

**BIOPTRON<sup>®</sup>**   
LIGHT THERAPY SYSTEM *By Zepter Group*



THE MEDICAL INNOVATION

MEDICAL DEVICES FOR:  
Wound healing  
and tissue repair  
Pain treatment:  

- In rheumatology
- In physiotherapy  
and rehabilitation
- In sports medicine





MORE THAN A MILLION PEOPLE  
OWN A BIOPTRON DEVICE.



DO YOU KNOW ANY OF THEM?



ASK THEM!



with natural  
healing power





foreverybody  
everywhere



Z E P T E R ' S A M B A S S A D O R S  
Zepter-Official Sponsor of FIBA 2003/2006



**ARANTXA SANCHEZ**  
*Tennis World Champion  
2001-2002*



**SERGEY BUBKA**  
*6 times Pole vaulting World  
Champion and 35 World Records  
broken. The first man ever to jump  
over 6 meters and Recordman  
nominated "Sport Person of  
the Century" 1997-1998-1999-2000-  
2001-2002-2003-2004-2005-2006*



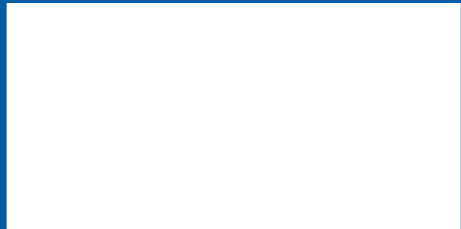
**GUIDO CAPPELLINI**  
*8 times World Champion F1 INSHORE  
1999-2000-2001-2002-Powerboat Racing  
2002-2003-2004-2005-2006 Zepter Team*





**BIOPTRON**   
LIGHT THERAPY SYSTEM By Zepter Group

- MEDICAL DEVICES •
- FOR YOUR HEALTH •
- IN MEDICINE AND WELL-BEING •
- CLINICALLY TESTED •
- AT MEDICAL INSTITUTIONS AND AT HOME •
- AT SPORTS CENTERS •
- PATENTED TECHNOLOGY •
- WIDE RANGE OF APPLICATIONS •
- EASY TO USE •
- SHORT TREATMENT TIME •
- PAINLESS TREATMENT •
- NO UV RADIATION •
- NO KNOWN SIDE EFFECTS •
- SWISS-MADE •



**BIOPTRON**   
LIGHT THERAPY SYSTEM By Zepter Group

THE MEDICAL INNOVATION WITH NATURAL HEALING POWER

[www.bioptron.com](http://www.bioptron.com)



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nobelprize

## LIGHT THERAPY:

- B.C.: Sunlight
- 1903: Nobel Prize in medicine
- 1980: Science meets modern technology
- 1988: BIOPTRON Light Therapy System

## SUNLIGHT - SOURCE OF LIFE

The use of light therapy in medicine has a long history. The first light source used in photomedicine was natural sunlight. Even in ancient Egypt, sunlight was used for medical treatments. Later, Hippocrates described the use of sunlight to cure various medical disorders. Although sunlight therapy had no scientific explanation at that time, the healing power of it was clear, and Roman and Arab physicians introduced light therapy into general medical use. Today it is known that the human organism transforms light into electrochemical energy, which activates a chain of biochemical reactions within cells, stimulating metabolism and reinforcing the immune response of the entire human body.

## NOBEL PRIZE

The Danish physician Niels Ryberg Finsen founded modern light therapy about 100 years ago. In 1903 he was awarded with the Nobel Prize in medicine for his achievements with light therapy. Finsen created the first device to generate technically synthesized sunlight and achieved outstanding results in the treatment of patients suffering from a special type of skin tuberculosis.<sup>1</sup>



## References:

1) Finsen, R.N. *Phototherapy*. London: Edward Arnold, 1904

2) Mester, E.; Mester, A.F.; Mester, A. *The biomedical effects of laser application. Lasers Surg Med* 1985; 5: 31-39

SCIENCE MEETS  
MODERN TECHNOLOGY

In the early 1980s, a research team of scientists created a light source that was originally based on low-level laser therapy but actually worked with almost the whole range of visible light and a portion of infrared light.<sup>2</sup> The research revealed certain physical characteristics that are essential for the effectiveness of light therapy.

# light

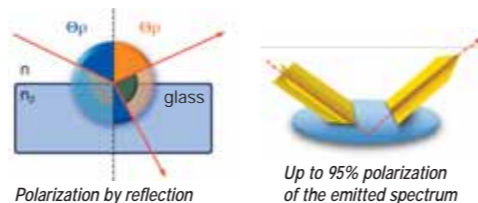
## BIOPTRON LIGHT IS:

- Polarized
- Polychromatic, with no UV radiation
- Incoherent
- Low-energy light

### BIOPTRON LIGHT CHARACTERISTICS ARE:

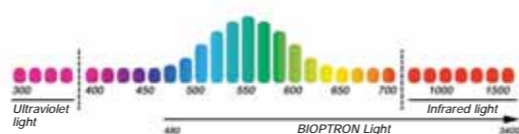
#### 1. Polarization

BIOPTRON Light is polarized light: its waves move (oscillate) in parallel planes. The light emitted by the BIOPTRON devices reaches a polarization degree of 95%.



#### 2. Polychromy

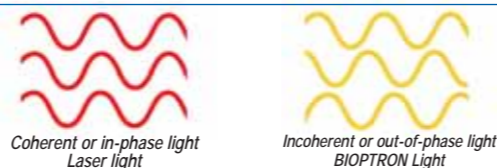
BIOPTRON Light is a polychromatic light. This means it contains not only one wavelength (like laser light), but a wide range, including visible light and a portion of the infrared range. The wavelength of BIOPTRON Light ranges from 480 nm to 3,400 nm.



The BIOPTRON electromagnetic spectrum does not contain UV radiation!

#### 3. Incoherency

Unlike laser light, BIOPTRON Light is incoherent, or out-of-phase light. This means that the light waves are not synchronized.



#### 4. Low energy

BIOPTRON Light has a low energy density. This energy density has biostimulative effects and allows the light to stimulate various biological processes in the body in a positive way.



### BIOPTRON LIGHT HAS A BIOSTIMULATIVE EFFECT ON CELLS!

#### BIOPTRON Light Therapy can:

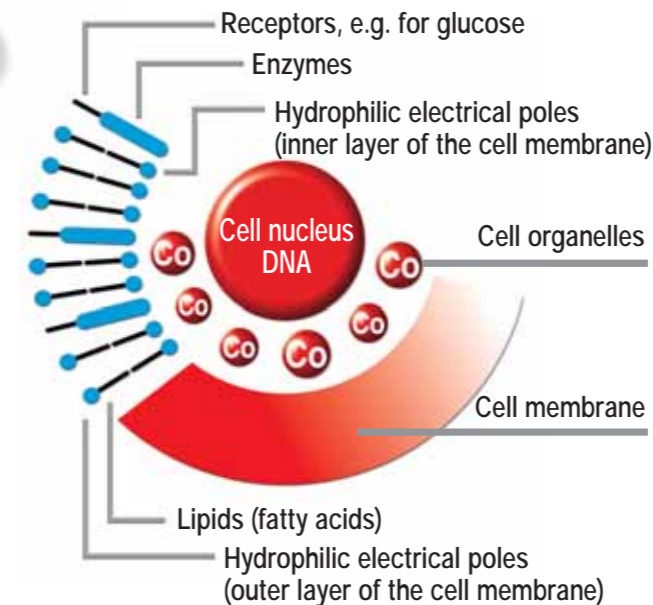
- Improve microcirculation
- Harmonize metabolic processes
- Reinforce the human defence system
- Stimulate regenerative and reparative processes of the entire organism
- Promote wound healing
- Relieve pain or decrease its intensity

The outstanding characteristics of BIOPTRON Light enable the light to penetrate not only the skin but also the underlying tissues. Thus the positive effect of BIOPTRON Light is not limited to the treated skin area, but also has a beneficial effect on the entire organism.

# science

## MORE THAN:

- 500 scientists
- 1,000 clinics
- 5,000 medical doctors



### SCIENCE AND RESEARCH

Years of experience and research have affirmed the positive effects of BIOPTRON Light Therapy and have led to a wide range of applications in numerous fields of medicine.

The therapy has become accepted as a new form of treatment in prevention, therapy and rehabilitation worldwide. The scientific team of BIOPTRON AG is working continuously with experts, researchers and physicians in many countries in order to examine the characteristics and therapeutic effectiveness of BIOPTRON Light Therapy.



A I M B I O P T R O N L I G H T A T T H E P A I N F U L A R E A !

medicine

**BIOPTRON FOR HEALTH:**

- Wound healing and tissue repair
- Pain treatment:
  - In rheumatology
  - In physiotherapy
  - In sports medicine



**MEDICAL INDICATIONS**

**Wound healing and tissue repair**

- Wounds after an injury (post-traumatic wounds)
- Burns
- Wounds after an operation (post-surgical wounds)
- Leg ulcers
- Decubitus (pressure sores)



*Wounds after an injury or operation*



*Burns*



*Leg ulcers*

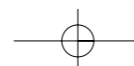


*Decubitus*

FOR YOUR HEALTH  
JUST APPLY BIOPTRON LIGHT  
FOR 4-10 MINUTES  
ONLY ONCE OR TWICE A DAY

BIOPTRON LIGHT THERAPY CAN BE USED BOTH  
AS A COMPLEMENTARY TREATMENT  
TO SUPPORT CONVENTIONAL MEDICAL METHODS  
AND AS MONOTHERAPY FOR CERTAIN INDICATIONS

*We recommend consulting a physician before using BIOPTRON Light Therapy in order to receive professional advice as to whether this treatment is recommendable or whether other medical treatment is necessary.*





A I M B I O P T R O N L I G H T A T T H E P A I N F U L A R E A !

medicine



Neck pain



Sports injury



MEDICAL INDICATIONS

Pain treatment:

- In rheumatology
- In physiotherapy
- In sports medicine

BIOPTRON Light Therapy can be used both as a complementary treatment to support conventional medical methods and as monotherapy for certain indications. However, we recommend consulting a physician before using BIOPTRON Light Therapy in order to receive professional advice as to whether this treatment is recommendable or whether other medical treatment is necessary.

In rheumatology,

BIOPTRON Light Therapy can help to:

- Relieve pain and decrease its intensity
- Strengthen muscles and expand body motion
- Increase walking distance and speed
- Improve sleep quality

In physiotherapy and rehabilitation,  
BIOPTRON Light Therapy can help to:

- Relieve pain and muscle tightness
- Improve tissue nourishment
- Reduce swelling
- Speed regenerative processes and wound healing



Lower back pain



In sports medicine,  
BIOPTRON Light Therapy can help to:

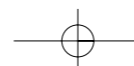
- Bring relief to aching muscles
- Soothe joint pain
- Increase the range of active and passive movements of joints
- Allow quicker recovery of muscular and joint activity
- Support the treatment of painful sports injuries like tendon or muscle problems

It also can be a complementary treatment for:

- Contusions
- Dislocations
- Strains
- Sprains
- Abrasions
- Cuts
- Bruises

BIOPTRON LIGHT THERAPY IS A STANDARD  
TREATMENT IN HEALTH-CARE INSTITUTIONS  
TODAY AND IS IN DAILY USE IN MILLIONS  
OF HOMES IN OVER 50 COUNTRIES!

For additional information, please see the operating instructions.



**BIOPTRON DEVICES**

BIOPTRON devices are medical devices used under professional conditions - at hospitals, specialist institutions, sports centers and as well as at home. The BIOPTRON devices have an innovative technology and are designed to be user-friendly for everyone. Floor stands are available for each device and allow convenient positioning according to the individual user's needs. In this way, each part of the body is easily treatable, providing the user with a relaxed, enjoyable treatment. **Differing only in size and design, all three devices have the same physical light characteristics and thus an identical beneficiary effect on the human organism.**


**BIOPTRON Compact III**

is designed for use at home, in hospitals and therapeutic centers. The device is easy to handle for anybody, and in order to provide comfort it is equipped with a timer that gives a signal every two minutes. The device is packed in a handy plastic case for smart storage at home or for travelling.

The filter diameter of the BIOPTRON Compact III is approx. 4 cm.


**BIOPTRON Pro 1**

is designed for use at home, in spas, in hospitals and therapeutic centers. An ergonomic and easily adjustable table stand as well as the ability to rotate the device head make the appliance very user-friendly. Treatments can be easily timed by an electronic control panel. An integrated distance holder facilitates the recommended application distance. The BIOPTRON Pro 1 table stand is equipped with a supportive mat ensuring comfortable treatment. **The filter diameter of the BIOPTRON Pro 1 is approx. 11 cm.** An additionally available floor stand will allow the comfortable application on all parts of the body.


**BIOPTRON 2**

is designed for use by health professionals. The device is easily manageable, and each treatment can be easily preset up to 95 minutes, which are divisible into one-minute increments and controlled by an integrated soft-start/soft-stop electronic switch. Furthermore, its angled shape together with the stand enables flexible positioning.

The filter diameter of the BIOPTRON 2 is approx. 15 cm.

**ALL BIOPTRON LIGHT THERAPY DEVICES ARE MADE IN SWITZERLAND BY BIOPTRON AG**

BIOPTRON AG is a Swiss company that became a member of the Zepter Group in the mid-1990s. Distinguished results in the field of light therapy emanated from the scientific research, experience and expertise potential of the Zepter Group. These findings have been continuously implemented in the production of the BIOPTRON Light Therapy System.

**Filter diameter approx.**

- BIOPTRON Compact III	4 cm
- BIOPTRON Pro 1	11 cm
- BIOPTRON 2	15 cm

**Power supply**

- BIOPTRON Compact III	100-230 V-, 50/60 Hz
- BIOPTRON Pro 1	100-240 V-, 50/60 Hz
- BIOPTRON 2	100-240 V-, 50/60 Hz

**Power consumption**

- BIOPTRON Compact III	56 VA
- BIOPTRON Pro 1	160 VA
- BIOPTRON 2	1.4-1.0 A

**Fuse**

- BIOPTRON Compact III	-
- BIOPTRON Pro 1	-
- BIOPTRON 2	T2A/250 V

**Rated power of halogen**

- BIOPTRON Compact III	20 W
- BIOPTRON Pro 1	50 W
- BIOPTRON 2	90 W

**Protective class**

- BIOPTRON Compact III	Class II <input type="checkbox"/> , IP 20
- BIOPTRON Pro 1	Class II <input type="checkbox"/> , IP 20
- BIOPTRON 2	Class I, IP 20

**Weight**

- BIOPTRON Compact III (without stand)	0.5 kg
- BIOPTRON Pro 1 (with table stand)	3.4 kg
- BIOPTRON Pro 1 (with floor stand)	7.8 kg
- BIOPTRON 2 (without stand)	4.3 kg

**Ambient temperatures**

- Operation	from +10 °C to +40 °C
- Storage	from +5 °C to +45 °C

**Wavelength** 480-3400 nm

**Degree of polarization** >95% (590-1550 nm)

**Specific power density** av. 40 mW/cm<sup>2</sup>

**Light energy per minute** av. 2.4 J/cm<sup>2</sup>

**CE labelling** 