

**MORE FREQUENT EYE EXAMINATIONS:
A NECESSITY RATHER THAN A LUXURY**



FOREWORD

As an optometrist with a strong personal commitment for more than 50 years to transforming eye health, I am delighted to introduce this ground-breaking international survey into vision and eye health. It could not have been published at a more important time.

The percentage of elderly people in the populations of the EU member states continues to rise, and these elderly people are also living longer. It is common knowledge that old age has an increasingly negative effect on vision and that impaired vision can affect our lives in countless ways. In our day-to-day activities, for example, when working or engaging in our hobbies, or when driving on the roads.

In addition, due to changes in our lifestyle and diet, diabetes is increasingly manifesting itself as a social epidemic. Diabetes can lead to blurred vision and eye disorders caused by damage to the blood vessels, with diabetic retinopathy a main cause of blindness in Western society. Within 20 years of being diagnosed, almost all people with type 1 diabetes and two-thirds of people with type 2 diabetes will have developed some form of diabetic retinopathy.

Other lifestyle issues, particularly smoking, being overweight and lack of exercise can also cause eye complications.

Yet the research shows that although many people are aware of the negative effects that their age, lifestyle and physical condition can have on their vision, they do not adapt their behaviour accordingly. And although the majority (70%) recognise that it is important to check their eyes every two years, less than half of them (47%) do so.

A regular eye examination at an optician provides a comprehensive health assessment of the eyes and can possibly detect signs of a number of sight-threatening conditions, including cataracts and glaucoma, which if detected early can be more successfully treated.

I hope very much that this report will act as a starting point for providing people with the necessary information and support to enable them to take an active role in looking after their own eye health, which includes having an eye examination every two years. The gift of sight is something that far too many of us take for granted.

Doug Perkins

Optometrist, Co-founder and Joint Group CEO of Specsavers/Louis Nielsen

HIGHLIGHTS OF THE REPORT

VISION IN GENERAL



- **80%** of the respondents find their eyes the most important sense.
- **7 out of 10 people** find it very important to test their eyes every 2 years.
- Still only **47%** actually do so.

DRIVING AND VISION

- **60%** feel a professional eye test by an optician should be compulsory for getting a driving license or to renew it.
- But **still 23%** of the wearers of glasses and contact lenses say that they sometimes drive without glasses or contact lenses. In the case of **9%** this has sometimes led to dangerous traffic situations.



EYE DISORDERS



- **285 million people** worldwide have an eye disorder or visual impairment.
- Knowledge on eye diseases is quite high:
 - **78%** know not all eye diseases can be cured with medication.
 - **72%** know you don't always notice eye diseases in early stage.
- But ...
 - **Only 19%** know lack of exercise can lead to eye disorders.
 - **Only 35%** know smoking can cause eye disorders.
- **66%** know diabetes can cause eye problems.

CHILDREN'S SCREEN TIME

- Children spend on average a minimum of **1.5 hours per day** staring at a screen.
- This number increases when children get older (7 to 12) - average of **2 hours per day**.
- **4 out of 10 households** have rules for spending time looking at a screen.
- Reason for this is predominantly worry about children not getting enough exercise and outdoor time.
- However when asking if people feel that looking at a screen for a long period is bad for the eyes and can cause poorer vision, **56%** says yes.
- Optical industry does not have a conclusive statement about the effects of screens on vision yet.



INTRODUCTION

Vision is considered to be the most important sense by most people. At the same time, good vision is often taken for granted and we are often lax in how we protect and care for our eyes. Regular preventive visits to a dentist are considered normal, but a regular visit to an optician or optometrist for an eye examination is not part of our normal routine. Even so, regular eye tests are strongly recommended. Not only in order to monitor possible deterioration in visual acuity, but also to detect possible eye disorders at an early stage.*

Our eyes are made up of fine, delicate tissues and are therefore extremely sensitive organs whose condition can be affected by both ageing and lifestyle choices. For example, people above the age of 45 are more likely to develop an eye disease, people suffering from obesity and diabetes run a greater risk of contracting eye disorders, and smoking has now been clinically proven to cause eye complaints.

About this study

This is the first international survey to find out (1) ***how often people have their eyes tested*** and (2) ***the extent to which they are well-informed about eye health and the risks of declining vision***. It is important that we care for our eyes properly and that we are also well-informed in this area. This prompted Specsavers/Louis Nielsen, a major optical retail chain, to carry out an international survey during July/August 2016.

The survey targeted the Netherlands, Denmark, Sweden, Finland and Norway. Approximately 1000 responses from a representative sample of consumers aged 18 and above were obtained in each of the countries.

This report is structured around four clusters:

1. General knowledge relating to vision, eye examinations and optical products
2. Knowledge relating to eye diseases, diabetes and nutrition
3. Driving and vision
4. Modern times – children and screen time

The results will be used to draw attention to the importance of regular eye tests, effective eye protection against UV radiation, the importance of good vision when driving and the possible effects of excessive screen time on children's eyes.

* Possible ocular complications can be detected via retinal screening. Specsavers/Louis Nielsen offers this service in Finland, Norway, Sweden and Denmark. Not in the Netherlands.



VISION IN GENERAL

Frequency of eye tests

"If you do not measure, you are just guessing"

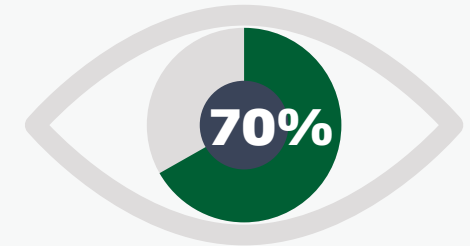
More than 80% of the respondents consider vision to be their most important sense. Nearly 70% use prescription glasses or contact lenses to improve their vision. The older people are, the more often they use corrective optics. Young people choose contact lenses to improve their vision more often, as opposed to the elderly who prefer glasses.

Consequently, 70% of the respondents find it important to have their eyes tested regularly, at least once every two years. However, many of them do not act on this accordingly. Only 47% do in fact have their eyes tested once every two years. People in the Netherlands comply with the recommendation for regular eye tests more often than in the Scandinavian countries (55% vs 44%). This also applies to the elderly and wearers of glasses/contact lenses.

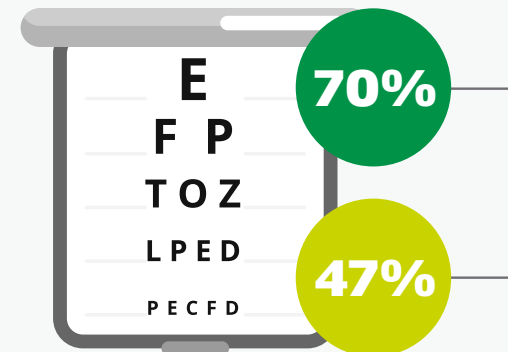
People mainly visit an optician for an eye test (70%), followed at a distance by an ophthalmologist (22%). The main reason for having the eyes tested once every two years is that people want to ensure that they continue to see clearly (47%). The main reasons for not having a two-yearly eye test performed is that people still find their vision to be good (24%) and that people do not notice when their vision deteriorates (20%). The latter is worrying because research has shown that even a minor refractive error can lead to a delayed reaction, when driving for example.



of the respondents consider vision to be their most important sense.



of the respondents use prescription glasses or contact lenses to improve their vision.



Find it important to have their eyes tested regularly, at least once every two years.

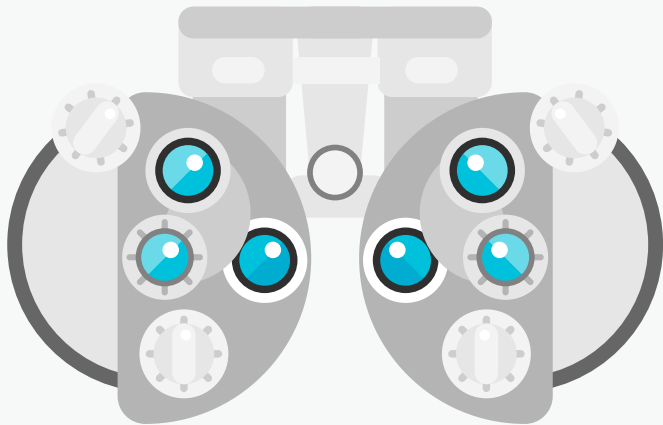
Only 47% do in fact have their eyes tested once every two years.

The importance of eye examinations

Regular eye examinations are important for ensuring good vision. Opticians and optometrists recommend having the eyes tested once every two years. In addition to measuring visual acuity, an eye test can also serve as a health check for detecting possible eye disorders and medical complaints.* Moreover, the change in visual acuity is often gradual and therefore often goes unnoticed. So people should avoid self-diagnosis and have their eyes tested professionally every two years so that even small changes are monitored.

The cost of eye examination

In the Netherlands, opticians offer an eye test free-of-charge. In Denmark, Sweden, Finland and Norway, a comprehensive eye test performed by an optometrist costs between 26 and 60 euros. The eye examinations are structured differently. In the Netherlands, the eye tests are used to determine visual acuity/astigmatism in each eye – each eye is examined separately for this and the way in which the eyes work together is also measured. In the other countries, the eye test also includes retinal screening.



* Via a retinal photograph, for example, offered by Specsavers/Louis Nielsen in Finland, Sweden, Denmark and Norway.

Retinal Screening

Retinal screening is an extra preventive check to determine eye health. The process involves taking detailed photographs of the inside of the eye, the retina, with a retinal camera. The camera allows the optometrist to determine the presence of possible abnormalities in the retina and/or optic nerve. If necessary, customers are referred to an ophthalmologist. Digital retinal screening can help with early detection of eye diseases such as glaucoma, macular degeneration or diabetic retinopathy.

Opticians in the Netherlands

The Netherlands, in addition to Portugal, is the only country in Europe where the government does not require opticians to be licensed. This means that anybody can open an optical store tomorrow and start to perform eye examinations. Specsavers/Louis Nielsen has been committed to improving the quality of eye care for many years and eye examinations are always performed by qualified opticians who have a government approved qualification in optics.

“ We think it is really important to constantly improve our eye examinations and invest in the development of our professional optometrists/ opticians and in new technology. In many countries our eye examination contains a retinal photography service. Through this service, we have helped to save the lives of hundreds of people who were unaware of the risks they faced.”

Doug Perkins, Optometrist, Co-founder and Joint Group CEO
of Specsavers/Louis Nielsen

Knowledge and experience with optical products

"Products yes, knowledge no"

General

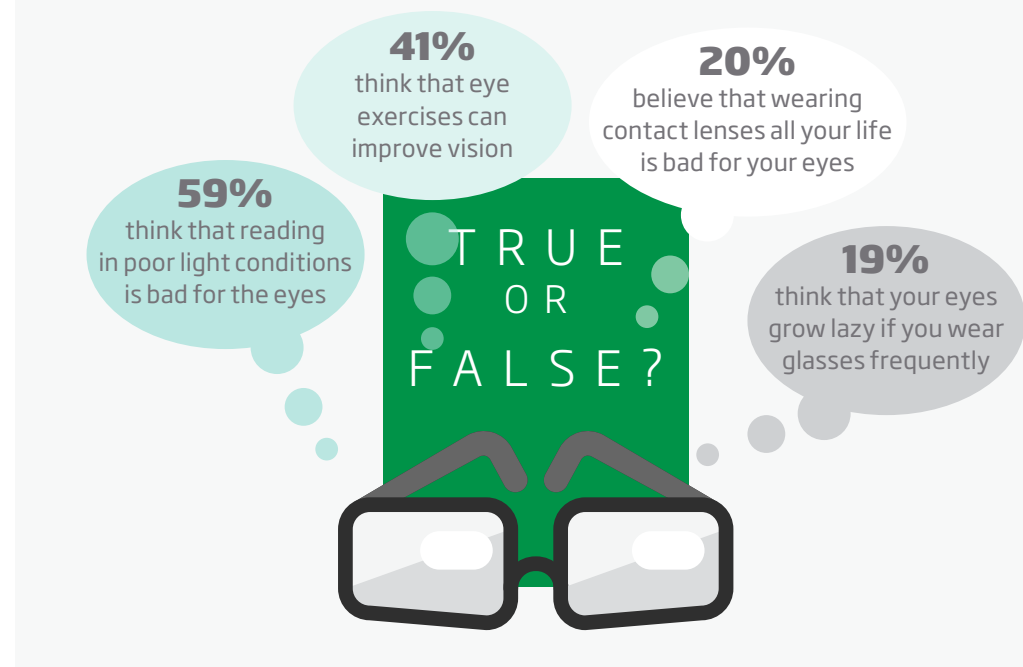
A majority of the respondents (70%) wear glasses or contact lenses to improve their vision. Nevertheless, they are not very informed about their optical aids. When asked to say whether simple statements, such as the ones below, were true or false, more than half of the respondents did not know the answer.

- ✗** *"If you are aged 65 or older, you should not wear contact lenses."*
- ✗** *"Wearing contact lenses causes your vision to deteriorate."*
- ✗** *"If you have worn contact lenses all your life, you may suffer from eye problems when you grow older."*

And those who thought they did know the answer were often incorrect. For example, 59% think that reading in poor light conditions is bad for the eyes; 41% think that eye exercises can improve vision; 20% believe that wearing contact lenses all your life is bad for your eyes and 19% think that your eyes grow lazy if you wear glasses frequently.

Varifocal glasses

Varifocal glasses (also called multifocal glasses) have a reading area and an area for distance vision. One quarter of the respondents sometimes wear varifocal glasses. As the respondents' age increases, the more likely they are to wear varifocal glasses. This is because the average age when people require reading glasses is 43. 28% of the respondents who wear varifocal glasses had doubts prior to purchasing them. Nearly half of them were worried about the possible (protracted) period of time required for acclimatising to these glasses. In general however, people got used to their varifocal glasses fairly quickly. 34% had no trouble adapting, 31% required a few days and 15% needed 1 to 2 weeks. Only 8% said that the acclimatisation period was longer. The main challenges that people experienced during the first days and weeks were judging height and depth, switching from distance vision to close vision (and vice versa) and finding the right focus.



Contact lenses

Approximately 16% of the population in the five countries of this survey wear contact lenses; these are soft contact lenses in most cases. These lenses are particularly popular among people in their 20s and 30s. Three quarters of the wearers of contact lenses sometimes wear glasses as well. Even so, most prefer to wear contact lenses (58%). People particularly prefer to wear contact lenses when playing sports (82%), swimming (71%), going out (70%) and at the beach (69%). 10% of the respondents incorrectly think that all contact lenses offer protection against UV radiation.

Wearing contact lenses is sometimes associated with discomfort. Nearly nine out of ten contact lens wearers experience this on occasion. Wearing the lenses for too long (65%), dirt and dust particles (60%) and air conditioning (54%) are the main causes of occasional discomfort. 89% of those who wear contact lenses are confident that they know how to handle and use their contact lenses (hygienically). However, this is not necessarily confirmed by the answers they give to questions about their actual behaviour.

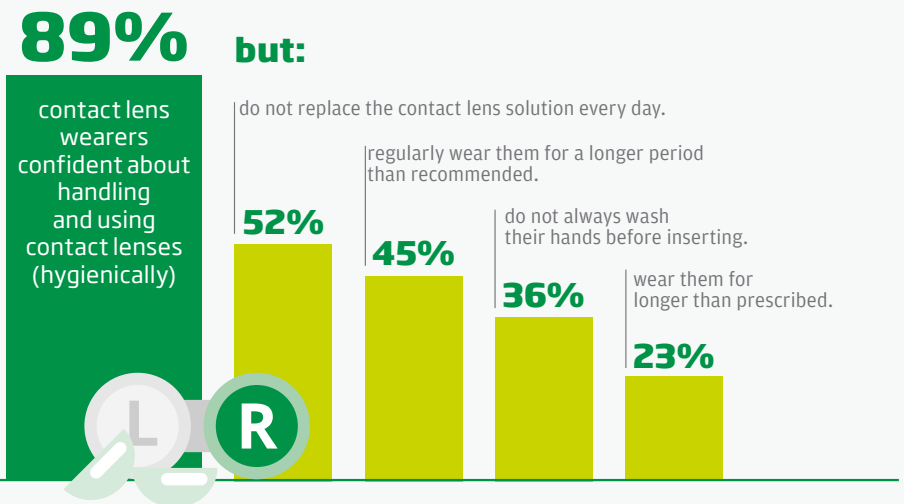
For example:

- 52% do not replace the contact lens solution every day;
- 45% regularly wear their contact lenses for a longer period than recommended by the optician;
- 36% do not always wash their hands before inserting the contact lenses;
- 23% say that wearing contact lenses for longer than prescribed is perfectly acceptable.

“The survey shows that many people do not know that they can continue to wear contact lenses far into old age. Multifocal contact lenses are still given little consideration even though innovations during the past decade have resulted in a product that offers excellent wearer comfort and vision.”

Simone Stad, Optometrist (MSc, FBCLA.)
Specsavers/Louis Nielsen Netherlands

People particularly prefer to wear contact lenses when ...



Knowledge of effects UV radiation on vision

"People have lost sight of the protective function of sunglasses"

Nearly 9 out of 10 of the respondents sometimes wear sunglasses. During the summer months, 57% often/always wear sunglasses when the sun is shining. The eyes are less well protected against spring and autumn sunshine; 33 to 45% say that they seldom/never wear sunglasses when the sun is shining during these seasons.

People are only moderately well informed about protecting the eyes against UV radiation. For example, only 36% know that sunglasses with large lenses offer better protection against the sun than sunglasses with small lenses and 25% think that the eyes require sunlight to produce vitamin D. This vitamin is of course produced by the skin and not by the eyes.

Conditions for sunglasses

The quality of the power of sunglasses is determined by two aspects: the filter category and the degree of UV protection. The CE filter category ranges from 0 to 4 and indicates the light absorption of the lenses.

For example, category 0 means that 20% of the light is absorbed as opposed to category 4 where 92% to 97% is absorbed. Generally, filter category 2 sunglasses offer adequate protection in northern Europe. Sunglasses marked with UV 400 or 100% UV protection provide adequate protection against ultraviolet light.

To which aspects do you pay particular attention when purchasing sunglasses?



find UV protection the most important aspect!

Even when the sun is not shining brightly

In both conditions of bright sunlight and cloudy weather, the eyes, like the skin, need to be protected against sunlight. Even when the sun is not visible, the level of UV radiation is still high between 12am and 3pm. If adequate protection is not provided, the eyes, like the skin, can show symptoms of 'sun burn'. This means the eyes can be painful, prickly and hypersensitive. These complaints generally disappear by themselves; however exposure to the sun does cause the eyes to age faster. This increases the risk of cataracts at a young age.



Many things are considered when purchasing new sunglasses. However, the main purpose of a pair of sunglasses (UV protection) is not the main factor taken into consideration in the purchase decision. People mainly consider price, wearer comfort and whether the sunglasses look good. UV protection is only ranked in fourth place!

Children's eyes extra sensitive to the sun

Going outside without sunglasses is potentially very harmful in the case of children's eyes. This is because the lens in children's eyes contains less pigment and their pupils are wider and larger than those of adults. As a result, more harmful UV light penetrates into the eye. The younger the child, the greater the vulnerability of its eyes. So it is extremely important to encourage children to get used to wearing sunglasses from an early age. Damage to children's eyes due to UV radiation accumulates over time meaning that the exposure to your eyes as a child can result in ocular problems when you get older.

The cosmetic aspect is relatively important for women and young people. In addition, young people also give greater consideration to whether the sunglasses are hip and trendy and whether they are made by a well-known brand. Older people find aspects such as UV protection and a robust frame more important.

“Sunglasses have a protective function. Most people only wear sunglasses during the summer season. The rest of the year they consider their sun specs as a fashion statement. We should not underestimate the power of the sun in other seasons. Even though the UV index is lower in these months, the eyes should still be protected against UV radiation.”

Trine Johnsen, MScOptom and Head of Professional Advancement
Specsavers/Louis Nielsen Northern Europe



EYE DISORDERS



How knowledgeable are people about the most common eye disorders?

“Partly well-informed, partly unaware”

Worldwide, nearly 300 million people suffer from an eye disorder or visual handicap/visual impairment. This equates to 4.25% of the world's population. 80% of these disorders can be avoided or even cured. Eye disorders are less common in countries where greater attention is given to eye care and more money is invested in this area.

The level of general knowledge about eye disorders among the respondents is inconsistent. They are well-informed to a certain extent.

For example:

- 78% know that not all eye diseases can be cured with medication;
- 72% know that a person suffering from an eye disease does not always immediately notice it in the early stages;
- 61% know that the risk of eye disorders increases from the age of 45.

However, their knowledge is distinctly sketchy in other areas.

For example:

- Only 19% know that a lack of physical exercise can lead to eye disorders;
- Only 25% know that being overweight can lead to eye disorders;
- Only 25% know that glaucoma is a painless condition;
- Only 35% know that smoking can cause eye disorders.

Even though 70% have their eye examination performed by the optician, 68% say that they prefer to go to an ophthalmologist if they have questions about eye problems. People do however expect an optician to be knowledgeable about eye diseases or other diseases that also affect the eyes (63%).

The most common eye disorders

Age-related macular degeneration (age-related blindness)

AMD affects central vision. Vision becomes increasingly blurred, reading becomes difficult, colours become less vibrant and people's faces become difficult to recognise. There are two types of AMD – wet AMD and dry AMD. Most people with AMD (90%) develop dry AMD. The remaining one in ten people have wet AMD, which is treatable if detected early. Age is by far the main cause. In addition to age, heredity, smoking, excessive sunlight, drinking alcohol, saturated fats and high blood cholesterol play a role in the development of macular degeneration. There is currently no treatment for dry AMD.

Glaucoma

People with early stage glaucoma experience no symptoms, but irreversible damage to the eye may be taking place. If untreated, glaucoma will cause blurred and misty sight and vision loss. Glaucoma affects peripheral vision. Someone with glaucoma might drive down a street and not see a pedestrian trying to cross the road at the periphery of their vision. Age, myopia and heredity are the main causes. Early detection and treatment can often prevent sight loss.

Diabetic retinopathy

Damage to the retina is one of the most common complications associated with diabetes. This is referred to as retinopathy or diabetic retinopathy.

Cataracts

Having a cataract will cause things to look increasingly blurry and misty, especially on bright sunny days. Cataracts are caused by age, heredity, internal lesions in the eye, diabetes, smoking, excessive sunlight, drinking alcohol, unhealthy nutrition and also associated with gender (women are more prone to suffer from cataracts). Clear sight can be restored by an operation to replace the cloudy lens with an artificial lens.

Key facts

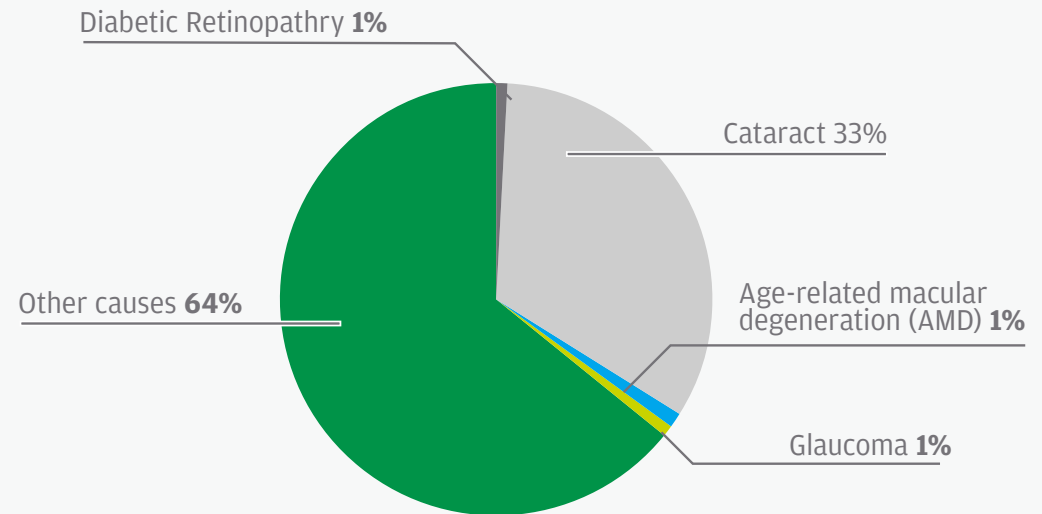
- 285 million people are estimated to be visually impaired worldwide: 39 million are blind and 246 have low vision (2010).
- 80% of all visual impairment can be prevented or cured.
- 14% of all visually impaired people are blind.
- 82% of people living with blindness are aged 50 and above.

“I am thankful that a regular check at my optician revealed the high pressure in my eye, because I didn't notice any symptoms at all. I have reached an age where I think it's a very good thing to have regular checks of my eyes and eye health. I encourage my family and friends to do the same.”

Grete Støving Ostenfeld,
glaucoma patient,
Taastrup store, Denmark



Causes of visual impairment



Smoking is bad for the eyes

Few people know that you have a greater chance of developing cataracts or an eye disease such as macular generation if you smoke. After each puff on a cigarette, approximately four thousand chemical particles enter the bloodstream and some of these particles have an adverse effect on the blood vessels in the eyes. In addition, smoking reduces the supply of oxygen and nutrients to the cells in the eye. Studies have shown that people who smoke are three times as likely to develop cataracts.

Diabetes and vision

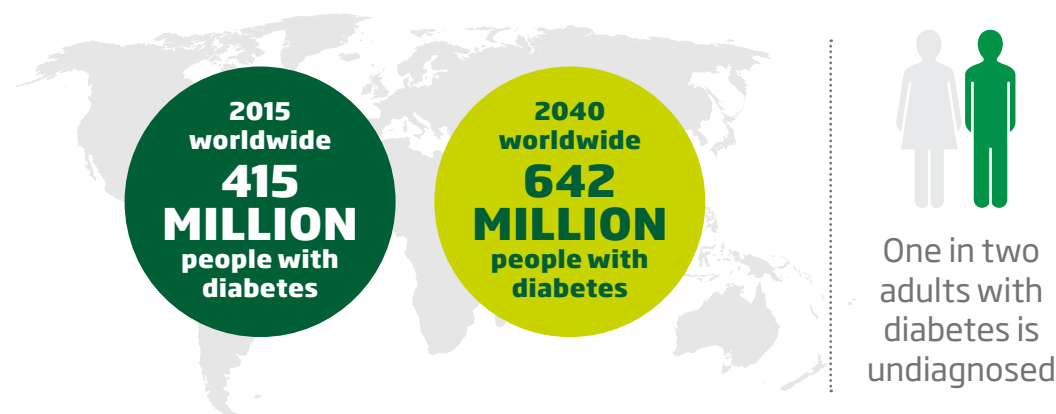
"Diabetes: a main cause of blindness in Western countries."

Worldwide, 415 million people suffer from diabetes (2015). This is 6% of the entire population (9% of all adults). In 2040, 642 million people are expected to suffer from diabetes. It is estimated that diabetes has caused blindness in 1.8 million people and diabetic retinopathy in 34 million people worldwide.

Many people with diabetes develop eye problems and start to see less clearly. A majority of the respondents know this and 66% (also) know that diabetes can cause blindness. The fact that the effects of diabetes can be perceived in your eyes is also less widely known (30%).

The overwhelming majority know that you do not immediately notice diabetes and that diabetes does not only develop in people over the age of 65 and for people with overweight. However people's knowledge of eye care for diabetics and the use of glasses and contact lenses by diabetes patients is extremely sketchy.

The majority of the respondents were unable to say whether statements like "people with diabetes may not wear contact lenses", "people with diabetes need special lenses in their glasses", "if you have diabetes you can only have an eye test performed by an ophthalmologist" were true or false. All of the above statements are in fact false.



What is diabetes?

Diabetes is a metabolic disorder which leads to an excessively high blood glucose level. When a person contracts diabetes, the body is unable to maintain the correct blood glucose balance. This is because the body has too little insulin, a hormone which regulates the blood glucose level.

Type 2 diabetes is the most common variant of this disease: nine out of ten diabetes sufferers have type 2 diabetes. They have too little insulin in the body and also no longer react well to insulin. The problem with type 2 diabetes is that it generally develops very slowly. As a result, many complaints are not initially linked to diabetes. Meanwhile however, the disease continues to damage the body.

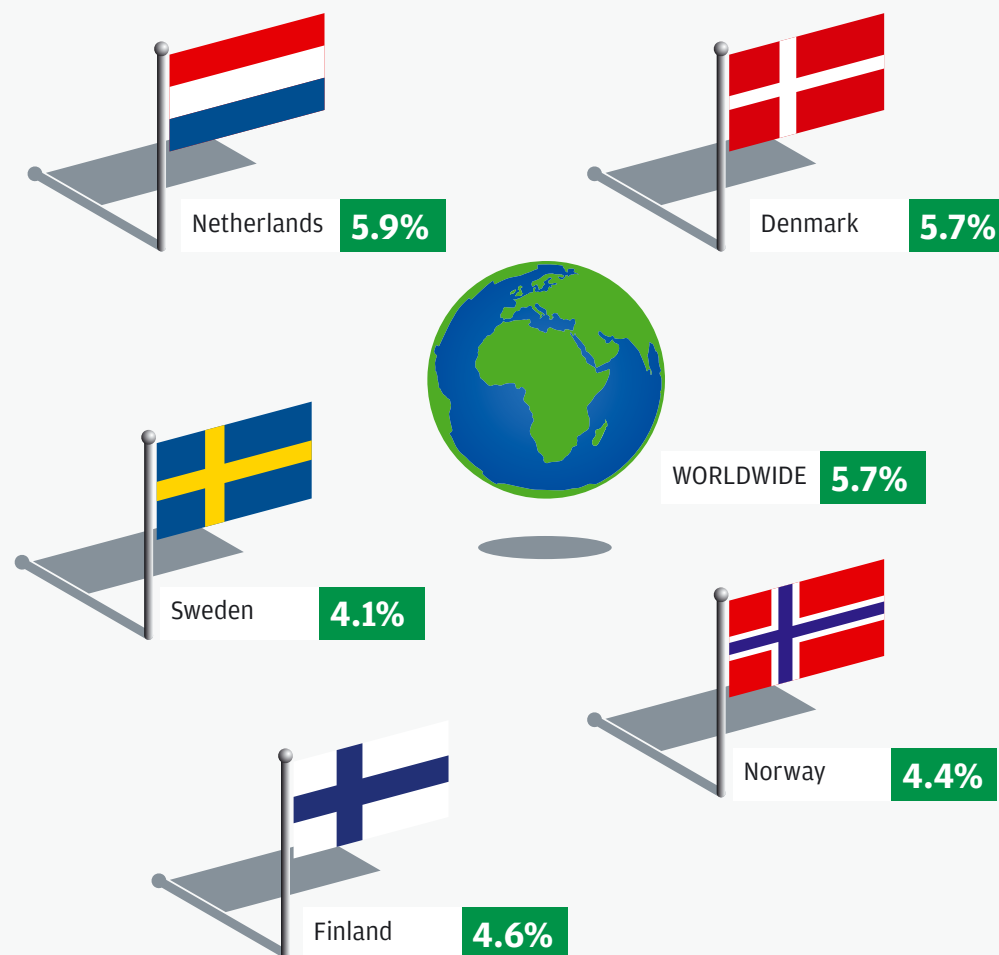
What is diabetic retinopathy?

Damage to the retina is one of the most common complications associated with diabetes. This is called (diabetic) retinopathy. Diabetes damages the small blood vessels in the retina of the eye. The effects of diabetic retinopathy can vary and include blurring, wavy vision, flashes of light, floaters in the visual field, trouble with bright lights, difficulty in reading small print and for some total visual distortion. Diabetic retinopathy can lead to complete loss of vision, if left untreated. Fortunately, today's examination and treatment methods are so effective that retinopathy can often be halted. Even so, it is important that diabetic retinopathy is detected at an early stage. Two-yearly eye tests that include retinal screening can help ensure early detection of possible diabetic retinopathy.

“Eye problems very often occur with people who have diabetes. Sometimes these problems already start before people even know they have diabetes. It is therefore very important to work on increasing the awareness and knowledge on diabetes and possible eye complications for opticians but also for consumers. This way, eye complications will be recognised more quickly and people are made aware of diabetes as a possible cause of this.”

Hanneke Dessing, director Diabetes Fund the Netherlands

Diabetes (% of the population)

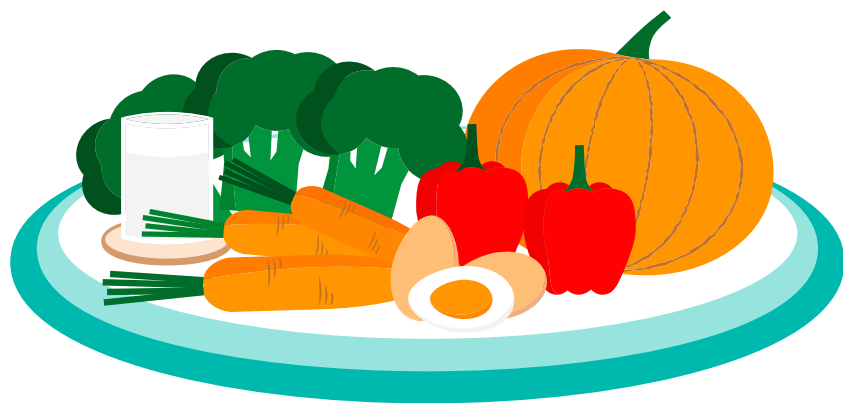


Effects of nutrition on vision

"Not only carrots are good for your eyes!"

Almost everybody knows that good nutrition is essential to good health. A large majority of the respondents also know that your eyes benefit from good nutrition. 70% know that some nutrients are good for the eyes. Carrots in particular are known to be beneficial for the eyes: 52% state this, with the Netherlands scoring almost 70%. In addition, broccoli (27%), spinach (26%), nuts (22%) and citrus fruits (21%) are recognised as being 'good for the eyes' by a large group of people.

A healthy diet stimulates your eyesight and reduces the risk of cataracts and macular degeneration as you age. Studies show that people who consume large amounts of antioxidants such as beta-carotene, lutein and vitamin C and E appear to run a lower risk of developing these eye diseases.



Carrots

Carrots are high in beta-carotene, also called provitamin A. A deficiency of these vitamins can cause dry eyes and poor night vision. Half a carrot a day contains the recommended daily amount.



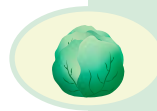
Dark green (leafy) vegetables

Kale, broccoli and spinach are full of carotene and vitamin C.



Bell peppers

Bell peppers contain lutein. This antioxidant can also have a beneficial effect on age-related blindness when in the early stages.



Brussels sprout

Each Brussels sprout is full of lutein.



Pumpkins and sweet potatoes

Pumpkins and sweet potatoes contain large amounts of carotene and lutein.



Citrus fruit and apricots

Citrus fruit and apricots are rich in carotene.



Whole milk, dairy products, butter

Whole milk, dairy products and butter are rich in vitamin A.



Liver

Liver is rich in vitamin A.



Sardines

Sardines contain zinc and vitamin E. Zinc is essential for good eyesight.



Nuts

Nuts contain zinc, vitamin E and the mineral selenium.



DRIVING AND VISION



How knowledgeable are people about the effects of poor vision on their driving behaviour?

"Good vision is of essential importance for road users"

Driving safely on the roads requires good vision. In many countries, before a driving licence is issued or renewed, a (prospective) car driver has to pass an eye test in addition to successfully completing a driving test and demonstrating an adequate knowledge of the traffic regulations.

However, there are significant differences in the way eye tests are applied in Europe. For example, having an eye test performed by an ophthalmologist before a driving licence is issued for the first time is only mandatory in Austria and Spain. In the Netherlands and Norway, nothing more is required than a brief eyesight test (ability to read a license plate at a certain distance) performed by the driving examiner. Most other European countries (including Denmark, Sweden and Finland) have adopted an approach that lies between these two extremes and one or more tests are performed to determine the quality of candidate's eyesight and breadth of vision ('Visual Acuity and Visual Fields'), but not by an optician/optometrist or ophthalmologist.

Even though most northern European countries have adopted a tolerant approach to performing eye tests when issuing/renewing driving licences, 60% of the respondents feel that a professional eye examination at the time of issuing/renewing a driving licence should be required by law. In view of the research results, this would certainly not be a bad idea. For example, 25% of the respondents say that they sometimes have doubts about their vision when driving and more than half have occasionally found themselves in a dangerous traffic situation due to poor or reduced vision (e.g. due to fog, rain, being blinded by the sun, etc.). 3% has even caused a collision due to poor or reduced vision and 14% has almost experienced this. Furthermore, 23% of the wearers of glasses and contact lenses say that they also sometimes drive without glasses or contact lenses. In the case of 9% this has sometimes led to dangerous traffic situations.



60% feels eye examination should be required by law.

25% has sometimes doubts about vision when driving.

55% were in dangerous traffic situations due to poor and reduced vision.

3% has even caused a collision due to poor or reduced vision.

23% sometimes drives without glasses or contact lenses.

"The volume of traffic on the roads has increased enormously in recent years and road safety is a much-debated topic. Wearing a seat belt and stricter legislation regarding drinking and driving are enjoying greater acceptance. Still, in most European countries you can drive around up to 70 without having to submit the results of a professional eye test performed by an optician. This is astonishing when you consider the importance of good vision on the roads."

Julie Perkins, Director Public Relations northern European region
- Specsavers/Louis Nielsen

Spare pair of glasses in the car as the standard practice

In many European countries, wearers of glasses and contact lenses must have a spare pair of glasses or contact lenses in the car at all times. The countries where this applies include Austria, Germany, France, Switzerland, Spain and Portugal (only local residents). 28% of the respondents would welcome enforcement of this rule in their own country. When driving long distances, approximately 26% of the spectacle wearers and 44% of contact lens wearers take a spare pair with them.



CHILDREN'S SCREEN TIME

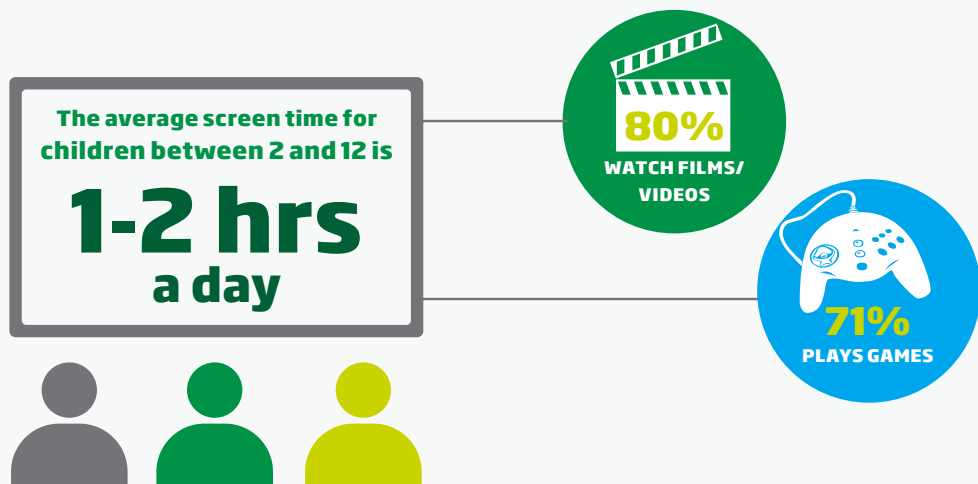


Effects on vision due to screen time

"Substantial increase in myopia caused by prolonged screen time: fact or fiction?"

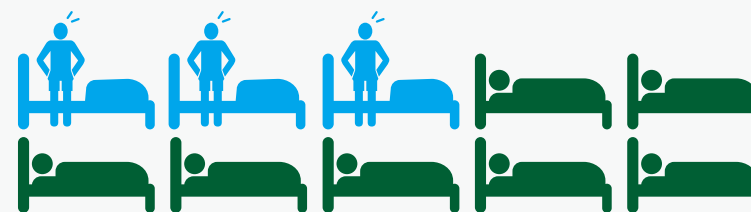
The research shows that nearly all respondents with children between the ages of two and 12 indicate that the children regularly use a screen display (TV, computer, tablet, smartphone, etc.). The average screen time for children in this age bracket is 1 to 2 hours a day. The average screen time is higher in the case of older children (7 - 11 years old) as opposed to younger children (2 - 6 years old). Children mainly use the screen displays to watch films/videos (80%) and play games (71%).

Three out of ten children occasionally experience problems after a significant amount of screen time. These mainly consist of sleeping problems (difficulty in getting to sleep) and headaches.



Rules apply to the maximum amount of screen time that children are allowed in just under half of the households (45%). In Finland, the number of parents who have set rules in this area is relatively high (57%). The average daily limit that applies in the households is 2 hours. In addition, screen time is sometimes used as a reward in 40% of the households (e.g. after playing sports or when the child has finished his/her homework). In 30% of the households, the children may not use a screen display when in their own rooms. This rule is largely applied in the Netherlands and Norway (48% and 32% respectively). Incidentally, the main reasons for setting/enforcing these rules relate more to encouraging children to get enough exercise, go out into the fresh air and play with other children rather than protecting their eyes.

Even though more than half of the households have not set rules limiting the maximum amount of screen time for their children, the majority (56%) do feel that looking at a screen display for a prolonged period is bad for the eyes and can cause poorer vision. In addition, 38% feel the same way about watching television. Apparently, parents do not find these suspected risks important enough as the main reason for enforcing rules for screen time.



3 out of 10 children occasionally experience problems after screen time (sleeping problems, headaches).

So does staring at a blue screen has an effect on your eyes or is it the reason for an increase in myopia, especially amongst children?

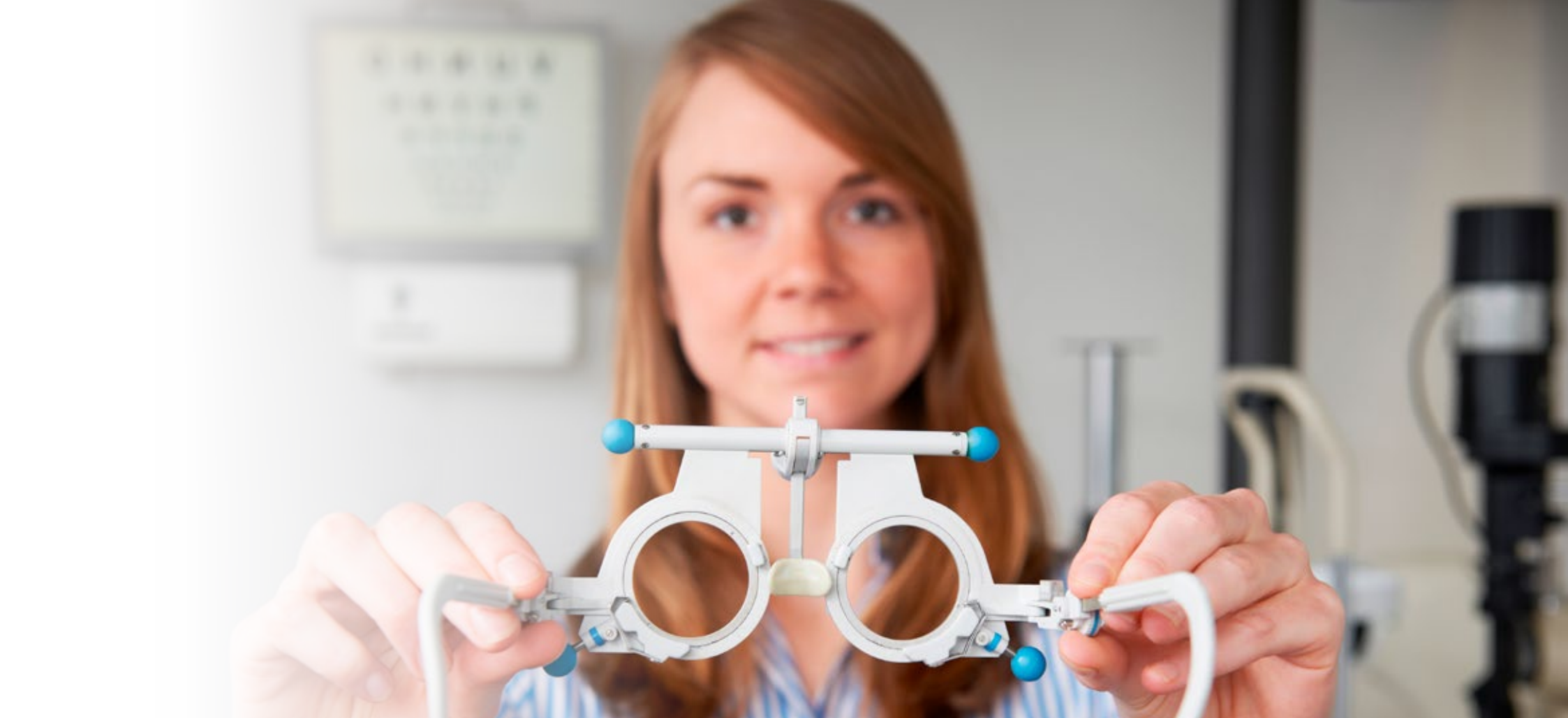
Even though a great deal of research has been performed in this area, there is still no conclusive evidence that frequent and prolonged use of screen displays has a negative effect on vision. This is partly because the substantial increase in the number of new devices with displays (such as tablets and smartphones) and the associated 'blue screens' is still a relatively recent phenomenon. What has been proven to date is that using a screen display for long periods causes eye fatigue (the main symptoms of which are dry, painful eyes, blurred images/vision, double vision and headaches).

Even so, some evidence indicates that the combination of sitting indoors most of the time and often using a screen display (more than two hours) is bad for the eyes. This was one of the conclusions of a study performed by the Erasmus University Medical Centre Rotterdam in the Netherlands. Researchers monitored 5000 children in Rotterdam from birth up to the age of six and concluded that children who use a computer more often and play less outdoors suffer from myopia significantly more often.

Based on these results, the researchers expect that 30% of the 6-year-olds in the study will suffer from myopia when they reach the age of 9, increasing to 50% at the age of 20. Children with myopia spend 50% more time using the computer than children without myopia. In addition, the children without myopia spend three times as much time playing outdoors compared to children with myopia. There is some preliminary evidence indicating that playing outdoors a lot can reduce a child's risk of developing myopia. You can argue that this is due to a reduction in screen time, unless of course they take the device with them when they go outside!

“ Myopia/short-sight is becoming more common in childhood than it was in the past and it seems to be starting at a younger age. This is concerning because the younger myopia begins, the more likely it is that it will progress to higher levels through childhood and early adulthood. The higher a person's myopia, the more chance they have of getting complications that can damage the health of the eye. Research has shown us that the environment that modern children are growing up is part of the increasing myopia problem and more research is needed to determine what children and parents can do to make their environment more healthy for their eyes and visual health. ”

Professor Kathryn Saunders, optometrist, lecturer and researcher at Ulster University with a special interest in pediatric optometry.



CONCLUSION



Conclusion: The knowledge is there, but not always followed by action which can have an effect on our eyes.

Our eyes are our most important sense: more than 80% of people agree with this statement. Our knowledge on eyes, optical products and ocular complications is also fairly good, and many people are quite well informed. This international research of Specsavers/Louis Nielsen so far does not offer any surprising conclusions ... However, what is surprising, is that this knowledge does not always lead to the right behaviour, even when we ask emphatically!

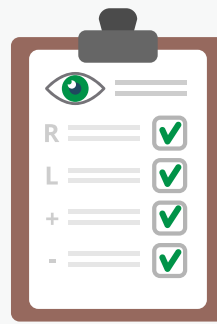
People say they find it important to check their eyes every two years (70%), yet only 47% acts accordingly. And although the vast majority of people (89%) say they know how to use their contact lenses in a hygienic way, still 45% wear their lenses sometimes too long, and 52% does not replace their contact lens solution daily.

Knowledge about ocular complications is quite high, but still lots of people don't know that a lack of exercise (19%), being overweight (25%) or smoking (35%) can cause eye complications. The majority (66%) knows that diabetes can lead to blindness. It is also well known that healthy food is one of the basic things for good health and thus eye health - not surprising with the current hype around health and super foods. But also here it turns out: people have the knowledge, but do not act upon it accordingly.

The results on the questions about sight and traffic are also very interesting. A majority (60%) feels that a professional eye examination through an optician or optometrist should be compulsory when you get your driving license or renew it. So good sight and safety is important. Still 25% has sometimes doubts about their sight in traffic, and more than 20% does not always wear their spectacles or contact lenses when driving. More than half say they have been in dangerous situations due to bad or deteriorated sight because of bad weather. Is it not strange that in many countries, it is compulsory to wear seat belts in the car yet getting regular and professional eye examinations is never mentioned?

Professionalism has always been of paramount importance to Specsavers/Louis Nielsen. The results of this international survey amongst 5.000 people in Denmark, Finland, the Netherlands, Norway and Sweden, admonish us to work on even more activities around this topic. Activities to increase the awareness on eye health for consumers even more and to make sure they act on it. As a result of this survey we intend the following actions.





- ☐ **1. Every 2 years an eye test**
Specsavers/Louis Nielsen wants to make sure that before the year 2025, everybody has an eye test, every two years, conducted by a professional optician/optometrist.
- ☐ **2. Survey**
We intend to repeat the international survey every year to monitor the knowledge and behaviour level of consumers and to take action if necessary.
- ☐ **3. Innovation**
We will pursue to invest in continual improvement, development and innovation of our eye examinations. For two years, the eye examination in Denmark, Finland, Norway and Sweden has been extended with a retinal screening which already led to the referral of many patients to an ophthalmologist, because symptoms of eye diseases were seen. Recently the 'Digital Precision Tool' has been implemented as part of the eye examination to provide even more accurate dispensing and outstanding sight.
- ☐ **4. Training/Green Club**
We will also continue to invest in the knowledge level of our opticians and optometrists through our Academy which offers training in each country. Through our Specsavers/Louis Nielsen Green Club we also invest in (young) talent and their future.
- ☐ **5. Knowledge optical industry**
Furthermore Specsavers/Louis Nielsen remains committed to increase the knowledge level of the entire optical industry through active participations in optical industry associations. But also through organising annual Clinical Conferences with international and local speakers in each country, open to everybody in the optical industry.
- ☐ **6. Professional alliances**
Specsavers/Louis Nielsen will form professional alliances with organisations that are committed or related to (eye) health. In the Netherlands Specsavers/Louis Nielsen is partner of the Diabetes Fund. This partnership not only focuses on supporting medical research after ocular complications and diseases of diabetes, but also intends to work together to improve consumer knowledge and behaviour through education and increasing awareness.
- ☐ **7. Relationships universities**
We will continue to invest in strong relations with optical universities and colleges. Through offering additional curriculum, in addition to the regular curriculum, students can gain more knowledge and experience during their studies which give them an even better start for their professional career.
- ☐ **8. University chair**
Specsavers/Louis Nielsen will explore possibilities to support a teaching university chair for eye or medical health in each country.

The following sources were consulted when compiling this report:

Specsavers/Louis Nielsen' in-house R&D
PanelWizard Direct survey
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Diabetes Fonds Nederland
Erasmus Medical Centre Rotterdam
Healthline
The European Council of Optometry and Optics (ECOO)
Medicalfacts
www.currentresults.com
WHO
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