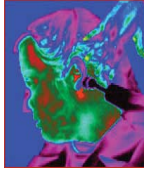


# Exergen Temporal Artery Thermometry

## ? How do I assure accuracy?

- Measure exposed skin. Brush hair and bangs aside if covering the area to be measured.
- Measure straight across the forehead and not down the side of face. Think of a sweatband.
- Measure only the up-side on a patient in a lateral position. The down-side will be insulated preventing the heat from dissipating, resulting in falsely high readings.



## ? Why scan across the forehead and not down side of the face?

The TA is less than 2mm below the skin surface at the forehead, but tends to run deep below the skin at the side of the face.



## ? Why measure behind the ear as well as the TA?

Measuring both areas eliminates the possibility of a false low temperature caused by the evaporative cooling from diaphoresis, which many times is not obvious.



## ? Why behind the ear lobe

If your patient exhibits any grade of diaphoresis, vasodilation will be present. While perspiration results in a low temperature in the TA area, the area directly behind the ear lobe will exhibit the high blood flow necessary for the arterial measurement, and is the last area of the body to sweat. And, it is very accessible.



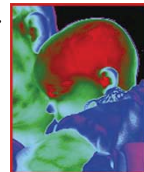
## ? Why not use only the area behind the ear lobe?

The area behind the ear only works as a sole site if there is 100% vasodilation. In the absence of diaphoresis (or head trauma), vasodilation in the neck area is uncertain, making this area too variable to be reliable as a sole site.



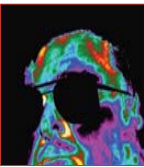
## ? What if the TA area is completely covered with dressings or has been traumatized by burns or lacerations,?

This is a good example of when the temperature could be obtained just behind the ear lobe, as the area will be 100% vasodilated in response to rushing more blood to the injury to promote the healing process.



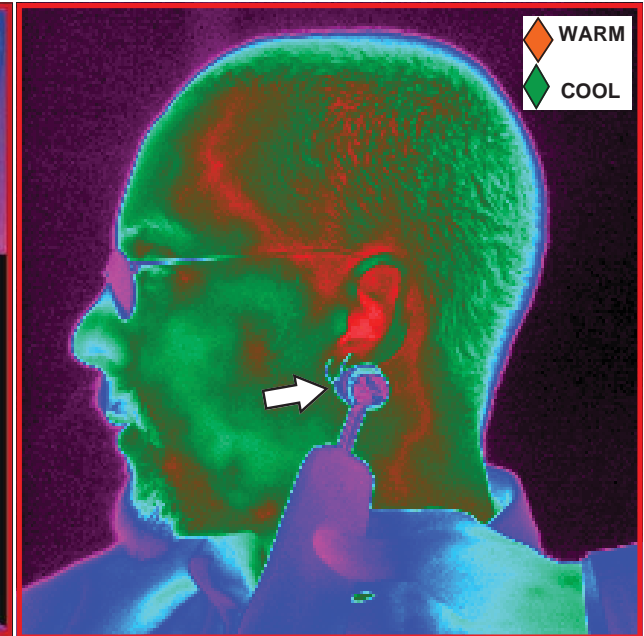
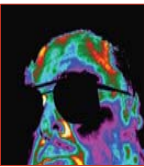
## ? What about an infant

Vasodilation is a normal state for infants, and the high rate of perfusion allows the measurement to be made either at the TA or behind the ear lobe (as long as the area is exposed) when the TA area is not readily accessible.



## ? What about a very obese patient

The temporal artery is trapped between the skull and the skin making the TA easily accessible even on a morbidly obese patient.



## 1. Scan Across Forehead

Place probe flush on center of forehead and depress button

*Keeping button depressed...*

Slide probe in a straight line across forehead to the hairline

*With button still depressed...*

## 2. Slide Behind Ear

Lift probe from forehead, touch behind ear halfway down the mastoid process (the bone in back of the ear) and slide down to the soft depression behind the earlobe

## 3. Read Temp

Release button and read



• Watertown, MA 02472 • 617.923.9900 • [www.exergen.com](http://www.exergen.com) •