



*The Canadian  
Association of  
Optometrists*

**REFRACTION AND PATIENT HEALTH**

*Whereas*, the Canadian Association of Optometrists is concerned with protecting the visual welfare of the public by advocating high professional standards of patient care; and

*Whereas*, an eye health and vision evaluation is necessary to diagnose vision and life threatening diseases; and

*Whereas*, a refraction for the purposes of determining the need for corrective lenses is but one component of an eye health and vision evaluation; and

*Whereas*, a refraction without a corresponding eye health evaluation can result in the failure to diagnose vision and life threatening diseases to the irreparable harm of the individual; now therefore be it

*Resolved* that the Canadian Association of Optometrists strongly opposes legislation which would permit refractions to be performed independent of eye health and vision evaluations, unless the professional judgment of the optometrist or ophthalmologist indicates otherwise; and be it further

*Resolved*, that the Canadian Association of Optometrists encourages the affiliated Provincial associations to oppose legislation which would permit refractions to be performed independent of eye health and vision evaluations, unless the professional judgment of an optometrist or ophthalmologist indicates otherwise.

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Refraction and Patient Health  
CAO Position



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**STATEMENT**

**FROM**

**THE CANADIAN ASSOCIATION OF OPTOMETRISTS**

The Canadian Association of Optometrists is aware that the Opticians Association of Canada is conducting a course on refraction for its members. Refraction is exclusively within the scopes of practice of the professions of optometry and medicine. A refraction is not an independent ophthalmic procedure but an integral part of a comprehensive eye health and vision examination provided by an optometrist or ophthalmologist.

Those who may advocate providing a refraction in isolation from a complete eye examination are overlooking the fact that the source of blurred vision is not always a refractive error. The presence of undetected diseases such as glaucoma, diabetes mellitus, macular degeneration, retinal detachment, cataract, arthritis and AIDS may result in blurred vision. As well, disease may be present without blurred vision.

The best way for consumers to maintain good vision and eye health is by obtaining comprehensive professional eye care services regularly. In the long term, early diagnosis and treatment of eye disease results in savings in health care costs and, by minimizing vision loss, enables persons with these conditions to be independent and productive.



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## **THE DIAGNOSTIC SIGNIFICANCE OF REFRACTION**

**ABSTRACT** A refraction is not an independent ophthalmic procedure, but an integral part of a comprehensive eye health and vision examination provided by an optometrist or ophthalmologist. The presence of undetected diseases, such as GLAUCOMA, DIABETES MELLITUS, MACULAR DEGENERATION, RETINAL DETACHMENT, CATARACT, ARTHRITIS, AND AIDS may result in blurred vision.

However, it cannot be presumed that good ocular health is present if the patient achieves 20/20 visual acuity. **EARLY DETECTION OF DISEASE IS EQUATED WITH LONG TERM SAVINGS IN HEALTH CARE COSTS.**

The eye, as an optical system, allows for the precise focusing of images of the world around us. The eye, as an organ of the body, can provide evidence of and be affected by disease processes such as diabetes that occur throughout the body. The presence of an optical system defect, an eye disease, or a systemic health problem may cause the image formed by the eye to be out of focus. It is not possible for a lay person or the patient to know whether the blurred vision is caused by underlying disease or the need for a new spectacle correction.

A refraction is one of the essential steps in evaluating the health status of the eyes. The information gained from a refraction of the eye goes beyond the determination of any lenses that may be needed to correct nearsightedness, farsightedness or astigmatism. Failure to accurately determine the cause of blurred vision may result in irreparable harm to the eyes and a partial loss of vision or blindness.

A refraction is not an independent ophthalmic procedure, but an integral part of a comprehensive eye health and vision examination provided by an optometrist or ophthalmologist. Those who may advocate providing a refraction in isolation from a complete eye examination are overlooking the fact that the source of blurred vision is not always a refractive error. The presence of undetected diseases, such as GLAUCOMA, DIABETES MELLITUS, MACULAR DEGENERATION, RETINAL DETACHMENT, CATARACT, ARTHRITIS, and AIDS may result in blurred vision. Patients with these diseases may still be correctable to 20/20 visual acuity with new lenses. However, it cannot be presumed that good ocular health is present if the patient achieves 20/20 visual acuity (with or without glasses). Certain drugs taken for the treatment of general health problems may also result in a transient change in refraction. Environmental and occupational factors, trauma to the eye, or dietary deficiencies may also contribute to refractive changes. Proper diagnosis is necessary to determine the true cause.

Although objective means are available for measuring the refractive state of the eye, this information cannot automatically be translated into a prescription for eyeglasses or contact lenses. The components of a refraction must include a thorough patient history and an evaluation of the refractive state of the eye in relation to its accommodative (focusing) and vergence (eye muscle coordination) status, as well as eye health. This information is needed to adequately prescribe glasses. Improper or inadequate eyeglass prescriptions based only on refractive information may alter eye coordination and focusing ability, create visual distortion, eyestrain, headaches, dizziness or double vision, and mask symptoms of eye disease.

A refraction to determine a prescription for eyeglasses or contact lenses should not be performed independently of an eye health and vision examination. Only eye care professionals with the education and training to evaluate the entire eye and vision system should make the appropriate diagnosis regarding whether a lens prescription is all that is needed to restore clear, comfortable vision and to safeguard the health of the patient. **EARLY DETECTION OF DISEASE IS EQUATED WITH LONG TERM SAVINGS IN HEALTH CARE COSTS.**

Prepared by the Public Visual Welfare Committee  
of the Canadian Association of Optometrists