

The temporal artery is connected to the heart through the carotid artery, which branches directly from the aorta. It provides continuous blood flow and is the only major artery located close enough to the skin's surface to allow accurate, non-invasive temperature measurement. The Temporal Artery Thermometer measures the naturally emitted heat over the temporal artery, taking approximately 1,000 readings per second and selecting the highest reading to estimate core body temperature.

KEY FEATURES

Clinical accuracy

Complies with ASTM E1112 with an accuracy of $\pm 0.1^{\circ}\text{C}$, exceeding the $\pm 0.2^{\circ}\text{C}$ performance standard (EN 12470-5) commonly used for infrared and tympanic thermometers

Earlier fever detection

Measures changes in core body temperature that may be detected earlier than rectal or tympanic methods.

Ambient temperature compensation

Automatically accounts for environmental heat loss or gain to provide an accurate estimate of core body temperature across a range of room conditions.

High-speed sampling

Captures approximately 1,000 readings per second during the scan to identify the highest temperature reading.

No disposable probe covers

Designed for wipe-clean disinfection, eliminating the need for disposable probe caps.



Temporal Artery
Thermometer
TemporalScanner® TAT-5000S

Product Lifetime Warranty

Covered by Exergen's Product Lifetime Warranty, helping reduce long-term replacement costs.

Clinical benefit

Provides a fast, non-invasive temperature measurement designed to support patient comfort and efficient clinical workflow.

SPECIFICATIONS

Clinical accuracy	$\pm 0.1^{\circ}\text{C}$ per ASTM E1112
Temperature range	16–43°C
Response time	Approximately 0.04 seconds
Battery life	Approximately 15,000 readings
Display	Large LED display with 30-second temperature hold
Construction	Industrial-duty, impact-resistant, hermetically sealed housing
Warranty	Product Lifetime Warranty

HOW TO USE

1

Prep the forehead

Move hair away from the temporal artery (TA) area if necessary.

2

Position the probe

Place the probe flush against the center of the forehead.

3

Begin the scan

Press and hold the **SCAN** button throughout the entire measurement.

4

Scan the forehead

Slowly slide the probe along the forehead midline to the hairline over approximately 2–3 seconds.

5

Measure behind the ear

If needed, move hair away from the ear. Lift the probe from the forehead and briefly touch the skin just behind the earlobe on the neck.

6

Record the reading

Release the **SCAN** button and read the displayed temperature. The reading remains visible for 30 seconds before the thermometer automatically powers off.

Key technique reminders:

- Measure only on exposed skin. Hair, hats, bandages, and wigs can affect the reading.
- Remain on the forehead midline throughout the scan. Scanning down the side of the face may result in lower readings because the temporal artery lies deeper beneath the skin.
- When measuring behind the ear, place the probe where perfume is typically applied and wait approximately 30 seconds before repeating a measurement on the same patient.
- For infants, a forehead scan is generally sufficient. If additional confirmation is needed, expose the neck for approximately 30 seconds before measuring behind the ear

CARE & MAINTENANCE

- **Cleaning** — Clean the sensor lens and probe housing with a soft cloth dampened with medicinal alcohol.
- **Routine disinfection** — The housing is designed to be wiped clean and does not require disposable probe covers.
- **Battery replacement** — Replace the battery when the low-battery indicator appears, ensuring it is fully seated to prevent error messages.
- **Calibration verification** — Use the Calibration Verification Kit (CVK) as part of routine quality assurance, after device damage, or whenever measurement accuracy is in question.
- **Lens maintenance** — A dirty lens is a common cause of low temperature readings. Clean the lens regularly to maintain performance.