

Phlecs

Photodermatology Care Solutions

Easy to use for both healthcare professional and patient

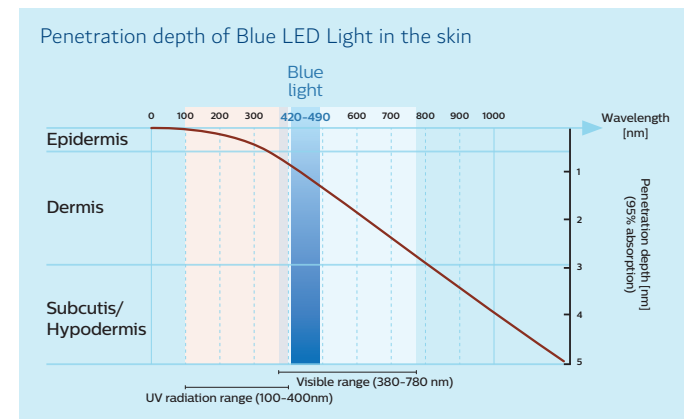
The medical device is practical with a single on/off button to be conducted by the operating staff. Patients can experience a stress-free, relaxing experience as they can unwind under the warm blue light.

Blue LED light is safe

Based on absence of apoptosis up to very high fluences in cell cultures of keratinocytes and DNA strand breaks shown by TUNEL staining in skin explants^{4,13}.

Innovative and safe solution for plaque psoriasis

Light-emitting diodes (LEDs) are a highly efficient, long-lasting source of light. Thanks to their high spectral selectivity, the wavelength can be set precisely to achieve the desired effect in different applications. This means that the treatment is completely UV free and hence shows no known association with skin cancer.



Want to learn more?

For more information about Blue LED Light treatment and Phlecs Full Body Blue Light medical device*, please do not hesitate to contact us:

*Phlecs Full Body Blue Light is a certified medical device Class IIa

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The latest innovation in phototherapy:

Full Body Blue Light treatment without UV*

Phlecs Full Body Blue Light

Safe, innovative and effective



*Disclaimer

Phlecs FullBody is a medical device for the treatment of plaque psoriasis (psoriasis vulgaris) in adults over the age of 18. Before altering or stopping any prescribed medication or using the device, patients should consult with their physicians.

- 1 <https://www.webmd.com/skin-problems-and-treatments/psoriasis/understanding-psoriasis-basics#1>, retrieved 10 Jan 2018.
- 2 Schmid-Ott G, Malewski P, Kreiselmaier I, Mrowietz U. Psychosocial consequences of psoriasis – an empirical study of disease burden in 3753 affected people. *Hautarzt*. 2005; 56: 466 – 72.
- 3 Ultraviolet radiation (UV). Retrieved 19 Jan 2018, from <http://www.who.int/uv/faq/uvhealthfac/en/index2.html>
- 4 Liebmann J, Born M, Kolb-Bachofen MV. Blue-Light Irradiation Regulates Proliferation and Differentiation in Human Skin Cells. *Journal of Investigative Dermatology*. 2010; 130: 259 – 269. 422.
- 5 Fischer M et al. Blue light irradiation suppresses dendritic cells activation in vitro. *Experimental Dermatology*. 2013; 22:554 – 563.
- 6 Weinstein A, et al. Prospective randomized study on the efficacy of blue light in the treatment of psoriasis vulgaris. *Dermatology*. 2011; 223(3): 251 – 9.
- 7 Pfaff S et al. Prospective Randomized Long-Term Study on the Efficacy and Safety of UV-Free Blue Light for Treating Mild Psoriasis Vulgaris. *Dermatology*. 2015; 231: 24 – 34.
- 8 Krings, L., Liebmann, J., Born, M., Leverkus, M., Felbert, V. von. Data on file. July 2017.

- 9 Lebwohl MG, Kavanaugh A, Armstrong AW, Van Voorhees AS. US Perspectives in the Management of Psoriasis and Psoriatic Arthritis: Patient and Physician Results from the Population-Based Multinational Assessment of Psoriasis and Psoriatic Arthritis (MAPPS) Survey. *American Journal of Clinical Dermatology*. Feb 2016; 17(1): 87-97.
- 10 British Association of Dermatologists. Phototherapy Service Guidance. 2017. Retrieved 19 Jan 2018, from <http://www.bad.org.uk/shared/get-file.ashx?itemtype=document&id=4151>
- 11 European S3-Guidelines on the systemic treatment of psoriasis vulgaris; JEADV; October 2009, Volume 23, Supplement 2.
- 12 Armstrong AW, Robertson AD, Wu, J, Schupp C, Lebwohl MG. Undertreatment, treatment trends, and treatment dissatisfaction among patients with psoriasis and psoriatic arthritis in the United States: findings from the National Psoriasis Foundation surveys, 2003-2011. *JAMA Dermatol*. Oct 2013;149(10):1180-5.
- 13 Free Radic Biol Med. 2013 Dec;65:1362-77. doi: 10.1016/j.freeradbiomed.2013.09.022. Epub 2013 Oct 9. Mechanism and biological relevance of blue-light (420-453 nm)-induced nonenzymatic nitric oxide generation from photolabile nitric oxide derivatives in human skin in vitro and in vivo. Opländer C1, Deck A, Volkmar CM, Kirsch M, Liebmann J, Born M, van Abeelen F, van Faassen EE, Kröncke KD, Windolf J, Suschek CV.

*Phlecs Full Body Blue Light is intended to provide photo-therapeutic light to the body for the treatment of plaque psoriasis (psoriasis vulgaris) in adults.

Phlecs Full Body Blue Light

a safe and effective alternative for your psoriasis patients

All plaque psoriasis patients – being around 2-3% of the world’s population – are suffering from symptoms such as thick red plaques, itchiness, and scaling of the skin¹. However, these are only physical burdens. Many patients also experience social rejection, prejudice, and receiving derogative looks from strangers². Old therapies such as UV treatment are widely known, as well as their side effects. Recognized long-term adverse reactions to current UV treatments can include premature skin ageing and skin cancer³.

What is Phlecs Full Body Blue Light?

The medical device works with Blue LED (light-emitting diodes) Light at a very specific wavelength and can reduce the accelerated proliferation of keratinocytes⁴. It can further decrease the inflammatory response in the skin^{4, 5}. One treatment equals 15 minutes per body side.

Who is Phlecs Full Body Blue Light for?

Phlecs Full Body Blue Light targets all plaque psoriasis adult patients. In particular, physicians might find it beneficial to use Phlecs Full Body Blue Light on the following patient profiles:

- **Patients for whom alternative treatments are not effective enough**¹¹. 87.8% of patients and 98.0% of dermatologists have a moderate to strong need for better plaque psoriasis treatments⁹.
- **Patients who have reached their maximum level of UV dosage**. thresholds to trigger skin cancer screening start at 200 PUVA and respectively 500 UV treatments¹⁰.
- **Untreated patients**. Up to half of the mild psoriasis patients (49.2%) are untreated, which can be due to alternative treatments not being convenient and thus leading to a low compliance¹².

Why Phlecs Full Body Blue Light?

- Blue LED light is **clinically proven** to decrease symptoms of plaque psoriasis^{6, 7, 8}.
- Gentle and safe **UV-free** treatment^{6, 7**}.
- **Easy handling** for the operator with a single on/off button and an auto-timing treatment duration of 15 minutes per body side.
- **Relaxing** experience for the patient due to the warm Blue LED Light during the treatment.

What is the intended treatment regimen?

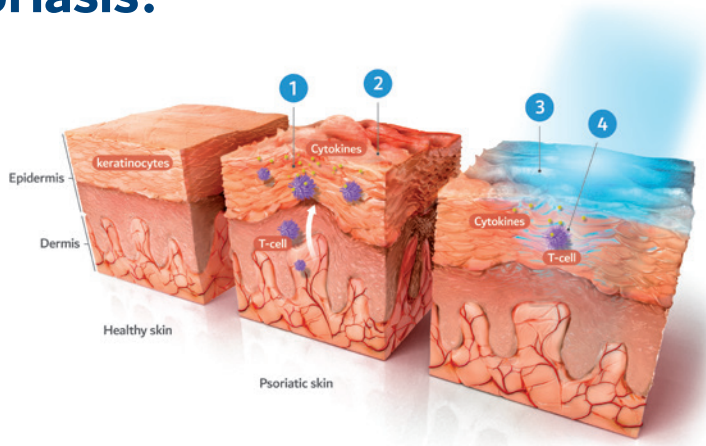
Typical treatment regimen irradiating each body side for 15 minutes.



** No side effects apart from a potential temporary tanning were observed⁶⁻⁷.

How does blue light improve plaque psoriasis?

- 1 Uncontrolled inflammation
- 2 Keratinocyte hyperproliferation
- 3 Reduced keratinocyte proliferation and enhanced differentiation
- 4 Depletion of T cells and reduced cytokine release



Clinically proven efficacy

Several clinical studies show safety and significant efficacy of Blue LED Light during local treatment- and follow-up-phase^{6, 7, 8}. Currently, over 8000 people in Europe are already treating their plaque psoriasis symptoms with wearable Blue LED Light medical devices.

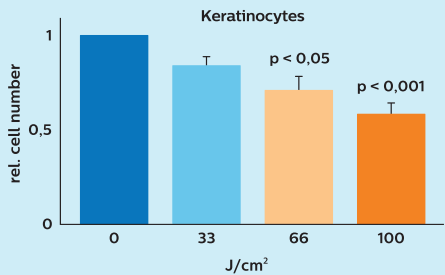
Blue LED Light is anti-inflammatory

Irradiation with Blue LED Light leads to dose-dependent suppression of dendritic cell activation, resulting in a reduced proliferation of T-cells and release of cytokines⁵.

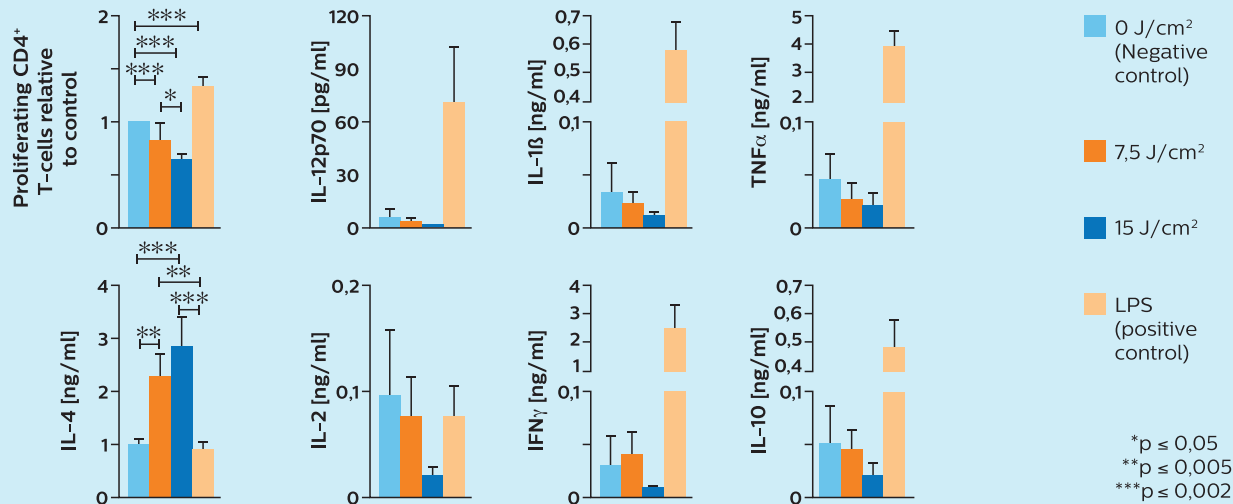
Blue LED light is anti-proliferative

Irradiation with Blue LED Light at a wavelength of 453nm reduces the proliferation of keratinocyte dose-dependently while inducing differentiation⁴.

Reduction of cell proliferation of keratinocytes



Anti-inflammatory action based on inactivation of immune cells (T-cells, dendritic cells)



Modified according to Fischer M et al., 2013