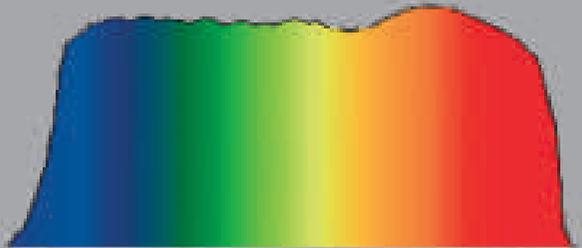




Q.Light® - always the right spectrum



420nm

780nm

Natrally Visible Sprctrum

# Q.Light® for SAD care

☞ Made in Switzerland

**Q.Light® Light Therapy for general SAD care and the treatment of difficult healing wounds.**

The **Q.Light® SAD care** system is specially designed for the application of neurological, neuro-immunological and endocrinological treatments. In medical practices, clinics, specialized treatment centres, nursing homes/services and for the treatment at home.

The main applications for the **Q.Light® SAD care** system is:

- **SAD / Seasonal Affective Disorder**
- **Depressions**
- **Neuroimmunological disorders**
- **Endocrinological disorders**



Two devices are available for wound care:

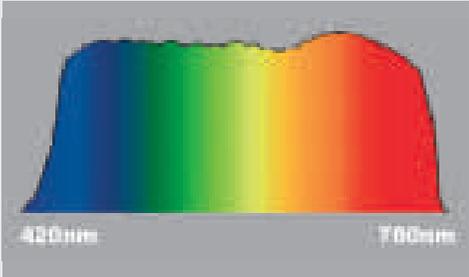
**Q.Light® SAD**



**Q.Light® PRO UNIT**



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

Device Models	<b>Q.Light® SAD care</b>	<b>Q.Light® PRO UNIT</b>
<b>Digital display</b>	no	yes
<b>Module</b>	fixed system	<b>SAD care</b>
<b>Treatment Area Diameter Ø in cm</b>	30cm fixed	5 - 40cm variable
<b>Light Source</b>	Patented full spectrum natural daylight Krypton light source	
<b>Spectrum</b>	420 – 780nm	
<b>Polarization</b>	≤ 0%	
<b>Visible Light emission</b>	Visible light between 420 – 780nm	
<b>Infrared emission</b>	No infrared	
<b>UV emission</b>	No UV	
<b>Light Temperature</b>	Optimized power distribution over the complete spectrum. Practically cold light	
<b>Certification</b>	ISO 9001 & EN 46001	
<b>CE Mark</b>	1275	

**Q.Light®**

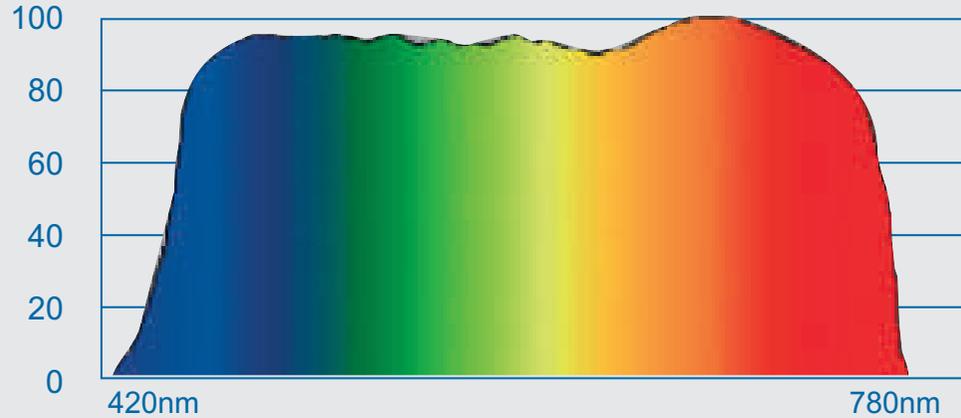
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activates neurotransmitters

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

**Q.Light®** emission spectrum with patented light source technology emits natural visible spectrum.

Transmission in %



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

Device	Treatment distance	Treatment diameter	Lux	Therapy Dose in min
<b>Q.Light®</b> SAD care	60cm	60cm	2'500	60 - 120
	30cm	30cm	10'000	30 - 60
<b>Q.Light®</b> PRO UNIT	80cm	80cm	2'500	60 - 120
	40cm	40cm	10'000	30 - 60

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

Device Models	<b>Q.Light®</b> SAD care	<b>Q.Light®</b> PRO UNIT
<b>Current</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 luminosity for treatment</b>	10'000 lux	
<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®

✚ Made in Switzerland

# always the right spectrum

## Neuroimmunomodulating effects induced by visible light.

The immune system is susceptible to a variety of stresses. Recent work in neuroimmunology has begun to define how mood alteration, stress, the seasons, and daily rhythms can have a profound effect on immune response through hormonal modifications. Central to these factors may be light through an eye-brain hormonal modulation.

In most human beings, only visible light (400-700 nm) is received by the retina. This light energy is then transduced and delivered to the visual cortex and, by an alternative pathway, to the supra-chiasmatic nucleus (SCN), the hypothalamic region that directs circadian rhythm. Visible light exposure also modulates the pituitary and pineal glands, leading to neuroendocrine changes. Melatonin, norepinephrine, and acetylcholine decrease with light activation, whereas cortisol, serotonin, and dopamine levels increase.

The synthesis of vasoactive intestinal polypeptide (VIP), gastrin releasing peptide (GRP) and neuropeptide Y (NPY) has been shown to be modified by light. These induced neuroendocrine changes can lead to alterations in mood and circadian rhythm as well as immune modulation. An alternative pathway for immune modulation by light is through the skin. Visible light (400-700 nm) can penetrate epidermal and dermal layers of the skin and may directly interact with circulating lymphocytes to modulate immune function.

It is therefore important, for treatment to control the intensity, timing and wavelength of ambient light.

**Q.Light®** is effective to treat SAD symptoms



In conclusion, light should be regarded as an effective drug with strong potential to cure SAD symptoms. Light is a versatile therapeutic tool that can be combined with other therapies and has few side effects.

# Q.Light®

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## for hormonal stimulation

## Guidelines to the treatment of SAD

The following guidelines presume that the patient presents in the early fall, when symptoms are mild, and becomes progressively more depressed as the winter deepens. Treatments can be layered sequentially, as indicated by the patient's response. If the earlier steps suffice, there is no need to progress to the next level. If there is a need to progress to medication, factors such as ambient light levels outdoors and in the patient's indoor environment, as well as the patient's stress level, need to be taken into account at all times.

1. Encourage daily walks outdoors; the patient may look up at the sky but never directly at the sun. Enhance indoor lighting with regular lamps and fixtures.
2. Set a timer on a light to go on early in the morning in the patient's bedroom. Consider a dawn simulator for a more naturalistic artificial dawn.
3. Initiate **Q.Light**<sup>®</sup> therapy with 10,000 lux, starting with 10 to 15 minutes in the morning or at any time of day that is convenient for patient. Increase the duration if symptoms become more severe, up to 45 minutes twice a day. Although there is no reason why this time should not be increased even further (provided side effects are not severe), 90 minutes per day tends to be the maximum practical amount for most patients.
4. Aerobic exercise, preferably in combination with exposure to bright light, may be quite helpful.
5. To help the patient manage stresses, suggest vacations (preferably in the south) at strategic times, and provide support, counseling and therapy. For example remind the patient that the problem is not his or her fault, but a medical condition; correct cognitive distortions.

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

### General SAD care

For optimal results with **Q.Light**<sup>®</sup> SAD care therapy it is important to apply an effective dose to receive adequate biological response. The average dose applied to the eyes is between 30min and 60min at 10'000lux. The light beam is directed in a right angle to the face. The treatment should be applied on a daily base. It is not necessary to look directly into the light beam! You can read a book while applying light therapy. Some studies have reported positive responses in patients with non-seasonal depression, premenstrual syndrome (late luteal dysphoria), bulimia, and alcohol withdrawal symptoms. Further work in these areas is clearly warranted. Beneficial results have also been obtained in certain cases by using the known capacity of light administration and light restriction to shift circadian rhythms. Cases where this therapy have been used include those of patients with stable circadian rhythm abnormalities such as delayed sleep phase syndrome (DSPS) or advanced sleep phase syndrome (ASPS). Patients with DSPS have trouble falling asleep and waking up at conventional times; they can be helped by being exposed to bright light in the morning and having their environmental light restricted in the afternoon and evening. ASPS is most common in the elderly; their tendency to fall asleep and wake at inconveniently early hours can be alleviated if they are exposed to bright light at night.



# Q.Light<sup>®</sup>

✚ Made in Switzerland

## for best treatment results

## Research Backup on SAD

### Light suppresses melatonin secretion in humans

Lewy, A J, Wehr TA, Goodwin FK, Newsome DA, Markey SP.  
Published: Science. 1980; 210: 1267-1269.

### A description of the syndrome and preliminary findings with light therapy

Resenthal NE, Sack DA, Gillin JC, et al. Seasonal affective disorder.  
Published: Arch Gen Psych. 1984; 41: 72-80

### Canadian consensus for the treatment of seasonal affective disorder

Lam RW, Levit A (eds)..  
Canadian J of Diagnosis 1998; Supplement; 2 – 15:

### Lichttherapie 3. edition

Zulley J, Wirz-Justice, A (eds). Regensburg:  
S. Rodner Verlag, 1999

### Beginning to see the light.

Wirz-Justice A,

Commentary. Arch Gen Psychiatry 1998; 55: 861-862;  
auch alle Originalartikel pp 875 – 896

### Seasonal Affective Disorder and Beyond: Light treatment for SAD and non SAD conditions

Lam RW (ed). Washington DC American Psychiatric Press 1998

## Practical experience with Q.Light® SAD care

### Sports medicine

Masseur FC Erzgebirge Aue, Germany, Therapist Mr. Borchert,  
Treatment of players before a match (10 Min. of Q.Light® to the eyes)  
Improved concentration and less aggression

### Psychotherapy

Klinik Hohe Mark, Oberursel  
Addiction Patients (Alcohol and Drug addicts)  
Strong reduction of withdrawal symptoms, Aufhellen der Psyche,  
Faster detoxification

# Q.Light®

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# for contented 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



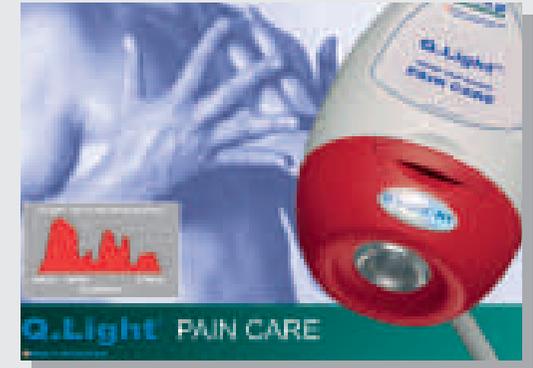
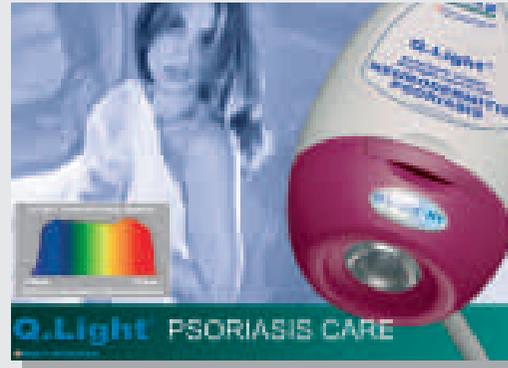
# Q.Light®

✚ Made in Switzerland

# certified medical products

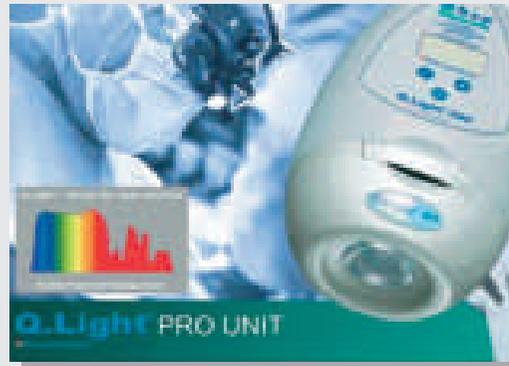
## **b & p® – biotechnology & photomedicine**

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



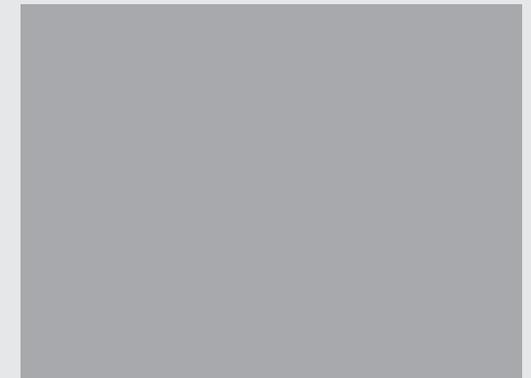
### **Manufacturer:**

**b & p® Schweiz AG**

Schlossgut Wigglen  
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Web [www.qlight.info](http://www.qlight.info)

### **Your Local Q.Light® Dealer:**



# **Q.Light®**

**+**Made in Switzerland

# spezialized systems