

# Exergen TemporalScanner Thermometers

## Most Common Issues and Their Solutions

### Correct Technique

When you use the TemporalScanner, make sure to start with a blank screen, then keeping the button depressed, touch the center of the forehead and scan horizontally in a straight line over to the hairline before releasing the button. Do not curve down to the temple or you could miss the important part of the temporal artery which is up in the forehead trapped between the skin and the skull so we know exactly where it is. At the temple, the artery can go deep, even on an infant, and will not provide the correct temperature.

### Low Temperatures

**Smudgy/dirty lens:** The most common reason for low readings is a smudgy/dirty lens. To resolve, an alcohol dampened Q-tip should be twirled directly on the lens every 2-3 weeks. Like a camera or eyeglasses, the TemporalScanner uses optical technology. In the case of the TemporalScanner, the infrared sensor (which is behind the lens) must “see” the heat in order to measure it. If you have had the TemporalScanner a little while, it might just need a lens cleaning (make sure you use a Q-tip (or generic cotton tipped stick applicator), and not a twisted paper towel or tissue). Following the alcohol cleaning, let the TemporalScanner recover from the coldness of the alcohol for about 5 minutes before using it again.

**The little lens should be cleaned as follows below:**

1. Use an alcohol dampened Q-Tip (it has to be a Q-Tip or other cotton tipped stick applicator for the leverage required, and not a twisted paper towel, gauze pad, or tissue).
2. Dampen the Q-Tip with either an alcohol prep/swab, or dip the Q-Tip in a little alcohol, but do not use the alcohol prep/swab to clean the lens as it will not provide the leverage needed.
3. Twirl the Q-Tip directly on the little lens deep in the center of the probehead.
4. This preventive maintenance should be routinely done every few weeks.
5. Following the alcohol cleaning, wait about five minutes to let the infrared sensor behind the little lens to recover from the coldness of the alcohol cleaning.

**Sweat will cause low temperature readings:** If the individual is sweaty, the effect of evaporative cooling on the forehead will result in low temps when using the TemporalScanner. However, sweat is a sign the fever has broken and, as a result, the temperature is rapidly falling back to normal. If sweaty, wait until the forehead has dried before taking a temperature, wiping the forehead will not work. However, when the individual is just beginning to sweat, taking the temperature in the little soft depression on the neck just below the earlobe will work since we sweat last on the neck. But if both forehead and neck are wet/moist, wait until the sweating has subsided before taking a temp.

**The TemporalScanner differs from rectal temperature.** Unlike rectal temperature, the TemporalScanner identifies a change in temperature immediately, since it is measuring the heat from the blood coming directly from the heart (a true core temperature). Even on an infant, when temperature is changing, it can take 60-90 minutes for rectal temperature to identify the change, and considerably longer on older children and adults.

## High Temperatures

**The TemporalScanner is measuring a core temperature.** Like a rectal temperature, temperature taken with the TemporalScanner, on average, will be about a degree Fahrenheit higher than an oral temperature. With the exception of an infant up to about 6 months, the TemporalScanner, on average, will be about two degrees higher than an axillary (under the arm) temperature.

Temperature on an infant up to about 6 will be about the same as an axillary and rectal temperature as the infant's body temperature is close to being uniform regardless of where the temperature is taken.

## High or Low Temperatures

**Feeling for Fever.** Touching the forehead is just not an accurate method (although we all do it). Many studies have proven that the hand (or a kiss on the forehead) will be correct 98% of the time when there is no fever, but wrong half of the time when the individual actually has a fever. The reason is that body heat is released or retained to keep our body temperature in the normal range. This contributes to the erroneous assessment as felt by the hand or lips. The core body temperature stays normal by the release of heat (like opening the windows when the house is too hot) or by retention of the heat (closing the windows when the house is too cold).

## Variability - Different Temperatures with Each Scan

Multiple scans in rapid succession will change the temperature of the skin and result in variability of the readings. It is important to wait a full minute before repeating the scan to allow the skin over the temporal artery to recover from the cooler temperature of the probehead. The probehead is at room temperature and about 30 degrees lower than body temperature.

For further information, email [medical@exergen.com](mailto:medical@exergen.com) or call Customer Service at 617-923-9900 x6234.

