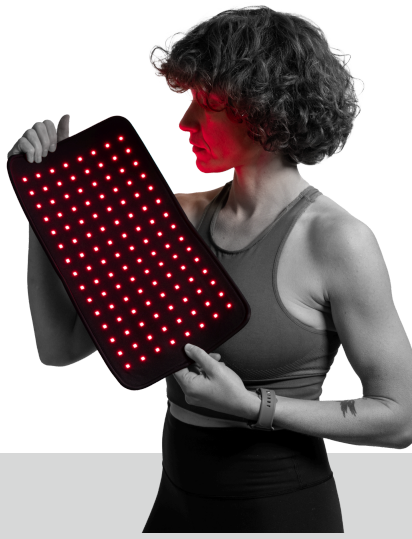
Fringe Light Wavelengths:

Designed for Deeper Healing



What Is Red Light Therapy?

Red light therapy, or photobiomodulation, uses specific wavelengths of light to influence cellular function and support healing. The name can be misleading, since most devices—including Fringe's—use both red and near infrared (NIR)light. Red light falls in the visible range (600–700 nm), while NIR light (800–1100 nm) is invisible to the eye but penetrates deeper into tissues. Together, these wavelengths stimulate mitochondria, boost energy (ATP) production, and set in motion a cascade of cellular repair processes that improve recovery, resilience, and overall health.

Wavelengths in Fringe Devices

Fringe products use carefully selected wavelengths backed by research: 660 nm (red) and 850 nm (NIR) in our wraps and panel; a combination of 660 nm red, 810 nm and 1050 nm NIR in our head wrap for enhanced brain penetration; and 630 nm red, 830 nm NIR, plus 415 nm blue light in our face mask. That last inclusion—blue light—may surprise some, but at 415 nm it mimics the blue found in natural sunlight and is clinically effective for controlling blemishes. Unlike the harsh blue light from electronic devices, this therapeutic spectrum offers skin benefits without disruption.

Why a 2:1 Ratio of NIR to Red?

The ratio of red to NIR light also matters. Fringe devices use a 2:1 ratio of NIR to red light because NIR penetrates more deeply, reaching muscles, joints, and even the brain, while red light supports surface-level tissues like the skin. By combining the two, we target multiple layers of the body at once—offering benefits from skin rejuvenation to deep tissue repair. This balanced design ensures comprehensive support, rather than focusing on just one depth of action.

Science-Driven Wavelength Selection

Ultimately, wavelength selection is one of the most important design choices in any Red Light Therapy device. By combining research-backed red, NIR, and—in select products—blue light, Fringe devices are optimized to deliver therapeutic results across a wide range of needs. From improving skin clarity and cellular energy to supporting brain and muscle recovery, our wavelength combinations reflect the best of what science has shown about light's healing potential.

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Dr. Genevieve Newton, DC, PhD spent close to 20 years as a researcher and educator in the field of nutritional sciences before joining Fringe as its Scientific Director. Gen's job is to "bring the science" that supports Fringe's products and education. She is passionate about all things Fringe, and is a deep believer in healing body, mind and spirit using the gifts of the natural world.

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