



Q.Light® - always the right spectrum



580nm 780nm 1700nm

Deep Red Beam

# Q.Light® for pain care

✚ Made in Switzerland

**Q.Light® Light Therapy for pain care and the treatment of chronic pain.**

The **Q.Light® pain care** system is specially 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** system is:

- Rheumatologic diseases
- chronicle Pain
- Back Problems
- Sport Injuries



Two devices are available for wound care:

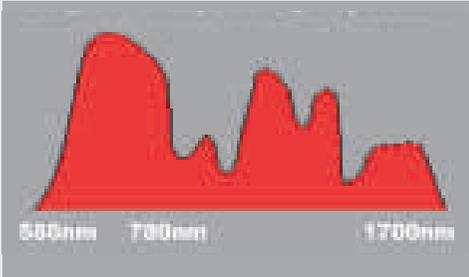
**Q.Light® pain care**



**Q.Light® PRO UNIT**



Technical features of the two **Q.Light® pain care** systems.

Device Models	Q.Light® pain care	Q.Light® PRO UNIT
Digital display	no	yes
Modules	fixed system	<b>pain care</b>
Treatment Area Diameter Ø in cm	30cm	10 - 40cm variable
Light Source	Patented full spectrum natural daylight Krypton light source	
Spectrum	580 – 1700nm	
Polarization	≤ 0%	
Visible Light emission	Visible light between 550 – 780nm	
Infrared emission	Near infrared between 780 -1700nm	
UV emission	none	
Light Temperature	Optimized power distribution over the complete spectrum. Practically cold light	
Certification	ISO 9001 & EN 46001	
CE Mark	1275	

**Q.Light®**

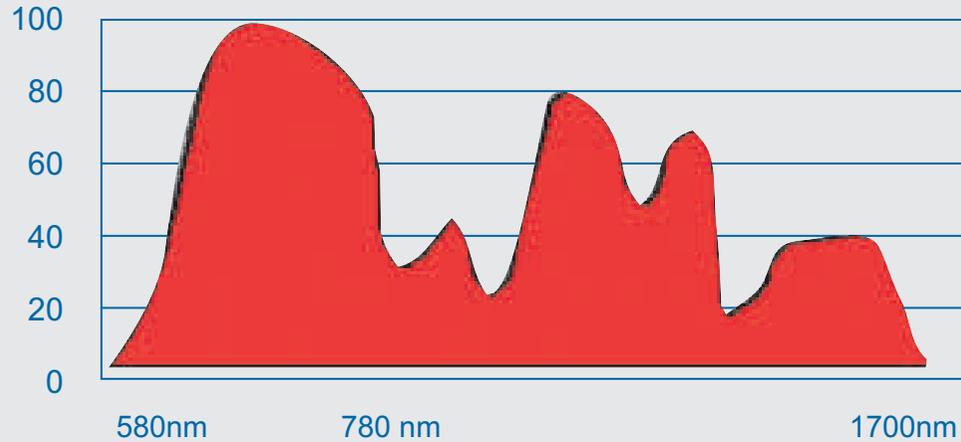
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activates microcirculation

## Light quality & power density of **Q.Light®** pain care systems

### **Q.Light®** emission spectrum with patented light source technology

Transmission in %



### **Q.Light®** - treatment parameters & treatment dose in min. with **Q.Light®** pain care and **Q.Light®** PRO UNIT

Device	Polarization-degree	Treatment-distance	Treatment-diameter	Therapy Dose in min
<b>Q.Light®</b> pain care	≥98%	40cm	40cm	15 - 25
	≥98%	30cm	30cm	10 - 20
	≥98%	20cm	20cm	7 - 15
<b>Q.Light®</b> PRO UNIT	≥98%	40cm	10 - 40cm	10 - 20
	≥98%	30cm	7 - 30cm	7 - 15
	≥98%	20cm	5 - 20cm	5 - 10

## Additional technical data for **Q.Light®** pain care systems

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



# Q.Light®

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# always the right spectrum

## Systemic mechanisms of anti-inflammatory, immuno- modulating effects of visible- and near infrared light.

Research on wound healing with visible light demonstrates that influences are directed to the blood makeup through action on the superficial skin micro-vessels.

The overall action can be described as the following:

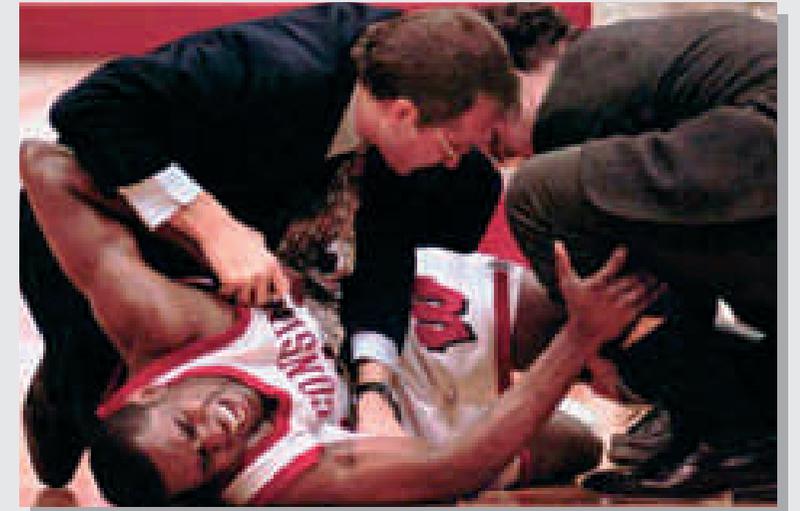
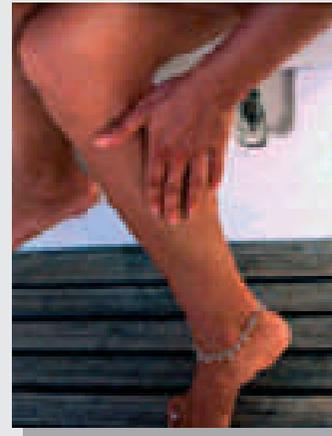
Irradiated blood is able to influence the total volume of blood in the body within a time from of 90 minutes. Continuation of changes are observed to be continued, at a slower rate, for up to 24 hours after irradiation. The dose of emitted light applied for treatment is  $12\text{J}/\text{cm}^2$  with a wavelength of 400-1700 nm and a polarisation degree of 95%.

The treatment result can be summarised as the following:

- Immediate effect on blood changes are due to transcutaneous photomodification with a fast (30-90minute) translation of light-induced changes to the whole circulating volume of blood.
- Changes in blood cells and plasma of the entire circulating blood are induced.
- Erhöhte funktionelle Aktivität von Monozyten, Granulozyten, Lymphozyten Blutplättchen
- Increased functional activity of monocytes, granulocytes, lymphocytes, platelets and improves rheologic transport and gas-transport properties of erythrocytes.
- Induced lipid peroxidation levels in the erythrocyte membrane and plasma
- modified haemostasis.
- Significant is also the corresponding decreases in the plasma content of proinflammatory cytokines and increased levels of anti-inflammatory IL10 and IFN-g; modulated growth content factors and increased growth-promoting plasma properties for keratinocytes, endothelial cells, fibroblasts and radiationdamaged autologous cells.

The changes demonstrated regulatory character of visible light. therapy and it's therapeutic efficacy for pain care even in cases of chronic pain.

**Q.Light®** is effective to treat pain



# Q.Light®

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## supports cell proliferation

## The deep red beam for Physiotherapy, Rehabilitation & Sports medicine

### General information about **Q.Light**<sup>®</sup> pain care

Therapy System is suited for use in prophylactic treatment therapies and rehabilitation. It is a practicable high tech method of treatment. This innovative medical technology, made in Switzerland, is already used by medical professionals in many countries. Anyone can benefit from this effective and low cost treatment.

From the physical point of view the deep red beam is visible incoherent daylight. Without ultraviolet radiation, this specialized light spectrum acts on the organism specifically to treat pain.

**Q.Light**<sup>®</sup> is becoming increasingly popular for the use in physiotherapy, rehabilitation and sports medicine.

The resulting biopositive effects strengthen the defense forces and the entire metabolism is stimulated in addition to the inflammation-retarding and pain-relieving effects. **Q.Light**<sup>®</sup> treatment has shown that it can succeed to reduce pain where classic treatment methods have failed.

**Q.Light**<sup>®</sup> provides consistent intensity, as already well known in photo therapy, based on an exactly defined spectrum that has been adjusted for pain treatment. The system works with an energy output of 40mW/cm<sup>2</sup> and a spectrum of 385 to 1700 nm.

Moreover, **Q.Light**<sup>®</sup> therapy will certainly play an important role in individual health care due to its ease of use and reasonable price.

## How to treat pain with **Q.Light**<sup>®</sup>

### General pain care

For optimal results the **Q.Light**<sup>®</sup> deep red beam pain care therapy should be applied on a daily base. The average dose applied to the region of pain is around 12J/cm<sup>2</sup> to 24J/cm<sup>2</sup>.

The light beam is directed in a right angle to the area to be treated. **Q.Light**<sup>®</sup> Therapy can be an ideal complementary treatment to a variety of pain management programs. Its beneficial influence can affect the patient's general condition and pain symptoms.

This kind of adjuvant treatment is apt to achieve reduction from pain on motion, radiation and intensity. **Q.Light**<sup>®</sup> therapy is applied for just a few minutes - 4 to 8 minutes exposure time per treatment is ideal, mainly twice a day but in acute stages sometimes three to four times per day. Direct the light on the area to be treated from a distance of approximately 30 to 40cm. In cases of joint treatment it is possible to extend the therapy without danger.

Side effects or contraindications have not been reported



# Q.Light<sup>®</sup>

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## for best treatment results

## Research Backup on pain care

### The use of monochromatic Infrared Energy Therapy in Podiatry. Podiatry

Carnegie D.

Published: Management. Nov/Dec. 2002. 129-34

### Restoration of sensation, reduced pain, and improved balance in subjects with diabetic peripheral neuropathy: a double-blind, randomized, placebo-controlled study with monochromatic near-infrared treatment - Emerging Treatments and Technologies

by David R. Leonard, M. Hamed Farooqi, Sara Myers

Published: Diabetes Care, Jan, 2004

### Risk of falls in elderly patients is markedly reduced through improvement in sensation, balance, and gait with infrared photo energy, and other physical therapy (Abstract).

Kochman AB:

Published: J Geriatric Phys Therapy 25:29, 2002

### Changes of cytokine content in human blood after ist in vivo and in vitro exposure to visible polarized light at therapeutic dose.

K.A.Samoilova, D.I.Sokolov, K.D.Obolenskaya.

In: Abstracts. 13th International Congress on Photobiology and 28th Annual Meeting American Society for Photobiology. San Francisco, 2000, N 327, p.108..

## Practical experience and references with **Q.Light®** pain care

### geriatric therapy

Doctor in charge, Dr. Stotz, Gera, Germany,

Various patients with Haematomas and Thorax Prellungen,  
**Q.Light®** in combination with laser - excellent results by reducing pain

### Sportsmedicine

Masseur Therapist, Mr. Borchert, FC Erzgebirge Aue, Germany,

Constantly treats injured players, specially with haematomas, muscle tension and tissue damages. **Q.Light®** in combination with physiotherapy faster healing and effective reduction of pain.

# Q.Light®

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# for satisfied patients

## Quality certificate

**Q.Light®** Light Therapy Systems are certified active medical products based on ISO 9000 & EN 46000 and carry the CE Mark **CE 1275**



## Free Sales Certificate



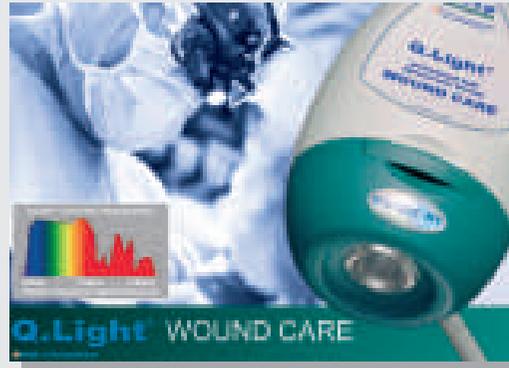
# Q.Light®

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# certified medical products

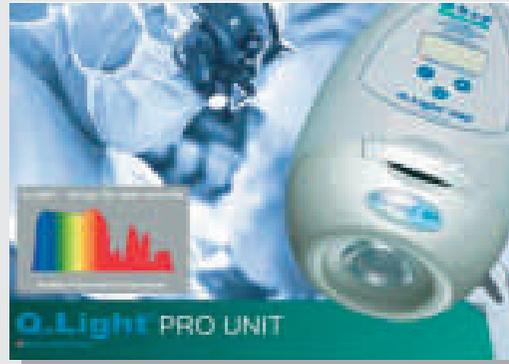
## **b & p® – biotechnology & photomedicine**

**b & p® AG** develops and manufactures specialized Light Therapy Systems for professional application and for self medication at home. Additionally to our **Q.Light®** pain 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.



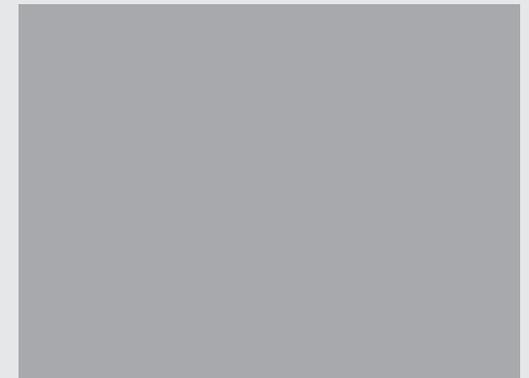
### **Manufacturer:**

**b & p® Schweiz AG**

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### **Your Local Q.Light® Dealer:**



# **Q.Light®**

**+**Made in Switzerland

# specialized systems