

Reducing Spikes and Dropouts When Wearing Heart Rate Monitors

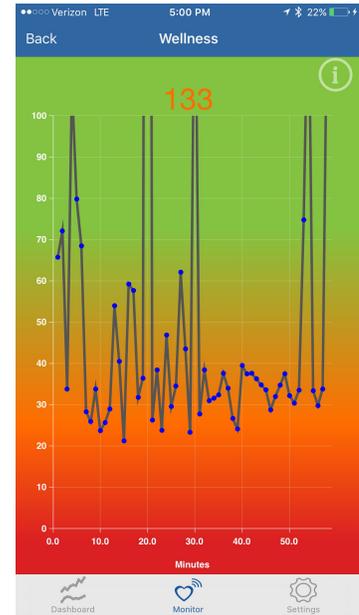
Wearing the Polar H7 or other chest strap based heart rate monitors on dry skin reduces contact with the sensor and can result in spikes and dropouts. Any time you get a spike or dropout, it is a result of your body not having enough moisture to get a firm connection with the sensor. CardioWell automatically detects spikes and dropouts and filters them out of your wellness data.



Spike



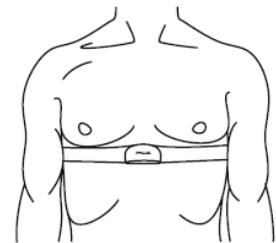
Dropout



Abnormally high rMSSD spikes with no filtering

To improve the quality of the data received from the Polar H7 heart rate monitor we recommend:

1. Moisten the electrode areas of the strap with water, saliva or a conductive gel.
2. Ensure the sensor is connected securely to the belt.
3. Adjust the belt length to fit tightly but comfortably. If the belt is loose, the movement of the electrodes will disturb ECG signal detection.
4. Clip the belt around your chest, just below the chest muscles.
5. Check that the moist electrode areas are firmly against your skin and that the Polar logo of the connector is in a central and upright position.



Most common reason for spikes and dropouts:

- 1) No moisture, dry air, cold air
- 2) Synthetic shirts (quick dry/tech shirts)
- 3) Electrical Interference (power lines, static,...)

Most common fixes:

- 1) Increase moisture using heart-rate gel.
- 2) Changing the strap position
- 3) Replacing the batteries

If you still get dropouts and spikes:

Reposition the strap: Try different sensor positions to find the best for you. If the signal is weak when the sensor is placed right under pectorals (recommended position), move the sensor left or right, lower or higher to find the best signal. Try sliding the sensor around your side a bit, so the contact portions of the strap straddle your chest and back. There are known cases where heart rate is detected better when the sensor is turned logo upside down and facing out, or even when attached on the back.

Clean your polar sensor contacts: We recommend that you clean your HRM strap after every use.