetic retinopathy is growing at an alarming rate — linked directly to the increasing numbers of people living with diabetes, particularly Type 2, which can affect vision if not detected and appropriately managed.
- ➔ Due to weak or poorly integrated eye care services, many people lack access to comprehensive eye exams that can detect conditions and lead to the delivery of appropriate preventive care or treatment.

The situation is as alarming in Canada where 5.5 million Canadians live with vision threatening conditions.² Vision loss cost the Canadian economy an estimated \$15.8 billion per year in 2007 — with \$8.6 billion (54.6%) representing direct health system expenditures and \$4.4 billion (28.0%) due to productivity losses³ — and this number is expected to rise to \$30 billion per year by 2032². This represents the highest direct healthcare cost of any disease category in Canada.⁴

1,000,000

Canadians missed work or school because of vision problems

Only

15% of Canadians

are satisfied with their vision care benefits plan

74%

of private vision care expenditures are out-of-pocket expenses

Poor vision costs employers indirectly: it affects employee productivity, absenteeism, and mental health. In 2016 nearly one million Canadians missed work or school because of vision problems² and a survey of American adults found that 90% reported that visual disturbances are negatively impacting their work⁵. Employees with vision loss are likely to be less productive, have higher absenteeism and retire earlier than other employees.⁶

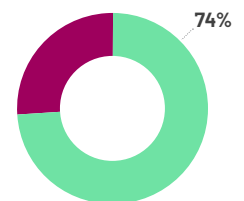
Only 15% of Canadians are satisfied with their vision care benefits plan and 21% describe it as "poor" or "very poor".⁷ The out-of-pocket burden for Canadians to access vision care is substantially higher than for other medical professional services. Approximately 74% of private vision care expenditures were incurred by Canadians as out-of-pocket expenses, versus 37% for drugs and 44% for dental.⁸ The high out-of-pocket burden causes some Canadians to forego the routine and preventive care which would ensure their eye health and preserve vision. Research suggests one in three Canadian adults have not sought vision care or purchased corrective lenses due to cost, and even one in four Canadians who have access to vision care benefits report not receiving services they need due to cost.⁹

There is an urgent need to modernize vision care benefits plans to improve eye health among the Canadian workforce. Vision care benefits in Canada are outdated. Most plans do not effectively harness the significant clinical - and cost-effective advancements in optometric modalities, diagnostics, treatments, and interventions which improve health outcomes, preserve vision, and delay or diagnose other impairments and disability early on.

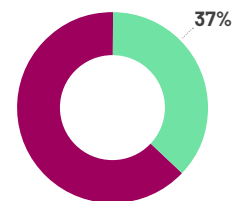
Plan sponsors have an opportunity, not only to improve employee satisfaction but more importantly, to improve health outcomes for their plan members, reduce presenteeism **and** improve their own bottom line by improving vision care benefits. We encourage you to explore this Guide in conjunction with the white paper "[Vision Care Benefits in Canada and the Case for Reform](#)" and take action.

OUT OF POCKET EXPENSES

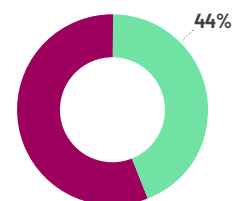
as a percentage of total



Vision Care



Prescribed Drugs



Dental

2. INTRODUCTION

This *Best Practices Guide to Vision Care Benefits* (Guide) has been developed by the Canadian Association of Optometrists (CAO) to support and guide insurance providers, benefit advisors, and plan sponsors in modernizing vision care benefits. This Guide reflects best practice examination and treatment protocols in optometry. Using this Guide as a reference tool will help plan sponsors, advisors and insurers build affordable vision and Extended Health Care (EHC) plans that protect and improve vision and eye health for plan members and their dependents. Specifically, this Guide discusses:

- **Eye Health & Vision Care Best Practices:** This section summarizes the best available evidence (as well as existing and emerging vision care technologies and modalities) and guidelines for access to preventive and curative vision care services for various populations to optimally support vision health of plan members and their dependents.
- **Coverage of Vision Care Services in Canada:** This section provides a brief overview of the current vision care benefits landscape in Canada.
- **Fee Ranges for Optometry Services in Canada:** This section provides an overview of the range of fees which may currently be appropriate for many standard optometry services throughout Canada.
- **Recommended Plan Designs:** This section proposes three variations of vision care plan designs which could be implemented to protect and improve eye health and vision care among the Canadian workforce.
- **Actuarial Impact of Recommended Plan Designs:** This section summarizes results of actuarial analyses which estimated the impact of implementing the recommended plan designs outlined in the previous section on insurance premiums.

Any questions about this document may be directed to dontlosesight@opto.ca

3. EYE HEALTH & VISION CARE BEST PRACTICES

3.1 Comprehensive Eye Exams for Wellness and Prevention: Low Risk Populations

The need for regular comprehensive eye examinations has been recognized for many years. Ocular health conditions are not always accompanied by recognizable symptoms. Risk to the patient often increases if treatment is not initiated in a timely manner. Relying on the occurrence of obvious symptoms in order to initiate eye examination and treatment exposes the patient to an unnecessarily high risk of serious complications.

Many factors influence the appropriate frequency for eye examinations. Only the examining optometrist, upon analysis of the patient's overall eye health, can determine the appropriate timing and frequency for subsequent examinations. In 2013, the Canadian Association of Optometrists published a position statement on Frequency of Eye Examinations after accepting recommendations from the study titled *An Evidence-Based Guideline for the Frequency of Optometric Eye Examinations*¹⁰. These guidelines are summarized in Table 1.

Table 1. Minimum Frequency for Eye Examinations for Low Risk Patients¹¹

MINIMUM FREQUENCY	
Infants and Toddlers (Birth to 24 months)	Infants and toddlers should undergo their first eye examination between the ages of six and nine months.
Preschool Children (2 to 5 years)	Preschool children should undergo at least one eye examination between the ages of two and five years.
School Age Children (6 to 19 years)	School children aged 6 to 19 years should undergo an eye examination annually.
Adults (20 to 39 years)	Adults aged 20 to 39 years should undergo an eye examination every two to three years.
Adults (40 to 64 years)	Adults aged 40 to 64 years should undergo an eye examination every 2 years.
Adults (65 years or older)	Adults aged 65 years or older should undergo an eye examination annually.

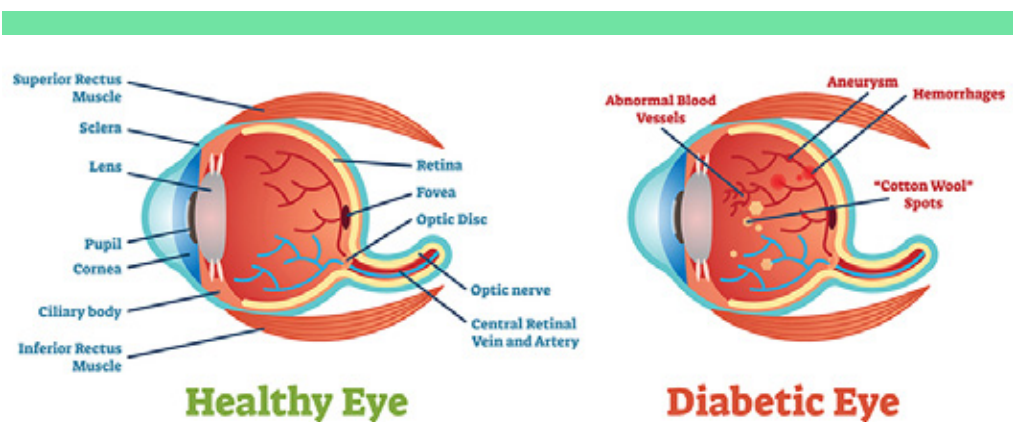
3.2 Vision Care Guidelines and Recommendations for High Risk Patients

While the exam frequency summarized in Table 1 is usually appropriate for most patients, some may be at higher risk for visual impairment due to previously diagnosed eye disease, comorbidities, or other medical or socioeconomic factors. In these cases, more frequent assessments are critical to preventing serious disease progression and vision loss by allowing for timely and appropriate interventions or modifications to improve outcomes. This section describes four example conditions for which more frequent visual assessments are indicated and necessary to prevent disease progression and vision loss.

Diabetes

Diabetes mellitus is a group of metabolic diseases characterized by chronic hyperglycemia (elevated blood sugar levels) that result from defects in insulin secretion, insulin action, or both.¹² Insulin is the hormone which works to regulate blood sugar levels, allowing the body to function properly.

One of the most common complications of diabetes is diabetic retinopathy (DR) caused by blood vessel damage in the retina. This typically occurs with no visible symptoms during its early stage, presenting instead only at an advanced stage.¹³ This highlights the need for regular



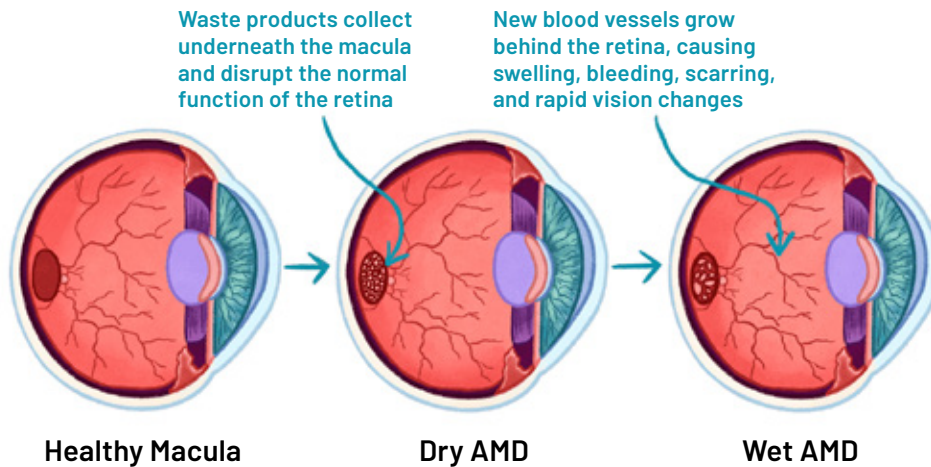
SOURCE: American Optometric Association www.aoa.org/patients-and-public/eye-and-vision-problems/glossary-of-eye-and-vision-conditions/diabetic-retinopathy

eye exams for diabetic patients. Symptoms of DR may include blurred vision, the impairment of colour vision, poor night vision, the loss of central vision caused by leakage and accumulation of fluid in the retina (diabetic macular edema), and the total loss of vision due to retinal detachment. An estimated 500,000 Canadians are living with DR with 23% of Type 1 patients affected and 14% of Type 2 patients affected.¹⁴

With access to appropriate and timely care, medicines, devices and supplies, diabetes can be managed to effectively mitigate the risks of these complications. According to the *Diabetes Canada 2018 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada*, timely clinical examination and retinal imaging are recommended to monitor progression and mitigate the effects of DR.¹⁵ It is recommended that:

- Patients with Type 1 diabetes should undergo annual examinations beginning five years from the onset of their condition.
- Patients with Type 2 diabetes should undergo an eye exam upon diagnosis and annually thereafter.
- Patients who already have moderate or advanced non-proliferative retinopathy should undergo examinations every six months. For these patients, additional imaging such as fundus photos, ocular coherence tomography (OCT) or autofluorescence are required.
- More advanced retinopathy may require referral for medical or surgical treatment.

Access to additional monitoring and treatment for DR ensures that employees have the appropriate vision care tools and services accessible to manage the potential vision complications of their diabetes and prevent progression to advanced stages of eye disease.



Adapted from www.verywellhealth.com/how-dry-amd-becomes-wet-amd-4770108

Age-Related Macular Degeneration (AMD)

Age-related macular degeneration (AMD) refers to age-related degenerative changes in the macular region of retina which can lead to progressive, irreversible vision loss.^{16, 17} The retina is the light-sensing nerve tissue that is located at the back of one's eye and the macula is the central area of the retina, which is key to optimal vision. The late stage of AMD disease progression is associated with loss of central vision. It can be classified into two forms: dry and wet.¹⁸ Dry AMD is characterized by the formation of yellow deposits underneath the macula that cause deterioration and atrophy over time, while wet AMD (often called neovascular or nAMD) is characterized by the formation of abnormal blood vessels underneath the macula that can leak fluid into the retina. Dry AMD is more frequent than nAMD, comprising 80% to 90% of all cases. Although nAMD develops in only 10% to 20% of all AMD cases, it is responsible for around 80% to 90% of the vision loss associated with AMD.^{19, 20} In Canada, AMD affects approximately two million individuals aged 50 years and older.^{21, 22}

Early AMD usually occurs without symptoms, with minimal or no vision loss.²¹ Symptoms in intermediate and advanced stages of disease include reduced visual acuity, blurred vision, reduced contrast sensitivity, image distortion, appearance of a blind spot, and difficulties in dark adaptation.²¹ Without intervention the risk of retinal degradation leading to blindness is increased, making intervention imperative in cases of wet AMD. AMD is one of the most common causes of permanent vision loss and blindness among adults over the age of 50 years.²¹

While there is no cure for AMD, early interventions can slow its progression to prevent or reduce vision loss. Anti-angiogenesis medicines, laser therapies and low vision aids can be prescribed

to preserve and optimize remaining vision for some patients affected by AMD. Left untreated or with suboptimal management, patients with AMD are often unable to work and function productively without the use of costly aids. This might have an impact on the ability of the plan sponsor to fulfill their duty to accommodate, depending on the role the individual holds within an organization and the plan member's ability to access appropriate aids.

Early detection of disease onset, prompt therapeutic intervention and continuous follow-up are essential for AMD patients because vision loss becomes irreversible with delayed diagnosis and treatment.²³ Technologies such as Ocular Coherence Tomography (OCT) allow for accurate imaging of the retina and can be a tool to detect early disease and inform treatment decisions for AMD patients.²⁴ Guidelines recommend that patients with AMD or those at high risk of developing AMD be monitored as follows:^{25, 26, 27}

- Those without macular degeneration, but who have positive family history should undergo a comprehensive eye examination every one to two years.
- Those who have been diagnosed with early dry AMD should be examined by an optometrist or ophthalmologist at least every 12 months.
- Those with moderate to severe dry AMD should be examined by an optometrist or ophthalmologist every six to 12 months and often require additional imaging, including OCT and fundus autofluorescence (FAF), particularly if visual changes are occurring.
- A suspected or confirmed wet AMD patient should be referred to an ophthalmologist or retinal specialist for treatment, with subsequent follow-up by the optometrist continuing annually.

Dry Eye Disease

Dry eye disease is a common disorder of the tear film caused by decreased tear production, or excessive tear evaporation, or inflammation that manifests with a wide variety of signs and symptoms, including stinging, scratchy and uncomfortable eyes, as well as fluctuating vision quality or the sensation of a foreign body in the eye.²⁸ If left untreated, dry eye disease can disrupt the protective tear film, cause inflammation and permanent damage to the surface of the eye.²⁸ It can be caused by ageing, hormonal changes, environmental exposures or conditions, and as a side effect of some medications.²⁹ Another common cause of dry eyes is eyelid disease. While dry eye can occur periodically if caused by an external stimulus, dry eye disease is usually chronic. Dry eye disease can be managed with regular application of artificial tears, ointments, and gels to improve comfort. More serious cases may require the insertion of plugs in corners of the eyelid to slow drainage of tears, or prescription medicines to stimulate tear production.²⁸ Untreated, dry eye can impair vision as it can damage tissue, including the cornea. There are several treatments available that stimulate the oil producing meibomian glands. These treatments often use heat and expression of the glands to help improve their function.

The reported prevalence of dry eye disease ranges from 7.8% to 29% depending on the definition used.²⁹ It is estimated that over six million Canadian adults may be affected by dry eye disease.²⁶ Dry eye was found to increase with age, with the highest prevalence among those aged 55 to 64 years.²⁶ Prevalence is significantly higher among women than men.

Patients with dry eye disease can have significant challenges reading on screens or spending prolonged periods using computers. Studies have identified productivity concerns for employees with dry eye as it was associated with a 30% impairment of workplace performance.³⁰

Extensive use of computers reduces blink rate. This makes the incidence of dry eye from the typical work environment higher. Earlier intervention on dry eye disease leads to better outcomes due to nature of dry eye: inflammatory cycles typically take half as long the time to break, so by treating earlier, the cost of treating is substantially less.

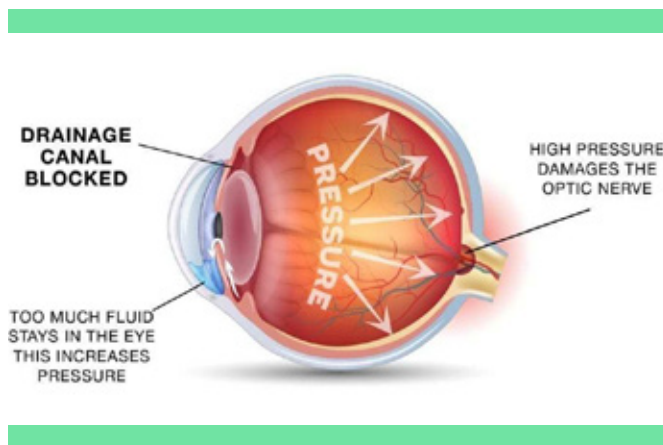
Depending on the severity, a dry eye patient may need to be seen two to three times in the first six months following diagnosis and every six months thereafter until the signs and symptoms are controlled.³¹ Severity of disease can be determined by a questionnaire and objective testing to monitor tear film level and corneal damage.

Glaucoma

Glaucoma is a group of diseases characterized by progressive damage to the optic nerve that can be associated with increased fluid pressure in the eye.³² Glaucoma can often go undetected as pressure rises slowly. Disease progression can occur without causing symptoms until substantial neural damage has occurred.³²

Glaucoma, diagnosed at an early stage, can be treated with pressure-lowering pharmacotherapy or laser surgery. Advanced disease can require incisional glaucoma surgery to prevent irreversible damage to the optic nerve.³³ Early detection is therefore important for optimizing visual outcomes.

Glaucoma affects more than 450,000 Canadians,^{34,35} and is among the leading causes of blindness in Canada.²⁷ Risk factors for developing glaucoma include older age, family history, diabetes, hypertension, and elevated intraocular pressure.³⁵



SOURCE: Innovation Toronto
www.innovationtoronto.com/2018/10/facilitating-the-early-detection-of-glaucoma/

Patients suspected of having glaucoma should be closely monitored to assess onset of the disease so that management may be initiated in a timely fashion.^{35, 36} The following assessments should be performed at varying frequencies depending on the progression of the disease:^{35, 36}

- Tonometry to measure intraocular pressure,
- Structural assessment of the eye using fundus photographs and OCT,
- Assessment of visual function such as automated visual field,
- Pachymetry to measure the corneal thickness (baseline only),
- Gonioscopy to examine the internal drainage of the eye.

Typically, a glaucoma suspect is seen every three to six months until a diagnosis is established. Those who are at high risk of glaucoma:

- Should have an examination every one to two years.³⁷
- Once diagnosed, patients with glaucoma should undergo examinations every four months for the first two years and include imaging such as OCT, gonioscopy, visual fields as well as tonometry.³⁷ Once glaucoma has stabilized, the patient should undergo an exam every six months.³³
- Patients with unstable glaucoma may require more frequent assessment or they may be referred for medical or advanced medical treatment, before returning for regular follow-up.³³

After glaucoma diagnosis, patients must adhere to their treatment regimen for life. The disease can progress or change rapidly and without obvious, immediate symptoms. Therefore, regular examinations and potential modifications to the treatment are necessary to preserve vision. Patients who lose vision from glaucoma experience lower productivity, difficulty performing their work and may have to leave the workforce. Employees with advanced glaucoma may no longer be able to drive a vehicle and may require special supports or resources to continue performing some functions related to their work and mobility.

4. COVERAGE OF VISION CARE SERVICES IN CANADA

Canadians access vision care benefits through a variety of public and private sources. Public coverage (including both the benefits coverage and the amount of coverage) varies significantly by province or territory, resulting in coverage gaps which are frequently filled by private plans. According to the 2018 edition of the Sanofi Canadian Healthcare Survey, approximately 77% of plans include vision care, though the level of coverage varies from plan to plan.³⁸ The following observations can be made about public coverage and private vision care benefits in Canada. Note that many of the details in this section (particularly those concerning private plans) are sourced from research commissioned by CAO in 2019. More details can be found in CAOs white paper [Vision Care Benefits in Canada & the Case for Reform](#).

Public Programs

- Several provinces provide full or partial coverage for regular eye exams for children. These include British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec and New Brunswick.
- Alberta, British Columbia, Manitoba, The North West Territories, Nova Scotia, Ontario, and Quebec also fully or partially cover annual eye exams for seniors.
- Alberta, Prince Edward Island and New Brunswick fully or partially cover examinations, frames, and lenses for children of low-income families and for those on social assistance.
- Nova Scotia covers examinations once every two years for children under age 10 and seniors aged 65+. Additional coverage may be available for exams for certain medical or ocular conditions, regardless of age.
- Prince Edward Island covers one examination, and one pair of frames and lenses (if required) for children in their kindergarten year.
- North West Territories provides coverage to all ages for eyeglasses, repairs to frames, eye prosthesis and high index lenses.
- Yukon assists low income families with children's' eye exams (one every two years) and eyeglasses.
- Nunavut does not provide a program for vision care coverage.
- Some federal programs provide coverage for vision care services for qualifying individuals (e.g., the Non-Insured Health Benefits Program for First Nations and Inuit covers eye exams (annually or bi-annually based on age) as well as corrective eyewear).
- Quebec covers one examination every two years for recipients of "last-resort financial assistance" age 18 to 64. Quebec also offers reimbursement up to \$250 for the purchase of frames, lenses and contact lenses for children under 18 years of age.
- Coverage for advanced vision care interventions in the form of medically required and/or emergency services is provided in most provinces, but the list of covered conditions and services varies by province.

Private Plans

- According to Canadian Life and Health Insurance Facts published by the Canadian Life and Health Insurance Association (CLHIA), in 2018 the average annual vision care cost per beneficiary was \$187.³⁹ This excludes drops, which would be covered under prescription medications, or devices which, if covered, may fall under medical equipment.
- Most group benefit plans operate on a 24-month benefit period for adults (with a maximum allowance rolling over every two years), and 12-month benefit period for children and youth.
- Most group benefit plans in provinces without public coverage for comprehensive examinations provide an allowance ranging from \$75 to \$200 per benefit period.

- For plans that include vision care benefits for frames and lenses, the maximum vision care benefit typically ranges from \$100 to \$500 per 24-month benefit period:
 - » More than half (55%) of plans have a maximum of \$250 or less.
 - » The most common ceiling (23% of plans) is \$200/24-months.
 - » About 15% of plans offer maximums of \$400 or more per 24-month period.
 - » 10% of plans do not have a limit on the amount which will be reimbursed.

4.1 Comprehensive Eye Exam Services

While several provinces provide coverage for routine, comprehensive examinations for children, public funding for working Canadians under age 65 is rare. Approximately three quarters of private plans in Canada provide coverage for comprehensive examinations. The current range of private coverage is typically between \$75 and \$200 once every 24 months for adults and every 12 months for children.

By providing coverage that will reimburse the majority of comprehensive eye exam services within recognized reasonable and customary ranges, private benefit plans will ensure that the majority of their plan members, and their dependents, have sufficient coverage to visit their optometrist on the prescribed schedule, which will improve overall vision care outcomes.

4.2 Imaging and Diagnostic Services – Routine

The list of vision diagnostic imaging tools available to optometrists has expanded in recent years and not all public or private vision care plans have kept pace. The tools are part of the current standards of care listed in Table 2, Section 5, and often include retinal images and optical coherence tomography (OCT) scans. These tools are essential for identifying early signs of vision and systemic diseases, so they can then be assessed and treated in a timely manner. Plan members and plan sponsors would benefit by ensuring that the use of new diagnostic imaging tools is included in the list of eligible expenses under their vision care benefit.

When patients insured under private benefits plans are diagnosed with a more complex condition that requires advanced care, they should become eligible to apply for an advanced level of vision care services as part of Extended Health Care benefit plans as described in Section 6. Some advanced care services may be available under public plans depending on the province/territory of residence.

4.3 Frames and Lenses

There is currently a wide range of private coverage levels in group vision care plans for frames and lenses. With some exceptions, private plans typically provide a combined maximum benefit of between \$100 and \$500 for frames and lenses every 24 months for adults or 12 months for children.

However, vision care needs can vary widely depending on lens prescription and whether or not an individual has an ocular health condition and its severity. A flat allowance per benefit period for frames and lenses does not necessarily respond to patient needs. Plan sponsors may wish to consider separating the frames and lenses benefit into two separate maximum benefit levels in order to provide a better distribution of allowable expenses as shown in the following example:

- **Frames:** The prices of frames vary widely, with some costing as little as \$100 to \$150 and others significantly more. Except when medically necessary, the design of frames is usually a matter of personal choice. A frame maximum would limit exposure to the expense of high cost frames.
- **Lenses:** The price of single-vision lenses typically ranges from \$100 to \$500, however, progressive, multifocal, or bifocal lenses can range from \$250 to \$1000. Contact lenses can range from \$160 to \$1,000 per year depending on patient needs. A graduated allowance for lenses based on need and the type of lens prescribed would benefit those patients with more complex prescriptions and remove financial barriers to accessing appropriate corrective eye wear.

Some plan sponsors may consider an additional eligible vision care allowance for computer glasses or safety eyewear depending on the needs of their workforce. There are several options to fund these additional expenses, both within and outside of the vision care benefit in a group insurance contract.

4.4 Advanced Vision Care Interventions

Other than for emergencies, public and private coverage also varies widely for those patients who may be at higher risk for visual impairment due to, for example, the conditions discussed in Section 3.2 and who require more frequent assessments and interventions to prevent serious disease progression and vision loss. Coverage limitations put long term vision health at risk for this relatively small population. Below is a summary of public coverage for advanced vision care interventions. Public funding for vision care varies across provinces and territories, not only in the types of care, patients or conditions funded, but also in the amount or level of coverage they provide. For example, some provinces may cover the entire cost for a service, while others may reimburse a percentage of the cost or a percentage of the cost up to a maximum dollar amount, so the existence of public funding in a province may not necessarily eliminate access barriers for these vision care services.

Public Programs

- British Columbia provides funding for medically required eye examinations as defined by ICD9 codes. These include ocular disease, trauma or injury, diseases associated with significant ocular risk (e.g., diabetes) and medication associated with significant ocular risk.
- Alberta provides funding for exams deemed medically necessary due to trauma, a medical condition or episode of illness.

- Saskatchewan provides funding for annual exams for those with type 1 or type 2 diabetes and ocular urgencies and emergencies (e.g., dry eye, injury to eyes, foreign body in eye, etc.) for initial and follow-up visits for all patients.
- Manitoba provides funding for complete and partial eye examinations, full threshold visual fields, tonometry, and dilated fundus exams.
- Ontario provides funding for an annual examination for specified medical conditions affecting the eye, including diabetes, glaucoma, cataract, retinal disease, amblyopia, visual field defects, corneal disease, strabismus, recurrent uveitis, or optic pathway disease for those 20–64, or for any medical condition provided it is referred by a physician or nurse practitioner.
- Quebec provides funding for those with low vision ocular emergency diagnosis for all ages.
- Nova Scotia provides funding for comprehensive exams for patients with health conditions or on medications that present a risk to ocular health and partial exams up to six times annually for some infections, allergies, inflammations, and removal of foreign bodies. Some additional coverage is provided for specialized conditions.
- Prince Edward Island provides funding for dilated diabetes exams for patients with type 1 diabetes annually and for patients with type 2 diabetes every two years and the same for partial diabetic examinations. PEI also covers multiple red eye or dry eye-related examinations per year depending on patient needs, as well as partial coverage for frames and lenses for those on social assistance.
- Newfoundland and Labrador provides partial coverage for social assistance recipients to support an eye exam and glasses.

Private Plans

Extended Health Care plans do not provide coverage for advanced vision care to monitor and intervene on patients with advanced needs such as those diagnosed with a vision health condition, disease or other chronic disease, or those with head trauma or visual perception disorders. With public coverage in most provinces being incomplete or inadequate, patients are left to their own financial resources to fill the gap. Examples of the financial impact on patients are found on pages 13–14 of the white paper [Vision Care Benefits in Canada & the Case for Reform](#).

With significant gaps in medically necessary advanced imaging, diagnostic services and interventions in public plans and private vision care benefits, providing an advanced vision care allowance within private Extended Health Care plans would be a natural fit for those who qualify, based on clearly identified criteria (See Appendix). An allowance for the use of advanced vision care interventions would give optometrists the opportunity to appropriately monitor, manage and treat the ocular manifestations of vision or chronic health conditions to improve visual health outcomes. A list of recommended advanced vision care services and interventions along with corresponding reasonable and customary fee ranges is provided in Table 2.

5. CURRENT FEE RANGES FOR OPTOMETRY SERVICES IN CANADA

This Guide acknowledges that there are challenges to setting single, one-size-fits-all prices for optometry services. The cost of providing services vary based on several factors, including the size of the patient population served, the province or region in which the services are being provided, and an optometrist's practice setting, size, and operating costs. Therefore, the fee ranges included below are for guidance only and reflect typical practice circumstances. They are in no way intended to be prescriptive and will be regularly updated to reflect new service offerings and updates to the means of the practice of optometry in an ever-evolving context.

The list of services and fee ranges below does, however, reflect a change in how we look at vision care. Most plan members claim benefits under the standard vision care benefit (often referred to as a "pay-as-you-go" benefit), versus an "insured benefit" because of the high and predictable utilization rate.

There is another, much smaller, group of plan members who require additional coverage to meet their advanced vision care needs. This group currently has few avenues to pursue coverage for appropriate monitoring and treatment. The advanced level of care this group requires is not as easily predicted and it is not discretionary. Therefore, coverage would be most efficiently provided through an Extended Health Care benefit. Sections 6 and 7 of this Guide provide further details on recommended plan designs and the potential cost of an advanced vision care benefit under the EHC plan.

Table 2. Approximate Fee Ranges for Optometry Services in Canada (Year 2020)

SERVICE	DESCRIPTION	FEE RANGE	
		FROM	TO
EYE EXAM SERVICES			
Routine Comprehensive Eye Exam	Examine, assess, measure, and diagnose disorders and diseases within the human eye and visual system. Includes (as appropriate): <ul style="list-style-type: none"> • Relevant history (ocular medical history, past medical history, family history) • Visual acuity examination • Ocular motility examination • Refraction and the provision of a written refractive prescription • Slit lamp examination of the anterior segment • Ophthalmoscopy by one or more of direct, binocular indirect ophthalmoscope (BIO), monocular indirect ophthalmoscope (MIO) or non-contact fundus lens • Advice and/or instruction to the patient; and, • If required in accordance with generally accepted professional standards, any, or all the following elements: <ul style="list-style-type: none"> » Tonometry » Visual field examination by confrontation field » Dilated fundus examination by one or more of direct, binocular indirect ophthalmoscope (BIO), monocular indirect ophthalmoscope (MIO) or non- contact fundus lens. 	\$100	\$200
Partial or Follow-Up Eye Exam	Two or more components of Comprehensive Exam	\$50	\$150
Unscheduled Office Visit	Urgent/emergent cases such as red eye, loss of vision, eye pain.	\$50	\$70
IMAGING, DIAGNOSTIC & THERAPEUTIC SERVICES (Conducted as required as part of an eye exam based on patient risk factors)			
Retinal Imaging	Ocular coherence tomography, Heidelberg retinal tomography	\$40	\$150
Retinal Photography	Widefield retinal photo, Autofluorescence	\$30	\$80
Anterior Segment Photo Documentation	Anterior segment	\$30	\$60
Full Threshold Visual Field	Glaucoma monitoring, neurological conditions	\$30	\$110
Meibography	Imaging of the oil producing (meibomian) glands of the eyelids which produce a key component of the tear film	\$30	\$50
Tear Osmolarity	Measurement of the solutes/particles in the tear film for dry eye management	\$30	\$50

Table 2. Approximate Fee Ranges for Optometry Services in Canada (Year 2020) (continued)

SERVICE	DESCRIPTION	FEE RANGE	
		FROM	TO
IMAGING, DIAGNOSTIC & THERAPEUTIC SERVICES (continued)			
(Conducted as required as part of an eye exam based on patient risk factors)			
Vision Therapy Assessment	In depth assessment of eye focusing, eye teaming, and eye movement abilities, may also include visual perceptual skills assessment.	\$200	\$750
Low Vision Assessment	Determines the visual response and performance of various strategies for patients with permanent vision loss caused by eye disease beyond conventional glasses and contact lenses.	\$150	\$250
Myopia Control	Atropine therapy, Myopia control contact lens fitting	\$200	\$500
Corneal Topography	Used for specialty contacts, kerataconus, ectasia	\$30	\$50
Lacrimal System Dilation & Irrigation	For diagnosis and opening blocked drainage system to relieve excessively watery eyes	\$40	\$60
Cilia Removal	Epilation of misdirected eyelash(s)	\$20	\$70
Punctal Occlusion (per eye)	Blocking drainage system using permanent/extended plug (including cost of plugs)	\$80	\$120
Debridement Scaling	Mechanical debris removal and cleaning of eyelid margins	\$80	\$140
CONTACT LENS SERVICES			
Contact Lens Assessment/fit	Fees vary for sphere astigmatism or multifocal lens fittings	\$40	\$80
Insertion and Removal Training	Fit and training first time wearer	\$75	\$120
Specialty Contact Lens Assessment	Global fee for specialty contact lens fitting (Not including cost of lenses)	\$400/eye	\$1800/eye
ADVANCED VISION CARE INTERVENTIONS			
Ocular Surface Disease Services	Requires continuous office visits to monitor progress	\$300/year	\$500/year
In-office Meibomian Gland Treatment	Treatment of the lids and in some cases the surrounding skin to improve the function of the oil producing (meibomian) glands, often requires more than one treatment (e.g., Lipiflow/iLux/IPL /RF)	\$600/ 24 months	\$2000/ 24 months
Amniotic Membrane Grafts	Highly specialized amniotic membrane used in the treatment of severe dry eye	\$1,000/ lifetime	\$,1400/ lifetime
Vision Therapy/ Neurorehabilitation	Monitors the progress and visual response throughout therapy program after a vision therapy assessment	\$2,000	\$5,000

6. RECOMMENDED VISION CARE BENEFITS PLAN DESIGNS

Based on our research, plan sponsors in Canada recognize the overdue need to modernize vision care benefits plans for the changing workforce, but are reluctant to pursue absent viable solutions. This section proposes three vision care plan design options for consideration, which, if implemented, will protect, and improve eye health and vision among the Canadian workforce. The plan designs have been developed while taking into consideration the limitation of benefit plan budgets. Each of the three plan options includes six benefit components:

Basic Services and Material:

1. **Comprehensive exams** » Includes regular, routine examination, assessment, measurement and diagnosis of disorders and diseases of the eye and visual system.
2. **Frames** » An allowance based on flat dollar maximum for functional eyewear. Patients may upgrade their frames with out-of-pocket spending based on their personal budget and preferences.
3. **Lenses and contact lenses** » Costs associated with the prescribing, fitting and purchasing of various corrective eyewear, safety eyewear, and vision aids.

Extended Care Plan:

4. **Supplementary Care for Patients Diagnosed with Certain Conditions** » As covered in Section 3.2, additional assessments and services are medically necessary to monitor and protect vision due to illnesses with ocular health effects, progressive diseases of the eye, or advanced age. Accessibility to these services without prior authorization is recommended for patients who have been diagnosed with glaucoma, diabetes, AMD (intermediate or advanced) or dry eye (moderate or severe).
5. **Supplementary Assessments for Patients Suspected of Certain Conditions** » Although a patient can be diagnosed with glaucoma, diabetic retinopathy, AMD or dry eye as part of their comprehensive eye exam, sometimes additional assessments prior to a patient's next regular comprehensive exam are medically necessary if a patient is *suspected* of having one of those conditions. In these cases, the treating optometrist should submit their rationale and the assessment plan they propose in order to establish a diagnosis with the insurer for prior approval.

Advanced Care for Other Conditions:

6. These treatments and services are to be approved on case- by-case basis, in accordance with a treatment plan submitted to the insurer by the treating optometrist. See Appendix for recommended prior authorization criteria.

Table 3. Recommended Vision Care Benefits Plan Designs

BENEFITS CATEGORY	IDEAL PLAN	MIDRANGE PLAN	BASIC PLAN
BASIC SERVICES AND MATERIAL			
Comprehensive Eye Exams <ul style="list-style-type: none"> Includes customary diagnostic testing 24-month benefit period for adults (aged 19-64) 12-month benefit period for children (aged 0-19) and adults (aged 65+) 	\$200	\$120	\$100
Unscheduled Office Visit <ul style="list-style-type: none"> To address medically necessary or acute vision care need between routine eye exams May vary by province 	\$60	\$40	\$30
Frames <ul style="list-style-type: none"> 24-month benefit period 	\$150	\$100	\$75
Lenses <ul style="list-style-type: none"> 24-month benefit period for adults 12 months for children or on change in prescription <ul style="list-style-type: none"> » Single vision lenses » Multi focal lenses 	\$250 \$500	\$150 \$300	\$75 \$200
Contact Lenses	Frames & Lenses maximums may be allocated to contact lenses if preferred.		
EXTENDED CARE PLAN			
Supplementary Care for Patients Diagnosed with Certain Conditions <ul style="list-style-type: none"> Includes additional imaging, diagnostics and interventions for patients diagnosed with glaucoma, macular degeneration (intermediate or greater), diabetes, or dry eye (moderate or greater). 	\$300 CYM* or \$500/ 24 months	\$250 CYM* or \$400/ 24 months	\$200 CYM* or \$300/ 24 months
Supplementary Assessments for Patients Suspected of Certain Conditions <ul style="list-style-type: none"> Includes additional imaging, diagnostics, tests for patients suspected of having glaucoma, macular degeneration (intermediate or greater), diabetes, or dry eye (moderate or greater). 	To be approved on case-by-case basis based on the optometrist's rationale and proposed assessment plan submitted to the insurer.		
ADVANCED CARE FOR OTHER CONDITIONS			
See Appendix for recommended prior authorization criteria.	To be approved on case-by-case basis in accordance with a treatment plan submitted to the insurer by the treating optometrist.		

*CYM=Calendar Year Maximum

7. ACTUARIAL IMPACT OF DESIGNS

CAO engaged RSM Canada Consulting LP (RSM) to perform an actuarial analysis of the recommend plan designs described in Section 6 to estimate the potential financial impact the changes would have on the economics and administration of private group health insurance plans in Canada. RSM relied upon the CAO's 2019 white paper [Vision Care Benefits in Canada & the Case for Reform](#), industry data from the National Health Expenditure Database published by the Canadian Institute for Health Information (CIHI Data) and RSM's proprietary data on group health insurance plans.

Results estimated for each a small, mid-size and large employer in Canada are summarized in Table 4. The results are expressed as the estimated percent increase in the Extended Health Care premium associated with full adoption of the CAO recommendations, versus the estimated EHC premium under the current typical vision care coverage.

Table 4. Estimated Increases in EHC Premiums Associated with Adoption of CAO's Recommendations

PLAN DESIGN	SMALL EMPLOYER (less than 50 employees)	MIDSIZE EMPLOYER (50–499 employees)	LARGE EMPLOYER (500+ employees)
Ideal Plan	Between 1.5% and 2.0%	Between 1.0% and 1.5%	Between 1.0% and 1.5%
Mid Range Plan	Approximately 3.0%	Between 2.5% and 3.0%	Between 2.5% and 3.0%
Basic Plan	Approximately 3.0%	Between 2.5% and 3.0%	Between 2.5% and 3.0%

For more details about the actuarial analysis, contact dontlosesight@opto.ca.ca

8. CONCLUSIONS

Private group benefit plans can play a critical role to ensure that plan members have appropriate access to the vision care services and medical devices that will optimize their eye health and vision. This in turn will optimize health and productivity in the workforce, given the effects that poor vision and vision loss can have on productivity, presenteeism, absenteeism, disability, mental health, and plan members' ability to remain working. Recommended plan designs in this guide focus on ensuring that plan members have access to needed care, while delivering the greatest value to plan sponsors and respecting benefit plan budgets. These plan designs seek to ensure:

- All plan members can access routine, comprehensive eye exam services consistent with their level of risk, and the current clinical practice guidelines for both the general population as well as those with conditions affecting eye and vision health.
- Plan members at greatest risk of poor vision and eye health may access more frequent examinations that will allow for appropriate monitoring and interventions to limit disease progression and vision loss.
- All plan members can access medically necessary or acute vision care services, regardless of their province of residence.
- Members with advanced prescriptions and corrective lens needs (e.g., multifocal lenses, specialty contacts) will have their out-of-pocket costs reduced, compared to the current typical offerings in private benefits plans.
- Out-of-pocket costs will be reduced for authorized patients requiring advanced care interventions.

The actuarial analysis of three proposed plan models clearly demonstrated that modernizing vision care benefits plans in Canada is not only desirable, but cost-effective and affordable. Accomplishing all of the above can be done with only a modest increase to benefit plan budgets (between 1%–3%).

The time for vision care benefits reform has never been better. For more information on how to get started, please don't hesitate to contact dontlosesight@opto.ca.ca

APPENDIX: RECOMMENDED PRIOR AUTHORIZATION CRITERIA

ADVANCED CARE	RECOMMENDED PRIOR AUTHORIZATION CRITERIA
In-office Meibomian Gland Treatment	<p>In-office Meibomian Gland treatment is used to treat severe dry eyes where conventional treatment, medication and drops have not been successful. Based on clinical studies, a patient should have a diagnosis of meibomian gland dysfunction (MGD) and meet one of the following criteria:</p> <ol style="list-style-type: none"> 1. Failure of conventional MGD treatment for one month prior 2. Ocular Surface Disease Index (OSDI) scores ≥ 13 OR DEQ ≥ 6 3. Confirmation of MG dropout by meibography 4. Tear break-up time (TBUT) < 10 s 5. Evidence of MG blockage or altered MG secretions
Amniotic Membrane Treatment	<p>Amniotic Membranes are used to help restore conjunctivas or corneas that have moderate to severe damage due to disease or injury. They are used to improve acuity or prevent imminent acuity loss. The membrane and ring are inserted into the eye by the doctor and remain in the eye for one week, then removed by the doctor. Uses include persistent epithelial defects, neurotrophic keratitis and cases of severe dry eye. On the conjunctiva, pterygium repair, conjunctivochalasis repair, severe cases of limbal stem cell deficiency or Stevens-Johnson syndrome.</p> <p>Criteria should include failure of treatment using conventional treatment for at least one year unless urgent treatment is indicated.</p>
Vision Therapy/ Neurorehabilitation	<p>Vision Therapy or neurorehabilitation is required to help patients with complex visual difficulties. There are a number of vision symptoms patients can be suffering from that cannot be treated with conventional glasses therapy. Eye muscle coordination, focusing and neurological processes play an essential role in clear comfortable vision. When conventional treatments cannot produce functional vision, patients are referred to doctors who utilize vision therapy. Evaluation of the treatment duration and expected results can be shared with insurance providers to assist with prior authorization.</p>
Specialty Contact Lenses	<p>Specialty contact lenses describe customized contact lens solutions prescribed to treat specific medical conditions affecting the human cornea. These include:</p> <ul style="list-style-type: none"> • Keratoconus • Pellucid Marginal Degeneration • Post Corneal Transplant Surgery • Severe Dry Eye • Corneal Scars (trauma, infection) • Large amounts or irregular Astigmatism • Progressive nearsightedness (typically young children that are getting more nearsighted each year) <p>The patient would have a confirmed diagnosis of one of these conditions and would need verification that other treatments have not been successful, or that this is the only available option.</p>

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GLOSSARY OF TERMS

Age-Related Macular Degeneration (AMD): Age-related degenerative changes in the macular region of retina which can lead to progressive, irreversible vision loss.

Amblyopia: Also called lazy eye, a vision development disorder in which an eye fails to achieve normal visual acuity, even with corrective lenses.

Autofluorescence Imaging: Uses naturally occurring fluorescence from the retina to provide an indicator of health for the layer of the retina. Illuminating the retina with blue light causes certain cellular components to "glow" without injecting any dye.

Cataract: A condition causing the lens of the eye to slowly become opaque, leading to a decrease in vision in one or both eyes.

Corneal Disease: Eye condition that causes clouding, distortion, scarring and eventually blindness.

Diabetic Macular Edema: Leakage and accumulation of fluid in the eye related to diabetes.

Diabetes mellitus: A group of metabolic diseases characterized by chronic hyperglycemia (elevated blood sugar levels) that result from defects in insulin secretion, insulin action, or both.

Diabetic Retinopathy (DR): One of the most common complications of diabetes, caused by blood vessel damage in the retina. DR typically presents with no symptoms during its early stage, and symptoms present only at an advanced stage.

Dry Eye Disease: A common disorder of the eye's tear film caused by decreased tear production or excessive tear evaporation. The condition manifests with a wide variety of signs and symptoms, including stinging, scratchy and uncomfortable eyes, fluctuating vision quality or the sensation of something foreign in the eye.

Extended Healthcare Plan: Portion of a private benefits program designed to supplement existing public or hospital insurance plans to reimburse medically related expenses or services not covered by government plans.

Fundus Photography: Specialized cameras with a microscope attached photograph the rear area of the eye called the fundus.

Glaucoma: A group of diseases characterized by progressive damage to the optic nerve that is associated with increased fluid pressure in the eye.

Gonioscopy: Eye examination of the front part of the eye (anterior chamber) between the cornea and the iris.

Macula or Macular Region: The central area of the retina, which is key to optimal vision.

Multifocal or bifocal lenses: Lenses in eyeglasses which have multiple prescriptions in different areas of the lens to be used for different viewing purposes.

Myopia: Also called nearsightedness, a common vision condition in which you can see objects near to you clearly, but objects farther away are blurry.

Ocular Coherence Tomography: A non-invasive imaging test using light waves to take cross-section pictures of the retina allowing an optometrist to see, map and measure each of the retina's distinctive layers.

Ocular Motility Examination: Assessment of movements and alignment of eyes.

Ocular Surface Disease: A group of conditions affecting the surface of the eye and can affect eyesight, quality of life and in severe cases cause blindness. Includes conditions such as dry eye disease, blepharitis and meibomian gland dysfunction, and allergic eye diseases.

Ophthalmoscopy Fundus: A test examining the back of the eye.

Optic Pathway Disease: Damage along the optic pathway causing visual field defects. The optic pathway includes the retina, optic nerve optic chiasm, optic radiations, and occipital cortex.

Recurrent uveitis: Inflammation in the eye's uvea. Symptoms of uveitis may include pain, sensitivity to bright lights and poor vision.

Refraction: Measurement of the focusing characteristics of an eye.

Slit Lamp Examination: Routine procedure where an optometrist shines light into the eye to look for injuries or diseases.

Strabismus: Also called cross-eyed, a vision condition in which a person can not align both eyes simultaneously under normal conditions.

Tonometry: Diagnostic test that measures the pressure inside your eye, used in determination for risk of glaucoma.

Visual Acuity Examination: Test used to determine the smallest letters a patient can read on a standardized chart.

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