



# Clinical Practice Procedures: Assessment/Tympanic thermometer

<b>Policy code</b>	CPP_AS_TT_0518
<b>Date</b>	May, 2018
<b>Purpose</b>	To ensure a consistent procedural approach to the tympanic thermometer.
<b>Scope</b>	Applies to Queensland Ambulance Service (QAS) clinical staff.
<b>Health care setting</b>	Pre-hospital assessment and treatment.
<b>Population</b>	Applies to all ages unless stated otherwise.
<b>Source of funding</b>	Internal – 100%
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# Tympanic thermometer

May, 2018

The assessment of a patient's temperature is a valuable measure of systemic illness. Clinical studies have demonstrated that measurement by the tympanic route is superior to traditional sites (axillary, rectal and oral).<sup>[1,2]</sup>

Body temperature is regulated by the hypothalamus which shares the same blood supply as the tympanic membrane. Changes in core body temperature are usually seen earlier at the tympanic membrane than at other sites.

The BRAUN ThermoScan PRO 4000 reads the infrared energy emitted by the tympanic membrane and surrounding tissues to determine the patient's temperature.<sup>[3]</sup> To ensure accurate temperature measurements, the sensor is warmed to a temperature close to that of the human body. When the BRAUN ThermoScan is placed in the ear, it continuously monitors the infrared energy until temperature equilibrium has been reached and an accurate measurement can be taken.



## Indications

- The monitoring of temperature when clinically indicated.

## Contraindications

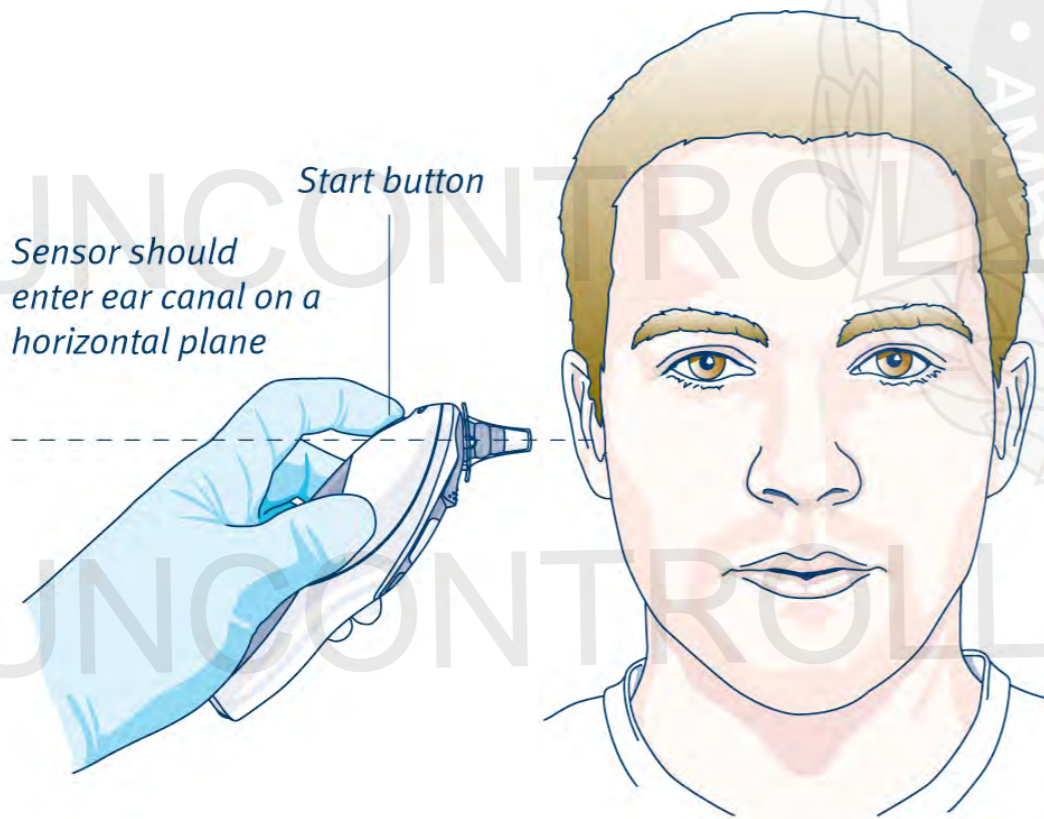
- Blood or drainage in the ear canal
- Acute or chronic inflammatory conditions of the external ear canal
- Perforated tympanic membrane/s

## Complications

- Nil

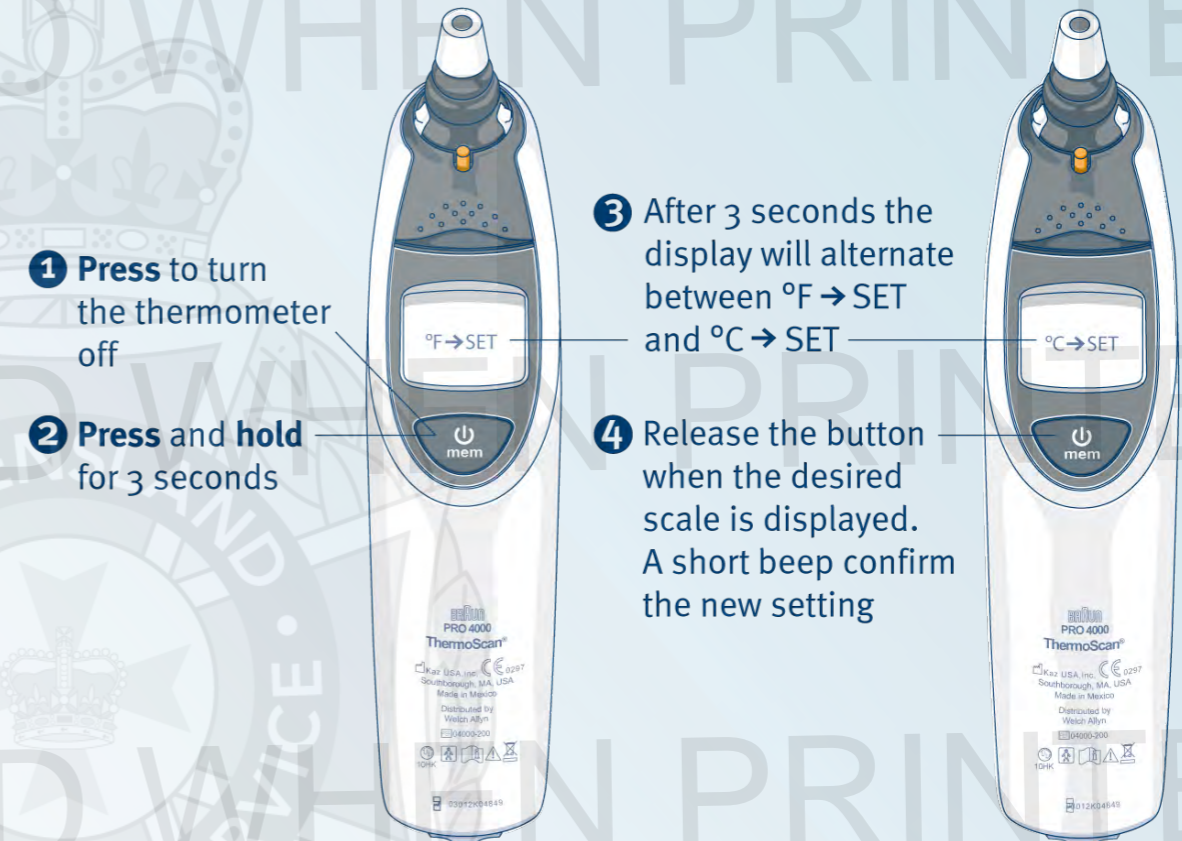
## Procedure – Tympanic thermometer

1. Place a new cover on the thermometer's probe.
2. The thermometer will turn on automatically, a single beep will sound indicating the thermometer is ready for use.
3. Gently place the covered sensor snugly into the ear canal, then push and release the start button.
  - If the sensor has been correctly inserted, a long beep will sound signalling completion of the assessment and the screen will display the patient's temperature.
  - If the sensor has been incorrectly inserted, a sequence of short beeps will sound and the screen will display 'POS' indicating a position error.
4. Eject and dispose of the used probe cover.



### + Additional information

- To switch the temperature setting between Celsius and Fahrenheit:



- Tympanic temperatures should always be taken from the same ear as measurements do differ slightly between sides.
- The ear must be free of obstruction or excess cerumen and build-up in order to take accurate measurements.
- For persons wearing hearing aids the hearing aids should be removed and tympanic temperature assessment ideally delayed for 20 minutes.
- The range of normal temperatures varies from person to person and can be influenced by many factors such as time of day, level of activity, medications and gender.