

Helo<sup>®</sup>

QUICK GUIDES

# STRESS LEVEL



- **Stress**
- **Stress and Health**
- **Heart Rate Variability and Stress**
- **Why Measure Stress With Helo Wearable Devices**

## Stress

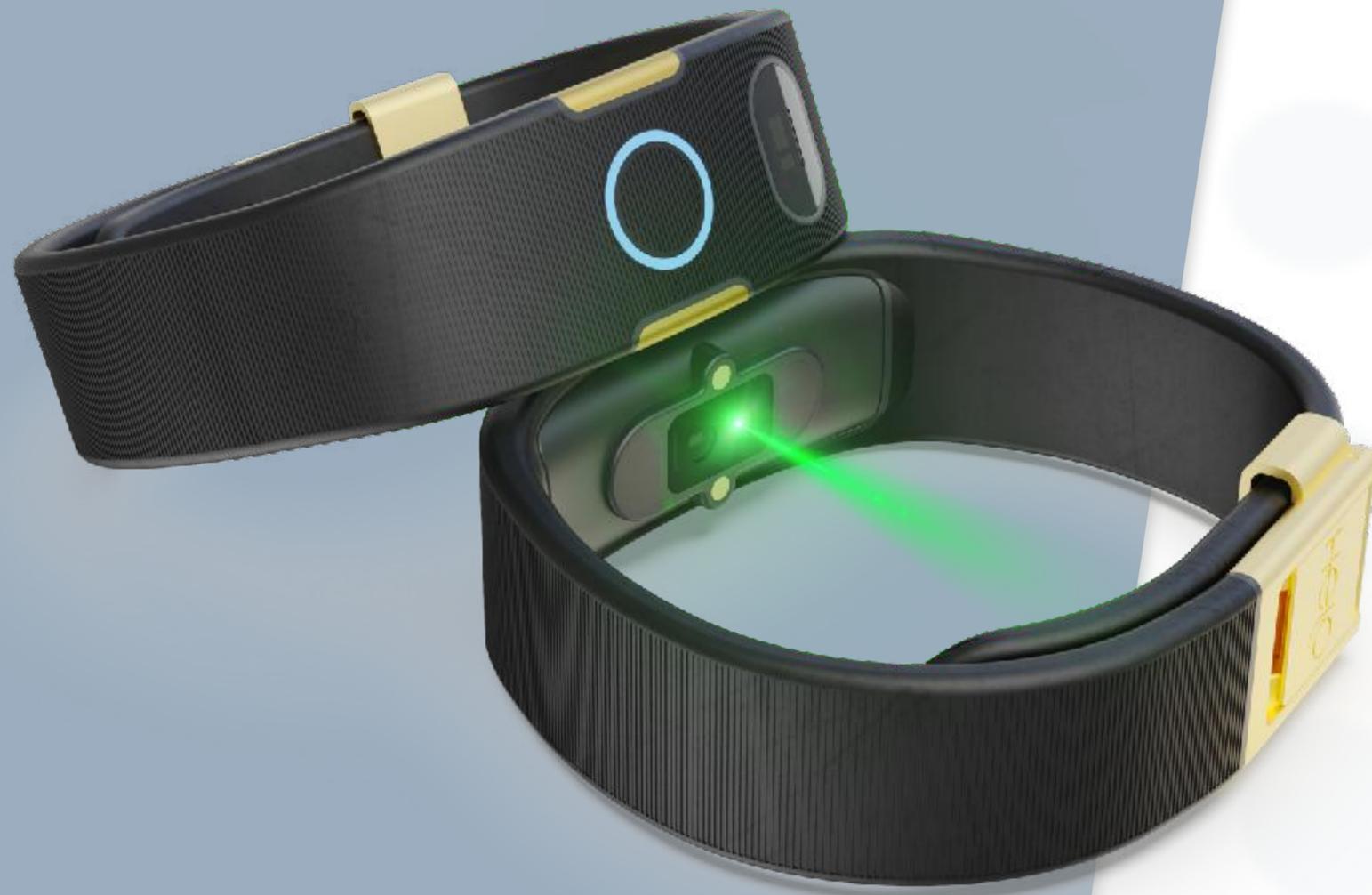
- Stress is the body's defense mechanism against threats and stimuli from social and environmental factors. Most responses to stress are automatic and controlled by the autonomic nervous system. Attempts to identify, address, and reduce stress can result in improved health outcomes because chronic stress is recognized as a risk factor for mental diseases and disease states, including cardiovascular disease. Research has indicated that low variability is associated with high stress.
- Heart rate variability, a measure of the change in time between adjacent heartbeats, can be a helpful proxy for evaluating stress. HRV can be measured precisely and effectively using photoplethysmography, an optical technique for monitoring changes in blood volume in a tissue bed.



## Stress and Health

- Stress is the physiological, biological, and psychological defense mechanism of an organism against environmental stimuli.
- Many of these actions in humans are triggered by the autonomic nervous system (ANS) and are intended to defend the subject against injury. The ANS is a control system that acts largely unconsciously and regulates bodily functions, including heart rate.
- Given its damaging effect on human health, helping people recognize and manage stress early can help them better handle difficulties and prevent harmful health effects. This means empowering individuals with the tools and knowledge to deal with challenges is more realistic than hoping to eliminate stress.





## Heart Rate Variability and Stress

- HRV is a helpful measure of general health and, more particularly, stress. Heart rate variability (HRV) is a physiological parameter that can aid in the monitoring and diagnosis of chronic disorders such as cardiovascular disease, depression, and psychological stress.
- Photoplethysmography (PPG), which uses various wavelengths of light to illuminate the skin and photodiodes to monitor the reflected light, thereby inferring changes in blood volume by analyzing changes in light absorption, makes it simple to record HRV.



Stress Level

## Why Measure Stress with Helo Life Watch

Helo's unique wearable devices incorporate stress monitoring using PPG functionality. This wearable device has PPG capabilities for determining a variety of factors, including HRV. Helo wearables analyze the HRV data using a proprietary algorithm developed by Helo to identify elevated stress levels and notify the user through the device. Best practices for managing stress and mental health can then be applied by the user. This information may also encourage the user to consult their physician for assistance and advice, as necessary.





## Note

**Some features are not available in all markets.  
Helo products and services are designed to support wellness and are not intended for diagnosing, curing, mitigating, treating, or preventing any diseases or other medical conditions and users should consult with a doctor or other qualified healthcare professional before making any medical decisions.**

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