

# Visible radiation

Visible radiation , or light, is the visible part of electromagnetic radiation. Its **frequency** ranges from  **$3.9 \times 10^{14}$  Hz to  $7.9 \times 10^{14}$  Hz**. The **wavelengths** correspond to the interval **390 nm - 760 nm**.

## The effect of visible radiation on the organism

**Visible radiation** acts on the organism through various mechanisms. Short-wavelength components (blue and violet areas) cause **photochemical effects** , which can manifest themselves on the skin especially in more sensitive people ( photodermatosis ), in certain diseases ( porphyria ), or after administration of certain drugs ( sulfonamides ). The red area, with its effects close to infrared radiation, has a **thermal effect** , which can cause the body to overheat.

Of course, light also affects the periodicity of **vital functions** (body temperature, blood pressure, sleep, hormonal and metabolic processes). **Psychosomatic effects** depend on the intensity and quality of light, the effect of colors on the psyche and perception of the surroundings is also known.

## Visible light in therapy

Usage is not great. The interest in light falls more into the field of lighting hygiene , which deals not only with the lighting of workplaces and households, but also its effect on the human psyche. Visible light is used, for example, in the treatment of depression .

## Links

### Related Articles

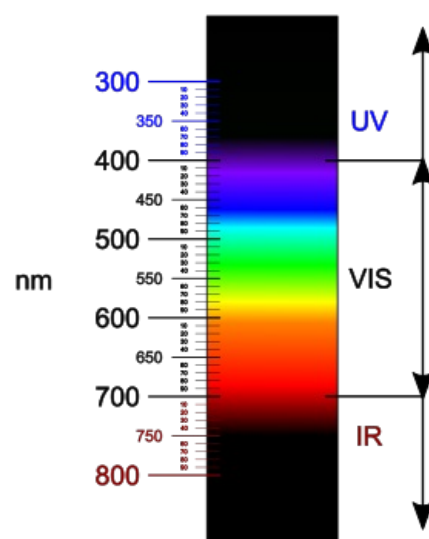
- visible light
- cutaneous porphyria
- infrared radiation
- electromagnetic spectrum

### External links

- Visible radiation (Czech Wikipedia) (<https://cs.wikipedia.org/wiki/Sv%C4%9Btlo%7C>)
- Light (English Wikipedia) (<https://en.wikipedia.org/wiki/Light%7C>)
- Electromagnetic spectrum (Czech Wikipedia) ([https://cs.wikipedia.org/wiki/Elektromagnetick%C3%A9\\_spektrum%7C](https://cs.wikipedia.org/wiki/Elektromagnetick%C3%A9_spektrum%7C))
- psychology and psychotherapy (Wikiskripta)

## Source

- KYMPLOVÁ, Jaroslava. *Katalog metod v biofyzice* [online]. [cit. 2012-09-20]. <<https://portal.lf1.cuni.cz/clanek-793-katalog-metod-v-biofyzice>>.



Color spectrum of visible light (giving exact colors)