Today’s subjects:

- Blue light from tech gadgets and digital eye strain
- It’s my duty to help these people see
- OrCam - MyEye
- Doctors of optometry have a big role in catching giant cell arteritis before blindness
- Rule out Sjögren’s syndrome with Sjö diagnostic test - a potential systemic cause of dry eye before it takes hold!

New survey results released at the consumer electronics show by the vision council (a trade group representing the nation’s eye care products) shows that most Americans are exposing their eyes to technology. Nearly 90 % said that they spend 2 or more hours on digital device each day, and others spend significantly more time on them. One in ten reported spending at least 75% of waking hours looking at the screen. Our eyes are not built to stare at digital screens all day. Women are also at risk with 70% experiencing problems compared to 60% of men.

A Medical advisor to the vision council has found that more and more young people have been coming to her practice in recent years complaining that their eyes are tired, red, burning or feel as though sand in them. A person’s risk for eye strain is determined by the frequency and duration of use of such devices. It has been found that computer, iPad and smart phone are thought to strain the eyes because they emit blue light or high-energy visible (HEV) light, and cause effects that are cumulative. Previous studies show that blue wave lengths that can boost attention and mood in the day can interrupt sleep patterns.

The new report based on the survey found that the way the people use their digital devices and their risk of eye strain varies widely by age group. It is found that the younger generation is being more affected than older generations.

Ahmed Nagiati El-Amir, one of the world’s leading eye surgeons, has developed a technique that could save the sight of up to 500,000 people with Macular degeneration.

Macular degeneration is one of the condition that approaching late middle-aged dread. For many of the 90,000 diagnosed annually blindness is inevitable, but Ahmed Nagiati El-Amir is determined to change this.

Macular degeneration usually affects people over 60 and is the leading cause of blindness in the UK. It is broadly divided in to two categories, “wet” and “dry.” While both result in the same central blind spot they are different diseases. The wet type which constitutes about 10% of cases results from blood vessels under the macula haemorrhaging and cutting off blood supply, while the dry type which constitutes the remaining 90% is caused by cells responsible for vision withering away. No one knows why this happens but once diagnosed most go blind. El-Amir says it is his duty to help these people see.

His technique inserts a series of lenses in the eye that act like a telescope. They enlarge the image on the area of retina peripheral to the macula to view central images. The lens system essentially tricks the brain into “moving” the macula to another part of the eye unaffected by degeneration. The technique has been used successfully before, but individuals with cataracts are deemed unsuitable. Since the vast majority of macular degeneration sufferers - well over 80% fall in this category, this was a major problem. El-Amir’s approach enables him to operate on those with a history of cataract, meaning it could help save the sight of around 500,000 people. His technique involves multiple scans of the eye to understand its unique anatomy and uses different ways to support the lens once in place. The main stumbling block, is that the lenses are hand-made and therefore expensive. Still the NHS shows it is cheaper than providing care for macular degeneration sufferers. Morfields Eye Hospital has expressed interest in helping El-Amir to convince the health service to offer the treatment nationwide. For full article, please visit: http://www.telegraph.co.uk/lifestyle/11436842/It-is-my-duty-to-help-these-people-see.html

OrCam - MyEye: An intuitive portable device with a smart camera mounted on the frames of eyeglasses, OrCam harnesses the power of Artificial Vision to assist people who are visually impaired. It recognizes text, products and faces, and speaks through a mini-earpiece.
Easy to use:

- The OrCam - MyEye device responds to a simple intuitive gesture – a point of your finger or the press of a single button. Whether it’s to read, find an item or recognize a product, it responds instantly.
- The device can read newspapers, books, signs, and labels on consumer products and even text on a computer or smartphone screen.
- It identifies previously stored faces and announces upon entering the camera’s view that it has more control of your environment.

For more details, please visit: [www.orcam.com](http://www.orcam.com)

Date: 17 May, 2016
From: Sheetal Pai (sheetal.pai.shenoy@gmail.com)
Subject: Doctors of optometry have a big role in catching giant cell arteritis before blindness.

A new study on giant cell arteritis (GCA) confirms the frontline role doctors of optometry can play in diagnosing the disease. GCA occurs when the arteries in the head become inflamed. It typically happens to people over 50 and more often in women. The international study which involved 433 newly diagnosed patients in 23 countries was the biggest to date on people suffering with GCA. The significance of the case study on giant cell arteritis is that often the presenting symptom is anterior ischemic neuropathy which can lead to blindness.

As eye care providers, we hold the key role in the immediate, proper treatment prior to clinical diagnosis, so we can attempt to save the vision in one eye as well as prevent other irreversible systemic sequelae. The study conducted over a six month period was designed to assess frequency of GCA associated blindness, evaluate the possible vascular risk factors, six months after the diagnosis of GCA the incidence of complete blindness in at least one eye was 7.9%.

The study suggests that blindness remains a major clinical problem and highlights the need for urgent referral and treatment. The role of the optometrist is key in the overall health care system, including communication with the rheumatologist, and then moving forward with the social worker, occupational therapists, and other providers to manage any vision loss which would affect an individual’s quality of life and their daily activities. For full article, please visit: [http://www.aoa.org/news/clinical-eye-care/doctors-of-optometry-have-big-role-in-catching-giant-cell-arteritis-before-blindness?ssoy](http://www.aoa.org/news/clinical-eye-care/doctors-of-optometry-have-big-role-in-catching-giant-cell-arteritis-before-blindness?ssoy)

Date: 11 May, 2016
From: Revanth Kumar (revanth.kumar@indiavisioninstitute.org)
Subject: Rule out Sjögren’s syndrome with Sjö diagnostic test - a potential systemic cause of dry eye before it takes hold!
Sjö is a diagnostic test that combines traditional and novel, proprietary biomarkers to create an advanced panel for the early detection of Sjögren’s syndrome in dry eye patients with significant higher sensitivity and specificity.

The early symptoms of Sjögren’s syndrome commonly present as routine dry eye. If this dry eye is misdiagnosed as general dry eye and not Sjögren’s, the prognosis is poorer even if the actual treatment for Sjögren’s syndrome is commenced at a later stage.

Sjögren’s syndrome is a serious autoimmune disease that causes damage to the exocrine glands, which are responsible for moisture scarcity and usually secretes mucus and moisture to the regions like buccal cavity, throat, ocular adnexa, intestinal tract and genitals etc.

There might be an average delay of 10 years in receiving an accurate diagnosis of Sjögren’s syndrome.

Early diagnosis can result in patients being monitored for organ-specific manifestations, auto-graft procedures, general symptoms, associated autoimmune diseases and malignancies.

For full article, please visit: http://www.bausch.com/ecp/our-products/diagnostics/sjo