

Q.Light® Light Therapy for acne

The **Q.Light® ACNE CARE** system is specially designed for the application of acne treatments in medical practices, clinics, specialized treatment centres, beauty salons and for treatments at home.

The main applications for the **Q.Light® ACNE CARE** system are:

mild and moderate

- **Common Acne**
- **Acne Vulgaris**
 - acne comedonica
 - acne papulopustulosa
 - acne conglobata



Two devices are available for acne care:

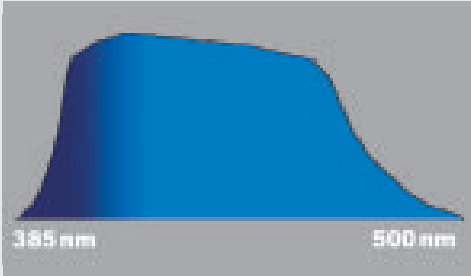
Q.Light® ACNE CARE



Q.Light® PRO UNIT



Technical data of the two **Q.Light® ACNE CARE** systems

Device Models	Q.Light® ACNE CARE	Q.Light® PRO UNIT
Digital display	no	yes
Module	fixed system	acne care
Treatment Area Diameter Ø in cm	30 cm fixed	5 - 40 cm variable
Light Source	natural daylight light source - Patented full spectrum	
Spectrum	385 - 500 nm	
Polarization	≥ 98%	
Visible Light emission	Visible light between 385 - 500 nm	
Infrared emission	no infrared	
UV emission	no UV	
Light Temperature	Optimized power distribution over the complete spectrum. Practically cold light	
Certification	ISO 9001 & EN 13485	
CE Mark	1275	

Q.Light®

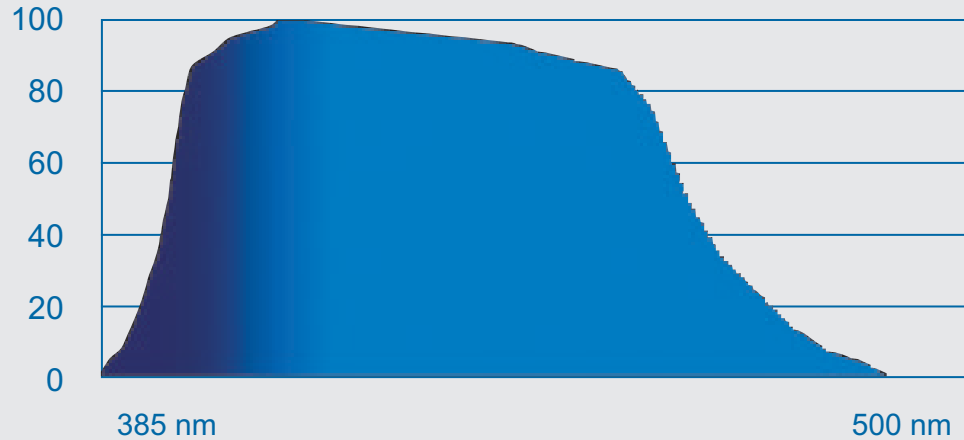
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excites porphyrin

Light quality and power density of Q.Light® ACNE CARE systems

Q.Light® emission spectrum with patented light source technology

Transmission in %

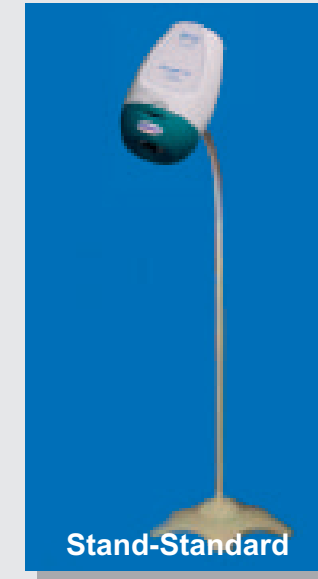
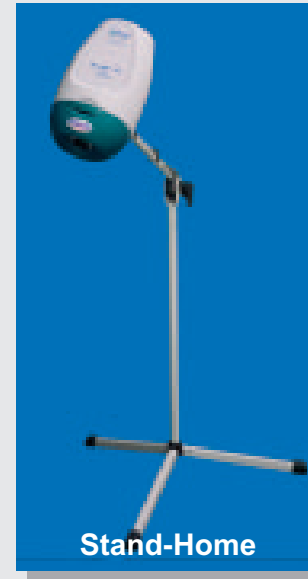


Q.Light® - treatment parameters & treatment dose in min. with Q.Light® ACNE CARE and Q.Light® PRO UNIT

Device	Polarization-degree	Treatment-distance	Treatment-diameter	Therapy Dose in min
Q.Light® ACNE CARE	≥98%	40 cm	40 cm	20
	≥98%	30 cm	30 cm	15
	≥98%	20 cm	20 cm	10
Q.Light® PRO UNIT	≥98%	40 cm	10 - 40 cm	15
	≥98%	30 cm	7 - 30 cm	10
	≥98%	20 cm	5 - 20 cm	7

Additional technical data for Q.Light® ACNE CARE systems

Device Models	Q.Light® ACNE CARE	Q.Light® PRO UNIT
Voltage	230 V, 50 - 60 Hz / 110 V, 60Hz	
Power Supply	50 VA max.	60 VA max.
Safety Class	II, Type B	
Power density-standard	> 40 mW/cm ² , 2,4 Joule/cm ² (min.)	
Weight	1'120g	1'200g
Size	260 x 158 x 173 mm (L x B x H)	
Guarantee	24 month from delivery date on	



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always the right spectrum

What is acne ?

Cosmetic medicine, also called cosmetology or dermatocosmetics, deals with skin disorders. Dermatocosmetic treatments rank very highly, as they support medical treatments, occasionally even contributing decisive elements to their success. A very good example for skin disorders that both physicians and beauticians are frequently confronted with is common acne or acne vulgaris:

Common acne

Common acne is one of the most widespread skin disorders. It typically begins during puberty, often - but not always - subsiding when patients are in their thirties. Depending on the severity of the disorder, acne vulgaris can take on three different forms:

Acne comedonica

Acne comedonica is characterized by the predominant presence of open and closed comedones appearing in varying numbers and intensities, but mainly in the facial region, which is very distressing for most patients.

Acne papulopustulosa

With the inflammation progressing, painful papules tend to appear, often leaving behind visible scars after healing and thus provoking significant emotional stress. Such is the clinical picture of acne papulopustulosa.

Acne conglobata

The severest form of common acne is acne conglobata. Acne conglobata is characterized by the concurrent presence of comedones, pustules, indurated papules and abscesses with interconnecting sinuses that affect large skin regions. They develop on the back and the nape; in the latter case, it's called acne inversa. Patients are generally "stigmatized" by numerous scars that can be very pronounced, even disfiguring.

Visual treatment results with visible light in the spectrum from 385 nm - 500 nm.



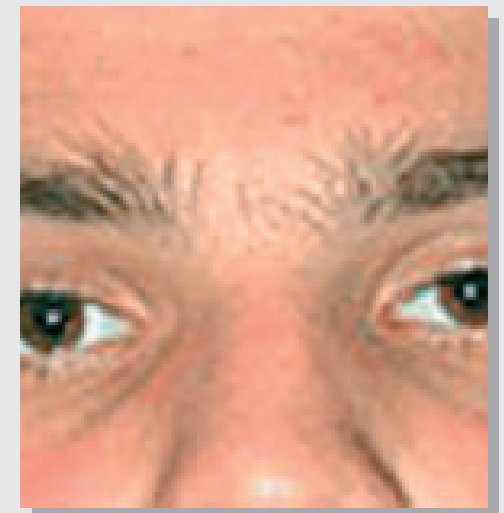
before



After Light Therapy



before



After Light Therapy

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for clear skin

Acne and light therapy mechanisms

Acne is a dermatological disease that interests about 40% of the population between 12 and 30 years.

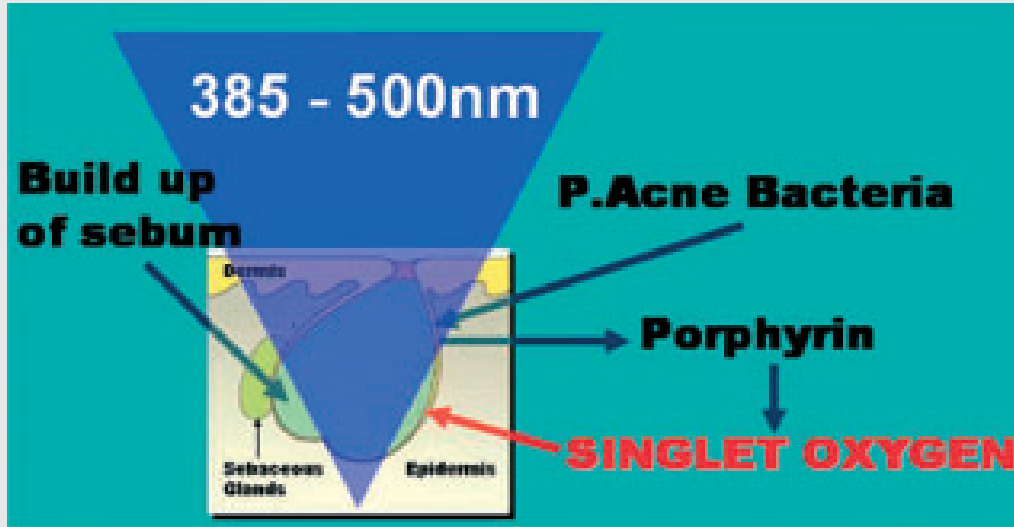
As part of its reproduction and metabolism process, the *Propionibacterium Acnes* (P. Acne bacteria) releases a certain pigment called porphyrin.

Porphyrin molecules, once absorbing photons, become chemically active and transform into a state of aggregation that can result in several formations.

One of the formations is a free oxygen radical that attacks the cell membrane and leads to the destruction of the P. acne bacterium.

Like any other photochemical reaction, the efficacy of the process is determined by the production rate of excited porphyrin molecules, influenced by concentration of porphyrin, concentration of photons and the wavelength of the photons.

Q.Light® ACNE CARE has been specially designed for the treatment of acne. It offers the right spectrum and power density to achieve best treatment results.

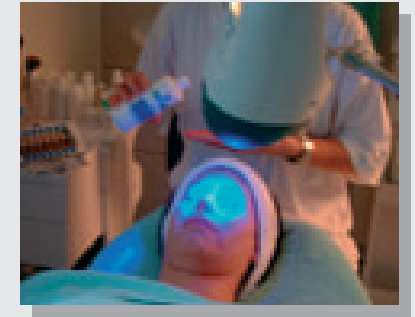


How to treat acne with Q.Light®

General acne care

Q.Light® Light Therapy with specified spectrum to the blue range of light has a favorable influence on acne. Scientific studies and empirical reports show individual cases of acne to be significantly reduced or even completely healed by regular exposition to **Q.Light®** Light. As individual treatment sessions are very short, **Q.Light®** Light Therapy can easily be integrated into traditional - local or systemic - regimens of acne therapy. The average dose applied is 9.6 J/cm² on a daily base. For optimal results it is recommended to clean the area to be treated with a mild cleanser. Then direct the **Q.Light®** beam in a right angle to the treatment area.

The treatment time per session is 4min with 40 mW/cm².



Q.Light® Ampoule Cure "Pure"

Q.Light® Ampoule Cure "Pure"

Specially developed ampoule serum for the application to the affected skin area prior light therapy with **Q.Light®**. Should be applied in the first 7 days of treatment to support to achieve quick visible improvements. After apply every three to 4 days an ampoule to the affected skin area until acne has totally disappeared. "Pure" is also moisturizing and calming at the same time.

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for best treatment results

Acne scale and reasons for accelerated acne development

	Burton Scale for Acne		Treatment advice
Grade 0		Total absence of lesions	
Grade 1	Sub clinical acne	Few comedones visible only in close examination	
Grade 2	Comedonal acne	Comedones with slight inflammation	
Grade 3	Mild acne	Inflamed papules with Erythema	
Grade 4	Moderate acne	Many inflamed papules and pustules	
Grade 5	Severe nodular acne	Inflamed papules and pustules with several deep nodular lesions	
Grade 6	Severe cystic acne	Many nodular cystic lesions with scarring	

Factors that Accelerate Acne Development

- Changing hormone levels in girls and women 2 - 7 days before menstrual period starts.
- Hormonal changes relating to pregnancy or birth control pills.
- Severe, prolonged stress.
- Certain drugs including androgens, lithium and barbiturates.
- Greasy cosmetics.
- Friction on the skin.
- Environmental irritants - pollution and high humidity.

Research backup on acne

An action spectrum for blue and near ultraviolet inactivation of Propionibacterium acnes; with emphasis on a possible porphyrin photosensitisation.

Kjeldstad B, Jhonsson
Photochemistry-Photobiology 1986: 43(1); 67-70

Singlet oxygen (1 delta g) generation from coproporphyrin in Propionibacterium acnes on irradiation.

Arakane K, Ryu A, Hayashi C, Masunaga T, Schinmoto K, Mashiko S, Nagano T, Hirobe M.
Biochem Biophys Res Commun 1996; 223 (3): 578-82.

Effect of Visible Light on Reactive Oxygen Species Production

*R. Lubart,¹ H. Friedmann,¹ R. Lavie,¹ N. Grossman,² M. Sinyakov and S. Belotsky
Department of Chemistry and Physics, Department of Life Sciences
Bar-Ilan University, Ramat-Gan 52900, Israel*

Visible light promotes proliferation of normal skin cells

Grossman, N., Reuveni, H., Halevy, S., Lubart, R., J. Invest. Dermatol., 102649A (1994)

Improvement of rheologic parameters, ligand- and oxygen-binding capacity of erythrocytes of circulating blood after exposure of the body surface to visible polarized light.

K.A.Samoilova, K.D.Obolenskaya,
A.V.Vologdina, N.V.Mineeva, N.Yu.Romanenko, M.F.Balljuzek: Published:
8th Congress of European Society for Photobiology. Book of Abstracts,
P106, p.145, Granada (1999)

Q.Light[®]

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for satisfied patients

Quality certificate

Q.Light® Light Therapy Systems are certified active medical products based on ISO 9001 & EN 13485 and carry the CE Mark **CE 1275**



Free Sales Certificate

This certification approved **Q.Products AG** to manufacture and sell **Q.Light®** Light Therapy products internationally.



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certified medical products

Q.Products AG – biotechnology & photomedicine

Q.Products AG develops and manufactures specialized Light Therapy Systems for professional application and for self medication at home. Additionally to our **Q.Light® ACNE CARE** systems we also manufacture the following specialized systems:



Q.Light® PRO UNIT

This product is a flexible system that works with different filter modules for specialized treatments. This means the spectrum is adapted to the specific needs, just like with our specialized therapy devices. It is the ideal product for clinics, medical practices and esthetic salons.

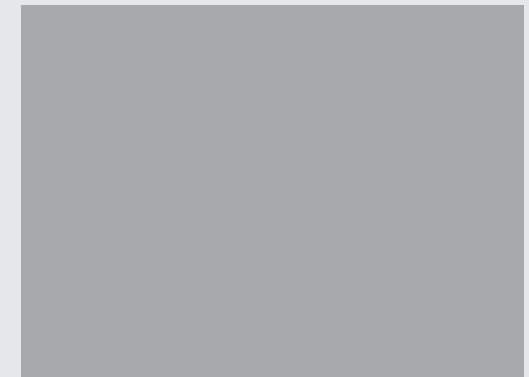
Manufacturer:

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