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VISION CONDITIONS FACT SHEET

HYPEROPIA (FARSIGHTEDNESS)

What is farsightedness?

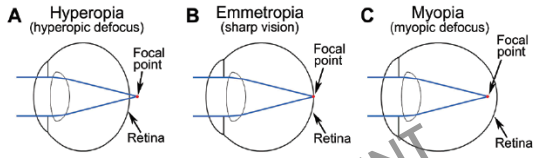
Farsightedness is a vision condition in which distant objects are usually seen clearly, but close objects do not come into proper focus.

Why does farsightedness occur?

Farsightedness occurs if the eye is physically too short or the cornea (the clear front cover of the eye) has too little curvature. As a result, light entering the eye is not focussed correctly and near objects appear blurred.

What are the signs/symptoms of farsightedness?

- Difficulty in concentration and maintaining a clear focus on objects.
- Eyestrain.
- Headaches after close work.
- Aching or burning eyes.
- Eye irritability after long periods of reading or other near activities.
- Larger amounts of farsightedness, which cannot be overcome by the eyes focusing mechanism, may also cause distance vision to be blurred.
- Possible inward turning of the eyes (strabismus).



MYOPIA (NEARSIGHTEDNESS)

What is nearsightedness?

Nearsightedness is a vision condition in which near objects are usually seen clearly, but distance objects do not come into proper focus.

Why does nearsightedness occur?

Nearsightedness occures if the eye is physically too long or if the cornea (the clear front cover of the eye) has too much curvature. As a result, light entering the eye is not focused correctly and distant objects appear blurred.

How common is nearsightedness?

Nearsightedness is a very common vision condition affecting nearly 30 percent of the population. Generally, nearsightedness first occurs in school-age children. This is because the eye continues to grow during childhood. Nearsightedness typically progresses until about age 20. However nearsightedness may also develop in adults due to visual stress or health conditions such as diabetes. Some research supports the theory that nearsightedness is hereditary. There is growing evidence that it is influenced by excess visual stress of too much close vision work.

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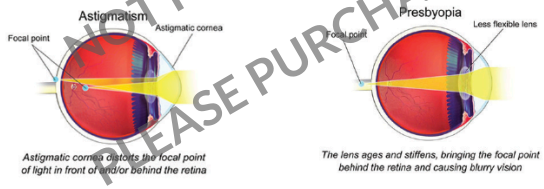
ASTIGMATISM

What is astigmatism?

Astigmatism is a vision condition that causes blurred vision due either to the irregular shape of the cornea or the curvature of the lens inside the eye. An irregular shaped cornea or lens prevents light from focusing properly on the retina, the light-sensitive surface at the back of the eye.

As a result, vision can be blurred at any distance. Many people may notice a shadow around letters or even slight double vision around letters or words. Astigmatism frequently occurs with other vision conditions such as myopia, and hyperopia. Together these vision conditions are referred to as refractive errors because they affect how the eye bends or "refracts" light.



PRESBYOPIA

What is presbyopia?

Presbyopia is a normal vision condition in which the crystalline lens of the eye loses its flexibility. This results in progressive difficulty in focussing on close objects.

What causes presbyopia?

The focus lens inside the eye (crystalline lens) will start to change with normal ageing and this is unavoidable. This change causes the lens to harden and lose some of its elasticity and therefore some focusing ability.

At what age does presbyopia occur?

It varies from person to person. Although presbyopia may seem to develop suddenly, the actual decline takes place over the course of many years. Presbyopia usually becomes apparent to people in their early to mid-forties.

What are the signs/symptoms of presbyopia?

- The tendency to move reading material away from you to make it clearer.
- Holding reading material at arm's length.
- Blurred vision at normal reading distance.
- Eye fatigue with headaches when attempting to do close work.

Options available to treat various vision conditions:

- Spectacles
- Contact lenses
- Orthokeratology
- Refractive surgery procedures

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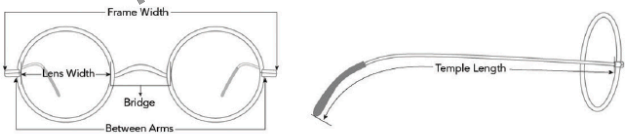
SPECTACLE CARE FACT SHEET

To ensure that the highest standards are met with your new spectacles, prior to collection, all prescription spectacles are subject to our 14 point quality check, which includes checking the following:

1. Your Prescription
We check that the prescription is correct to the values established during your eye examination. This means checking the sphere and cylinder powers, the axis, and any prism values. We check your finished spectacles on a vertometer for an accurate reading.

2. Pupillary Distance (PD) and Heights
We check the PD values on your spectacles are correct to given measurements. We also check the vertical alignment of the lenses to ensure an optimal position when the spectacles sit on your face.

3. Lens Thickness
We check that the lenses in your spectacles are the correct index and are as thin as possible based on a combination of factors including your prescription and choice of frame.



4. Front Curvature
We check that the lenses in your spectacles have the correct curvature, so they fit the frame correctly and are not likely to fall out or damage the frame in any way. Most prescription frames in our collection have a subtle curve to them, while some of the sportier and wrap frames require high curved lenses, which are specially made.

5. Fitting Bevel & Groove
We check that the fitting bevel and groove on the lens is sufficient for the frame. This is important to secure the lenses into the frame. Each lens has a unique curve based on the prescription and frame design, consequently, a bevel or groove is tailored to best suit both.

6. Lens Safety
We check that a lens does not have any sharp edges and is sufficiently polished. This is especially true for semi-rimless or rimless spectacles where the lens edges are exposed.

7. Lens Surface Quality & Anti-Reflection Coating
We check that the lens surface is free from any marks or scratches that may have occurred during the manufacturing process, as well as ensuring the anti-reflection coating is uniform across the surface. If this is not correct the coatings can break down over time meaning the lenses would need to be replaced.

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8. Frame Alignment
We check that the frame is correctly set up and the arms are not out of alignment. On occasion, frames can be slightly misaligned due to the installation of prescription lenses.

9. Nose Pad Alignment
We check that the nose pads are securely attached and positioned. If the positioning is not right for you, they can be gently adjusted accordingly.

10. Temple Tip Adjustment
We check that the ends of the arms are correctly positioned. As above, the temple tips can be gently adjusted to suit you.

11. Overall Lens Shape & Symmetry
We check the lenses are the correct shape for the frame and are both symmetrical.

12. Lens Fitting
Lenses should fit snug in the frame, too loose and they will rattle in the frame or worse, fall out. If they're too tight they can distort the frame. As our lab machinery is incredibly accurate 99.99% of lenses are fitted correctly.

13. Treatments & Coatings
We check that any treatments and coatings have been applied correctly.

14. Overall Cosmetic Appearance
We have one final check of your spectacles to ensure they're cosmetically pleasing and to make any final adjustments.

HOW TO CARE FOR YOUR SPECTACLE LENSES

- Wash your lenses with soap and lukewarm water.
- Shake off excess water and dry carefully using the micro-fibre lens cleaning cloth.
- Alternatively use a lens cleaning solution available from our practice.
- Never use your clothes or a tissue to clean your lenses, they may scratch.

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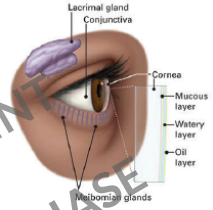
DRY EYE FACT SHEET

WHAT IS DRY EYE?

Dry eye is a condition where the eyes do not produce enough tears or produce poor quality tears.

Tears function to lubricate and nourish the eyes. Natural tears produced by the eyes are composed of 3 layers:

- Outer oily layer (lipid layer)
- Middle watery layer (aqueous layer)
- Inner mucus layer



All 3 layers of the tears (the outer oily layer, the middle watery layer, and the inner mucus layer) are produced by different glands of the eye and are necessary for proper lubrication.

If the quality or chemical composition of these layers is unbalanced, discomfort from dry eye may develop.

WHAT CAUSES DRY EYE?

Dry eye is most often a result of the natural ageing process. Most people's eyes tend to become drier as they age, but the degree of dryness varies and some people have more problems than others. In addition to age, dry eye can result from:

- Problems with normal blinking, such as incomplete or infrequent blinks.
- Certain medications like decongestants, antihistamines, oral contraceptives and antidepressants.
- Environmental factors like a dry climate and exposure to wind or irritants such as smoke.
- General health problems like rheumatoid arthritis, thyroid problems or Sjögren's syndrome.
- Chemical and thermal burns to the eye.
- Refractive surgery (LASIK or PRK).

WHAT ARE THE SYMPTOMS OF DRY EYE?

Dry eye symptoms often vary in type, frequency and severity in people, but the following symptoms are commonly experienced by those with inadequate tear production:

- Irritated, scratchy, gritty, or uncomfortable eyes
- Redness of the eyes
- Burning sensation
- A feeling of a foreign body in the eye
- Blurred vision
- Excessive tearing or watering

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WHAT ARE THE RISKS OF DRY EYE?

If untreated, dry eye can be more than just irritating and uncomfortable.

Severe dry eye can damage the eye's surface tissue and possibly scar the cornea, the transparent front covering of the eye, impairing vision. Wearing contact lenses may be more difficult due to the possibility of increased irritation and a greater risk of eye infection.

If you are experiencing the symptoms of dry eye, your optometrist can perform "dry eye" tests using diagnostic instruments to give a highly magnified view of the tears and front surface of the eye and special dyes to evaluate the quality, amount and distribution of tears.

Your optometrist will also need to know about your everyday activities, your general health, medications you are taking and environmental factors that may be causing your symptoms.

Whatever treatment is prescribed for you, it is very important that you follow the instructions from your optometrist or ophthalmologist. Dry eye does not go away, but by working together, you and your eye care professional can keep your eyes healthy, comfortable and protect your vision.

HOW IS DRY EYE TREATED?

Dry eyes can be a chronic condition, but the eye's discomfort can be lessened and treatment prescribed so your eyes remain healthy and your vision is not affected. Your optometrist will examine you and decide the treatment type(s) and the correct order/process of treatments for your unique eye condition. Possible treatments include:

- Frequent blinking to spread tears over the eye, especially when using a steady focus for an extended period.
- Treating eyelid inflammation.
- Changing environmental factors like avoiding wind and dust and increasing the level of humidity in your home.
- Using artificial tear solutions (preservative-free options available).
- Using moisturizing ointment, especially at bedtime.
- Insertion of small plugs in the corner of the eyes to slow drainage and loss of tears.
- Using prescription eye drops that help increase tear production.
- Taking essential fatty acid supplements, such as fish oil (omega 3).

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A DRIVER'S GUIDE TO VISION FACT SHEET

LET'S WORK TOGETHER

Safe driving demands various vision skills to work together, and because the majority of driving decisions are based on what drivers see, the South African Optometric Association (SAOA) recommends annual comprehensive eye exams regardless of age.

Your optometrist can diagnose eye and vision problems that may cause driving difficulties and can correct them by prescribing eyewear or other treatments.

VISION SKILLS FOR SAFE DRIVING

The ability to see clearly at a distance may be an obvious visual skill for drivers, but consider the other skills involved for safe driving:

- **Peripheral awareness** - The ability to see objects from the side while looking straight ahead.
- **Depth perception** - The ability to judge distances and travel time between you and other objects.
- **Glare resistance** - The ability to recover quickly from the blinding effects of bright lights or reflections.
- **Eye coordination** - The ability to point and move both eyes together when scanning oncoming traffic.
- **Accommodation** - The ability to shift eyes' focus from the road to the speedometer or navigation screen, and back to the road.
- **Colour perception** - The ability to recognise the colour difference in traffic signals or road signs.
- **Night vision** - The ability to see roads, signs and other objects after dark.

SAFE DRIVING AT HIGHER SPEEDS

As a driver's speed increases, so does the need for accurate vision. Higher speeds require visual concentration and a narrower field of vision. This restriction in eye movement can lead to visual fatigue.

To help prevent fatigue, periodically focus the eyes on different objects ahead.

High speeds can also make depth perception more difficult. As you accelerate, the stopping distance increases, forcing you to react more quickly to unexpected conditions.

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TIPS FOR SAFE DRIVING

To help improve driving safety and good vision behind the wheel:

- Avoid blind spots by adjusting side and rear-view mirrors.
- Do not hang objects from the rear-view mirror.
- Keep headlights clean, functioning properly and correctly aimed.
- Keep inside and outside windows and mirrors clean. Periodically check wiper blades for wear.
- Minimize day glare by using sun visors and wearing quality sunglasses.
- If headlight glare is a problem, discuss this with your optometrist.
- If you have dry eyes or wear contact lenses, aim dashboard vents away from your face and eyes.

CONSIDERATIONS FOR AGEING DRIVERS

Some vision changes are inevitable as we age, others may occur with the onset of age-related eye diseases.

- Objects looks blurry.
- Things are more difficult to see in bright light.
- Headlight glare is more intense.
- Colours look faded.
- Night vision is worse.
- Double vision may be present.
- Difficulty seeing road signs, traffic or people walking.

If you have any of these signs, see your optometrist immediately. People with eye conditions can often continue driving by making adjustments:

- Wear proper eyewear for day and night driving.
- In sunlight, wear good quality sunglasses.
- Avoid driving when vision may be most affected, such as dusk or night.
- Recognise your visual limitations and drive when most comfortable and competent.
- Avoid frames with wide temple pieces, they may block side vision.
- Keep your head and eyes moving to be alert of everything around you.
- Consider the effects medication may have and know the side effects.
- Keep your eyewear prescription current for sharp vision near and far.

Other factors for all drivers to consider: Influences on safe driving are not limited to other drivers, vehicles and highway conditions. Visual performance when driving can be affected by anxiety, fatigue, smoking, drugs, alcohol, and other distractions such as cell phones and texting. Keep distractions to a minimum and pull off the road if necessary. Whether you're the driver or a passenger, always wear your seatbelt and make sure all passengers buckle-up as well. Drivers can safely enjoy the freedom, convenience and independence of driving by having regular eye exams, following good driving habits and keeping distractions at a minimum.

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DIGITAL DEVICES FACT SHEET

HEALTHY VISION IN CONNECTION WITH COMPUTERS

People who sit in front of a computer or use other digital devices for long periods of time often encounter a variety of uncomfortable symptoms.

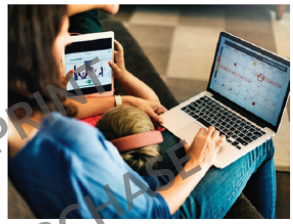
Headaches, neck strain, backaches and wrist pain are common, but sadly the most prevalent symptoms of prolonged computer use (eye strain, blurred vision and dry eye) are often overlooked. In fact, eye and vision problems are the most frequently reported health care problems among computer and digital device users.

COMPUTER VISION SYNDROME

These symptoms contribute to computer vision syndrome (CVS), which we define as "the complex of eye and vision problems related to near work that are experienced during or related to computer use".

Sitting at a computer generally causes a person to look straight ahead for long stretches and to blink less often. This problem is made worse if the work or home environment is dry. These factors can lead to vision problems. Additionally, computer use requires specific vision skills, which add further demands to the visual system and contribute to eye and vision discomfort.

- **Ocular Motility** - The ability of the eyes to move to various positions.
- **Accommodation** - The ability of the eyes to focus clearly and quickly at various distances.
- **Vergence** - The ability to move the eyes in (convergence) or out (divergence) as the work distance demands.



EFFECTS OF WORKING ENVIRONMENT

Computer work places various demands on the visual system. Each of these factors can play a part in contributing to digital eye strain.

Screen resolution

Better resolution offers greater clarity and usually leads to improved comfort. Adjust the resolution to the highest your screen will support. If the increased screen resolution makes items too small, try increasing the font size to compensate.

Screen contrast

Adjust the contrast between the characters on the screen and the background so the letters are easily read. Adjust the screen brightness to an intensity that is comfortable to your eyes - not too bright and not too dim. Adjust both brightness and contrast for the best clarity.

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Working distances and angles

It is important to work at a distance that is comfortable for you and where the image on the screen is clear. Having to move your head to an awkward angle to see the screen clearly suggests that your prescription may need adjustment.

Your general spectacle prescription may not be adequate for computers

Computers are usually further and higher than a typical reading task. Spectacles for most people wearing bifocals are not adjusted for this distance or angle and therefore often are not adequate for using at the computer.

TIPS FOR HEALTHY, COMPUTER COMFORTABLE VISION AT DIGITAL DEVICES

While decreasing time spent at digital devices may not be an option, there are ways to maximize healthy vision for comfortable use of digital devices.

- Have a regular comprehensive eye exam to ensure your eyes are healthy and that you have the correct spectacles or contact lens prescription.
- Be certain to tell the optometrist about the work you do on digital devices.
- Wear spectacles that are specifically designed to function comfortably at the computer. The lenses you wear for day-to-day activities may not be the best for working on digital devices.
  - Rest the eyes.
  - Use a humidifier.
  - Do not forget to take occasional breaks & let the eyes look far away while resting.
  - Blink forcefully.
  - Instil artificial tears.

Healthy digital device use

Although the vision system faces considerable challenges when using a computer, most issues can be solved. Remember that the problems with computer use cause needless discomfort and may decrease productivity. Heeding the suggestion made here along with those made by your optometrist will enable you to use digital devices comfortably and productively.

A final word

In addition to computer use, today's technology may help enhance learning and provide entertainment, but many devices are still relatively new and the long-term side effects on the eyes are not yet fully known. Early-stage research on the blue light associated with many of today's devices shows signs that overexposure and the obsessive way many of us stare at our screens may affect or even age the eyes. Be sure to watch for signs of digital eye strain, which can cause burning, itching and tired eyes, headaches, fatigue, loss of focus, blurred vision, double vision, or head and neck pain. Take frequent visual breaks by practising the 10-10-10 rule: when using technology or doing near work, take a 10-second break, every 10 minutes and view something at 10 meters.