



G.T. HARVEY & PARTNERS

OPTOMETRISTS

Your Vision, Our Focus

Focus on Vision

Summer July 2019

We have been sending our Newsletters to patients such as yourself for over 2 years, and I feel now might be the right time for a confession!

Usually, I come up with some great ideas for articles and features, but unfortunately don't have the time or ability to write them. Therefore, I must thank Ashley, our longest serving member of staff (she has put up with me for 23 years!) and my wife Maria (she's put up with me a lot longer!!), for all their hard work in producing these newsletters.

I enjoy reading the finished articles, before it's sent to you, and I think I've done a great job so 'We' thought that it would be a bit of fun to introduce a couple of competitions. The **Bookmark competition** we hope will help fill in a wet afternoon with children or grandchildren over the summer holidays.

Ashley inspired the idea of the second challenge competition – '**On the go!**' by taking her newsletter..... read on and find out where. I must say we do have dedicated staff! I hope you enjoy the challenge to better this. Sheila, who many of you know, had both of her cataracts removed recently and she felt that it may be beneficial to

share her experience with you. So we hope this article lays many of your fears to rest.

Contact lenses are playing a major part in many people's lives these days and I thought you might be interested to find out where they originated. I would ask the question, was the Mona Lisa smiling or did she have a bit of fluff under her contact lens?

On a more serious note, many of our patients are concerned about **Macula Degeneration** and I hope this article helps explain the condition and how it can be treated.

If you 'phone the practice, or call in you may now see or hear a different voice. We are pleased to welcome Linda, as a new member of our Team. Linda will be based on reception and has over 20 years of experience in the optical field and will be more than happy to help you.

I hope you all have an enjoyable (dry!) summer,

Best wishes,
Stuart, Jenny and the Team.

Competitions

Design a Bookmark Competition.

Looking for something to do with the children or grandchildren, on rainy days during the school holidays...why not enter our design a bookmark competition?

The best designs will be made into our practice bookmarks, so the finished picture **MUST** fit inside a rectangle measuring: 21cm x 6cm

Topic: "Draw a picture of a pair of spectacles or sunglasses"

We will be awarding prizes of £50 worth of book tokens for our winners in 3 different age groups:

Ages - Under 8's • 8-13 years • 13-18 years.

The winners' names will also make star appearances in our next newsletter.

Entries must be POSTED or handed into the practice by: 01.09.2019



Newsletter challenge - 'On the go!'

In each edition of our quarterly newsletter we will be awarding a bottle of 'Fizz' to

the person who sends us the best 'photos of themselves reading out newsletter in an unusual or interesting location.

The prize in this edition goes to one of our team Ashley who is pictured reading her newsletter at the summit of Helvellyn!

If you think you can do better, send your 'photos by email to: s.a.henderson@gtharvey.co.uk

The challenge is set!

How Injections can help with Age-related Macula Degeneration (AMD).

Macula Degeneration (AMD) is caused by the deterioration of the central portion of the retina, the inside back layer of your eye known as the macula. The macula, contains cone cells that register the light entering your eye, and is responsible for focusing central vision in the eye. It controls our ability to read, drive a car, recognize faces or colours, and see objects in fine detail. It records the images we see and sends them via the optic nerve from the eye to the brain.

Macula Degeneration occurs when these cone cells begin to stop working and this can lead to blurry vision, muted colours, difficulty recognising faces and loss of central vision over time.

At present, Macula Degeneration is considered an incurable eye disease. The specific factors that cause it are complex but it's been linked to smoking, high blood pressure, being overweight and having a family history of Macula Degeneration.

There are two types of Macula Degeneration: "dry" and "wet." Approximately 85% to 90% of the cases of Macula Degeneration are the "dry" type, while 10-15% are the "wet" type.

Dry AMD: is the most common type of AMD. It develops very slowly and causes a gradual change in your central vision.

It occurs as a result of fatty protein build-up (called drusen) in the eyes and usually happens as part of the aging process. Vision gradually deteriorates over several years. At its worst dry AMD causes a blank patch in the centre of your vision.

The treatment for dry AMD is generally nutritional therapy combined with a healthy diet, high in antioxidants to support the cells of the macula.

Researchers are conducting studies to determine if dietary modifications can reduce a person's risk of macular degeneration and vision loss associated with the condition. Some of these studies are revealing positive associations between good nutrition and reduced risk of AMD, suggesting a diet that includes plenty of salmon and other fish, which contain high amounts of Omega-3 fatty acids, may help prevent AMD or reduce the risk of its progression.

Other studies have shown that supplements containing Lutein and Zeaxanthin increase the density of pigments in the macula that are associated with protecting the eyes from AMD.

1 person in 10 then go on to develop wet AMD. Wet AMD can develop very quickly, causing serious changes to your central vision in a short period of time, over days or weeks.

Wet AMD develops when the cells of the macula stop working correctly and the body starts growing new blood vessels to fix the problem. However, these new blood vessels are very fragile and bleeding underneath the macula can occur. This can lead to scarring and damage to your central vision and may lead to a blank patch in the centre of your sight.

Until recently the only treatment to seal these leaking blood vessels was with a laser.

The earliest laser treatment was Laser Photocoagulation, where laser burns are made on the retina to target leaking blood vessels or to treat the peripheral retina to slow the growth of the new abnormal blood vessels.

This was followed by Photodynamic Therapy used in conjunction with Visudyne, an intravenous drug which was injected into your arm. As this drug passed through your system and your retinal blood vessels, it was activated by shining a low-energy laser beam into your eye. The laser light produced a chemical reaction that destroyed the abnormal blood vessels leaving the healthy ones intact.

However, the disadvantages of laser therapies was their limited effectiveness. Often only a small percentage of patients were suitable for treatment and even if the outcome was successful there was a 50% chance of leakages reoccurring within two years. Laser treatment could also cause scarring of the macula and additional vision loss.

The breakthrough.....anti-VEGF!

Currently, the most common and effective clinical treatment for wet Age-related Macular Degeneration is anti-VEGF therapy – involving the periodic injection into the eye of a drug called an "anti-VEGF".

VEGF is an acronym for Vascular Endothelial Growth Factor, a protein which normally in the body is a healthy molecule, supporting the growth of new blood vessels. However, for macula health VEGF is unhealthy, promoting the growth of new, fragile abnormal blood vessels in the choroid layer behind the retina. These abnormal vessels leak blood, lipids and serum into the retinal layers causing scarring in the retina, killing the macula cells, including our photoreceptor cones.

By injecting anti-VEGF drugs into the eye, the VEGF proteins are suppressed so preventing the formation of new blood vessels behind the retina, and further damage to your sight.

The eye is anesthetized before the injection is performed and the whole procedure only takes around fifteen minutes. The effects can last for a month or longer and high success rates have been reported, as well as a slower progression of the disease and in some cases moderate gains made in vision.

Commonly used anti-VEGF's by Ophthalmologists at the RVI are Lucentis and Eylea.



Both wet and dry AMD only affect your central vision and will not affect the vision around the edge of your sight (peripheral vision). So neither type will cause you to lose all of your sight, but if you have any concerns please contact Stuart or Jenny for further information.

My Cataract Operation Sheila's Journey.



How did you first notice you had cataracts?

I was aware my eyes were becoming mistier and slightly fuzzier, also bright lights and sunshine were uncomfortable. I had previously been told I had the start of cataracts in both my eyes so I booked another eye test with Jenny.

What happened next?

Jenny told me the cataracts had progressed and referred me to a consultant at the Eye Care Clinic. I then had an appointment with Mr Kotagiri who checked my eyes and told me a cataract operation in both eyes was in my best interest. These would be done separately and he booked a pre-operation appointment for me, for my first cataract.

What occurred at the pre-operation appointment?

Mr Kotagiri told me how the procedure would go. I would be on an operating bed and he would mark the eye which was to be done. My face would be covered except for the eye which was having the surgery. Drops would then be put into my eye and a local anaesthetic would be given. The operation would take approximately 20 to 30 minutes in which time I had to keep completely still.

Can you tell us about the day of the operation?

At the hospital the drops were inserted into my eye a number of times, these were to dilate my pupil. The local anaesthetic was also administered. I was a little nervous but the staff were so lovely they put me at ease and the operation went as planned. The surgery itself only took about 20 minutes and all I felt was a little pressure, not at all painful. After the operation I was taken to a recovery room for about 15 minutes and the

nurse was there at all times to ensure I was fine. Before I left hospital I was given an instruction sheet and eye drops to insert for 1 month.

What did you feel like after the operation?

When the anaesthetic wore off I did feel my eye was aching a little but this was understandable. The surgery itself was painless and quick although for the first day I was aware that bright lights seemed to have a sort of 'halo' around them. This had gone by the next day and I was aware of just how bright and clearer colours seemed to look. After a few days all discomfort had gone.

Did you need to have any further appointments?

Four weeks later I had the appointment for my second cataract operation with Mr Kotagiri. This procedure was exactly the same as the previous operation and also went to plan.

After another four weeks I had my eyes re-examined by Jenny and was given my new prescription. I then had my follow up check with Mr Kotagiri who was happy with the results and I was discharged from the Hospital.

Has this operation been successful for you?

Yes, it has been a great success, I can now see everything much clearer than before. Because my cataracts had developed slowly I hadn't realised how poor my vision had become. This is a procedure I would recommend to anyone with cataracts, as it certainly does make a difference to your vision.

New Frame Ranges.



We are delighted to announce that we are stocking **two new frame ranges** from the Danish Design Eyewear Group.

These are the 'Nifties' and 'In Face' Collections and are designed for Ladies with petite features who wish for fashionable, stylish, smaller frames. These collections have been in practice now for 3 weeks and they are proving to be extremely popular, so we are planning to expand the frame numbers over the next 2 months.

If you wish to view these Collections please contact the practice for an **Eyewear Styling** appointment.

A Codex of the Contact Lens.

Leonardo da Vinci, the famous painter of the *Mona Lisa* and the mural *The Last Supper* is equally famous for his many dabbings in such things as architecture, engineering, hydraulics and the military arts. He drew parachutes and flying machines and made many detailed drawings of the human anatomy including the *Vitruvian Man*, but he also explored many and varied scientific concepts.



1508 saw (forgive the pun!) him delve into the realms of vision and his solutions for poor eye sight, in his '**Codex of the Eye**'. The first and most basic concept of a contact lens can be attributed to da Vinci. He suggested that the optics of the eye could be altered by placing the cornea directly in contact with water. His sketches demonstrate how submerging the eyes into a glass bowl filled with water, could rectify the problem of poor sight and alter vision - obviously not a practical solution, but a good place to start.

In **1636**, French scientist René Descartes, explored this idea further in an essay describing how using a water filled test tube could create a similar effect as da Vinci's. He pointed out that the water only needed to touch the cornea, rather than the whole eye, to correct vision: vision was enhanced, blinking was impossible!

In **1801** English scientist Thomas Young tried to turn Descartes' concept into reality by reducing the size of the water filled test tubes and using wax - yes wax! - to attach them to the wearers' eye: once again not a great success as poor vision remained! - but the basic contact lens was born!

By **1845** another British scientist, Sir John Herschel, had conceived the idea of making moulds of the eye to design lenses that would correct vision. However his theory remained just that, as technologies were not advanced enough to test the idea out.

So the **1880's** became the time of the contact lens revolution. New glass production as well as cutting and shaping technologies, meant that lens production was now possible. Messrs Fick, Kalt and Mueller were the men of the time.

Herschel's idea became reality in **1887** when F. A. Mueller, a German artificial eye makers and glassblower made the first working contact lens. In **1888**, ophthalmologists Dr A. E. Fick and Eugene Kalt collaborated in designing glass prototypes called Scleral lenses. These lenses corrected vision, allowed you to blink and covered the entire exposed eye. Their downside: they were heavy, thick, excruciating to wear and as the eye gets its oxygen from the air, essentially suffocated the eyeball - not ideal!

Improvements in the design of these scleral lenses continued and in **1936**, nearly four centuries after da Vinci's dabbling's in his 'Codex', optometrist William Feinbloom introduced combined glass and plastic lenses. They were more compatible with the natural tissue of the eye, lighter and more comfortable than their predecessors.

The first fully plastic lenses were produced by optometrists Dr Istvan Gyroffy in **1939** and Heinrich Wohlk in **1940**, but it wasn't until **1949** that the first corneal lenses were developed. These were much smaller, sat only on the cornea and could be worn longer.

Advances then came thick and fast - the **1960's** saw the development of Polymethyl methacrylate (PMMA), contact lenses. These had mass appeal but remained imperfect as oxygen was still prevented from penetrating the cornea and conjunctiva of the wearer. Prolonged wear could cause serious damage.

The major breakthrough in soft lenses was made by Czech chemists Otto Wichterle and Drahoslav Lim, who created the first hydrogel lenses. They were transparent, comfortable and absorbed up to 40% of water, the rights to produce these lenses were licensed to Bausch & Lomb, in **1965** - the 'SofLens' brand.

At the end of the **1970's** and throughout the **1980's** and **1990's** a range of oxygen permeable rigid materials were developed. Advances in technology meant soft contact lenses became more comfortable to wear, but disinfecting them was still a problem. Danish ophthalmologist M. Bay first suggested throwing them away and the first disposable contact lens was launched in **1982**.

Johnson and Johnson bought out Bay, changed the lens material, manufacturing process and added marketing! The result was 'Acuvue', - still used today!

The **1980's** onwards saw the general release of daily disposable contact lenses. They were more hygienic, more comfortable than ever before, and appealed to a new market: people who wanted them for sports or special occasions rather than every day wear.

In **1998** the first silicone hydrogel were released by Ciba Vision in Mexico. These lenses combined both high oxygen permeability with the comfort and clinical performance of the older lenses, and advances have continued.

Materials are now more breathable, durable, nearly invisible and capable of holding even higher percentages of water, all leading to greater health and comfort in the eye.

Clinical performance has improved. We now have contact lenses for; correcting vision overnight, diabetes and intra ocular pressure monitoring and myopia control. Lenses available for blocking UV light, tinted, coloured, multifocal, bifocal, daily wear and disposables of all types.

And if we look to the future in our bowl of water bionic lenses linked to our mobile 'phones, with visual displays in-front of our eyes! Drug administration through lenses, post-surgery anaesthesia for pain relief and possibly the use of lenses to address diseases such as AMD, with the ability to switch between magnified and normal vision.

What would Leonardo have thought.....I wonder?

Your Newsletter

We hope you have enjoyed this month's Newsletter. If there are any topics or areas regarding eyes or visions in general, that you've ever wondered about or would like more information on, just email your suggestions or queries to: mariahenderson@gtharvey.co.uk and we will try and cover them in future newsletters.

For friends or relatives, who you think would enjoy reading our ramblings, just send us their details and we'll happily add them to our Newsletter mailing list.

We appreciate you may not wish to receive these newsletters, if so please email the practice on: enquiries@gtharvey.co.uk or telephone us on **0191 232 7615** and we will amend our records.