

# GPs and EYES

There are around 100,000 people in New Zealand who are blind or have a sight impairment that cannot be corrected by glasses or contact lenses. Hundreds of thousands more New Zealanders have a sight problem of some kind.

Some people are born with sight problems whilst others may inherit an eye condition, such as retinitis pigmentosa, that gets gradually worse as they get older. Some people may lose their sight as the result of an accident, while others lose sight as a consequence of illness as is the case with diabetic retinopathy. Sight loss is one of the commonest causes of disability today and is associated with old age more than any other disability.

Age-related eye conditions are the most common cause of low vision with almost eighty per cent of people affected being 65 or over. Their eyesight is affected by conditions such as macular degeneration, cataracts and glaucoma.

Some form of glaucoma affects about two in 100 people over the age of 40 and ten in 100 people over the age of 70. Although glaucoma becomes more common with increasing age it can affect people of any age and can even be present at birth. Some groups are more

susceptible to developing glaucoma; these include people of African or Asian origin, people with a family history, people over 40 and people with very short sight (severe myopia). Glaucoma has no symptoms in its early stages and up to 40 per cent of useful sight can be lost before a person realises that he or she has the condition. Screening for risk factors and regular eye exams are crucial in detecting glaucoma early. Once diagnosed, treatment can be initiated and further sight loss can be minimised.

Visual impairment has been linked to an increased risk of suicide and when linked with the combined indirect effects of poor health and conditions such as impaired hearing or arthritis increased the risk of suicide by 18%, (B. L. Lam, et al., July 2008 issue of the *Archives of Ophthalmology*). Poor vision accompanied with other sensory impairments is also a predictor of falls in older people (Kumala J., et al, Age and Ageing 2009, vol. 38)

Although eye problems account for only an estimated 1.5% of general practice consultations, they are significant causes of preventable disability. Therefore, the general practitioner has a key role within the primary healthcare team in the detection of eye problems and in ensuring their proper investigation.

**Visual impairment has been linked to an increased risk of suicide especially when combined with other effects of poor health**

## Eye conditions that may present in primary care

### Disorders of the lids and lacrimal drainage apparatus:

- Blepharitis
- Stye and chalazion
- Entropion and ectropion
- Basal-cell carcinoma
- Naso-lacrimal obstruction and dacryocystitis.

### External eye disease: sclera, cornea and anterior uvea:

- Conjunctivitis (infective and allergic)
- Dry eye syndrome
- Episcleritis and scleritis
- Corneal ulcers and keratitis
- Iritis and uveitis.

### Disorders of refraction:

- Cataract
- Myopia, hypermetropia, astigmatism

### Disorders associated with Contact Lenses:

- Problems with tear film function
- Sensations of scratching
- Contact-lens related red eye.

### Disorders of aqueous drainage:

- Acute angle closure glaucoma

- Primary open angle glaucoma
- Secondary glaucomas.

#### **Vitreo-retinal disorders:**

- Flashes and floaters
- Vitreous detachment
- Vitreous haemorrhage
- Retinal detachment.

#### **Disorders of the optic disc and visual pathways:**

- Swollen optic disc: recognition and differential diagnosis
- Atrophic optic disc: recognition and differential diagnosis
- Pathological cupping of the optic disc
- Migraine
- Transient ischaemic attacks (TIAs).

#### **Eye movement disorders and problems of amblyopic binocularity**

- Diplopia
- Non-paralytic and paralytic strabismus.

#### **Emergency care:**

Recognising and instituting primary management of ophthalmic emergencies and refer appropriately:

- Superficial ocular trauma, including assessment of foreign bodies, abrasions and minor lid lacerations
- Arc eye
- Severe blunt injury, including hyphaema
- Severe orbital injury, including blow-out fracture
- Penetrating ocular injury and tissue prolapse
- Retained intra-ocular foreign body
- Sudden painless loss of vision
- Severe intra-ocular infection
- Acute angle closure glaucoma.

#### **Risk factors**

This will involve the following risk factors:

- Genetics – family history
- Co-morbidities especially diabetes and hypertension.

(List sourced from Royal College Of General Practitioners Curriculum Statement 15.5)

#### **Supporting people with vision impairment**

General Practitioners can facilitate referrals to the community optometrist and request an eye exam report where appropriate. All optometrists will be able to complete a slit lamp examination, use binocular indirect ophthalmoscopy and gonioscopy, and provide an initial screen of visual fields. Most will also have advanced fields analysers and retinal cameras, and practices with optical coherence tomography (OCT) are rapidly become more common.

OCT enables the optometrist to capture micrometer-resolution, three-dimensional images of the retinal layer and macula.

GPs can also explain and discuss driving regulations and options for people with visual problems.

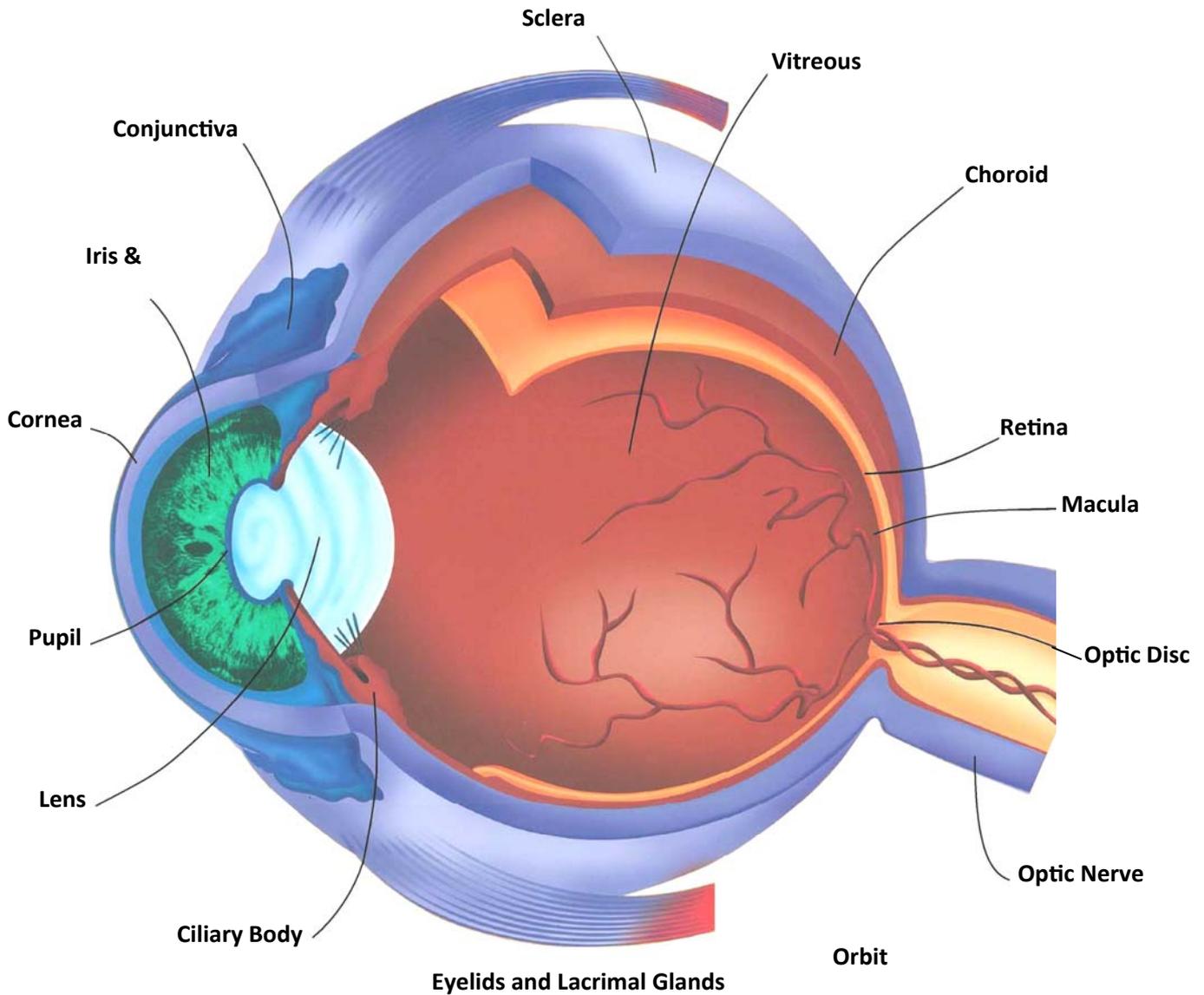
GPs are well placed to facilitate parents' access to sources of social support for the visually impaired child such as Parents of Vision Impaired (N.Z.) Incorporated (<http://www.pvi.org.nz>); and also help people to access Ministry of Social Development (MSD) and Health and Disability support for visually impaired adults. Information on the Children's Glasses Subsidy could be useful and providing contacts for Equipment and Modification Services will be helpful if a person is having difficulty doing everyday tasks because of their disability. The best way for people to find out if they can get some equipment and/or modification to their home or vehicle to help them manage with reduced vision is to contact:

- Accessable (Auckland or Northland) **0508 001 002** or visit [www.accessable.co.nz](http://www.accessable.co.nz)
- Enable New Zealand (For the rest of New Zealand) **0800 171 981** or visit [www.disabilityfunding.co.nz](http://www.disabilityfunding.co.nz)

GPs can also let people know about the Royal NZ Foundation of the Blind which can provide practical support and has a library of talking-books. There are optometrists specialising in low vision services in most communities and some regions have low vision clinics within or associated with the DHB.

#### **Eye health teamwork in primary care**

Primary care is an ideal setting for learning about eye problems both in the day to day patient care and in optometry practices. In Counties Manukau and Capital and Coast DHBs diabetic eye services are provided in local optometry practices and elsewhere the PHOs may conduct eye screening clinics. Both options provide excellent opportunities for examining the eye and discussing risk factors and co-morbidities. Optometrists are key members of the primary healthcare team and are becoming increasingly involved in working in partnership with GPs. An optometry practice can provide an ideal learning environment for the specialty general practice registrar as every patient is an eye patient and optometrists are experts at examining the eye by direct ophthalmoscopy, use of the slit lamp and by using other equipment for testing visual fields and intra-ocular pressure. Most will have fundus cameras and many also have advanced imaging equipment such as OCT. It is an excellent environment for discussing the impact of chronic eye problems and issues of screening and prevention.



## Some common disorders of the body that may have ocular findings

### EXAMINATION OF THE CONJUNCTIVA

Infections (eg chlamydia, gonorrhoea)  
 Allergies (eg asthma, hayfever)  
 Blood Disorders (eg haemophilia)  
 Tumors (eg leukaemia, Kaposi's sarcoma, melanoma)  
 Addison's Disease  
 Vitamin Deficiencies  
 Collagen Vascular Disease (eg systemic lupus)  
 Sarcoidosis

### EXAMINATION OF THE SCLERA

Liver Disease (eg jaundice)  
 Metabolic Disorders (eg gout)  
 Collagen Vascular Disease (eg rheumatoid arthritis)  
 Osteogenesis Imperfecta

### EXAMINATION OF THE VITREOUS

Collagen Vascular Disease (eg amyloidosis)  
 Infections (eg septicaemia)  
 Diabetes  
 Lymphoma

### EXAMINATION OF THE CHOROID

Collagen Vascular Disease (eg sarcoidosis, Reiter's syndrome)  
 Infections (eg syphilis, mononucleosis)  
 Gastrointestinal Disease (eg polyposis coli)  
 Melanoma  
 Secondary Tumours  
 Parasites (eg toxocara)

### EXAMINATION OF THE RETINA

Diabetes Mellitus  
 Vascular Disease (eg high blood pressure, high cholesterol, carotid disease)

Connective Tissue Disorders (eg pseudoxanthoma elasticum)  
 Infections (eg AIDS, syphilis, tuberculosis)  
 Blood Disorders (eg sickle cell anaemia)  
 Drug Side Effects (eg tamoxifen)

### EXAMINATION OF THE MACULA

Congenital Disease (eg toxoplasmosis)  
 Drug Side Effects (eg chloroquine, phenothiazines)

### EXAMINATION OF THE OPTIC DISC

Drug Side Effects (eg steroids, tetracycline)  
 Neurological Disorders (eg brain tumours, intracranial hypertension)  
 Compression (eg disc oedema)  
 Autoimmune Disease (eg giant cell arteritis)

### **EXAMINATION OF THE OPTIC NERVE**

Inflammation (eg meningitis)  
Neurological Disorders (eg multiple sclerosis)

### **EXAMINATION OF THE ORBIT**

Thyroid Disease (eg Graves' disease)  
Tumours  
Sinus Disease  
Leukaemia

### **EXAMINATION OF THE EYELIDS & LACRIMAL GLANDS**

Skin Disorders (eg acne rosacea, psoriasis)  
Allergies (eg hives, dermatitis, eczema)  
Tumours (eg basal cell carcinoma)  
Neurological (eg myasthenia gravis, Horner's syndrome)  
Collagen Vascular Disease (eg rheumatoid arthritis)

### **EXAMINATION OF THE LENS**

Genetic Disease (eg Marfan's syndrome)  
Cataract (eg galactosaemia, rubella)  
Renal Disease (eg Alport's syndrome)  
Drug Side Effects (eg steroids, arthritis medication)

### **EXAMINATION OF THE PUPIL**

Neurological Disorders (eg multiple sclerosis, syphilis)  
Head Injury (eg trauma, stroke)  
Drug Side Effects

### **EXAMINATION OF THE CORNEA**

Genetic Disease (eg Down's syndrome, Turner's syndrome)  
Infections (eg herpes simplex, herpes zoster)  
Metabolic Disorders (eg Wilson's disease)  
Cardiovascular Disease  
Collagen Vascular Disease (eg scleroderma, Sjögren's syndrome)

### **EXAMINATION OF THE IRIS & ANTERIOR CHAMBER**

Melanoma  
Neurofibromatosis  
Gastrointestinal Disease (eg Crohn's disease, ulcerative colitis)  
Collagen Vascular Disease (eg Ankylosing spondylitis)  
Diabetes Mellitus  
Infections (eg syphilis)  
Sarcoidosis

### **EXAMINATION OF THE CILIARY BODY**

Melanoma

**PRIMARY EYE CARE**

NZ Association of Optometrists  
PO Box 1978  
WELLINGTON

New Zealand  
Permit No.158959

**Permit** 