

# FOTONFLY

medical equipment manufacturer



## PHOTOTHERAPY UNITS



Increased  
vitamin  
d3 levels



Stimulation  
of nitric oxide  
(no) synthesis



Stimulation  
of mitochondrial  
activity



Production of  
serotonin and  $\beta$ -  
endorphins



Hormonal  
balance  
regulation



Improved  
skin  
condition



**FotonFly phototherapy units** are devices that emit infrared, visible, and ultraviolet radiation for therapeutic purposes. The energy of ultraviolet radiation absorbed by the skin causes atoms or molecules in cells to rearrange, bringing them into a physically altered state in which their energy reserves and ability to undergo photochemical reactions change.

**The units** are designed for phototherapy sessions aimed at stimulating the production of the hormonal form of vitamin D<sub>3</sub>, calcitriol, in human skin to support immune function and for the prevention and treatment of cardiovascular, autoimmune, respiratory, and oncological diseases, as well as bone disorders and post-traumatic recovery.

## • History of phototherapy: •



1800

In 1800, British scientist, optician, and astronomer William Herschel discovered infrared radiation. This led to the discovery of different parts of the spectrum, including ultraviolet and infrared wavelengths.



1890

In 1890, Palm of Edinburgh suggested that sunlight played a therapeutic role in the treatment of rickets, marking a revolutionary breakthrough in the treatment of the disease.



1896

In 1896, Niels Finsen developed a "chemical rays" lamp, which he successfully used to treat lupus, tuberculosis, and the effects of smallpox at his Institute of Phototherapy in Copenhagen.



1903

In 1903, Niels Finsen was awarded the Nobel Prize in Physiology or Medicine "in recognition of his treatment of diseases with phototherapy".



1928

In 1928, chemist Adolf Otto Windaus was awarded the Nobel Prize for the discovery of the photochemical reaction in human skin induced by ultraviolet radiation.



1930

In 1930, Adolf Otto Windaus published a detailed mechanism describing the conversion of cholesterol in human skin into various steroid hormones. In this work, he identified the fundamentals of photosynthesis in human skin under exposure to sunlight and the pathway for vitamin D<sub>3</sub> production in the human body.



2009

In 2009, Boston University published a report on a 30-year study of the effects of equatorial ultraviolet radiation on the human body. The report established specific characteristics of sunlight that can influence the synthesis of the hormone calcitriol in the skin.



2020

FotonFly begins production of a new generation of phototherapy equipment in the field of "Integrative Medicine".

## Applications — diseases and disorders:

Skin and  
subcutaneous  
tissue

Digestive  
system

Type  
2 diabetes

Mental  
disorders

Eye  
and Adnexa

Endocrine  
system

Thyroid  
gland

Nervous  
system

Genitourinary  
system

Circulatory  
system

Anemias

Musculoskeletal  
system

Connective  
tissue

Injuries

### Learn how ultraviolet radiation affects health:

- type 2 diabetes;
- coronary artery disease;
- hypertension;
- dental caries and other conditions;
- effects on the absorption of micronutrients.



Scan the QR code  
to learn more!

*“Let the sun suddenly break through the clouds on an overcast day and see how everything around you changes! Insects that were just sluggish and sleepy will awaken and spread their wings; lizards and snakes will crawl out to bask in the sun; birds will begin to sing. And we ourselves will feel as though we have cast off a heavy burden”.*

these words were written by niels ryberg finsen, a nobel laureate in physiology or medicine. he was recognized “in recognition of his contribution to the treatment of diseases with concentrated light radiation, which opened new and broad horizons for medical science”.



For personal use:

## D3 Home

### Technical specifications

## D3 Individual

up to 4 people per day

1

60 W/m<sup>2</sup>

350 mW/m<sup>2</sup>

0 (not present)

95/5%

present

present

no

500 W

2,000 hours

Remote Control — Yes

36

Foton Fly

Recommended number of users

Number of emitters

UVA Ultraviolet radiation

UVB Ultraviolet radiation

UVC Ultraviolet radiation (Short-Wave UV)

UVA/UVB Ratio

Visible radiation

Wavelength: 633 nm (Red)

LCD Display

System power

Emitter service life before replacement

Remote control

Warranty Period, months

Brand

up to 8 people per day

2

60 W/m<sup>2</sup>

350 mW/m<sup>2</sup>

0 (not present)

95/5%

present

present

yes

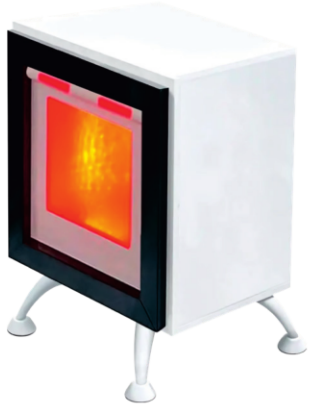
1000 W

2,000 hours

Remote Control — Yes

36

Foton Fly





For personal and commercial use:



## D3 Business

up to 30 people per day

3

60 W/m<sup>2</sup>

350 mW/m<sup>2</sup>

0 (not present)

95/5%

present

present

yes

**1,500 W**

2,000 hours

Remote Control — Yes

36

Foton Fly

## Technical specifications

Recommended number of users

Number of emitters

UVA Ultraviolet radiation

UVB Ultraviolet radiation

UVC Ultraviolet radiation (Short-Wave UV)

UVA/UVB Ratio

Visible radiation

Wavelength: 633 nm (Red)

LCD Display

System Power

Emitter service life before replacement

Remote control

Warranty period, months

Brand

## D3 Medical

up to 50 people per day

4

60 W/m<sup>2</sup>

350 mW/m<sup>2</sup>

0 (not present)

95/5%

present

present

yes

**2,000 W**

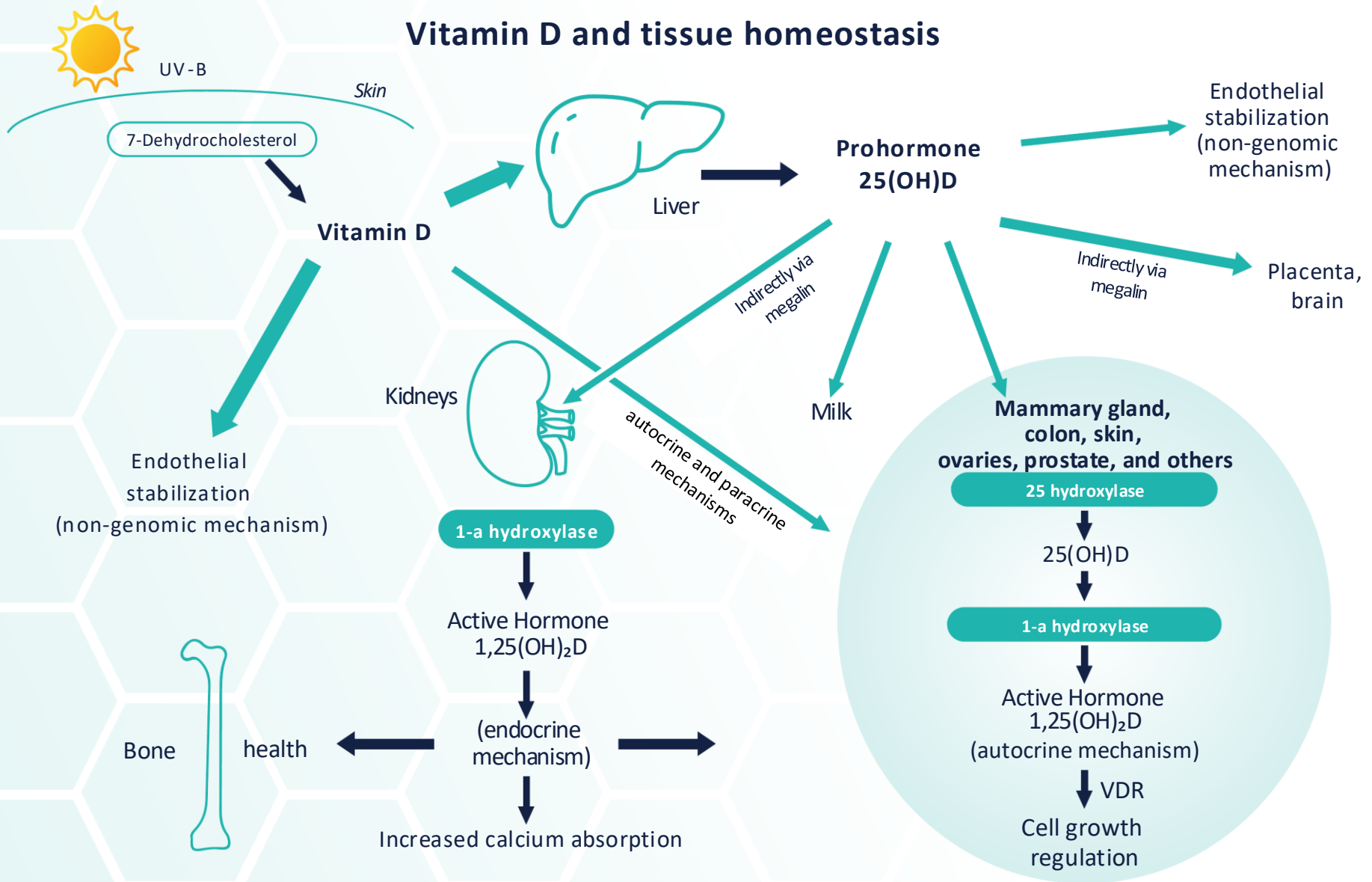
2,000 hours

Remote Control — Yes

36

Foton Fly







*Studies show that people who use tanning beds tend to lead more active lifestyles. For example, they intentionally spend time in the sun, particularly during peak hours, wear less protective clothing, engage more frequently in outdoor activities, and generally receive more sunlight over their lifetimes. Measured vitamin D levels support this behavioral finding within the group. Therefore, the apparent protective effect of tanning bed use on mortality may be associated not only with tanning bed use itself, but also with more generally sun-seeking behavior.*

***“Among tanning bed users, the risk of all-cause mortality was 15% lower, with a 23% lower risk of cardiovascular mortality, a 14% lower risk of cancer mortality, and a 12% lower risk of mortality from other diseases”.***

From a scientific article by researchers at the University of Edinburgh  
“Higher ultraviolet light exposure is associated with lower mortality: An analysis of data from the UK Biobank cohort study,”  
based on a large clinical study.

(Higher ultraviolet light exposure is associated with lower mortality:  
An analysis of data from the UK biobank cohort study),

Andrew C. Stevenson, Tom Clemens, Erola Pairo-Castineira, David J. Webb, Richard B. Weller, Chris Dibben

# FOTONFLY

medical equipment manufacturer



Tel.: +7 927 407 47 47

Email: [info@fotonfly.ru](mailto:info@fotonfly.ru)

Website: [fotonfly.ru](http://fotonfly.ru)



LLC "PO FOTON FLY"

TIN / KPP: 1658228486 / 165801001

PSRN: 1201600071221

420033, Russia

Republic of Tatarstan, Kazan

100 Vostaniya St., Building 5180

[WWW.FOTONFLY.RU](http://WWW.FOTONFLY.RU)