
POSITION PAPER

READY READERS

July 2015

Introduction

Ready readers or “ready-made reading spectacles” are spectacles that have 2 single vision lenses each of which have the same positive spherical power not exceeding 4 dioptres and the purpose of which is to relieve the condition known as presbyopia. Presbyopia is the term used to describe the requirement for help with near vision tasks caused by natural ageing of the eye; defined as “a refractive condition in which the accommodative ability of the eye is insufficient for near work, due to ageing”. The symptoms of which normally start when people reach the age of their mid-forties and onwards. Millodot M. Dictionary of Optometry and Visual Science, 7th ed. Edinburgh: Elsevier; 2009.

These “ready-readers” are widely available across Europe can be bought without prescription from a variety of outlets, without professional advice or supervision. They are designed to be used for near vision tasks only and should not be used for driving or any other distance vision activities (e.g., watching TV) under any circumstances.

ECOO's Position

“Ready-readers” are a low-cost alternative to prescription reading glasses for a section of the population. They can provide a useful back-up to prescription spectacles for short-term or emergency use. They should never be used for driving or any distance vision activities, such as watching TV under any circumstances. If people want to purchase “ready-readers”, they should make sure that they have the CE marking to show that they meet the relevant standard ISO 16034:2002.

The public should be aware of the fact that the visual correction available by “ready-readers” will not be suitable for all users and has the potential to cause issues such as eyestrain or headaches, double vision, nausea, watery eyes, itching, and tiredness. There is a risk to public health where people use “ready-readers” as an alternative to accessing regular eye-examination. These spectacles are not intended for regular use without the approval of an eye-care professional as specifically stated in ISO 16034:2002.

- Given the evidence that “ready-readers” in higher powers are more likely to cause unwanted side effects^{1040-5488/12/8904-0446/0 VOL. 89, NO. 4, PP. E446-E451 OPTOMETRY AND VISION SCIENCE}, point of sale material should clearly inform the public of this.
- ECOO calls for greater scrutiny to ensure that ready-readers on sale actually meet the standards, to protect the public who purchase these items.
- ECOO advises that where a member of the public experiences any visual discomfort or strain, that consultation with an eye-care practitioner is needed. “Ready-readers” are not a replacement for regular eye-examination and people should consult an eye-care practitioner regarding the suitability of “ready-readers” for their use as per ISO 16034:2002.

Availability

Legislation varies across Europe in relation to “ready readers” but in the main the sale of spectacles defined as “ready readers” are unregulated. It is possible to purchase “ready readers” from a wide variety of outlets –

- Supermarkets & other retail outlets
- Optical practices
- Pharmacies
- Vending machines
- Internet sales

They provide a low-cost option for the correction of near vision problems.

Potential Problems

“Ready readers” are manufactured with the same spherical prescription in both eyes, with the centre of the lenses set at a specified distance apart; usually 62mm or 64 mm. For this reason they do not properly correct the vision of the majority of people, due to one of the following reasons-

- The majority of people who are short-sighted (myopic) will not benefit from “ready-readers” (i.e. approx. 33% of Europeans) Eur J Epidemiol. 2015 Mar 18. [Epub ahead of print]- Prevalence of refractive error in Europe: the European Eye Epidemiology (E3) Consortium.
- Additionally people who have astigmatism will not benefit from “ready-readers”, they may even experience discomfort, blurry vision, tearing or red eyes. (According to recent study 23,9% of European adult population have significant astigmatism ≥ 1 dioptre and in population above 65 this number goes up to even 51,5% of European population) Eur J Epidemiol. 2015 Mar 18. [Epub ahead of print]- Prevalence of refractive error in Europe: the European Eye Epidemiology (E3) Consortium
- Where the prescription is different between the two eyes, spectacles with the same power in each eye will result in one eye being blurred which causes strain when reading. (Between 2%-15% of the population will have a difference greater than 1 dioptre between the eyes; otherwise known as anisometropia). The larger the difference, the more significant the risk of symptoms.
- Prismatic effect is the term used to describe the aberration caused by the dislocation of an image from it’s actual position caused by a person not looking through the exact centre of a lens. Unwanted prismatic effect causes headaches, strain and in some cases double vision. In a pair of prescription spectacles, the centration of the lenses is measured and matched to that of the patient. (48% of “ready-readers” failed to provide the optical quality required by international standards, with 62% of the +3.50 DS spectacles failing the requirements. This was principally due to a high prevalence of induced horizontal (60%) and vertical prism (32%) beyond the tolerance levels stipulated in ISO 16034:2002.) 1040-5488/12/8904-0446/0 VOL. 89, NO. 4, PP. E446–E451 OPTOMETRY AND VISION SCIENCE

It is also quite likely that people will use “ready-readers” for distance tasks such as walking and driving. McGarry MB, Manning TM. The effects of wearing corrective lenses for presbyopia on distance vision. Ophthalmic Physiol Opt 2003;23:13–20. There is also considerable anecdotal evidence of people using “ready-readers” as an alternative to accessing proper eye-care by a qualified eye-care practitioner. Presbyopia (reading problems due to age) is a condition is that obviously affects older people who are more at risk of age-related conditions such as Macular Degeneration, Cataract and Diabetic Retinopathy; therefore it is extremely important to make sure that visual changes in this group of people are closely monitored.

European Council for Optometry and Optics

July 2015

Acknowledgements

ECOO would like to express special thanks to the authors of this position paper:

- Sylwia Kropacz-Sobkowiak
- Martin O'Brien