



seeing clearly

seeing clearly



A clearer guide to understanding your vision, opticians and glasses

Did you know?

- **85% of people don't understand their eye prescription.**
- **57% of people have never questioned their eye prescription.**
- **Nearly half (44%) of people feel under pressure to buy glasses from the same place they had their eye test.**

This information may vary due to continuing research.

Introduction

Optometrists (an Optometrist is the eye doctor who is responsible for the health of your eyes) and dispensing opticians (a dispensing Optician is the person who gives you your glasses or lenses) are highly qualified, but they tend to baffle us with medical terms and keep us in the dark about what our prescription means. Our research shows that daunting technical terms and confusing prescriptions are making people worried about choosing glasses for themselves.

Glasses stand apart from the rest of our wardrobe because they are designed to help us see first, and are a fashion accessory second. We carried out a survey and found that over half of people in the UK who wear glasses don't appreciate that it can be fun choosing and wearing glasses, and that they can be an important part of their style.

This guide aims to give you information on:

- **how opticians work;**
- **how opticians speak; and**
- **the choices you have.**

We want this guide to help you make clear, informed choices when it comes to shopping for glasses, just as you would shoes or clothes. We also hope that we can save you some money in the process.

Because we want to make buying glasses as easy as possible for you, we have worked on this guide with Plain English Campaign (an independent group fighting for plain English in public communication). We have received their Crystal Mark to show that this guide is as clear as it can be.

It's your face so dress it right!

Our research has shown that people place a lot of trust in their optician and rely on them not just for eye tests, but for everything to do with their eyes,

including what glasses and lenses they choose. While it's important to trust a medical expert with your eye health, you can play a much bigger part in choosing the best glasses for you. It's your look after all!

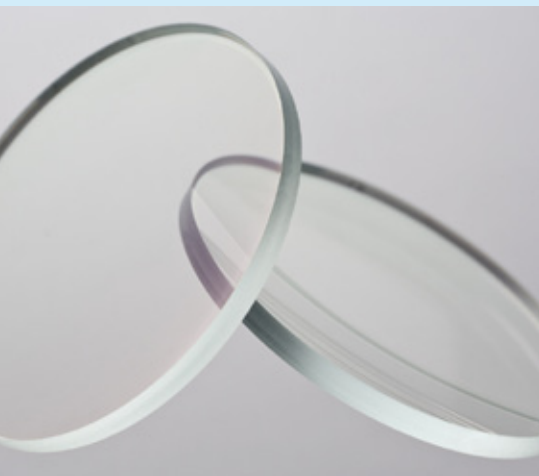
To help you further, we have a leaflet at the end of this guide, which you can download from www.glassesdirect.co.uk/seeingclearly-leaflet/.

This leaflet gives you all the information you will need for your next appointment with the optician, so print it off and take it with you.

Good luck and let's get started.



Every time you pay for glasses, you pay for two separate parts - the frames and the lenses.



What are you paying for?

Frames

In April 2010, we carried out a survey and asked the public what they worried about when they were buying glasses online. Just over half of the people we asked said that they were worried about not having an optician 'fit' their glasses. Although some styles are better suited to smaller faces and others to larger faces, most people should need little or no adjustment for a frame to feel comfortable. If you find it difficult to get frames to fit you, it's best to try them on first. Whether you try them on in a store or online through a home trial, this will help you make sure that your glasses fit perfectly.

Most glasses frames are made in just a few places around the world, mainly in China and Italy. Whether you buy your glasses on the high street or online, the frames were probably shipped from the same handful of factories. The most expensive frames are usually designer labels or unique designs. The quality of materials, the hinges and finishes vary widely, but this is usually a small part

of the overall cost of the glasses. This means that you can buy high-quality frames at fairly low prices if they are not a designer label or brand, and they can still be similar to the style of glasses you want.

Lenses

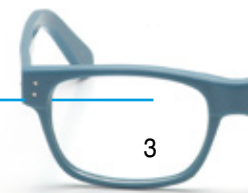
The lenses are slightly more complicated, but only because they are made precisely to your prescription. Lens blanks (lenses before your prescription has been added and before they are fitted to the frames) are made by a few companies around the world, and they are only made with prescriptions by a handful of laboratories across the UK. This means that whether you buy your glasses online or on the high street, it is likely that they will have been made by the same people. Virtually all lenses are made from optical plastic of different strengths which are shown by its index. An index of 1.5 is the standard level for lenses that some opticians include free

when you buy frames. A higher index like 1.64 or 1.76 means the lens can be thinner – the higher the number, the thinner the lens can be. If you have a strong prescription, your optician will probably recommend that you choose thinner lenses which are more expensive the thinner they get, but always remember that **you have a choice.**

Common myths

Myth
Wearing corrective lenses will weaken my eyesight.

Fact
Your eyes will not grow weaker, although your prescription may change on its own.



Who are opticians and what do they do?



Checking that the prescription is accurate

The General Optical Council (GOC) is an organisation in the United Kingdom which was set up by the Opticians Act 1958 to regulate the services provided by opticians and optometrists (see www.optical.org). By law, all opticians and optometrists must keep to the rules set by the GOC. Here are a couple of things you may not know.

Whichever optician you choose, your eye test will be carried out by a qualified **optometrist** with four years' training (five in Scotland). You can think of them as the eye doctor who is responsible for the health of your eyes. They check for visual problems and any eye diseases, and prescribe glasses or contact lenses for people who need them.

The person who gives you your glasses or lenses is called a **dispensing optician**. After three years' training, they can give you expert advice on glasses and lens options, as well as fitting contact lenses in some cases. All dispensing opticians are registered with the GOC.



Blocking up blank lenses

If optometrists are like your doctor, dispensing opticians are like the chemists that provide you with your medication.

The difference is that you don't usually find your chemist in your doctor's surgery – you walk out with your prescription and see the chemist separately. There's no reason you shouldn't do the same for your glasses.

In fact, while a registered optician should supervise the detail for your glasses, many major high-street opticians have **optical assistants** (who have little formal training) giving you most of your advice. Optical assistants are not qualified opticians, so

they should always get permission from the registered optician before they place your order.

Until the middle of the 1980s, opticians didn't have to give you a copy of your prescription, which meant that you had to buy glasses at the same place you had your eyes tested. To encourage a better deal for the general public, the Government decided that opticians had to give you your prescription. This led to the fairer, more competitive market we see today.



Finished glasses (including prescription)



Your eye test – why is it so important?



Booking your eye test often feels like a chore – it may be something you put off for as long as possible, claiming the headache you've had for the past month is down to feeling tired. If so, you're not alone. According to a survey carried out by Mintel in 2010, one in five adults rarely or never has an eye test, which is shocking considering it's a simple appointment to arrange.

An eye test is not just about getting a new pair of glasses – it's a vital health check for your eyes and your general well-being. An eye test can often pick up on eye diseases such as glaucoma, the second most common cause of blindness which can be prevented. It can also spot problems such as diabetes and high blood pressure. If you have diabetes or high blood pressure, you need to have regular check-ups to make sure your retina is not damaged and to prevent your vision from getting worse.

How often should you have your eyes tested?

According to Practitioner Services (one of 11 divisions within NHS National Services Scotland), how often you should have your eyes tested depends on your age and health. (See www.psd.scot.nhs.co.uk.)

How old you are	How often you should have your eyes tested
Under seven years old	Every six months
Seven to 16 years old	Every year
16 to 59 years old	Every two years
60 to 69 years old	Usually every two years, but sometimes every year
Over 70 years old	Every year
Your health	How often you should have your eyes tested
If you are diabetic	Every year
If you or a member of your family has glaucoma	Every year

Common myths

Myth
Sitting too close to a TV will damage my eyesight.

Fact
It may give you a headache, but it won't damage your eyes.



Free eye tests and how to get them



There are a number of ways to get your eye tests paid for, depending on your circumstances. Certain people are entitled to free eye tests through the NHS (see www.eyecarevouchers.co.uk/Employer/Pages/corporateeyecare.aspx and www.moneyweek.com/personal-finance/how-to-cut-the-cost-of-eyecare-96833.aspx).

If you answer 'yes' to any of the following questions, you may be entitled to free eye tests.

- **Are you aged 60 or over?**
- **Are you under 16, or under 19 and in full-time education?**
- **Do you live in Scotland?**
- **Do you or your partner receive Income Support, Child Tax Credit, income-based Jobseeker's Allowance or Pension Credit (Guarantee credit), and do you have or are you named on a valid NHS Tax Credit Exemption Certificate or a HC2 certificate (for free prescriptions)?**
- **Do you have diabetes or glaucoma?**
- **Are you aged 40 or over and have a close relative with glaucoma?**
- **Does a hospital ophthalmologist say you are at risk of glaucoma?**
- **Are you registered blind or partially sighted?**

- **Are you entitled to vouchers for your lenses?**
For example, the NHS provides vouchers depending on your circumstances (see www.nhs.uk/nhsengland/healthcosts/pages/eyecarecosts.aspx).

For the rest of us, there are schemes such as Eyecare (a voucher scheme run by the Government for anyone who works with computers). It includes free eye tests and vouchers to help you pay towards the cost of glasses.

Did you know that, by law, your employer may have to help towards the cost of your eyecare?

In 2002, the Health and Safety Regulations changed. Now, your employer is responsible for taking care of your eye care. If you use a computer at work, your employer must pay for your eye test. If you need glasses only for when you are using the computer at work, they must also pay for your glasses.

However, 89% of British businesses are failing to keep to their legal responsibilities to protect their staff's sight (see www.simplyhealth.co.uk/sh/pages/homepage.jsp?source=ppc&cid=9703).



Your prescription and what it means



On your prescription, as well as some basic details such as your name and date of birth, there will usually be a table that shows your prescription (see www.medicinenet.com/script/main/art.asp?articlekey=43046).

What the numbers mean

1. The first number is called the '**spherical number**', and this will show whether you are short-sighted (-) or long-sighted (+) in each eye. A higher number means a stronger prescription.
2. If you have astigmatism (when the front part of the eye (the cornea) is the shape of a rugby ball instead of a regular circle), there will be a second and third number. The second number is the '**cylinder number**', which can be negative or positive and measures the amount of astigmatism you have.
3. The third number is the '**axis number**', which will be between 1 and 180. The axis number describes the curve in your eye.

4. Sometimes, you may have a muscle imbalance in your eye, so your optician will prescribe a **prism** and a **prism base**. The prism is usually written in fractions (for example, $1\frac{1}{2}$) and the prism base shows the direction of the prism in the lens (for example, in, out, up or down). This is fairly uncommon, so the boxes are normally empty.

You should also ask the optician for your **pupillary distance (PD)**. Your PD is the distance between your eyes, measured between the centre of your pupils.

If you have a high-strength prescription, it is more important that your lenses are centred more accurately. Usually, the optician will not add this to your prescription, so you should ask for it.

Now you are ready to look for the perfect frames, wherever that might be.

Remember, you do not have to buy frames from where you had your eyes tested.

	1	2	3	4	
	SPH	CYL	AXIS	PRISM	BASE
R	3.00	0.25	60		
L	5.25	0.25	75		

Add _____
Inter: _____ Near: _____

Requirements or Recommendations: _____

BVD: _____

Next eye examination due: 2 yrs

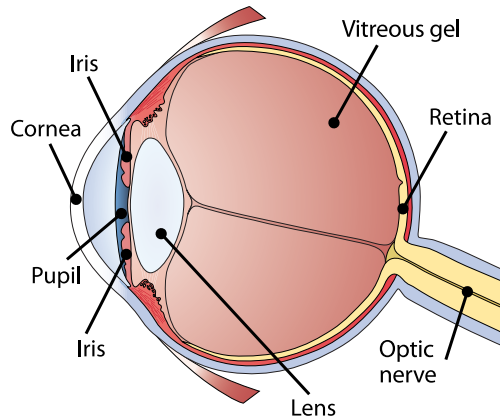
Prescription: New Stable
None required Refer to GP

Suitable for contact lens assessment:

Eyes examined by [Signature]
In accordance with current regulations Date: 14/5/10



Definitions

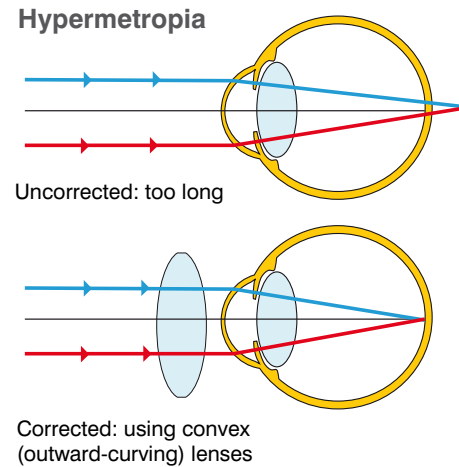


This section is to help you understand the medical or technical terms you will see on your prescription or may hear at the opticians. Remember, knowledge is power!

Astigmatism – This is when the front part of the eye (cornea) is the shape of a rugby ball instead of a regular circle. This makes it difficult to focus the light on the back of the eye, which causes your vision to be blurred.

Cataracts – A cataract is clouding of part of your eye called the lens. Your vision becomes blurred because the cataract is like frosted glass and it is difficult to see through.

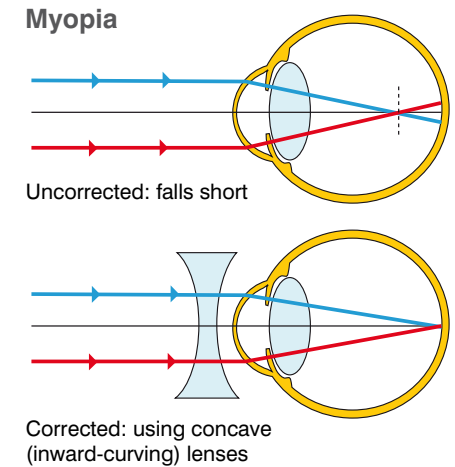
Glaucoma – This is when the optic nerve (which carries information from the retina to the brain) is damaged. Glaucoma can sometimes be caused by an increase in eye pressure. Your eye needs a certain amount of pressure to keep the eyeball in shape and working properly. However, you can have problems if this pressure becomes too high.



This is known as long-sightedness and is when the eye is too weak or the material within the eye is less dense than normal. This makes it difficult to focus on objects that are close to you. In extreme cases, you may not be able to focus on objects at any distance.

Nystagmus – This is when the eyes move uncontrollably. Your eyes will usually move from side to side, but they can sometimes swing up and down or even round in circles.

Phoria – A muscle imbalance that could cause double vision.



This is known as 'short-sightedness', and is when the eye is too strong or the material inside the eye is too dense. This makes it difficult to focus on objects in the distance. It is corrected with negative lenses that are thicker at the edge than in the middle, allowing the light to focus on the retina and produce a clear image.

Common myths

Myth
There are many different sizes of all glasses frames.

Fact
Some frames come in a number of sizes, and some come in just one size.



Definitions



Macular degeneration and age-related macular degeneration

– Sometimes the delicate cells of the macula (an oval-shaped yellow spot near the centre of the retina) become damaged and stop working, and there are many different conditions which can cause this. If it happens later in life, it is called 'age-related macular degeneration' (AMD).

Presbyopia – This is known as 'old sight', and is where the eye can no longer focus on close objects. It usually happens when someone is around 45 years old, as the lens in the eye has become stiff with age. You need reading glasses if you have presbyopia.

Pupillary distance (PD) – This is the distance between the centre of your eyes. It is used to help make sure that each lens in your glasses is in the best position for your eye. This is more important the stronger your prescription is.

Retinal detachments – This develops when your retina has been weakened by a hole or tear, which allows fluid to get

underneath, weakening the attachment so that the retina becomes detached. The retina cannot make a clear picture from the rays of light coming into your eye, and your vision becomes blurred and dim.

Photokeratitis – This is when your cornea (the clear front surface of the eye) is burnt by ultraviolet rays of light from the sun. This tends to happen when you are very high up in areas of snow, where the light reflects very strongly. Here are some of the symptoms of photokeratitis.

- **Your eye will be red.**
- **Your eyelids will be swollen.**
- **You will feel as though you have grit in your eye.**

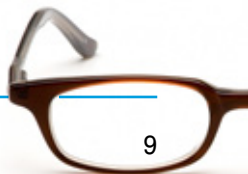
Ultraviolet (UV) light – UV light is invisible light from the part of the electromagnetic spectrum that is immediately beyond the violet end of the visible light spectrum. UV light is usually found in sunlight, and can both benefit and damage your health. UV light can cause problems for your eyes.

Ultraviolet B (UVB) – UVB is one of the three types of invisible light rays (along with ultraviolet A and ultraviolet C) which are given off by the sun.

Single-vision lenses – These are lenses that have the same optical power (the degree to which the lens moves towards or away from the light) throughout. They can correct short-sightedness, long-sightedness or astigmatism, or a combination of these.

Bifocals – These are lenses with two parts. The upper part tends to be used for seeing things at a distance and the lower part for seeing things close up, for example when you are reading.

Varifocals – These are lenses with more than two parts. The top part is for seeing things at a distance. This gradually increases in strength until the full reading prescription is near the bottom of the lens. You can use the part that gradually increases for seeing things in the middle distance, for example looking at a computer.



Everyday life and glasses



Technology

Using a computer or mobile phone and watching TV

While there is no solid evidence that suggests that using a computer or mobile phone or watching TV can significantly damage your eyes, in 2005 72 Point carried out a report called 'Square Eyed Britain' on 2750 office workers. This report found that 90% of workers regularly suffer from 'screen fatigue' (headaches, sore or tired eyes, trouble seeing colours and blurred vision).

With most of the country upgrading to high-definition TVs and over three million people subscribing to HD television, people are demanding a better quality TV picture. However, many people will not see the full benefit, because they have an out-of-date prescription.

Sun

Exposure to UV light

It is important to protect your eyes from the sun (see www.assoc-optometrists.org).

If your eyes have been exposed to too much UV light, you may suffer from photokeratitis. Your eyes will look red and will water, and it might also feel like you

have dust in them. Photokeratitis usually gets better by itself within a few days, but it could cause some long-term problems. This is sometimes referred to as 'snow blindness'.

You should wear sunglasses, especially around midday when levels of UV light are higher. Be careful when choosing sunglasses. If you don't get 100% UV protection, harmful rays from the sun will still reach your eyes through the sunglasses, increasing the risk of damage. Sunglasses that wrap around your eyes will give the best protection as they cover more of your eyes, so there is less chance of sunlight, wind and pollen getting into them.

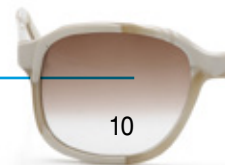
Driving

Dangers of driving

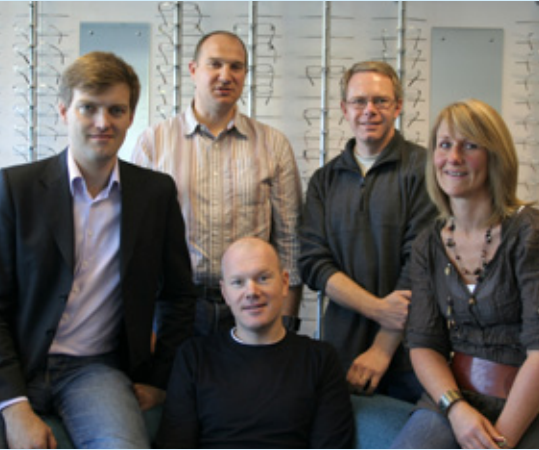
The Royal National Institute of Blind People (RNIB) found that 13 million drivers do not have good enough eyesight to be driving without glasses or contact lenses. Unlike the regulations for people who work with computers and monitors, there is currently nothing in place for people who drive as part of their work to have their eyes tested regularly.

Although there is nothing to encourage people to have their eye tests, the Driver and Vehicle Licensing Agency (DVLA) has set laws for driving that say you need to be able to read a number plate from 20 metres away. If you cannot read a number plate from 20 metres away, your insurance is not valid and it's illegal to drive (see www.dft.gov.uk).

How many of you reading this will replace your prescription glasses with a pair of normal sunglasses as you jump in the driver's seat? Shockingly this is common practice, yet some drivers can only just about see the road. In countries such as Spain, this wouldn't be allowed due to European law which says that drivers who need prescription glasses must carry a spare pair with them in the car at all times. You must also be aware of the dangers of tinted glasses. Under the Highway Code, you are not allowed to wear tinted glasses at night or in poor light, as the lenses are too dark and will affect your vision.



About us



A team of optical experts on hand to answer any questions you may have.

As the world's largest online prescription eyewear store (see www.glassesdirect.co.uk), we offer the same high-quality glasses you'll find on the high-street, at much more affordable prices. We are transforming the eyewear industry by working at low costs and passing our savings back to you. A recent customer survey we carried out showed that we could save you an average of 68% on the last pair of glasses you bought from a high-street optician.

We make choosing glasses fun and easy. In our **free seven-day trial**, we deliver four pairs of glasses for you to try on at home. There are plenty of reasons why our customers keep coming back to us, including:

- **the massive savings you can make by shopping in our designer outlet;**
- **the thousands of frames you can choose from;**
- **being able to phone a dispensing optician for advice;**
- **our speedy delivery; and**
- **our money-back guarantee.**

We sell a pair of prescription glasses every few minutes, round the clock. We are on a mission to make fashionable eyewear affordable to everyone.

Jamie and Kevin are the people behind Glasses Direct. Jamie Murray Wells is the chairman and founder of the company, which he started back in 2004 while still at university. Jamie has been recognised for his passion for customer service and business, and has received several awards including Shell Livewire Young Entrepreneur of the Year Award and Entrepreneur of the Year in the 'HSBC Start Up Stars'. In 2008, Jamie hired Kevin Cornils as chief executive officer of the company. Kevin has world-class experience of business online from his successful roles as managing director of Advertising.com, and managing director in Europe of Match.com. We also receive investments from Index Ventures, Highland Capital Partners and Acton Capital Partners.

David Hutchfield, dispensing optician at Glasses Direct:

“Talking to our customers has shown us that many of them feel anxious about visiting their optician for an eye test and many feel pressured into having to purchase a pair of glasses at the end.

This guide provides consumers with all the information they need to get the best experience before, during and after the eye test. It demonstrates that it is your right to browse for the perfect pair of prescription glasses, whether it's from a store or over the internet.”



Common myths

Myth
High-tech equipment is needed to alter glasses.

Fact
You can make minor adjustments using a hairdryer, and more complicated adjustments using pliers and other tools.

Top tips

1. **By law, opticians must give you a copy of your prescription after you have an eye test, so always ask for a copy if they don't give you one.**
2. **Remember that you can buy your glasses anywhere – you don't have to get them from the opticians where you had your eye test.**
3. **Ask your optician for your pupillary distance (PD). This will probably not be on your prescription, but the dispensing optician will need it to make your glasses.**
4. **By law, if you use a computer screen at work, your employer must pay the cost of your yearly eye test.**
5. **Many companies offer eye-test vouchers or discounts, so find out before you pay the full cost of an eye test. All optometrists are qualified to the same standard, so you should expect the same treatment wherever you go.**
6. **If you are not sure about where to go for an eye test, ask your family and friends where they go and for details of their experiences.**

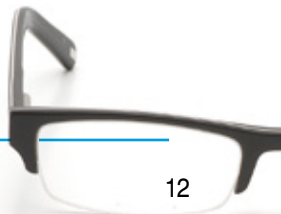
Some information to help you on your way

Price comparisons	Package (anti-scratch and anti-reflection lenses 1.6 millimetres thick)	Sunglasses (tints plus UV filter)
Glasses Direct	From £55	From £65
Specsavers	From £70	From £94
Vision Express	From £145	From £214
D&A	From £120	From £135
Boots	From £105	From £120

These prices were correct at the time we published this guide. These figures may vary.



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