

Home based Red Light therapy for the eyes

PhotoBioModulation therapy 670nm



Introduction

Growing evidence from research and clinical trials are showing Red light therapy is useful for Age related macular degeneration, Diabetic retinopathy and other eye diseases. While currently the Valeda System is the one licensed PhotoBioModulation therapy for the eyes, not everyone can either afford or adhere to the logistics of 9 treatments over a month at a local centre. The need for home based therapy is growing. It also raises the question of maintenance treatment between the main Valeda treatments.

The Valeda Light Delivery System, is a clinic based treatment undertaken by eye professionals supervision. It is photobiomodulation therapy (PBMT) for eye conditions like age-related macular degeneration (AMD), typically delivers energy at an output of approximately 25 mW/cm². Valeda aims to deliver light energy in the red to near-infrared spectrum, specifically at three wavelengths of 590 nm, 670 nm, and 850 nm. Valeda system is CE marked and applied for FDA (Food and Drug Administration) approval which is expected in 2024 for treatment of intermediate Age related macular degeneration.

What is the EyePower Red Device?

The EyePower Red Device is a home based device therapeutic tool designed specifically to deliver one wavelength 670nm wavelength red light to the eyes. It delivers a lower light level at 8 mW/cm². This type of light therapy is used to support and improve eye health by stimulating cellular processes within the retina and other eye tissues and considered a wellness therapy.

How Does It Work?

- **Wavelength:** The device emits light at a wavelength of 670 nanometres (nm). This specific wavelength is believed to penetrate the eye and enhance the function of mitochondria, the energy-producing components of cells. The red at 670nm is typically a rich, dark red, often described as being similar to the colour of a deep sunset or a very ripe cherry

- **Mechanism:** The 670nm light helps to improve mitochondrial function, which can enhance the cells' ability to produce energy (ATP). This increased energy production supports the repair and regeneration of damaged cells, potentially improving overall eye health.

Benefits of 670nm Light Therapy – summary based on published papers.

- **Improved Retinal Function:** Research suggests that exposure to 670nm light can help improve retinal function, particularly in individuals experiencing age-related decline.

- **Reduction of Inflammation:** The therapy may help reduce inflammation in the eye, potentially easing symptoms of conditions such as dry eye syndrome.

- **Support for Age-Related Eye Diseases:** There is growing evidence that 670nm light therapy can be beneficial for age-related macular degeneration (AMD) and other degenerative eye conditions.

- **Enhanced Visual Acuity:** Some users report improvements in visual sharpness and clarity after regular use. This particular unit has not undergone randomised clinical trials but developed on the basis of considerable research world wide providing evidence of 670nm light therapy for the eyes and the body.

Using the EyePower Red Device

- **Frequency:** It is recommended to use the device as prescribed by a healthcare provider. Which is 3 minutes once a week. The unit provides light to both eyes.

- **Protective Measures:** While 670nm light is generally safe, it's important to follow safety guidelines provided by the manufacturer to avoid excessive exposure.

- **Consistency:** Regular and consistent use is key to achieving potential benefits. Hence the unit reminds you if it has not been used once a week.

Precautions and Considerations

- **Consultation:** Before beginning treatment, consult with an eye care professional to ensure that the EyePower Red Device is appropriate for your specific eye health needs.

- **Existing Conditions:** If you have pre-existing eye conditions, such as glaucoma or cataracts, seek advice from a specialist.

- **Side Effects:** Although rare, some users may experience temporary eye strain or discomfort during initial use. If symptoms persist, discontinue use and consult a healthcare provider.

- **Not a Replacement for Medical Treatment:** This device is intended to complement, not replace, standard medical treatments for eye conditions.

Frequently Asked Questions

Q: **How soon can I expect results?**

A: Some users report noticeable improvements within a few weeks, but results can vary, and the lightsite Phase III study reported improvements at 2 years and is on going. Response is based on individual conditions and adherence to the treatment protocol.

Q: **Is the 670nm light safe for everyone?**

A: Generally, 670nm light is safe, but it is essential to use the device as instructed and consult a healthcare professional, especially if you have pre-existing eye conditions.



Q: Can I use the device if I wear glasses or contact lenses?

A: It is recommended to remove glasses or contact lenses before using the device to ensure maximum effectiveness.

Conclusion

The EyePower Red Device is a promising tool for supporting eye health through 670nm light therapy. While it offers potential benefits, it is important to use the device responsibly and under the guidance of an eye care professional. Consistency, safety, and proper usage are key to obtaining the best results.

This handout provides a general overview and is not a substitute for professional medical advice. Always follow the instructions provided by your healthcare provider or the device manufacturer.