




Q.Light[®]
photo therapy

medical & health care

Q.Products AG

Innovative technology made in Switzerland 

Q.Products AG has many years of experience as developer and manufacturer of medically certified photo-therapy devices for professional application as well as for self medication. We serve our clients with specific solutions and give special attention to offer products with a high standard on quality. Due to extensive exchange with product users, Q.Products AG optimises regularly its product line, and converts new ideas and comments into the new developments.

Q.Products AG is certified according to ISO 9001:2000 and EN ISO 13485:2003.

The Q.Light products for medical treatments are medical products according EEC guidelines 93/42 EWG. Q.Light Photo Therapy is successfully applied by classical medicine, naturopaths and complementary medicine for many years.

Natural and biologically stimulative therapies and treatments are firmly set up in medicine and in cosmetology

for a long time; accordingly the demand rises steadily for technically contemporary and medically certified products.

The linear polarized UV free radiation emitted by the Q.Light Photo Therapy devices consists of visible and near-infrared light in a natural identical spectrum.

These products target the MEDICAL & HEALTH CARE fields especially Surgeons, Dermatologists, Psychologists, Wound Managers, Physiotherapists, Nurses, Medical personnel and also private clientele.

Q.Light is successfully used for the following applications.

- Wound Care
- Pain Treatment
- Acne Treatment
- SAD Care (Seasonal Affective Disorders)
- PDT (Photodynamic Therapy)



Quality Management System
DIN EN ISO 9001:2000



Quality Management System
DIN EN ISO 13485:2003

CE 1275

Quality Management System
According guideline 93/42/EWG



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Introduction

Medical treatment with Q.Light®

Q.Light Photo Therapy is a valuable and optimal supplementation for many medical treatments and therapies.

Q.Light Photo Therapy is an optimal supplementation for many medical treatment methods, prevention applications as well as to support regeneration and healing processes. The treatment with Q.Light supports, among other things, various phases of the natural regeneration potential of the human body. It is inflammation retarding, pain reducing, improves perfusion, assists the development of new blood vessels, enhances lymphatic drainage and triggers general metabolic activity. The Q.Light Photo Therapy also regulates the hormonal system and optimises neuroimmunological parameters.

The Q.Light Photo Therapy can simply be combined with standard treatment concepts and is therefore an interesting integratable treatment with general improve-

ment of regeneration. No side effects have been reported related with the certified indications.

The biological effects related with the Q.Light Photo Therapy for medical applications are:

- Activation of local and systemic microcirculation
- Enhancement of oxygen transport into skin and tissue
- Optimizes permeability of cell membrane
- Improvement of cell metabolism
- Stimulation of lymphatic activity
- Regulation of hormonal system



Pain Free Wound Healing

with Q.Light® Photo Therapy

Q.Light Photo Therapy is used for general wound care, for treatment of chronic wounds as well as for prevention of wounds.

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Venous Ulcer after 6-week treatment with Q.Light



Venous Ulcer before treatment with Q.Light

The main applications for the Q.Light WOUND CARE are:

- Stasis Ulcers/Leg Ulcers
- Decubitus Ulcers/Pressure sores
- Diabetic Gangrene
- Surgical wounds
- Injury wounds
- Burns

Biological effectiveness:

The pain free Q.Light wound treatment supports microcirculation and supplies proven influence on various phases of the wound healing. It is inflammation retarding and pain killing, activates immune defence, optimises perfusion and the development of new blood vessels.

These wound healing effects are achieved by the two different Q.Light WOUND CARE treatment modules, with a spectrum between 385–780 nm and between 385–1700 nm. The polarised light radiation produces a power density of approx. 40 mW/cm².

The Q.Light WOUND CARE treatment can easily be combined with other wound care programs and is therefore an interesting, valuable and effective treatment for improved treatment results.

The significant, positive effect of the treatment with Q.Light is basically due to the up to 45% enhanced microcirculation in skin and tissue. The clear improved perfusion in blood capillaries, the higher concentration of growth factors for cell renewal, the increased deformability of red blood cells and the optimized oxygen transport function of circulating blood leads to enhancement and/or reactivation of wound healing processes.

Blood flow



Left: Blood flow before Q.Light therapy

Right: Significant improvement of blood flow after Q.Light therapy

Pain Treatment

with Q.Light® Photo Therapy

The Q.Light Photo Therapy for the treatment of acute and chronic pain.

The Q.Light PAIN CARE is especially designed for the application of pain care treatments in medical practices, clinics, specialized treatment centres, nursing homes/ services and for treatment at home.

The main applications for the Q.Light PAIN CARE therapy are

- Rheumatologic diseases
- Chronic pain
- Backaches

Biological effectiveness:

The pain killing and inflammation retarding, as well as immunomodulating effect of the Q.Light pain therapy is based on the effects of polarized visible and near infrared light radiation. Studies evidence significant enhanced microcirculation of total circulating blood volume. Irradiated blood is able, already after short treatment time, to produce a photomodulation effect in the complete organism within a time of 90 minutes. Continuation of changes are observed to be continued, at a slower rate, for up to 24 hours after irradiation.

These systemic mechanisms are for example:

- Improvement of rheologic transport and transport functions
- Optimised oxygen transport to cells
- Increased functional activity of monocytes, granulocytes and lymphocytes
- Induced lipid peroxidation in plasma
- Production- and increase of anti-inflammatory cytokines

Q.Light PAIN CARE treatment is effective due to polarised light radiation with a spectrum of 580–1700 nm.



Acne Treatment

with Q.Light® Photo Therapy

The Q.Light ACNE CARE is especially designed for the natural and side effect free treatment of mild and moderate acne for Dermatologists, Cosmetic Institutes and for treatment and after care at home.

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

Mild and moderate

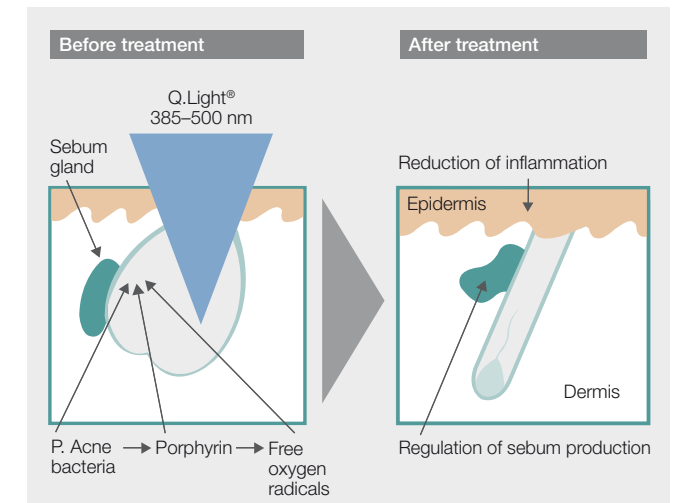
- Common Acne
- Acne Vulgaris:
 - Acne Comedonica
 - Acne Papulopustulosa
 - Acne Conglobata

Q.Light ACNE CARE kills on a biological manner the involved P. Acne bacteria with the emitted UV free polarized light with a spectrum of 385–500 nm:

Photodynamic effect:

The pigment porphyrin is a metabolic product coming from the propioni acnes bacteria (P. acne bacteria). Due to the treatment with Q.Light ACNE CARE porphyrin is produced by the P. acne bacteria. Porphyrin molecules absorb the emitted photons. By doing so, oxygen radicals are released. These free radicals destroy the cell membrane of the P. acne bacteria and kill it.

With Q.Light ACNE CARE treatment inflammations are retarded, sebum production is regulated and the skin picture is visually improved.



Acne before treatment with Q.Light



Acne after treatment with Q.Light

Treatment of Depressions

with Q.Light® Light Therapy

Q.Light SAD CARE is especially designed for the application of Seasonal Affective Disorders (SAD) and neurological treatments in medical practices, clinics, specialized treatment centres, nursing homes/services and for the treatment at home.

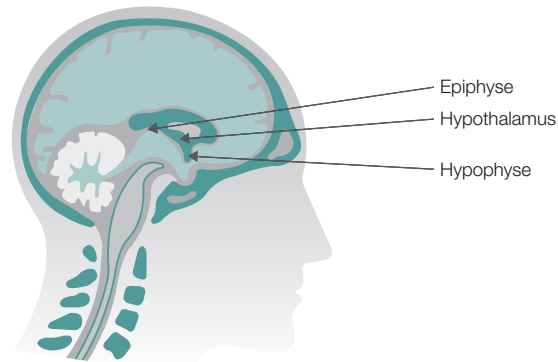
Q.Light SAD CARE therapy is especially applied for:

- Seasonal Effective Disorders (SAD)
- Depressions
- Sleep disorders
- Jet lag

Biological effectiveness:

Q.Light SAD CARE emits a special, UV-free and natural full daylight spectrum with 10 000 Lux. Medical studies prove, that hormonal metabolism induced by natural daylight is highly effective against Seasonal Affective Disorders (SAD) and is today the treatment of first choice. The modulation of hormonal metabolism induced through light is due to light energy which enters the eyes. The electrical energy is transported to the region of hypothalamus and regulates the rhythm of the biological clock due to metabolic enhancement of the pituitary gland (hypophyses) and the pineal gland (epiphyses).

The therapy with bright light of Q.Light SAD CARE corrects the inner biological clock, takes care that serotonin in higher concentration is developed and reactivates activity of neurotransmitters. Lack of serotonin is the reason of many depressions. Neurotransmitters are responsible for improvement of thinking, feeling, sleeping and life in general.



Thinking blockages, feeling discomforts, concentration problems and also states of fear are reduced significantly or disappear totally.

Light therapy is successfully applied to sleep disorders, Jet lag, depressions and disturbances of the inner clock (circadian rhythm). Also a healthy person can benefit and enhance wellbeing and energy with light therapy.



Photodynamic Therapy (PDT)

with Q.Light® Photo Therapy

The Q.Light PDT is developed for photo-dynamic therapy of skin tumour cells and which is based on the research results of photo-dynamic therapy (PDT), and clinical approval of different photosensitive substances.

Q.Light PDT is applied in Dermatologie for the following indications:

- Pre-cancerous:
 - Actinic Keratosis
 - Morbus Bowen (Bowens disease)
- Tumours:
 - Basil Cell Carcinoma
 - Gorlin-Goltz-Syndrome
 - Initial spinozellulares Carcinoma

Biological effectiveness:

The topical photodynamic therapy (PDT) is based on the selective destruction of epidermal and dermal skin tumour cells (depth penetration is 3–4 mm) through application of photosensitive drugs. Tumour cells accumulate photosensitive drugs for the reason of enhanced metabolism.

Due to radiation of high energetic light in the visible red spectrum, reactive oxygen species (ROS) are produced which leads to death of the targeted tumour cells.

For optimal therapeutic effectiveness, a red, incoherent light source is needed (Szeimies et al. a 1996; Fijan et al. 1995).

Q.Light PDT emits incoherent red light with a spectrum of 620–780 nm. At max. treatment distance of 10 cm a power density of 70 mW/cm² and 4,2 Joule/cm² (min.) is achieved. Q.Light PDT is specially developed for the application by dermatologists.

A large series of tests have been done with Q.Light PDT by Prof. Dr. med. habil. Lutz Kowalzik, medical director of Vogtland-Clinic, Plauen, Germany, as well as by Dr. Hassert, dermatologist in Berlin, Germany. These tests have shown that optimal results can be achieved with a radiation time of approx. 23–28 Min. and a treatment distance of 10 cm without much pain for the patient.



Colour Therapy Treatments

The effect of colours

There are many different accepted techniques for colour therapy. Q.Light colour therapy offers a unique technology for colour therapists, naturopaths and specialists in complementary medicine,

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Q.Light PRO UNIT together with the Colour Filter Set was developed for treatment through trained specialists, like colour therapists. The special dichroic colour filter modules of the Q.Light Colour Filter Set produce brilliant and pure colours with high therapeutic active energy density.

The effect of colours:

We have described the following solely on the basic impact of colours, based on the generalized experience of the 6 fundamental colours.

RED FILTER MODULE

Characterization: Most active and warmest colour
Global effect: Activates energy reserves in cases of mental and physical exhaustion

ORANGE FILTER MODULE

Characterization: Activity and inspiration
Global effect: Stimulates creativity and self-respect especially under stress and depression

YELLOW FILTER MODULE

Characterization: Intelligence and success
Global effect: Strengthens and motivates in tired and moody phases

GREEN FILTER MODULE

Characterization: Balance and hope
Global effect: Boosts equilibrium, composure and stamina in weak and restless situations

BLUE FILTER MODULE

Characterization: Coolest and most relaxing colour
Global effect: Reassures and relaxes nervous irritability and stressful strain of all natures

VIOLET FILTER MODULE

Characterization: Individualism and intuition
Global effect: Unblocks, relaxes and revives in hopeless moments





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