Dear Colleague

Easter usually brings a bewildering selection of eggs. These colourful eggs are Ukrainian, and were featured on www.bing.com last week.

In this issue we investigate the psychology of choices, specifically frame selection. We also look at ectopia lentis and we have a case study on microbial keratitis in orthokeratology. On the practice management front we give ways to prevent fraud in the practice and illustrate the real effects of inflation. Happy reading

Nina Kriel

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**Ectopia Lentis**

The dislocated lens was probably first described by Berryat in 1749.1 A century later the term ectopia lentis (EL) was introduced by Stellwag to describe congenital dislocations but it was many years before EL became recognised as an important diagnostic clue to the possible presence of other ocular or systemic disorders. The most significant ocular manifestation of EL is a reduction in VA. The severity of visual disturbance varies with type and degree of dislocation and the presence of associated ocular abnormalities. Minimal subluxation of the lens may cause no visual symptoms. However when the zonules are disrupted, causing increased curvature of the lens, the result may be lenticular myopia & astigmatism. Ectopia lentis continues to be a diagnostic and therapeutic challenge for all eye care professionals. A thorough systemic and ocular evaluation is necessary to establish the aetiology and to initiate the appropriate therapeutic and prophylactic measures. The aim of this article is to review the approach to the patient with EL, the differential diagnosis, the possible complications and overall management.
Diagnostic Evaluation

The diagnosis of EL usually requires thorough evaluation with widely dilated pupils. Usually the pupil is dilated with cyclopentolate 1% and phenylephrine 2.5% eye drops, unless contraindicated. Patients should be specifically examined for irido- and phacodonesis, and patients should be asked to look slightly inferiorly to identify lesser degrees of EL.

Phacodonesis is the quivering of the lens. (See video)

a. Family history: A complete detailed history from the patients or the parents should be obtained prior to ocular examination. Ask specifically about cardiovascular diseases and its complications, skeletal abnormalities and visual disturbance. A history of consanguinity, early deaths in the family and mental retardation are also important.

b. All patients with ectopia lentis should have a paediatric or medical consultation to rule out systemic diseases.

c. Establish VA early. A careful refraction is of paramount importance. Amblyopia is a common cause for decreased vision in EL and if anisometropia is present, it should be corrected optically.

d. Slit lamp examination: Detailed slit lamp examination should include an evaluation of the iris, pupil, transillumination and iridodonesis, evaluation of the lens shape and position before and after dilation. Phacodonesis should be evaluated by asking the patients to change gaze from one objective of the slit lamp to another while the examiner views the eye using the lowest magnification. EL varies from mild displacement, evident only on maximal pupillary dilation to significant subluxation, placing the equator of the lens in the pupillary axis.

e. Retinal examination is important in the evaluation of patients with EL. Peripheral retinal signs include prominent white without pressure, lattice degeneration, and retinal holes.

f. Keratometric readings prior to retinoscopy may assist in determining the refraction of these patients. Few studies have demonstrated the importance of keratometric values in the diagnosis of Marfan Syndrome.

g. Patients with Marfan syndrome tend to have higher axial length than normal, so it is important to measure axial length in patients with EL.

Differential Diagnosis

Ectopia lentis has been described in which no other ocular and systemic abnormalities have been detected, or it may also occur as common manifestation of systemic disorders.

Genetic ectopia lentis without systemic manifestations:

Simple (familial) ectopia lentis: either as a congenital disorder or as spontaneous disorder of late onset. Both are inherited in the majority of cases as autosomal dominant. Recessive inheritance is rare and usually occurs in families with history of consanguinity.
It is usually manifested as bilateral symmetric, upward and temporal displacement of the lens. Occasionally the degree of displacement varies considerably between the 2 eyes. Spontaneous late onset subluxation of the lens occurs between 20-65 years. There is often marked irregularity and degeneration of zonular fibers with subluxation of the lens inferiorly. Both types are associated with cataract and retinal detachment. Glaucoma is more common in the late onset subluxation of the lens than in the congenital type.

Ectopia lentis et pupillae (ELeP) is a rare condition that usually exhibit autosomal recessive inheritance pattern, although dominant pedigree has been described. Lenticular and pupillary ectopia occur in opposite directions, resulting in an oval or slit shaped pupil, poor pupillary dilation, axial myopia, glaucoma, megalocornea, and iris transillumination. Ultrasound biomicroscopy studies indicate that the pathogenesis of this condition is mechanical tethering of the pupil by membranous structure with coexisting zonular disruption.

Systemic disorders commonly associated with ectopia lentis

1. Marfan syndrome: Marfan Syndrome (MFS) is autosomal dominant connective tissue disorder associated with mutations in the Fibrillin-1 (FBN1) gene on chromosome 15q21. FBN1 has been shown to be expressed in many organs, including the eyes, musculoskeletal, cardiovascular, and nervous system, as well as the lung and skin.

   MFS affects both sexes and all ethnic groups with similar average severity. About one in 10,000 people are born with the disorder. Three out of every four people with MFS inherit the disorder from a parent with the disease with spontaneous FBN1 mutations accounting for the remaining 25-30% of cases. Diagnosis, therefore, continues to rely predominantly on clinical examination and the observation of characteristic findings in multiple organ systems. The latter have been summarized in the Ghent criteria which employs a set of major and minor manifestations in numerous tissues requiring a family/genetic history with a major criteria in one organ system and involvement of a third organ system. In patients with no family or genetic history, it requires major criteria in at least two different organ systems and involvement of a third organ system. Associated skeletal abnormalities include tall stature, arachnodactyly, chest wall deformities, and scoliosis. The typical cardiac abnormalities are dilatation of the aortic root, mitral valve prolapsed, and aortic aneurysm formation. The only major criterion in the ocular system is EL, which is shown to be a good predictor of disease in the evaluation of MFS. Other ocular findings in MFS are recorded, but appear to not be regularly evaluated - : iridodonesis - secondary to EL; flattening of the cornea as measured by keratometry, megalocornea, axial myopia and retinal detachment, and hypoplasia of the ciliary muscle found in association with iris hypoplasia. Early development of nuclear cataract and open angle glaucoma are also recorded as typical features of MFS. Lens subluxation in MFS could occur in any direction but more commonly supratemporally. Zonular fibers in ectopia lentis are fewer in number, thin, stretched and irregular in diameter.

2. Homocystinuria: Homocystinuria is a autosomal recessive disorder affecting methionine metabolism. It is characterised by high serum levels of methionine and homocysteine. Affected individuals are normal at birth but they later develop seizures, osteoporosis and mental retardation. They are also usually tall with light coloured hair.
Lens subluxation occurs in about 88% by the age of 15 years. They are usually subluxated inferiorly and nasally.

3. Weill-Marchesani Syndrome: This is an autosomal recessive disorder in which affected individuals are usually of short stature with brachycephaly and short fingers. Microspherophakia has been reported with ectopia lentis in these patients.

4. Hyperlysinemia: This is an inborn error of metabolism of the amino acid lysine. Affected individuals have mental retardation and muscular hypotony.

5. Sulfite oxidase deficiency: This is a very rare autosomal recessive disorder of sulfate amino acid metabolism. In addition to ectopia lentis other manifestations include mental retardation and seizures.

There are other ocular conditions associated rarely with ectopia lentis such as aniridia, congenital glaucoma, and Rieger’s syndrome. However one of the common causes of acquired subluxated lens is trauma.

Management of ectopia lentis

The primary aim for eyes affected by ectopia lentis is restoration of vision, avoidance and treatment of amblyopia, and appropriate management of any complications such as glaucoma. In many children, all that is necessary to correct acquired myopia/astigmatism are optical measures alone. Spectacles can provide very satisfactory results especially where there is symmetrical refractive error. However in unilateral ectopia lentis, the use of a CL may be necessary to avoid aniseikonia. If the crystalline lens is extensively subluxated, correction of the refractive error of the aphakic zone of the pupil should be tried. Coexistent pharmacological pupillary dilation can aid acceptance of this.

In severe cases of subluxated lenses, surgical intervention may be necessary through an anterior segment approach or via pars plana vitrectomy with lenectomy.

In summary, ectopia lentis is an ocular disorder with diverse aetiologies. Each affected individual should have a thorough family history that include whether cardiovascular, skeletal or ocular abnormalities exist in other family members. Paediatric and medical consultation is important to rule out any hereditary systemic disorders.

The prognosis for vision varies with type and degree of dislocation and the possible presence of ocular complications. Therefore emphasis needs to be directed toward early diagnosis and appropriate ocular rehabilitation.

Source
Eye on Ophthalmology: Ectopia Lentis
Altaie, R.
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New Zealand Optics (June 2011)
Visit www.nzoptics.co.nz to subscribe or to view archives.
Microbial Keratitis: A Case History

After parental discussion, a 14 year old male with progressive -3.50DS OU myopia who had been successfully wearing 2-weekly Acuvue Oasys disposable soft contact lenses was fitted with Menicon Z CRT™ overnight orthokeratology rigid lenses. Although the ocular surface and tear film appeared normal, there was a history of eczema and seasonal atopy.

After 2 months of uneventful wear, the patient started to experience a very sore RE over a weekend, and was urgently referred from a local [emergency section of the same medical centre] on a Sunday afternoon.

Examination revealed a central erosion of the right cornea with surrounding oedema. A small hypopyon was present in the anterior chamber. His vision was recorded as R CF@1m, L 6/24, both eyes improving with pinhole to R 6/15, L 6/7.5.

A diagnosis of severe microbial keratitis over the visual axis was made. The ulcerated area was scraped and the patient commenced on Cefuroxime 5% every hour and fortified tobramycin 1.36% every hour, to be used alternately. He was admitted to stay overnight in the hospital eye department to ensure compliance, particularly at night.

By the next day the patient reported that the eye was feeling much better. His vision was recorded as R 6/60 improving with pinhole to 6/30. The infiltrate was found to have reduced and the epithelium was now intact. Of note, the hypopyon that was present at first examination was gone, with only trace keratic precipitates present on the inferior endothelium. The impression was therefore that the lesion was healing rapidly and he was allowed to go home. He was continued on tobramycin 1.36% hourly and cefuroxamine 5% hourly, used alternately, with instillation once overnight.

At the check the following day the stromal infiltrative haze and associated oedema showed further improvement so the medication was adjusted to hourly ciprofloxacin 0.3%.

Inflation

In 2002 Steers introduced the King Steer Burger, the biggest on the market at the time. It cost R11.50 for the two 100g beef pattie, two cheese slice, dill pickle, onion, salad and three sauce burger. Today, it costs R39.90. The price has increased 250% in 11 years, or a compounded annual increase of 13.3%.

The price of petrol in January 2002 was R3.61 in Gauteng. Today, a litre of 95 unleaded costs R13.20 in Gauteng. This amounts to an increase of 375% in 11 years. Stated differently, in 2002 you could buy a King Steer Burger and a litre of petrol in exchange for R15. Today, you could only just get a litre of petrol, and 7.5% of a King Steer Burger, maybe one bite.

In real terms, South Africans are getting poorer as their salaries cannot keep up with this kind of price inflation. Now had we all used gold as a medium of exchange, the story would be different. In exchange for an ounce of gold you could get 290 King Steer Burgers in 2002. Today, you can buy 330 King Steer Burgers for the same ounce. Likewise, you could buy 925 litres of petrol in 2002 for an ounce of gold. Today, you can buy 1100 litres.

How have your prices behaved in the past decade?

Adapted from market strategist and economist Chris Becker’s article: www.moneyweb.co.za
Then the patient presented the following day saying that the right eye was feeling much better, but now that the left eye was sore and red. Examination showed a central 6mm diameter area of punctuate epithelial erosions. He was told to continue on the hourly ciprofloxacin drops to the right eye and was given Systane to be used qid to the left eye, with review. At the next review, examination revealed a small central scar with minimal haze in the right eye (see image), whilst the left cornea was clear. He was commenced on cyclosporine ointment to both eyelids BDS, g Patanol OU BDS and the cilioxan was reduced to QID to the right eye.

Optometry View: Grant Watters
Overnight orthokeratology (OK) is starting to become more popular... especially with increasing evidence that it may assist in myopia control in children and teenagers. It relies on controlled compression of the central corneal epithelial cells by the fluid forces of the tear film underneath a reverse geometry rigid contact lens. If the tear film is abnormal, there is a chance that the lens could physically abrade the epithelial cells over the visual axis. Although this patient allegedly had a normal tear break-up time, he had rosacea, seasonal atopy, lid eczema and associated meibomian gland dysfunction. The incidence of microbial keratitis with overnight OK has been hard to ascertain, but is thought to be about 5 in 10,000 – similar to that of daily wear of soft contact lenses. There have been reports of poor hygiene and contamination of lens cases and suction holders contributing to problems in children in Hong Kong. There have also been concerns that some fitters overseas have not provided adequate patient education and follow-up, causing overnight OK to be outlawed in Singapore some years ago. This teenager had a sore eye for several days before seeking help, but should have not been wearing these lenses if his ocular surface was not in normal balance. It has been well established that overnight wear of any contact lens carries higher risks of complications. It is also quite common for OK lenses to get protein deposits on their back surface, which can affect lens comfort and performance and raise the risk of epithelial insult. Fortunately aggressive treatment around the clock with fortified antibiotics ensured that this patient did not suffer permanent visual loss. It is a traumatic experience for anyone and not surprisingly, this patient has subsequently discontinued contact lens wear. He has also had to continue lid treatment with cyclosporine ointment and ocular allergy management with Patanol. It can therefore be argued that this individual was not a suitable candidate for OK and therefore rigorous screening guidelines must be identified and adhered to. Hopefully other myopia control technologies such as multifocal soft lenses and specially curved spectacle lenses will also gather momentum in the near future.

Ophthalmology View: Sacha Moore
This is a case of bacterial keratitis associated with orthoK lenses, with rapid response to antibiotic treatment and residual scarring. Risk factors in this patient include teenage age, eczema, atopy and overnight contact lens wear. Orthokeratology contact lenses which are worn overnight and act by pressing against the cornea may have increased risk of bacterial keratitis. Together, these risk factors made the likelihood of microbial...
keratitis in this patient high. This reminds us of the importance of proper patient selection, education and careful follow-up. Atopy in particular should be watched out for.

Cornea scrape followed by aggressive therapy as demonstrated in this case was appropriate. Knowledge of the corneal scrape result would have been helpful in determining certainty of diagnosis, early treatment and future management. Non-bacterial infections (acanthamoeba, herpes simplex virus or fungi) can sometimes appear to respond to antibiotics during the early phase of antibiotic treatment. The contact lens case should also be sent for microbiological assessment if this was available. Confocal microscopy is a further option for assessing for acanthamoeba infection...

Once sensitivities are known the treatment should be amended accordingly and tapered in line with progressive resolution. Prolonged frequent use of antibiotics can be toxic to epithelium and delay healing, especially if not preservative free. In the case of ciprofloxacin drops this can result in crystalline deposits. In terms of trying to limit scarring there is some debate as to whether topical steroids are useful. Steroids potentiate infection and can mask the signs of inflammation allowing an infection to become rapidly worse. They should only be used with extreme care by an experienced practitioner where there is a high degree of certainty of the diagnosis. The patient was also known to have progressive myopia with a history of atopy and eczema which may suggest keratoconus. This should be assessed for in both eyes including corneal topography.

It would be helpful to know the dimensions of the ulcerated area and the area of surrounding corneal infiltrate to allow quantification of resolution. The presence of sloughy material or pus, subtarsal follicles or papillae and the degree of conjunctival vascular engorgement or injection is also important to note. If the presenting ulcer is less than 1mm diameter then corneal scraping is unlikely to yield results, may worsen the epithelial defect or damage Bowman’s layer (causing scarring) or stroma, and could seed infective organisms deeper into stroma. Alternatively it could be argued that epithelial debridement can aid antibiotic penetration and remove infected tissue. Monotherapy with 24 hours of overnight hourly Ciprofloxacin drops tapering to four times a day drops during waking hours for a further 3 days is appropriate for small ulcers. Where there are concerns over compliance, admission is key. The patient should be advised to discontinue contact lens wear until a few weeks after full resolution. The patient should then be fully reassessed for CL fitting. They will need reinforcement of teaching on avoiding over wear and how to correctly clean their lenses and store them. If the patient is unable to do this, for whatever reason, they should be discouraged from further contact lens wear. It would be important to question duration of contact lens wear as well as compliance with the recommended cleaning regime. If the patient is deemed to have appropriately used their contact lenses and complied with correct cleaning then details of lenses and solutions used should be documented. This will be useful in future surveillance studies of contact lens related problems.

Interestingly, topical cyclosporine was used in this case. This is indicated for mild, moderate or severe dry eyes and to generally improve tear quality where this is thought necessary, such as in atopic patients, as in this case. There are no reported adverse effects other than irritation or inefficacy. The combination of Patanol and Cyclosporine would benefit this atopic patient’s ocular surface, reduce likelihood of future similar problems
and carry less risk of complications than steroids in this setting of infectious keratitis. Overall the patient was put on four different drops. The more drops the less likely the patient will comply with them correctly. Poor compliance is additionally problematic in teenage patients as in this case. Reinforcement of advice, with written instructions or printed information, and checking of what the patient is actually doing at each visit is therefore required.

Source
Point of View: MK in OK— not OK!
Watters G, Moore S.
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Visit www.nzoptics.co.nz to subscribe or to view archives.

The psychology of frame selection
Speed dating is a little like musical chairs. You meet and chat with (i.e. ‘date’) someone for 5 minutes before a buzzer goes off and you move on to the next person and do the same. At the end of the evening where you may have met up to a dozen people, you decide which of your speed dates you’d like to see again. If both agree, then you set up a real date. Sander van der Linden is a psychologist at the London School of Economics and Political Science. His interest is behavioural change. He reports that he tried speed dating a few years ago. The dating itself was an abysmal failure, he says, but he has gathered some valuable information on how we make selections. Let’s debunk some myths.

Spoilt for choice
Research shows that being confronted with a large number of choices can make it harder to make a good decision. You may believe that having a large, varied selection of frames is a good thing but research shows that speed daters found too much variety (age, education, height, occupation) overwhelming. If there’s too much choice, daters tend to make no choice at all! There may be plenty more fish in the sea, but we certainly don’t want to bewilder our patients into not choosing a frame and going without correction, or being unhappy with their choice or going elsewhere to find a frame. In another study it was shown that greater variety did not relate to a greater emotional satisfaction than when there were fewer choices. It’s not about the confusingly large selection of fish in the sea, then, but about finding the right one, in your small rock pool.

Like a kid in a candy store
Consumer behaviour has been extensively studied. Several experiments have shown that we are more likely to make a choice (i.e. select something), and be happy with
our choice (whether it be jam or car tyres) when the choice environment only offers a limited set of options. We glibly use the expression ‘like a kid in a candy store’ to describe the exciting initial elation of overwhelming choice, but who really makes successful choices when faced with a whole candy store? I’d go for the pear flavoured jelly beans every time. Such behaviour is exactly what psychologists predict. Resorting to heuristics is a coping mechanism. Van der Linden says that heuristics are essentially ‘decision-making tools that save effort by ignoring some information; and thus, their essential function is to reduce and simplify the processing of cues & information from our environment. In other words, less is more.’

Where there are a large number of speed dating choices, participants tend to rely on heuristics, and particularly on obvious/ easily accessible information (height, age, physique) to make decisions. Relating to frames, you may find that a patient becomes flustered and quickly narrows her search down to a familiar style, brand or colour. Where even those features of the frame are too challenging, they resort to price shopping. Everyone understands buying the cheapest. It’s up to us to teach our patients the difference between cheap and value-for-money. With a lower number of speed dating options, participants used harder to observe attributes such as occupation and education to guide decisions. With a slightly smaller frame selection, and armed with the correct information, we may be able to get patients to look beyond the obvious (price, colour) and get to fit, comfort, material and shape. Surely an informed and considered decision is better than an intuitive choice? We tend to dismiss hasty decisions as irrational, but Gigerenzer disagrees. Heuristics-based decision making isn’t a cognitive shortcoming at all but rather the result of protective evolution. We have adapted to make quick and accurate assessments in an uncertain environment.

Small Business, Big Fall

Small businesses such may have fewer employees and smaller revenues, but we are even more at risk for white collar crime (e.g. fraud) than corporates. And with fewer reserves, it could well be the end of the road for an optometry practice. Jenny Reid of iFacts suggests:

1. Hire trustworthy personnel

Information about a potential employee’s criminal record, credit history, qualifications, ID numbers and driver’s licenses will reduce the risk of bringing questionable individuals into your practice.

2. Company policies & procedures

You’re not too small to have policies and procedures in place for when an issue arises. Clarity prevents you from reacting emotionally or inconsistently when an issue arises, which is in contravention of labour laws.

3. Set an example

Management needs to set good ethical examples. Employees will respect and follow that example. Practice what you preach.

4. Training

Provide employees with relevant training to expand their knowledge and to grow. Empowerment and job satisfaction reduce the temptation to risk the job by committing a crime.
Research shows that we can make good choices despite limited information. A group of German students was asked to rank American colleges, and did so more accurately than their American counterparts. With more information, we tend to overthink things and get it wrong.

Familiarity breeds contempt
According to the recognition heuristic, when we are faced with 2 articles and recognise the one, we infer that the recognised object has the higher value. So familiarity does not always breed contempt. Familiarity is reassuring and suggests stability and certainty. Research shows that we even pick shares on the stock market that way!

Work your investment
Even if you have an on-site lab, your largest stock investment is typically your frames. Make your investment work for you with these top tips for your frame displays:
- Group your frames according to price or material or ladies/ gents/ unisex so that you can easily limit a patient’s selection.
- Save time by naming the group that you have selected. ‘Here are the ladies plastic frames which would be suitable for your type of lens’ or ‘these children’s frames fall within the budget that you have indicated.’
- The limitation is for the patient, not for you to stick to. Patients rely on us for guidance so do try something a little different and gauge the response. Ideally you want to get past the point where they judge the superficial attributes of the frame and start examining things like comfort, quality and fit.
- There’s little point in patients aimlessly wandering around your dispensary trying on frames. It’s a security risk and they’re likely to choose inappropriate frames. Ask questions to help them narrow down their choices.
- Many patients choose their frames before their examinations. If it’s a new patient, try to gauge what they are likely to need.

5. A little extra
Personnel are a company’s greatest asset. Invest in your staff with incentives, wellness assistance such as nutritional, exercise, lifestyle and personal financial advice. By instilling a feeling of value you will create an employee who is loyal, honest and productive.

6. Prevention
Prevent crime by limiting the opportunities, having good systems in place and using them. Do random spot checks. Rotate staff and distribute responsibilities.

For more information visit [www.ifacts.co.za](http://www.ifacts.co.za).

Speak Up
84% of TopEnders aged 60 and above will complain about bad service when shopping (as opposed to keeping it to themselves). This is only the case for 57% of TopEnders aged 16 to 24.
(Source: RamsayMedia TopEnd Survey 2011, Fact a Day 8 December 2012 on [www.eighty20.co.za](http://www.eighty20.co.za))
by talking to them or checking their old glasses. Then set aside a few frames to come back to after the examination. We do not emphasise the professional aspects of frame and lens selection enough.

- I often end up going with the first frame we tried. We may look at a few others, but then go back to the first. We have the knowledge and experience to know what works so we are more likely to offer a suitable frame immediately, but we now understand that those first, intuitive choices are often the best.

- Every practice needs a selection of conventional and predictable frames that will satisfy and comfort the overwhelmed patient by introducing the familiar. It’s about presenting the familiar with the less familiar, in a ratio that suggests that many of your frames are suitable, but a unique choice is possible.

- Select a few brands and keep enough of those brands to represent them. Beware any company that insists on a specific or minimum stock-holding. Frames that won’t sell (duplicates and inappropriate styles) are a waste of your money. A responsible supplier would want a mutually beneficial relationship. If they are overly prescriptive, perhaps it’s not a match made in heaven. There are plenty of fish in the sea.

- A good selection is vital but your range can actually be too big. Not only do you confuse, rather than impress your patients, but it plays havoc with your cash flow and increases your holding costs.

- Keep a selection of prices with enough high-end frames. Is a R750 frame expensive? If it’s the most expensive frame in the practice, then yes, it’s expensive. You need to stock R1500 frames to give context to your R750 frames. The patient must feel that she has a choice. Remember, we’re talking speed dating, not an arranged marriage! High end frames are a greater investment but offer a better return.

- Depending on how you visually present your frames, your practice size and turnover, you should probably keep between 400 and 1200 frames with 15% or 1 month’s projected sales in surplus. A frame in your cupboard still has a holding cost but without the current profit potential of a displayed frame.

**Source**

*Speed dating and decision-making: Why less is more*

Van der Linden S

*Scientific American* online (June 7, 2011)
Questions

1. Ectopia lentis may cause hyperopia, myopia or astigmatism, depending on the degree of dislocation and position of the lens.

2. The EL patient history should investigate consanguinity, epilepsy and autoimmune disease.

3. EL can only be seen on full dilation.

4. In congenital EL the lens is typically subluxated asymmetrically, and drops down and out.

5. Marfan syndrome patients usually have a tall stature, arachnodactyly, chest wall deformities and scoliosis.

6. Rieger’s anomaly is one of the leading causes of acquired EL.

7. Glaucoma is more common in patients with EL.

8. Acanthamoeba and herpes simplex require high doses of fortified antibiotics.

9. OrthoK is increasing in popularity due to its potential to limit myopia progression.

10. Patients are most likely to make confident frame choices when offered a very wide and diverse range of frames.

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Candy chandelier

This issue is taking on a bit of a candy theme so I thought I’d include this quirky chandelier made of jelly bears.

To redecorate, simply eat the installation and start again!

5000 Gummy Bear 'Candelier'
by Kevin Champeny
on www.demilked.com