

BioPhoton Go: Instructions & User Manual

Instructions & user manual

24 dual chip LEDs · Skin contact panel · Measurably low EMF · Dutch Design

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VIVO Red Light Therapy®

02 Quick start

1. Charging

Before first use, charge the BioPhoton Go with the supplied USB-C cable and EU adapter. A full charge takes about 4 to 5 hours. Disconnect the charging cable before use.

2. Positioning

Place the convex lenses directly against bare skin. Hold the Go in place or fasten it with the straps. Make sure the device sits comfortably and the straps are not too tight.

3. Starting

Press and hold the button on the top for three seconds. The Go switches off automatically after ten minutes.

Standard use: 10 minutes per spot. Maximum 3 spots per day, 30 minutes in total.

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04 Designed in the Netherlands

Designed in the Netherlands, developed for targeted use. From the metal housing with its distinctive bevelled corner to the convex lenses, the BioPhoton Go is unique in every respect.

Freedom of placement.

Hold the Go directly against the treatment spot or fasten it with the supplied straps. The compact size makes placement on, for example, the knee, shoulder, elbow or calf easy.

Skin contact for deeper tissue

With direct skin contact, the lens touches bare skin with no layer of air in between. This reduces reflection at the skin surface and promotes the transfer of light into the tissue.

More efficient light transfer thanks to convex lenses

The raised, convex lenses apply light pressure to the skin when pressed on comfortably. This compression can temporarily displace superficial blood and fluid and make the tissue layer under the lens thinner. As a result, more light can reach the underlying tissue.

Red and near infrared in every lens

The Go has 24 dual chip LED positions. Under every lens sit two light chips: one red and one near infrared, for broad, even coverage of the four wavelengths.

One button. Ten minutes.

Press and hold the control button for three seconds to start. After ten minutes the Go switches off automatically. No programs, apps or complicated settings.

Wireless and hands free

The rechargeable battery provides about three hours of use without the charging cable. With the elastic hook and loop straps the Go stays in place and keeps your hands free. The metal housing dissipates heat passively, without a fan.

05 In the box

Your complete set

1. BioPhoton Go, metal version
2. EVA case for storage and transport
3. Two black elastic hook and loop straps. Dimensions per strap: 3.8 × 80 cm
4. Black protective glasses
5. USB-C cable, 1 meter
6. EU adapter
7. User manual

Check the contents on receipt. Is something missing or do you see damage? Contact Vivo Red Light Therapy before using the device.

Always use the supplied charging accessories.

06 Getting to know your device

Light side: 24 convex lenses

The light side has 24 convex lenses, arranged in four rows of six. Behind every lens sit a red and a near infrared light chip. For skin contact, place this side directly against bare skin.

Top side: charging and battery indicator

On the flat top side you will find the USB-C port and four green battery indicator lights. You charge the Go through the port. During use, the lights show approximately how much battery capacity remains.

Bevelled corner: control button

The round control button is on the bevelled corner. Press and hold it for three seconds to switch the Go on. After ten minutes the device switches off automatically.

Back side: strap guides

On the back there are two metal strap guides. Thread the elastic hook and loop strap through both guides and close it around the limb. This keeps the light side free for skin contact and lets you use the Go hands free. Fasten the strap comfortably, without squeezing.

Illustrations in the original manual: charging and battery indicator, control button, 24 convex lenses, strap guides.

07 Charging & battery indicator

Charging

Connect the USB-C cable to the top side and to the supplied EU adapter. A full charge takes about 4 to 5 hours. Charge on a dry, clear surface and not in the closed case. Disconnect the charging cable before a session.

During use

The four lights give a rough indication of the remaining battery capacity:

Lights	Capacity
4 lights	about 100%
3 lights	about 75%
2 lights	about 50%
1 light	about 25%

A full battery provides about three hours of use. The indication is an estimate, not an exact remaining treatment time. Behavior while charging may differ from behavior while discharging.

08 Switching on and off

Switching on

Place the light side against the chosen treatment spot. Press and hold the control button for three seconds.

Automatic stop

After ten minutes the Go switches off automatically. This is the built in session timer. The recommended duration of use may differ per application.

Stopping early

Press and hold the control button for three seconds to switch the Go off. Do you feel discomfort? Take the device off the skin immediately and switch it off. Keep the light side away from your eyes and from the eyes of others.

Restarting

Do you want to treat for longer than ten minutes, according to the usage advice? After the automatic switch off, press and hold the control button again for three seconds. This starts a new session of ten minutes. Stop the device manually as soon as the recommended duration of use is reached.

During use

Use the Go only while you are awake and able to remove the device yourself. Do not fall asleep with the device on your skin. Fasten the straps comfortably, without squeezing.

09 Why convex lenses?

Designed for direct skin contact

The convex lenses protrude above the housing and make direct contact with bare skin. At the contact surface there is no layer of air between lens and skin. This promotes the transfer of light into the tissue.

Convex lenses for light local pressure

Because of their convex shape, the lenses press the skin in slightly at comfortable contact. The tissue layer under the lens becomes temporarily thinner, so the light travels a shorter path through this layer.

Local compression can also reduce the scattering of light in the tissue. This allows more light to be transmitted through the compressed tissue.*

Placing comfortably

Hold the light side against bare skin or use the straps to keep the device in place. Light contact is enough; do not press hard and do not pull the straps tight. The contact must not hurt or squeeze.

Research by Vogt et al. (2012) showed that mechanical compression can increase light transmission through skin.

Study: Vogt et al., Lasers Surg Med. 2012;44:303 to 309. DOI: 10.1002/lsm.22018

10 How to position the Go

1 Expose the treatment spot

Place the light side directly on bare skin, not over clothing. Make sure the lenses are clean and dry.

2 Choose a relaxed posture

Support your arm or leg when that is comfortable. Choose a posture you can keep relaxed for the whole session.

3 Make comfortable contact

Let the convex lenses rest comfortably against the skin. On a rounded body part, not all lenses need to make contact at the same time. Do not press hard.

4 Stay on the spot

Hold the Go steady on the same spot for the chosen time. If you move the device to another area, a new exposure begins there.

11 Hands free with the straps

Use the straps when you want to leave the Go on one spot without holding it.

1 Thread the strap through the guides

Feed one strap through both strap guides on the back of the Go.

2 Fasten the Go

Position the Go as described on page 10. Lay the strap over the outside of the device and around the body part. Keep the light side free and close the hook and loop strap so that the device stays stable, without squeezing.

3 Check the fit

Carefully let go of the device. Check that it does not shift and that the strap sits comfortably. Make sure you can reach the control button and the fastening.

Use the Go hands free only while you are sitting or lying down. Loosen the strap immediately if you feel tingling, numbness or pain, or if there is visible restriction of blood flow. Never fasten a strap around the neck.

12 Use on the knee

The knee is one of the most chosen areas of application for the BioPhoton Go.

Place the light side directly on the spot around the knee that you want to address: on the inside or outside, or slightly higher or lower. Use the Go by hand, fasten it at the side with the strap, or let your lower leg rest relaxed on the device.

At the side with the strap

Place the Go on the inside or outside of the knee and fasten it with the strap. Make sure the light side stays comfortably against bare skin.

Under the knee

Place the Go stably with the light side facing up. Let your lower leg rest relaxed on the device. Pressing hard is not necessary.

Practical guideline

Normally use the Go once a day for ten minutes on one chosen spot.

However, with pain in a clearly identifiable spot, you can use two sessions of ten minutes on one day. These sessions may follow each other directly.

For the second session, preferably choose a different placement, for example on the other side of the knee or slightly higher or lower, instead of doubling the time on exactly the same spot.

13 Other joints & muscles

Besides the knee, the BioPhoton Go is widely used on the neck, shoulders, elbows, calves and lower back. Always choose a posture in which the device can rest steadily against bare skin.

Neck and shoulder

Sit or lie down in whatever way works for you. Place the Go on the neck or on the shoulder. Hold it by hand, or use a backrest or firm cushion to keep it steadily in place. Never fasten a strap around the neck.

Elbow

Let your forearm rest on a table, armrest or cushion. Place the Go on the inside or outside of the elbow. Once the device stays stable there, you can use the strap.

Ankle, calf and thigh

Sit or lie down with the leg comfortably supported. Place the Go at the side of the ankle, on the calf or on the thigh. Use your hand or the strap, depending on the spot and on what stays comfortable there.

Lower back

Lie down, or sit and place the Go between your lower back and the backrest of a sofa or chair. Lean back comfortably.

14 Treatment time with skin contact

Choose a time per treatment spot

All values on this page apply to direct contact with bare skin. The table shows how much light dose belongs to one local placement; it is not a separate treatment protocol for a diagnosis.

The measured light dose is the basis. It is calculated from the directly measured light intensity of 34.75 mW/cm² on average.

When used at a distance, part of the light is lost through spreading, reflection and scattering. With direct skin contact, the convex lenses sit against the skin without an air gap. The light local compression can reduce scattering further. That is why, for skin contact, Vivo uses a contact factor of $\times 1.5$.

The Vivo contact value is a calculated value for skin contact, not extra measured light output.

All values at direct skin contact (0 cm)

Time	Measured light dose	Vivo contact value*
approx. 5 minutes	10 J/cm ²	approx. 15 J/cm ²
10 minutes	approx. 20 J/cm ²	approx. 30 J/cm ²
approx. 15 minutes	approx. 30 J/cm ²	approx. 50 J/cm ²

*Vivo contact calculation with factor $\times 1.5$; this is not measured extra light output or a proven dose in deep tissue. The incident light dose is calculated with 34.75 mW/cm². More explanation: vivoredlighttherapy.com.

15 A suitable usage routine

Weekly frequency

Use the BioPhoton Go a maximum of five days per week. Sensitive users can use the Go every other day.

Choose your time per spot

Ten minutes per chosen spot is the normal starting point. Sensitive users can begin with five minutes per spot.

With pain complaints

If you tolerate ten minutes well, you may treat the same spot one more time for ten minutes on that day. The second session may follow directly or take place later in the day.

Do not treat one spot more than twice for ten minutes per day.

Maximum thirty minutes per day

Total use is a maximum of thirty minutes per day. You can use that time back to back or spread it over the day, for example:

- three spots of ten minutes;
- six spots of five minutes;
- or a combination of these.

In case of discomfort

Take the device off the skin immediately in case of pain, unpleasant warmth, tingling or irritation. Stop use if complaints persist or increase, and seek medical advice.

User	Time per spot
Sensitive users	5 min per spot
Normal use	10 min per spot
With pain complaints	up to 2 × 10 min per spot, per day

Total therapy duration: max 30 min per day, 3 x 10 min per day.

Maximum 5 days per week. Sensitive users: every other day.

16 At a distance: face & eyes

The BioPhoton Go is made for strong, local skin contact on joints and muscles. At about 20 cm distance the light reaches a larger area with a lower dose. That is exactly practical when you want to expose both the facial skin and the eyes in one session.

One routine for face and eyes

Sit relaxed and hold the light side straight in front of your face, at about 20 cm distance. Close both eyes for the whole session. In this way the light reaches the facial skin and, through the closed eyelids, both eyes at the same time.

At 20 cm the measured light intensity is about 2 mW/cm². A session of twenty minutes therefore gives about 2.4 J/cm²: a targeted, mild light dose for face and eyes.

Preferably use this routine in the morning. The Go switches off automatically after ten minutes. Then start it again for the second ten minutes.

Use the routine every other day and no more than five times per week.

Never look directly into the LEDs. If you only want to treat the facial skin while your eyes are open, use the supplied protective glasses.

17 24 dual chip LEDs

Red and near infrared under every lens

Every LED position contains two chips: one for red light and one for near infrared light. As a result, every lens always emits both types of light during use.

Twelve positions combine 630 + 810 nm. The other twelve combine 660 + 830 nm.

Together, these four wavelengths are spread over the whole panel, as the illustration shows.

Near infrared light is barely visible to the eye. So do not judge whether the Go is working by the visible red light: both types of light are active when the device is switched on.

LED combination	Positions
A: 630 + 810 nm	12
B: 660 + 830 nm	12
24 dual chip LED positions	48 chips

Spectrum measurement: four wavelength peaks at 630, 660, 810 and 830 nm

18 Technical specifications

Light intensity, spectrometer (OHSP 350S)

Measuring distance	Measured light intensity
Direct contact (0 cm)	34.75 mW/cm ²
At 20 cm distance	2.07 mW/cm ²

Measuring point	Light intensity
1	29.70 mW/cm ²
2	34.32 mW/cm ²
3	29.16 mW/cm ²
4	45.82 mW/cm ²
Average	34.75 mW/cm ²

For comparison: Solar Power Meter (General DBTU1300)

Measuring distance	Measured light intensity
Direct contact (0 cm)	80.85 mW/cm ²
At 20 cm distance	4.52 mW/cm ²

Low EMF at direct contact

Measurement at the LED/lens side	Value
Magnetic field	<0.2 mG
Electric field	<4 V/m

Component	Specification
Housing	Metal version
Dimensions	200 × 110 × 30 mm
Weight	730 grams
Cooling	Passive, without fan
Nominal LED power	72 W
Actual power consumption	7 W
Power input	USB-C, DC 5 V / 3 A
Maximum charging power	15 W
Battery	Li-ion, 5000 mAh

Component	Specification
Expected LED lifetime	50,000 hours
Flicker percentage	0.26%
Flicker index	0.0015
Flicker frequency	36,142 Hz
Certificates	CE-EMC · CE-LVD · RoHS
EN 62471:2008	(Exempt Group)

20 Care & carrying

After use

Let the BioPhoton Go cool down before you put it away. Keep the lenses free of dirt, skin oil and fingerprints.

Cleaning

Switch the device off and disconnect the USB-C cable. Clean the lenses and housing with a soft, lint free cloth. If necessary, use a lightly damp cloth; never apply liquid directly to the device and do not immerse it.

Do not use abrasive, caustic or aggressive cleaning agents.

Storing and transporting

Store the Go, cable and accessories in the supplied EVA case. Protect the device from moisture, direct sunlight, heat and pressure on the lenses or control button.

Check before use that the lenses are clean and that the device has no visible damage.

21 Questions, warranty & service

The device does not switch on

Press and hold the control button for three seconds. Charge the Go with the supplied USB-C cable and adapter. Then disconnect the charging cable and try again. Does the device stay off? Contact Vivo Red Light Therapy.

The device switches off after ten minutes

This is the built in session timer. Switching off does not automatically mean that the battery is empty.

Why do the red light points differ in color?

The Go uses two dual chip combinations: 630 + 810 nm and 660 + 830 nm. The red light of 630 nm looks slightly warmer and orange red; 660 nm looks a deeper red. Every LED position emits red and near infrared light at the same time.

Why do the battery lights behave differently while charging?

During use, the four indicator lights give a rough estimate of the remaining battery capacity. While charging, the pattern may differ.

Is 7 W the light power?

No. 7 W is the actual electrical power consumed by the device. The light intensity was measured separately; see page 18. The nominal LED power of 72 W is not a measured optical power.

Warranty

Vivo Red Light Therapy offers a three year warranty on the housing and electronics, and one year on the built in battery. Keep your proof of purchase and consult the applicable warranty conditions. Your statutory rights remain fully intact.

Service needed?

Contact us via info@dutchhealthstore.com. State the product name, purchase date, order number and a clear description of the situation. Where possible, add a photo or short video; this helps us assist you faster.

22 Treatment notes

Date	Treatment spot(s) and duration	Short note / experience

24 Safety instructions, warnings and disclaimer

General use

Read this manual before use. Use the BioPhoton Go only as described and store it dry, cool and out of reach of children.

Do not use the Go

Do not use the Go on infants, by children without supervision, by sleeping or not self-reliant persons, on open, fresh, irritated or wet skin, while charging, or longer and more often than the usage guidelines in this manual. Do not use it together with products that produce heat or can make the skin sensitive to light.

Do not open, modify or repair the device yourself. The Go contains a built-in Li-ion battery and no user-serviceable parts.

Charging and battery safety

Use only the supplied USB-C cable and adapter. Charge on a dry, clear surface; not in the closed case, under bedding, in direct sunlight or near a heat source. Keep the device, adapter and connection dry.

Do not use the Go in the bath, under the shower, in a sauna or in any other damp space. Do not use or charge the Go if there is damage, an unusual smell, excessive heat, deformation, swelling or leakage. Disconnect the cable as soon as charging is complete and before every session.

Eyes and placement

Do not look directly into the LEDs. For the face and eyes routine at about 20 cm distance, both eyes stay closed for the whole session. Use the protective glasses when you treat only the facial skin with open eyes.

Hold the Go by hand or fasten it with the supplied strap. Do not leave it unattended on the skin. Straps must not squeeze; loosen them in case of tingling, numbness, pain or visible pressure. Never fasten a strap around the neck.

Medical advice and stopping

Seek medical advice before use in case of light-sensitive medication, known light sensitivity, pregnancy, suspicious skin abnormalities, a history of skin cancer, recent use of steroids or doubt about a medical condition.

Take the Go off the skin immediately in case of pain, unpleasant warmth, tingling, irritation or an unexpected skin reaction. Stop use in case of persistent complaints or a technical fault and, if necessary, contact a healthcare provider or Vivo Red Light Therapy.

Conformity, waste and disclaimer

Technical specifications and conformity information are on page 19. Do not dispose of the Go with household waste. Hand it in at a recognized collection point for electrical equipment. The built-in Li-ion battery may not be removed by the user.

The BioPhoton Go is not a medical device and is not intended for the diagnosis, treatment, cure or prevention of diseases or conditions. Red and near infrared light do not replace medical care. Use the device according to this manual; this does not limit your statutory rights. Do not postpone necessary medical care.

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