

medolight Z4L light treatment methods



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by **BIOPTRON** 
LIGHT THERAPY SYSTEMS by Zepher Group

medolight® Z4L

www.medolight.info

medolight Z4L – a new, third generation device for light therapy, using state of the art technology

It is worth knowing that the diodes used in medolight Z4L, differ significantly from ordinary bulbs or signal diodes; among others:



Wavelength, because they **emit the light with the most physiological healing effect** (red and near infrared light) and that is why they are called “healing”.



several hundred times **higher energy density**, narrow light spectrum, **negligible heat emission**;



Special construction with a lens which focuses the light beam, which makes it possible to direct the beam at 30° angle (ordinary bulbs emit light at 360° angle).

medolight Z4L contains **108 electroluminescent diodes**



The medolight Z4L device contains 108 electroluminescent diodes, built with gallium-aluminium-arsenic semiconductors. They generate electromagnetic waves in the red and near infrared light range.

These are the ranges necessary to “recharge” the mitochondria.

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What is special about medolight Z4L therapy

The medolight Z4L device uses an innovative application method, with exposure from the distance of up to 5 mm. The whole light energy reaches the exposed area without interference caused by damping, while ensuring the most effective treatment in the exposed area and in the whole organism.

The medolight Z4L constructors have chosen the most therapeutically effective radiation ranges, that is red and near infrared, because they give the best healing and prophylactic effects.

Before using medolight Z4L therapy we recommend to consult a physician, to determine whether this treatment is suitable for you or whether you require an alternative medical treatment.

When do we need medolight Z4L therapy

The medolight Z4L device uses the most important non-visual corrective mechanisms, that is those not related to the visual system. **Light penetrates the exposed tissues and triggers a whole chain of biochemical light-dependent processes.** Pulsating light ensures more natural and synchronic effect on the organism.

The low frequency pulsating light emitted by medolight Z4L ensures the restoration of electromagnetic balance, **overall strengthening, relieves tonic pains.** The high frequency pulsating light emitted by the medolight Z4L **relieves sharp pain.**

medolight Z4L in therapy

The medolight Z4L device has been created to ensure the most effective healing. A mixture of red and near infrared wavelengths with their pulsating application offers the best conditions for healing, prophylaxis and rehabilitation.

Taking into account the clinical experience in light therapy accumulated by specialists, medolight Z4L may be used to:

- **prevent and cure** initial stages of illnesses and to speed up recovery after an illness;
- **correct and treat** disfunctions of particular organs;
- **normalize the function of regulatory systems** (central neural, immune);
- **relieve stress and excess tension;**
- **relieve pain**, improve microcirculation and reduce swelling;
- **activates local anti-inflammatory processes;**
- **increase the amount of energy accumulated in the cells** necessary in life processes and defense mechanisms.

Medolight Z4L therapy is very effective in the treatment of a number of diseases which are chronic or have a tendency to relapse. In many cases it is beneficial to use medolight Z4L therapy as a complementary method to the basic treatment.

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medolight Z4L in prophylaxis

Medolight Z4L can be used on a regular basis at home because one of its advantages is the high prophylactical effectivity.

Medolight Z4L light:

- stimulates overall immunity, which offers a high effectivity in the prophylaxis of infections;
- increases vitality.

Nearly every year our country falls victim to a flu epidemic. Every year at the beginning of the cold season the period of flu vaccinations starts. Vaccination is a very effective prophylactic method, but only if the scientists' prognosis is accurate, and the virus type we are exposed to turns out to be the same we have been vaccinated against. If not, the vaccination is only an unnecessary stress for the immune system.

medolight Z4L – the light therapy device, is very effective in reinforcing the organism's defence mechanisms.

It is therefore worthwhile to use it at least once a day (on reinforcing the immunity system see the table on pages 12-23), to strengthen body immunity, to relieve stress and for the general well-being.

In this time of rapid development, when everyone is exposed to increasing number of pathogenic factors, like harmful electromagnetic smog (high voltage lines, computers, monitors, mobile phones), it is worthwhile to think of keeping the balance and provide the organism with a wholesome range of electromagnetic waves in the form of the life-giving medolight Z4L light.

Nobody questions the increasing harmful effects of radiation on our organisms. Many experts consider this the main cause of the sudden increase in the number of oncological diseases and allergies. The knowledge of the bad effects of certain radiation types we have contact with daily is widespread. However, we can no longer imagine our lives without a computer, mobile phone or microwave oven. Undeniably, a seashell found during last holidays can bring back pleasant memories, but the effectivity of such a "screen" is doubtful.

It is no secret that construction materials also significantly affect our health, and it is not just the case of the infamous asbestos. A complex of "sick buildings" can be caused by the particles of crumbling construction materials or furniture. Concrete constructions also pose a serious threat, especially reinforced with a large number of metal bars. It does not matter whether the building is modern or was constructed dozens of years ago from prefabricated concrete slabs. Hard and heavy concrete is poorly permeable to air and, as ecologists say, does not "breathe", disturbs natural electromagnetic waves, creating its own adverse electromagnetic field.

People who spend a lot of time in concrete flats or offices, often talk on the mobile phone or work with a computer should use medolight Z4L according to the rules given in the table (on pages 12-23), in the section on headaches, stress relief and tiredness.












Medolight Z4L, emitting beneficial, healing electromagnetic waves can be used daily.

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Advantages of medolight Z4L

Medolight Z4L is a new generation therapy device. Practical experience and clinical experimental research in light therapy have been taken into consideration during its construction.

THE MOST IMPORTANT ADVANTAGES OF MEDOLIGHT Z4L INCLUDE:

	wide application as a complementary therapy in addition to the basic treatment		detailed instructions and widely elaborated application methods	 const	stable wavelength of the electromagnetic waves, their stable characteristics
	possibility to reduce the amount of drugs eliminating the disease symptoms (after consulting a physician)		time and cost saving for the user	 /cm²	large concentration of electroluminescent diodes on the lighting surface of the device
	can be used at home and on the road	R+IR	use of the two most biologically active spectrum ranges: red and near infrared		small size and hence portability, simplicity of use, safety
 Low	minimal power loss and distortion of the light beam in therapy				



Methods of medolight Z4L light therapy

The method of medolight Z4L light application depends on the type of disease, overall health of the person treated and many other factors.

The simplest method is a local exposure of the affected area using one of the 5 following programmes:

Programme 1 continuous light	restoration of the energy deficit
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Programme 2 impulse light 10 Hz	overall soothing effect
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Programme 3 impulse light 600 Hz	monotonous (tonal), pain relief (for example arm and leg pain)
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Programme 4 impulse light 3 kHz	wound healing
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Programme 5 impulse light 8 kHz	acute pain relief
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Exposure of one area takes 5-25 minutes.

Before using medolight Z4L therapy we recommend to consult a physician, to determine whether this treatment is suitable for you or whether you require alternative medical treatment.

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Table – medolight Z4L light therapy methods

The therapeutic possibilities of medolight Z4L device can be extended and adjusted to individual needs through application in areas distant from the one affected by disorder on suitable biologically active points presented in chart. In this case the action program should be compatible with given in the description of specific disease.

Instructions for use

- Before using Medolight Z4L light therapy You should consult a physician to determine if such type of therapy is recommended or any other treatment is required.
- Before using Medolight Z4L device You should clean and disinfect the skin area to be treated.
- You should relax and direct the light beam at distance of approx. 5 mm to the treated area and then make sure that the beam light does not move during the therapy, if possible. Large and difficult to treat areas should be treated successively one after the other.
- The treatment can be stopped at any time.
- The device switches off automatically after the set period of treatment. After 1 minute of “inactivity” the device automatically turns into the stand-by mode and keeps the last settings.

Table of prevention and correction of health disorders (pages 12-23) presents methods of treatment depending on the needs of the user.

Contraindications






Contraindications and restriction on the use of Medolight Z4L:

- Patients with epilepsy shall consult the physician before starting the light therapy.
- Pregnant women shall consult the physician before starting the light therapy.
- Patients with some thyroid disorders (according to the assessment of the attending physician).
- History of any skin cancers.
- Lupus erythematosus.
- Use of photosensitizing medications.
- Porphyria.
- Photosensitization.
- Eye diseases, unless the therapy is initiated with a consent of the physician.






WARNING:

Before starting the operation, carefully read the Instruction Manual and follow its recommendations, warnings and cautions.


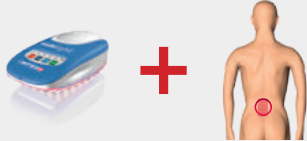



No	Ailment	Application area
1	Pain in limbs	Upper outer side of lower leg, between a thumb and index finger, internal medial surface of lower leg above the ankle
2	Pain in lumbar region	Natal region (from gluteal fold to 2 lumbar spine)
3	Joint pain	The region above the joint affected by disorder
4	Wound healing after aesthetic medicine treatment	Wound and its vicinity, at a distance of 5 mm from the skin surface, after the treatment, use additional preparations or dressings prescribed by a doctor
5	Post-injuries and post-operative additive treatment	Location of injury/wound after a procedure

Time of	Program	Number of sessions (daily)	Treatment cycle length (minimum)	Figure
5 min	3	1-2	5-10 days	
5 min	5	2	2-3 months	
10 min	3	2	21 days – 2 months	
5 min	3	2	7-14 days (in accordance with doctor's recommendation)	
5 min	3	2	About 7 days	


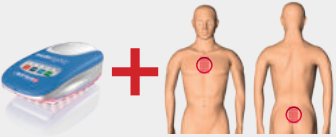



No	Ailment	Application area
6	Supporting treatment in resistant Meibomian cyst	Closed eyes
7	Pain therapy in neuralgia after VZV infection	Place affected with a disorder, middle section of the breastbone
8	Treatment of breast nipple slit in breastfeeding mothers	Slit area (from a distance of 5 mm)
9	Psoriasis	Place with dermatological changes
10	Strains (tears) of muscles and tendons	Place of injury

Time of	Program	Number of sessions (daily)	Treatment cycle length (minimum)	Figure
10 min	1	1-2	6-8 days	
5 min	5	2	7-10 days	
10 min	2	2-3 1-2 1	3-5 days 3-5 onsecutive days 5-7 consecutive days	
10-20 min	1	1	4-5 weeks	
5 min	3	1	20-30 days	



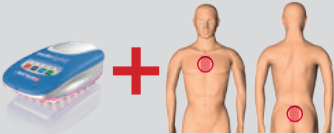


No	Ailment	Application area
11	Stress	Between eyebrows
12	Bedsore	Location of a bedsore (after surgical cleaning of the wound from a distance of 5 mm, before applying the dressing) for 10 min using program 2, or the sacrum area for 10 min using program 4
13	Postoperative period (laser cryosurgery, general and plastic surgeries)	The operating field area (after surgical cleaning of wounds, at a distance of 5 mm, before applying the dressing)
14	Burns,Frostbites, Electrical injuries	The area of damaged skin (after surgical cleaning of the wound from a distance of 5 mm, before applying the dressing) for 10 min using program 3, or the breastbone area for 5 min using program 4
15	Increase in skin resistance to atmospheric and mechanical influences	The entire face (from a distance of 5 mm from skin surface), apply cream (for day or night) after treatment

Time of	Program	Number of sessions (daily)	Treatment cycle length (minimum)	Figure
10 min	1	1 (before the night)	5-10 days (and when required)	
10 min	2 +4	2	Daily	
10 min	3	2	10-15 days	
10 min + 5 min	3 +4	2-3	15-20 days	
5 min	1	1-2	20-30 days	





No	Ailment	Application area
16	Improved appearance of skin	The given area (from a distance of 5 mm from the skin surface), apply moisturising cream after treatment
17	Overload caused by sport	Location of pain, e.g. upper part of chest, bone, sacrum, lumbar part of the spine, side surface of thigh/lower leg.
18	Postoperative wounds	Wound areas (after surgical cleaning of wounds, before applying the dressing, at a distance of 5 mm from the surface of the wound)
19	Sciatica	Greater trochanter of a thigh bone (e.g. centre of natal fold), popliteal fossa, middle section of hips from the outer side, upper part of lower leg, centre outer part of lower leg, outer part of lower leg above the ankle, slightly from the rear of the ankle
20	Reduced immunity condition	Middle part of the breastbone

Time of	Program	Number of sessions (daily)	Treatment cycle length (minimum)	Figure
5 min	3	2	20-30 days	
5 min	3	2	3-5 days	
10 min	2	1	7-14 days	
5 min	5	1-2	5-10 days	
5 min	1	2	2-3 months (regularly)	

No	Ailment	Application area
21	Aging skin	Entire face (from a distance of 5 mm from skin surface), apply cream (for day or night) after treatment
22	Acne, blackheads	Places affected with the disorder (from a distance of 5 mm from the skin surface) for 10 min using program 5, middle part of the breastbone for 5 min using program 4
23	Wounds that are difficult to heal (bites, diabetes, gangrene)	Place affected with a disorder (after surgical cleaning of wounds from a distance of 5 mm) for 10 min using program 2, breastbone, sacrum area for 5 min with program 4
24	Trophic ulcerations of legs	Place affected with a disorder (after surgical cleaning of wounds from a distance of 5 mm before applying the dressing) for 10 min using program 2
25	Sleep disorders	Between eyebrows

Time of	Program	Number of sessions (daily)	Treatment cycle length (minimum)	Figure
5 min	1	2	20-30 days	
10 min + 5 min	5 +4	2	20-30 days	
10 min + 5 min	2 +4	2	Daily	
10 min	2	2	Daily	
10 min	3	1-2 (before the night)	5-10 days (and when required)	

No	Ailment	Application area
26	Arthritis Osteoarthritis	The joint affected with the disorder
27	Granulating wounds	The location of the wounds and surrounding skin area of the skin (from a distance of 5 mm from the surface of the wound)
28	Face wrinkles	Wrinkles area (from a distance of 5 mm from the skin surface), apply moisturising cream after treatment
29	Varicose veins on lower leg, chronic veins thrombosis	The location of varicose veins on lower limbs

Time of	Program	Number of sessions (daily)	Treatment cycle length (minimum)	Figure
10 min	3	2	21 days – 2 months	
10 min	1	2	20-30 days	
5 min	3	2	20-30 days	
10 min	2	2	20-30 days	

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The medolight Z4L has been approved as a medical device
according to European Union Directive 93/42/EEC



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Notes

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