

Welcome

Welcome to the latest edition of Eye Contact. Our practice newsletter is designed to keep you informed of important developments in eye care and the various ways in which we can look after your vision. Preparing the content is very much a team effort and we do hope you find something of interest.

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Your Child's Eyesight

It is vitally important to have your Child's vision checked at periodic intervals. Poor vision can seriously hamper a child's ability to learn and develop.

All babies are normally born with long sighted vision and the ability to focus on fine detail is acquired during its early months. The eyes are not fully developed at birth and vision needs to be stimulated in order for it to be developed correctly.

Children can be checked from a very young age - it is not necessary for them to know numbers or letters or to read the test chart. We strongly recommend that your child is checked pre-school.

Your optometrist will check:

- That the eyes are healthy and developing normally
- To rule out short sight, long sight and astigmatism
- That the eyes are working together
- To rule out a squint
- To rule out a lazy eye

Parents should not rely on their children to complain about problems with their eyesight. A child can often live with poor vision because they do not know what good vision looks like or has normal sight in one eye but may have poor vision in the other as a result of a lazy eye. Just as children visit the dentist regularly it is worth making regular visits to your family optometrist.

Many eyesight defects such as long or short sight, astigmatism, squint and lazy eyes can be inherited - so if there is a family history of these sight deficiencies, your child is more at risk.

Parents should be alert for the following signs:

- Not showing an interest in learning to read
- Frequent headaches
- Sitting very close to the television
- Struggling to follow work presented on the black board

Having an eye examination for the first time can sometimes be a frightening time for the child in a room filled with 'strange instruments'. All of our optometrists are experienced in examining children and we try very hard to make the tests as fun as possible making the whole experience an interesting event.

Research Note

Few of us will have failed to come across the phrase "stem cell research" when used to describe current developments in medical research.

To the lay person, research of this nature can sound very abstract and of limited practical benefit. In reality, this form of research holds the key to a wide variety of future developments in health science.

As a relevant example to eyecare, there are advanced on-going research programmes to find a solution to the visual problems associated with dry macular degeneration. Here, scientists are using stem cells to develop into a very specific type of cell called pigment epithelium found in the deeper layers of the retina. The idea is to subsequently transplant these new 'replacement' cells into the damaged area of the retina at the macula. This is cutting edge technology combined with an incredibly intricate surgical technique.

We are still some years away from perfecting this type of treatment but the early results are very promising.

Fields of Vision

Our practices in Ayr and Troon recently made a significant investment in 2 new state of the art visual field analysers. We thought it an opportune time therefore to explain why and when this type of instrument is used.

In theory a visual field test measures a patients entire area of vision. In practice it is usually the central visual field that is measured but on occasion the measurements would be extended out to the extreme periphery.

Our instrument operates by way of a series of 'spots' of light which are projected onto a screen - the patient when looking straight ahead, then presses a buzzer as soon as each light is seen. The spots might typically be presented in approximately 30 different locations when the central visual field is checked.

The normal field of view is expressed in degrees of extent of vision i.e. 160° left to right, 60° upwards and 75° downwards.

Although there are many individual reasons why it would be appropriate to check a patients visual fields, the three most common situations are:

- * Glaucoma screening
- * Visual field damage from a stroke or brain disease
- * Safety to drive



Glaucoma Screening

Glaucoma is a disease which damages the tiny optic nerve fibres at the back of the eye. This results initially in very subtle areas of loss of visual field which adopt a recognised pattern. The visual field instrument has specific 'glaucoma' programmes which project a faint light source into the areas of the central visual field which are known to fail at an early stage if glaucoma is present.

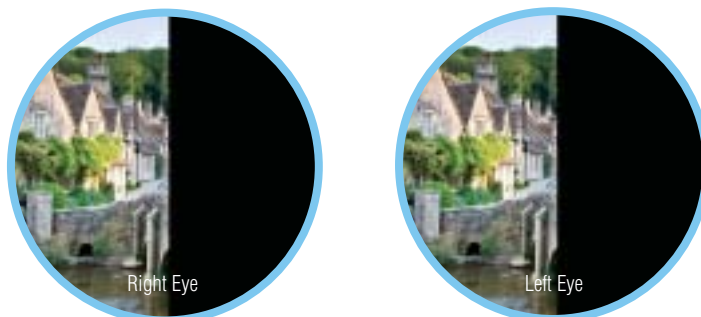
It must be emphasised that it is rare for us to act on a single suspect glaucoma visual field result. Patients become better 'observers' on repeat testing and thus what may appear to be a suspicious result on initial testing can prove to be completely normal on repeating the test on a separate occasion.

If a patient is diagnosed with glaucoma and attending the Hospital Eye Service, they will have periodic visual field tests to monitor the progression of the condition.

Stroke

Depending on the area of the brain affected by a stroke, some patients experience a loss of visual field at the time of the incident - on occasion it may be transient but otherwise it may be permanent.

A characteristic of this type of visual field defect is the similar loss in both eyes.



Loss of right half of visual field in both eyes

Visual field loss of this nature can have a dramatic impact on a patients mobility and confidence, especially at the outset. It is very important to investigate any field loss fully as it will have a bearing on the ability to drive and to read.

Although fortunately very rare, it is possible that some forms of brain tumour can affect the visual field, e.g. pituitary tumour.

Again in these instances, the field loss affects both eyes but a diagnosis would only be made after further extensive medical investigations.

Safety to Drive

The visual field requirements to hold a car licence is to have a minimum horizontal field of view of 120 degrees, 20 degrees above, 20 degrees below fixation with no significant field loss within the central 20 degrees. Patients are often referred to us by the DVLA to establish if there is any restriction in their visual field as a result of certain eye and general health conditions. The test is performed with both eyes together.

In terms of the locations of the targets on the screen, the DVLA driving field test is not ideal for the purpose but until there is some international uniformity of driving standards, it will remain as the measure by which driving visual fields are assessed.

We carry out a significant number of visual field tests within the practice - the vast majority being a routine screening procedure. Please do not be alarmed if your optometrist advises such a test or indeed a repeat procedure.

Vision and Sport

If you have ever lunged for a tennis ball only to hit it with the edge of your racket and send it flying off the court, or missed a putt you were sure you would hole, it may not be your technique that's at fault.

Uncorrected visual problems can have a dramatic effect on sporting ability, not just in terms of vision but also aiming, anticipation, balance, timing, glare recovery and colour perception.

Despite this, many sportspeople still do not associate visual skills with sporting performances:

- 50% of Olympic athletes have never had their eyes tested
- up to 30% of athletes attend the Olympic games with known visual problems

Recent research has firmly established the direct link between visual problems and sporting performance, both for the general public (adults and children) who wish to participate in club sports and for elite athletes.

Sport is the biggest and most diverse occupation in Britain and every week some 20 million individuals at all levels take part. Elite athletes now take specialist advice on their vision as a matter of routine. Manchester United, the England Rugby Team and Tiger Woods all use vision specialists.

What can a sportvision assessment do for you?

It helps assess:

- hand/eye co-ordination
- depth perception - how the eyes work together
- which is your dominant eye?
- how your eyes work with shades of dark and light
- which coloured filters improve your vision?
- anticipation and aiming skills
- eye speed

Why does this help you?

- to improve your co-ordination skills
- to improve your timing for striking a ball
- to help you to judge distances, direction and speed of moving objects
- make you aware of how different light conditions and different backgrounds can affect your performance
- a tinted lens may make a significant difference (even without a prescription) to what you see and how clearly you see it
- eye exercises can be recommended to improve your timing and anticipation skills
- you may have a problem which can easily be solved with a prescription lens, contact lenses or eye exercises, and the impact on your sporting ability could be a vast improvement
- help protect your eyes against injury, glare, and ultra-violet damage, with our range of sports specific eyewear

As part of the on-going development of our Sportvision Services two of our Optometrists, Douglas Orr and Alistair Simpson were invited to the English Institute of Sport based in Sheffield to perform a Sportsvision Screening of the Great Britain Womens Volleyball Team.



Howell Phoria Test



Dynamic Fixation

Pictured are two team members, one performing "Dynamic Fixation" (an assessment of eye speed, movement and focussing), the other performing the "Howell Phoria Test" (an assessment of how well the muscles of each eye work together). In all, thirteen athletes were assessed with six found to have a significant visual problem that could directly affect their sporting performance.

These athletes were given advice on the appropriate visual correction and/or exercises to enhance their vision and improve their sporting performance.

Both Douglas and Alistair can perform individual, group or team assessments at our practice in Ayr or at your own club/venue.

For further information or to arrange a Sportsvision assessment please contact sport@kilgouroptometrists.co.uk

Contact Lens Update

CONTACT LENSES FOR CHILDREN

Parents frequently ask at what age are children able to wear contact lenses. There are no set age restrictions in making this decision. Children of all ages can tolerate lenses remarkably well – on rare occasions even infants can be fitted with lenses to correct or treat specific eye problems present at birth.

The main point to focus on is the maturity level of the child. They must be mature enough to be given the responsibility of taking care of lenses and be comfortable with the task of inserting and removing a contact lens.

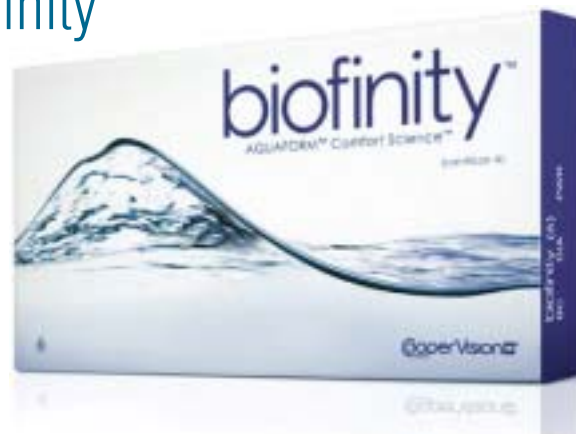
Contact lenses for children have the same advantages as adults. They help enhance appearance, boost self confidence, are comfortable to wear and are a good choice for improving vision. There also ideal to wear for sports where glasses may be damaged, feel uncomfortable or restrict the field of vision.

Children can wear all types of contact lenses. The choice of lens depends on the individual needs of the child, although in most cases soft contact lenses are the preferred option. They are comfortable, easy for the eye to adapt to and are available as disposable lenses.

The vast majority of children who wear contact lenses start off with daily disposables for occasional wear. Wearing a daily disposable lens greatly reduces the risk of infection due to poor hygiene, as each pair of lenses is only used once, then disposed of with no cleaning required.

If your child is interested in trying contact lenses for occasional or fulltime wear, your experienced optometrist will be happy to discuss the options with you.

Biofinity



If you have problems with dryness and discomfort when wearing contact lenses Biofinity contact lenses from Coopervision may be the answer. Combining a high water content with highly breathable material which allows an increased amount of oxygen through to your eyes these lenses are designed to stay moist and comfortable for longer.

The lenses are a monthly disposable design which helps maintain the high levels of hygiene and also contain no preservatives or surface treatments. The breathability of the lenses can help to promote whiter healthier looking eyes.

Biofinity contact lenses have an aspheric design for optimum visual performance and are now available in an extended power range.

Your optometrist will be happy to give you a trial of this excellent new material.

OPTIFREE REPLENISH

Optifree Express has been the solutions of choice for many of our soft contact lens patients over the past few years.

As with all industries, contact lens solution manufacturers are always striving to improve the quality of their products.

This has resulted in Optifree Express being upgraded to Optifree Replenish.

Optifree Replenish is a next generation multi-purpose disinfecting solution developed to enhance lens comfort. It has a new Tearglyde molecule which holds the key to this enhanced comfort. The Tearglyde molecule is attracted to the surface of the contact lens to maintain a thin layer of moisture from natural tears on the lens surface. This creates a shield of moisture between the lens and the eye, enhancing comfort and helping to maintain the appearance of white eyes.

Recent studies have found that Optifree Express retained the moisture in lenses for 8 hours, the addition of the Tearglyde molecule has allowed Optifree Replenish to retain the moisture for 14 hours. This allows for longer, more comfortable lens wear.

Your optometrist will be happy to supply you with a complimentary starter pack at your next consultation if it is thought you may benefit from this change in your contact lens regime.

