

Keeping an eye on your vision

Sight Over Forty

Breakthrough new study into presbyopia and its impact on life



Foreword

People are becoming more health aware than ever before. The media feeds our interest and understanding of conditions in areas from diabetes, to colds and flu. Increasingly, more people visit gyms, are aware of the benefits of healthy eating and have a general interest in well-being.¹

Yet in today's society, eye health is rarely talked about, which is surprising when we consider that most people rate their vision as their primary sense. As these new research findings reveal, in many parts of Europe few people are aware of common conditions such as presbyopia, the ageing eye process, which affects everyone to some degree as they get older.²

Research shows that there is an upward trend in the number of people living for longer. This indicates that there are a growing number of people in the forty plus age bracket that are likely to be experiencing presbyopia.³

There are many age-related conditions such as memory loss that cause great concern for people. Yet when we focus specifically on the visual signs of ageing, concerns relating to eyesight are at the forefront. In fact, the research revealed that almost twice as many people are concerned about becoming dependent on glasses than finding wrinkles or going grey – this is despite far more extensive media coverage on the latter in many health and beauty magazines. As a result, the onset of presbyopia can be a shock as the condition changes how we see the world around us.

Significantly, this report investigates the impact that presbyopia has on people's lives, documenting the effects across seven European countries.

Whilst many who work in the area of vision correction are familiar with the anecdotes of their presbyopic patients, this large scale survey presents definitive information about the lack of awareness people in many areas of Europe have with regard to presbyopia and the way that it impacts on daily life activities.

In particular, the report focuses on the impact of presbyopia on work and leisure time, whilst investigating people's understanding of the key triggers and innovative vision correction options. The report includes fascinating differences between the surveyed countries. By bringing these statistics to light, we hope Europeans will have a greater awareness of presbyopia and discover that there are solutions available to suit their lifestyle needs.

A handwritten signature in blue ink, appearing to read 'Philip Morgan', with a large, stylized flourish at the end.

Dr Philip Morgan, Eurolens Research Manager, The University of Manchester





CONTENTS

Foreword	2
Contents	4
Defining Presbyopia	5
Key Research Findings	6
The Impact of Presbyopia on Daily Life	7
The Importance of Eye Tests	10
Understanding Presbyopia	12
Combating Presbyopia	13
Finding the Right Vision Care Product	14
Products Available	15
Conclusion	17
Methodology and Further Resources	18

Defining Presbyopia

At around the age of forty, almost everyone will experience difficulty in focusing close-up. This makes near tasks more of a struggle – such as threading a needle or reading the telephone directory.

Some people are more aware of these changes in their early forties. By the age of fifty, most people will need vision correction in the form of spectacles or contact lenses in order to see close-up. This ‘frustratingly natural’ condition is called ‘presbyopia’ and the patient is said to be ‘presbyopic’. This condition of the eyes signals progressive changes to vision.

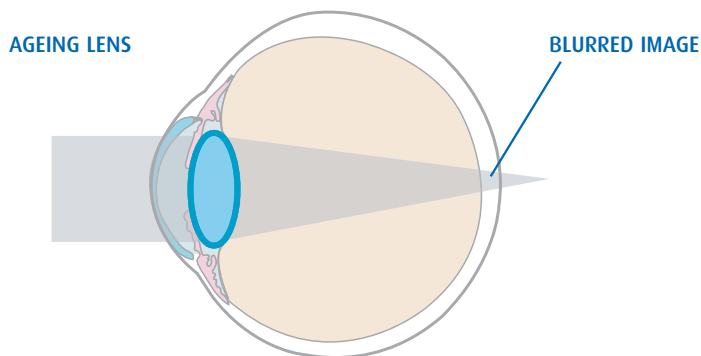
Philip Morgan comments, “Despite the fact that it affects everyone beyond the age of about forty-five years, presbyopia is poorly understood by the public in comparison with other effects of the ageing process. This observation is all the more remarkable when we consider that this process affects our primary sense – sight.”

The anatomical changes which cause presbyopia are well acknowledged. In childhood, the focusing ability of the eye is provided by a flexible lens within the eye that is controlled by a series of surrounding muscles.

When a person wants to see something up close, the overall focusing power of the eye needs to increase. This is achieved by the flexing of these internal eye muscles which causes the shape of the lens to change to allow for near vision.

The lens itself is very flexible at birth, which means that it has a very wide range of focusing ability. This is one of the reasons why children are able to sit very close to the television without discomfort, as well as colour with crayons with their noses almost touching the page.

If a person wishes to view an object in the distance, the muscles relax, the lens reverts to its original shape and the target comes into view. All of these changes are made instantaneously and accurately.



With age the lens thickens and its increasing bulk means that it becomes inflexible, which in turn directly impacts on the ability to focus close up. People in their twenties and thirties are generally unaware of any changes, because the increasing rigidity of the lens only affects objects which are very close to – perhaps (10-20 cm) away from the face.

However, when people reach their forties, the lens is able to change its shape to a more modest degree which means items at arm's length are clearly visible, but some tricky near tasks such as reading small print in dim conditions or threading a needle become difficult. You can often identify a person experiencing presbyopia when dining in a restaurant if he or she is holding the menu at arm's length!

At age fifty plus, there is essentially no flexibility left in the eye's lens and for many people, near work is not possible without the assistance of some 'refractive correction' – which is usually in the form of spectacles or contact lenses.

Whilst these changes happen to everyone, the precise effects can differ depending on whether the person is short or long-sighted. For example, people who are long-sighted are often affected earlier in life.

Those who are short-sighted struggle with distance vision under normal circumstances, but have an in-built advantage for near vision. They require less use of the eye's lens and can often read close up for many more years than their friends who are neither long nor short-sighted.

Key Research Findings

The presbyopia research, commissioned by eye health experts Bausch & Lomb, was carried out in 2005 with 1,400 people aged forty plus across seven European countries (please turn to page 18 for more information on the methodology). The findings reveal the need for further education on presbyopia and the solutions that are available, to help people maintain their normal lifestyle.

Specifically the research reveals:

Presbyopia is having a significant impact on daily life:

- 80 percent of those surveyed struggled to read important text on medicine and food labels (see page 7)
- 60 percent find it difficult to use a mobile phone
- 20 percent of people questioned in the survey who are experiencing presbyopia are signing receipts without being able to read them

Wearing glasses is considered a greater concern than going grey or developing wrinkles:

- Almost twice as many people are concerned about dependence on wearing glasses than going grey or developing wrinkles (see page 8)

Europeans undergo insufficiently frequent eye tests, which could have an impact on health:

- 35 percent of Europeans do not have their eyes tested regularly (see page 10)
- 8 percent have never had an eye test. This can lead to long term complications (see page 10)

Few have a true understanding of presbyopia:

- Despite its prevalence, over 40 percent of people are unaware of the eye's ageing process, so many do not realise their vision will start to deteriorate (see page 12 for further details)
- Only a third of people have heard of the term 'presbyopia' (see page 12) for further details)

Few are made aware of the vision correction options available:

- Many of those surveyed were unaware of the range of vision correction products that are available for presbyopia (see page 12 for further details)

The Impact of Presbyopia on Daily Life

Leisure

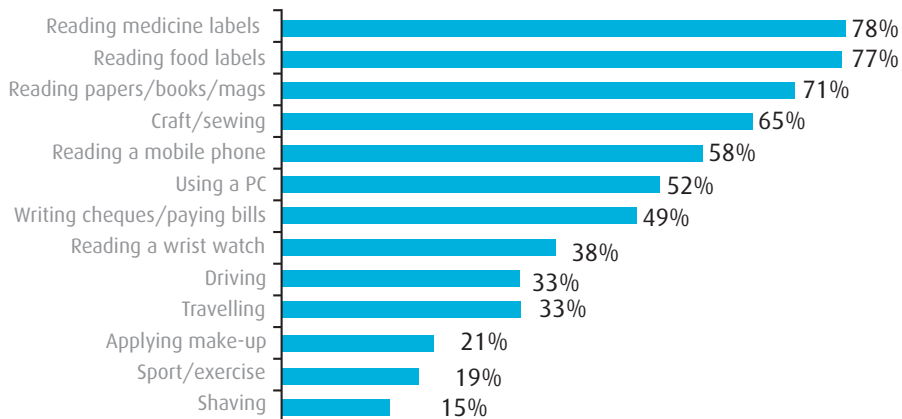
Most significantly, the research indicated that daily activities such as reading are negatively impacted by presbyopia. It is of concern that a number of respondents are unaware of solutions available to help them to overcome these difficulties.

Nearly 80 percent of people with presbyopia struggle to read medicine and food labels. Clearly, the potential ramifications of someone taking an incorrect medicine or dosage could be very serious. Similarly, people with certain food allergies could inadvertently consume inappropriate food if they are not able to see food labels clearly.

Almost half (49 percent) of sufferers have difficulty writing cheques or paying bills and more than one in five have even gone so far as to sign a bill or credit card slip without being able to read the contents, putting themselves at risk from error or fraud.

Nearly 60 percent of sufferers admit they struggle with daily tasks, such as using a mobile phone, which can prove frustrating. Meanwhile, 40 percent of sufferers find it difficult to read their wrist watch.

Which of the following activities do you feel are affected by the problems you have focusing on objects close up



The morning routine is another time when presbyopia can make life difficult, with nearly a quarter (21 percent) of all females finding that they have trouble applying make-up. About one in five men (15 percent) experience difficulties when shaving.

Even at leisure, over 70 percent have trouble reading papers, books and magazines, whilst 65 percent struggle with hobbies and crafts, such as sewing. More than one in ten respondents surveyed admitted that they had simply given up on leisure time activities that they enjoyed – despite the fact that there are a range of vision correction solutions available. One person experiencing presbyopia reported,

“I can’t read like before, nor do crosswords or play bridge.”

Another said,

“I used to do embroidery, but can’t do it anymore.”



“The onset of presbyopia can make near tasks such as threading a needle or reading a telephone directory more of a struggle. Focusing on a map or even seeing food clearly on a dinner plate requires good near vision, so these natural eyesight changes can come as a shock to many,” expert in presbyopia Sarah Morgan commented.

“There are many everyday jobs that we take for granted that require near focus – such as ironing, doing the washing-up, cooking, shaving, applying make-up, texting on a mobile phone, using a cash machine – so people with presbyopia experience the need for near vision correction on many more occasions than when simply reading a book or a newspaper”, said Sarah.

Appearances

There are many age-related conditions such as memory loss that cause great concern for people. Yet when we focus specifically on the visual signs of ageing, concerns relating to eyesight are at the forefront of people’s minds. In fact, almost twice as many people worry about dependence on glasses than going grey or developing wrinkles

Work

The daily difficulties resulting from presbyopia aren’t just contained within the home - a staggering half of all sufferers acknowledged that they have difficulty using a computer, which can prove problematic at work. This can be challenging in a world where visual demands at work have increased over the past 20 years, with the presence of a computer on almost every office desk and our increasing reliance on mobile phones with their small screens and keys.

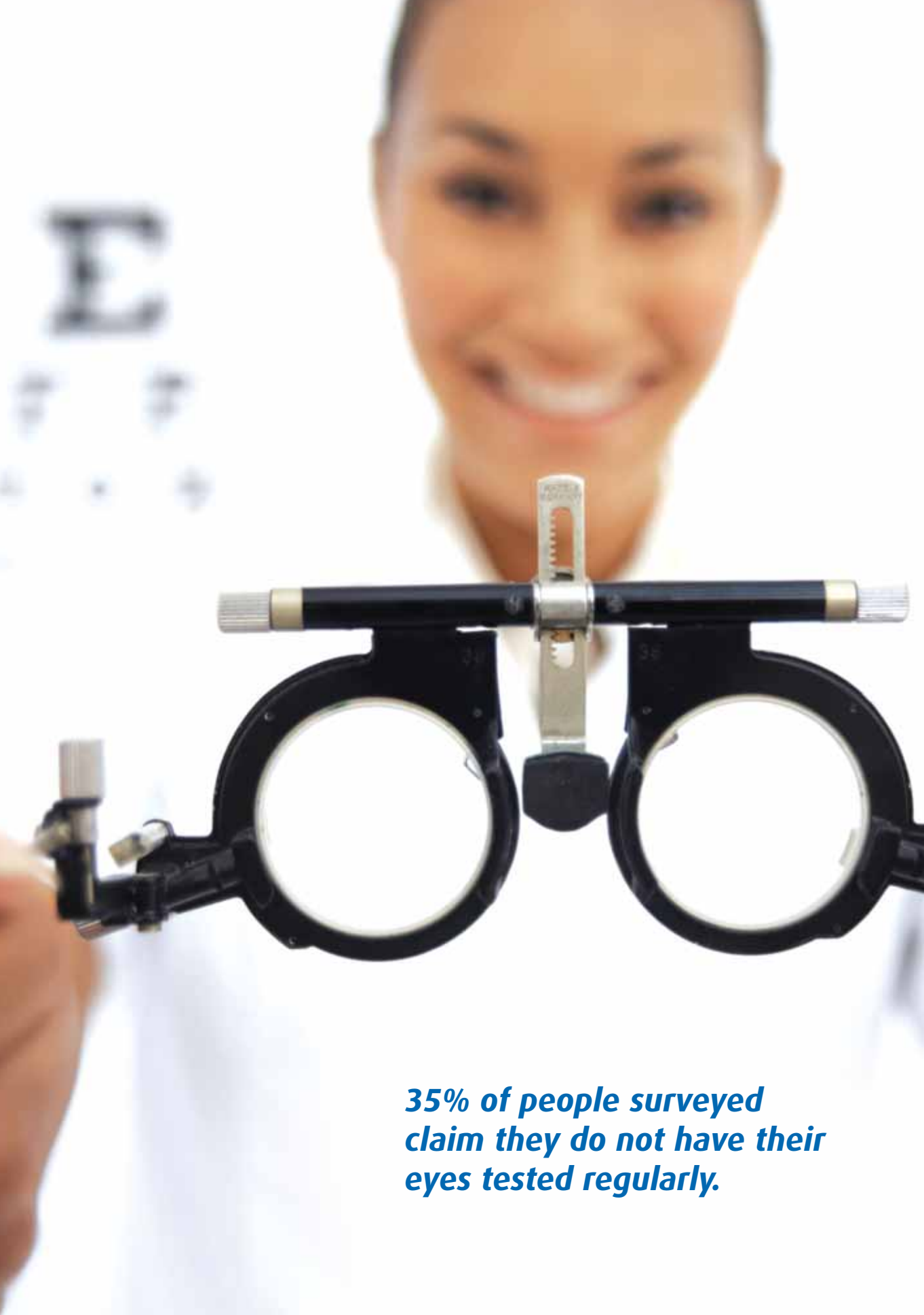
The research revealed that people in their forties are more concerned about the impact that wearing reading glasses will have on their work and appearance than people over fifty. One office worker commented,

“After a few hours in front of the computer I must take a break and avoid using it as much as possible.”

Another said,

“I used to work as a photographer, but I have difficulty taking pictures now.”

Even with reading glasses, some professionals found their work life to be impaired by their visual difficulties, with 16 percent claiming reading glasses slowed them down at work and a further 13 percent feeling that having glasses made work more stressful.



***35% of people surveyed
claim they do not have their
eyes tested regularly.***

The Importance of Eye Tests

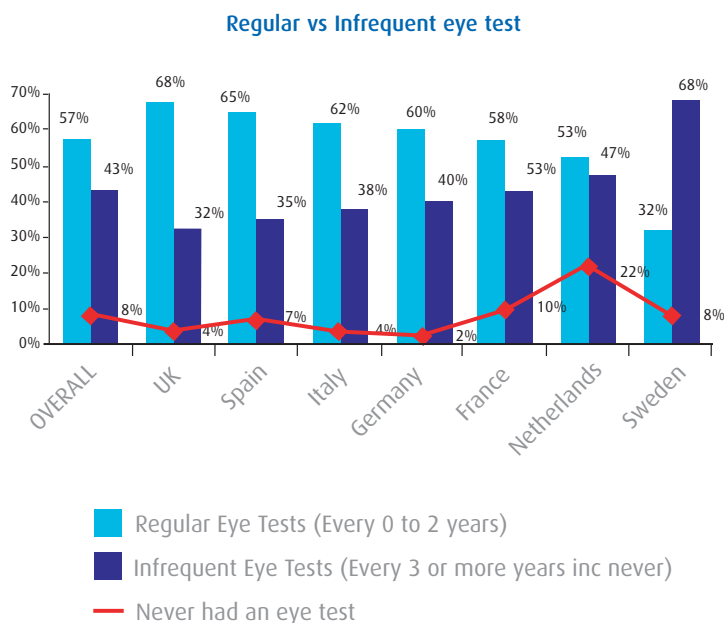
As we reach our forties our vision starts to change. Deteriorating quality of vision is a problem that every person faces at this stage in life. It's a time when eye health takes on more importance than ever before.

Despite this, **35 percent of people surveyed claim they do not have their eyes tested regularly.** This is likely to be due to the lack of information available on the importance of regular eye testing.

A further **8 percent of Europeans claim that they have never had an eye test,** something that could help to identify eye disease and preserve vision in the future.

In Sweden, two thirds of respondents admit they fail to have regular eye tests. In the Netherlands, an incredible 22 percent of people report never to have had an eye test.

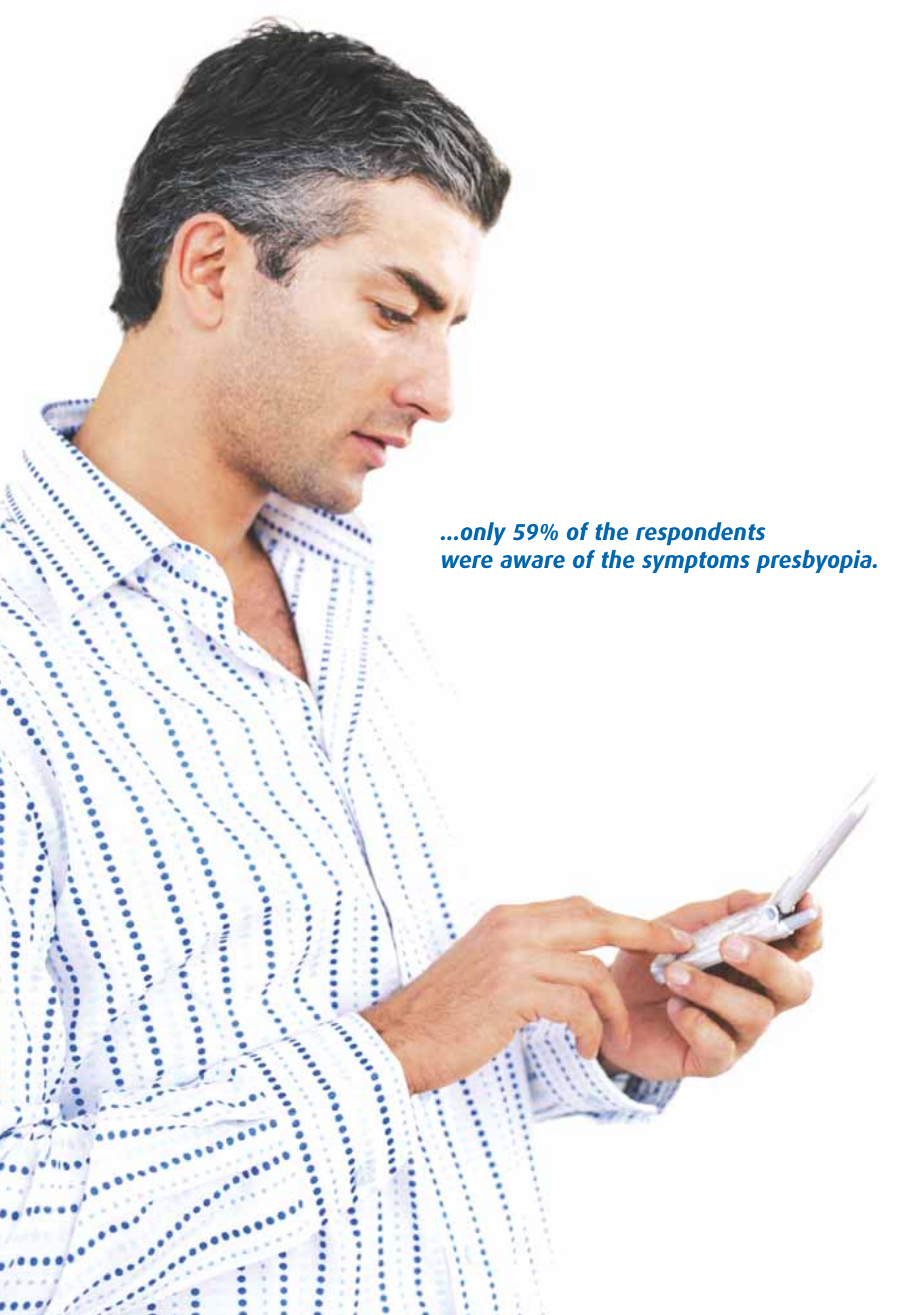
People in the UK have their eyesight checked more regularly than anywhere else in Europe, with two out of three of those surveyed getting their eyes tested at least once every two years.



Philip Morgan comments, "Irregular eye tests are potentially problematic for a number of reasons. In many countries an eye test does not simply produce a prescription for new spectacles or contact lenses. The consultation also involves a thorough examination of the health of the eye including a check of the eye's lens (for signs of early cataract where the lens of the eye becomes cloudy), examination of the retina for signs of high blood pressure or diabetes, measurement of the eye's internal pressure as a screening assessment for glaucoma, as well as examination of the eye lids, tear film and the front of the eye."

"Because the eye is the only part of the body which allows for direct inspection of blood vessels, an ocular examination can provide a number of tell-tale signs for a range of conditions including diabetes and high blood pressure."

"In addition, without eye tests, people are not able to receive the most recent information about how to optimise their vision. Recent years have seen tremendous developments in the areas of spectacle frames, spectacle lenses and contact lenses. Those who have never had an eye test or who are examined only infrequently are not benefiting from this information."



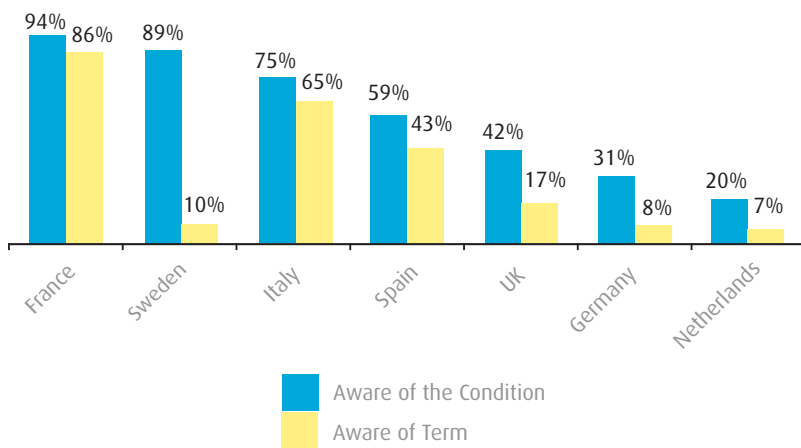
***...only 59% of the respondents
were aware of the symptoms presbyopia.***

Understanding Presbyopia

According to Philip Morgan, the vast majority of people aged forty-five years will suffer from presbyopia. Yet despite the fact that presbyopia is likely to affect all respondents within the next five years, **only 59 percent of the respondents were aware of the symptoms.**

This recognition depended on the location of the respondents. Almost all (94 percent) of people living in France claimed that they had an understanding of the condition – compared to only 20 percent of people in the Netherlands.

Percentage of respondents aware of presbyopia



There is a significant difference in awareness of the term ‘presbyopia’ or the equivalent medical term across different areas of Europe surveyed.

86 percent of those living in France recognised the medical term, compared with only 7 percent of people living in the Netherlands, 8 percent in Germany and 10 percent in Sweden.

Even when those surveyed said they had knowledge of presbyopia, the majority of respondents demonstrated little true understanding of the condition.

As many as 30 percent admitted that they had no idea of the age range when people become affected by the symptoms and most of the respondents gave themselves less than a 50 percent chance of developing presbyopia within the next five years.

Expert in presbyopia, Sarah Morgan, commented, “As presbyopes don’t have a full understanding of presbyopia, they often wrongly assume that their muscles are not working properly and that if they rest their eyes, or even do without spectacles, the problem will go away.”

“The reality is very different. Over time, their symptoms worsen until they cannot even read a newspaper without spectacles.”

“Careful explanation must be given to people experiencing presbyopia, because if they do not understand their progressively changing vision over time, they will live in fear that wearing spectacles will make, or has made, their eyes worse!

“People experiencing presbyopia need to understand the physical changes within the eye, which cannot be prevented, but can be overcome with the aid of spectacles and contact lenses.”

Combating Presbyopia

Although this was not a study to measure incidence, the study has revealed some interesting findings with regards to the way that people experiencing presbyopia are combating the problem.

Nearly a quarter (22 percent) of people in their forties who need vision correction for reading text at close range fail to do so.

Whilst refusing to wear vision correction does not slow down or speed up the development of presbyopia, it is certainly inconvenient for those affected, something that can be avoided when there are so many options for the correction of near vision problems. Often, if people experiencing presbyopia do not fully understand their progressively changing vision over time, they worry that wearing spectacles will make, or has made, their eyes worse.

According to the research findings, more than one in 10 Europeans over the age of fifty do not currently wear any form of vision correction at all. This statistic may reflect people's adversity to facing up to the vision problems that they are suffering from later in life.

77 percent of respondents surveyed wear glasses to correct their vision problems, while only 7 percent of people wear contact lenses.

There is a wide range of products that Europeans are using to read small print held at close range. As many as 59 percent of people rely on their reading glasses to help them decipher small print - and a further 22 percent of people are reading with varifocals.

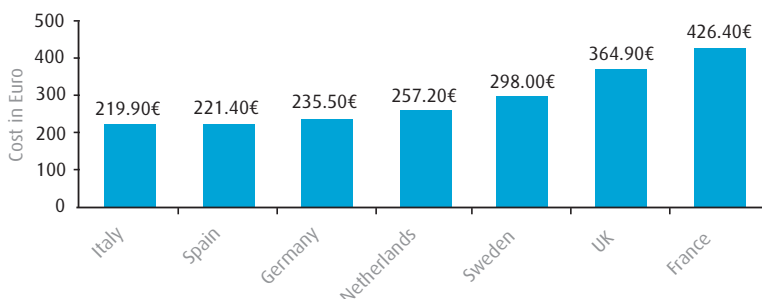


Interestingly, when asked specifically which vision correction products are used to help with small print held at close range, **roughly the same proportions of people are using an 'old fashioned' magnifier as are using contact lenses.** A further 8 percent are struggling without using any vision correction products at all when reading close-up.

Cost of Vision Care

The average amount that people are spending on their glasses across Europe depends very much on the country. The survey findings indicate that people living in France spend more on their spectacles than other areas of Europe, with the average wearer spending around 426 Euros for each pair. This is closely followed by the UK where people spend around 364.90 Euros on average for their spectacles, compared with Italy, where the person spends 219.90 Euros.

Average price paid for last pair of near vision correcting glasses bought



It's not just the cost of purchasing the spectacles in the first instance that needs to be taken into account when purchased, but also the cost of replacing lost or broken glasses. In fact, the study revealed that the average person loses the equivalent of 289 Euros on broken, lost or damaged glasses during a lifetime.

Finding the Right Vision Care Product

The research findings indicate that the correct vision care products for patients depend heavily on their lifestyle needs. As people journey through their forties, fifties and into older age, their vision correction needs change.

Overall, 22 percent of all respondents claim that contact lenses would be their first choice of vision care solution.

More specifically, more than 50 percent of women in their forties feel that contact lenses would have a positive impact on their quality of life.

Interestingly, 53 percent of the respondents in their forties said that they would like to try multifocal contact lenses if their eye care practitioner recommended them.

Yet three-quarters of respondents did not discuss alternatives to reading glasses, suggesting an opportunity for greater education about available vision correction options.

The proportion of people wearing contact lenses in their forties and beyond is greatest in the Netherlands.

In particular, respondents in their forties are more concerned about the impact of reading glasses on their work and appearance than people over 50. The research findings show that one in ten wish to avoid being seen wearing reading glasses by friends.

Philip Morgan comments, “This suggests that contact lenses might be particularly appropriate for this age group (to provide the most aesthetically pleasing appearance) or alternatively more attractive spectacle frames and lenses.”

According to the research findings, people in their forties are inclined to feel that wearing glasses has an impact on their work. Many feel that wearing glasses slows them down (16 percent) and 13 percent claim it makes work life more stressful. This indicates that the eye care practitioners should offer solutions that are as ‘natural looking’ as possible.

Respondents in their fifties claim that reading glasses are an inconvenience, with a substantial 42 percent finding them uncomfortable to wear.

Those aged 60 plus tend to feel dependent on their reading glasses, because there is little flexibility remaining in the eye’s own lens.

Philip Morgan adds, “Eye care practitioners should ensure that this dependence is not necessarily seen as a negative factor, by offering the best quality options and providing advice on different forms of vision correction for different situations – such as someone using distance spectacles for driving, varifocals for day-to-day tasks, near spectacles for a specific hobby or craft and contact lenses for socialising.”

“Having multiple options also removes the absolute dependency on one particular pair of spectacles, the loss of which could be very inconvenient.”



Products Available

Developments in contact lens manufacturing, design and materials mean that there is a whole array of products for the presbyopic patient. Meanwhile modern titanium spectacle frames are so light that it is almost impossible to tell that they are being worn.

Pros

- Modern titanium frames are very light to wear and often visually appealing
- Recent technology now allows for more attractive lenses even for stronger prescriptions
- Spectacles can help create a certain look, becoming a fashion accessory

Cons

- Some find glasses uncomfortable to wear
- Can be restrictive in certain daily life scenarios, for example while playing sport, when needing UV protection or when applying make up



Multifocal Contact Lens

Multifocal and bifocal contact lenses work by producing a clear distance focus and a clear near focus on the retina. Fortunately, the brain is a brilliant vision processor and can quickly adapt to the vision provided by these types of lenses.

Pros

- Peripheral vision is unaffected and is usually enhanced due to the panoramic vision provided by contact lenses when compared with the restriction of a spectacle frame
- Ideal for patients who are wearing vision correction products for the first time, who are not used to wearing glasses
- Enables daily life activities such as playing sports, telling the time on a watch, using a mobile phone or applying make up in the morning
- The idea of being able to read without spectacles is ideal for social occasions

Cons

- The usual prescription suitability applies. Astigmatism requires consideration with respect to lens type. For patients whose distance prescription requires more sophisticated contact lenses, soft multifocal contact lenses are not as widely available
- It may take some patients a few days to adapt to wearing the lenses

Monovision Contact Lenses

Monovision is a system of contact lens fitting where one lens power is enhanced for reading vision. That is, one eye is corrected for distance vision and the other for near vision.

Pros

- Peripheral vision is unaffected and is usually enhanced due to the panoramic vision provided by contact lenses when compared with the restriction of a spectacle frame
- Monovision can be used with all types of contact lenses, including lenses that correct astigmatism, as it is simply the enhancement of the power of one of the lenses that achieves the visual results

Cons

- The eye works more or less alone with monovision, meaning the wearer may have to adjust the head position more often to see. He or she may also lose some depth perception
- As the eyes adjust to the new lens powers, a period of time may be necessary to become familiar with the lenses
- Because correction is provided only for reading and long distance vision, intermediate vision (at approximately one metre in distance) may not be as clear as with multifocal contact lenses



Conclusion

Overall, the research findings indicate that in many European countries people have a low awareness of the condition presbyopia, the ageing eye process, and many are not made aware of the full range of vision care solutions that can help when vision starts to deteriorate after the age of forty.

As a result, people are experiencing major changes to their way of life, with many struggling to perform daily tasks. The research highlights people's inability to read receipts before signing, food labels before buying and the difficulties experienced when using mobile phones or computers.

Ultimately, people should visit their eye care practitioner when this happens, but it does raise the question as to what further support could be provided by manufacturers of presbyopia solutions.

For the person with normal vision throughout life before the age of forty, the onset of presbyopia can be a particularly worrying time. The triggers for visiting the eye care practitioner can range from difficulty reading small print or seeing motorway signs to concerns about possible vision loss through disease. This may lead to the first visit a person makes to an eye care practitioner for some time.

Great relief is often experienced when this type of visual deterioration is shown not to be an eye disease, but an unavoidable change in the eye relating to 'getting older.'

By gaining a better understanding of presbyopia and the solutions available, people can be reassured that they are experiencing a natural process without it impacting on daily life.

Currently with the same proportion choosing a magnifying glass as selecting contact lenses, there appears to be a real barrier to people embracing new products to help them have the vision they once experienced.

Armed with the correct information, people experiencing presbyopia can work with the eye care practitioner to find the solution that best suits their lifestyle needs.

Dr Philip Morgan, Eurolens Research Manager, The University of Manchester

Methodology

The study was commissioned by the eye health company Bausch & Lomb and conducted by independent global market research specialists, Kadence. 1,410 completed interviews were carried out with adults aged forty plus, between 1 and 17 June 2005. The research included 200 interviews per country. 150 interviews were carried out with forty to fifty-nine year olds and 50 interviews with plus sixty-year-olds.

The research was conducted in France, Germany, Italy, the Netherlands, Spain, Sweden and the UK via a quantitative telephone survey (structured CATI administered survey).

Resources and further information

Consumers seeking more advice on coping with presbyopia and the vision care solutions available should visit their eye care practitioner.

Visiting an eye care practitioner can help keep a regular check on any eye problems. Practitioners not only measure the vision performance and requirements of people's eyes, but will also check closely for any early signs of eye disease or other medical conditions to help consumers enjoy life to the full.

For Patients

For further information on presbyopia and contact lenses, log onto www.bausch.com

For information on wider health issues, visit the World Health Organisation at www.who/in/en

For further information on safety and health in the workplace, visit the Institute of Occupational Safety and Health (IOSH) at www.iosh.co.uk

For Professionals

FOR FURTHER INFORMATION ON CONTACT LENSES:

Association of Contact Lens Manufacturers – visit www.aclm.org.uk

British Contact Lens Association – visit www.bcla.org.uk

College of Optometrists – visit www.college-optometrists.org.uk

Association of Optometrists – visit www.assoc-optometrists.org.uk

This report was sponsored by an educational grant from Bausch & Lomb.

