

USER MANUAL

Smart Ear Thermometer
Simple Operation
High Measuring Accuracy

Model Name : TE4.0
Brand Name : NantLife
FCC ID: OXJTE40

NantLife

NantLife

Smart Ear Thermometer

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Table of Contents

1	Table of Contents				
1.1	Introduction	P 4	2.8.2	Pairing with the HBox®	P 18
1.2	Intended Use	P 4	2.9	Data Transmission	P 19
1.3	Safety Information	P 5	2.10	Using the software	P 19
1.3.1	Warnings	P 7	2.11	Evaluation by a care provider	P 21
1.3.2	Cautions	P 8	3	Care and Maintenance	P 21
1.4	Before taking a measurement	P 9	3.1	Cleaning	P 21
2	Operating Instructions	P 11	3.2	Maintenance	P 21
2.1	Know your Ear Thermometer	P 11	4	Troubleshooting	P 22
2.2	Unit Display	P 12	4.1	Error Indicator	P 22
2.3	Display Symbols	P 13	4.2	Troubleshooting Tips	P 22
2.4	Batteries Installation	P 14	5	FCC Statement	P 23
2.5	Batteries Replacement	P 15	6	CE mark	P 26
2.6	Using the Ear Thermometer	P 16	7	Warranty	P 27
2.6.1	Menu Setting	P 16	8	Specifications	P 30
2.7	Taking a Measurement	P 17	9	Manufacturer	P 32
2.8	Bluetooth activation & pairing	P 18			
2.8.1	Pairing for smart phone/tablet	P 18			

1.1 Introduction

Thank you for choosing the NantLife Smart Ear Thermometer. This innovative medical device relies on advanced infrared (IR) technology to measure temperature instantly. Your new digital thermometer uses the infrared heat generated by the eardrum and its surrounding tissue. The thermometer then converts it into a temperature value displayed on the OLED screen.

Note: The thermometer does not emit any infrared signal.

Measured values are transmitted automatically to a database via a Bluetooth-enabled mobile phone and/or the HBox® hub.

Choose between 2 basic configurations:

- 1) **Smart Medical Home with NantLife HBox®**
- 2) **Mobile Health with your Bluetooth-enabled smartphone or tablet**

The NantLife Smart Pulse Oximeter comes with the following components:

- **Color OLED screen display (organic light-emitting diode)**
- **Uni-size Finger probe**
- **Real-time and non real-time Bluetooth® data transmission**
- **Real-time inner clock (for transmission only, not for display)**
- **User Manual**
- **User Guide**

1.2 Intended Use

- NantLife Smart Ear Thermometer is intended for home monitoring of body temperature.
- The NantLife Smart Ear Thermometer is not intended to be a diagnostic device.
- Never change your medication on the basis of results you have obtained. The evaluation of the measurements and the treatment based on them may only be carried out by the treating physician.
- This device is intended for use in measuring body temperature in the adult and pediatric population. Do not use this device in infants or person who cannot express their intention.

1.3 Safety Information

To assure the correct use of the thermometer, basic safety measures should always be followed including the warnings and cautions listed in this instruction manual.

1.3.1 Warnings

Read all of the information in the instruction manual and any other instruction in the box before operating the thermometer. If you experience discomfort during a measurement- Remove the probe from your ear canal and stop using the device. Please contact NantLife Customer Service.

In addition, please note:

- Proper technique is crucial to getting accurate temperature readings. Please read this manual carefully before using the device.
- Basic safety precautions should always be observed, especially when the thermometer is used on or near children and disabled persons.
- Temperature of left and right ear may differ. Always measure using the same ear.
- Do not under any circumstances use the device in the bath or the shower. If, however, liquid get into the device, you must remove the batteries immediately and refrain from further use. Contact our service department (see front cover).
- The device may not be used near a nuclear magnetic tomographic resonance.
- Using components that are not part of the scope of delivery can produce faulty measurements (Exception: battery replacement).
- DO NOT subject the monitor to strong shocks such as dropping it on the floor.

- DO NOT damage the batteries. If battery fluid gets in your eyes, immediately rinse with plenty of clean water and contact a physician immediately.
- Keep away from source of fire and/or heat.
- Store the device in a clean, safe location.
- DO NOT disassemble the ear thermometer.
- DO NOT use the ear thermometer in a MRI or CT environment.
- DO NOT use the ear thermometer in the presence of flammable anesthetics.
- **Explosion hazard:** Do not use the ear thermometer in an explosive atmosphere.
- Chemicals from OLED panel are toxic if ingested. Use caution if the ear thermometer display screen is broken.
- The ear thermometer is intended only as an adjunct in patient assessment. It must be used in conjunction with other methods of assessing clinical signs and symptoms.
- Prolonged use or the patient's condition may require changing the ear periodically.
- Use only 1.5V alkaline batteries with this device. Other type of battery may damage the unit.
- Follow local ordinances and recycling instructions regarding disposal or recycling of the device components, including batteries.
- Only the authorized service personnel can repair this device.

1.3.2 Cautions

- Autoclaving, ethylene oxide sterilizing, or immersing the ear thermometer in liquid may cause inaccurate measurements.
- The accuracy cannot be ensured for a person who has deformity in the ear. The thermometer probe cannot be inserted properly into the ear canal. NantLife suggests the use of its Contactless Forehead Thermometer in that case.
- Blood or drainage in the ear may affect accuracy.
- Do not use an ear if ear drops or medication have been placed.
- For users with ear plug and/or earring aid, remove the device and wait 15 minutes before taking the measurement.
- Excessive user movement may cause inaccurate readings.
- All NantLife devices are designed to be compliant with rules and regulations in locations they are sold and are labeled as required.
- Any changes or modifications to NantLife equipment, not expressly approved by NantLife void the user's authority to operate the device.

1.4 Before taking a measurement

Body temperature can vary from one individual to the next. It also varies by location on the body and time of the day. Normal ranges for different sites:

Body Site	Normal Temperature Range	
Oral	35.5°C – 37.5°C	95.9°F – 99.5°F
Axillary (underarm)	34.7°C – 37.3°C	94.5°F – 99.1°F
Rectal	36.6°C – 38.0°C	97.9°F – 100.4°F
Ear	35.8°C – 38.0°C	96.4°F – 100.4°F

Chamberlain, J.M. Terndrup, T.E., New Light on Thermometer Readings, Contemporary Pediatrics, March 1994

Temperatures measured from different sites, even at the same time, should not be compared. Fever indicates that the body temperature is higher than normal. This symptom may be caused by infection, overdressing or immunization. Some people may not experience fever even if they are ill. These include, but are not limited to, infants under 3 months old, persons with compromised immune systems, persons with chronic diseases, persons taking antibiotics, steroids or antipyretics such as aspirin, ibuprofen and/or acetaminophen.

Please consult your physician when you feel ill even if you do not have fever.

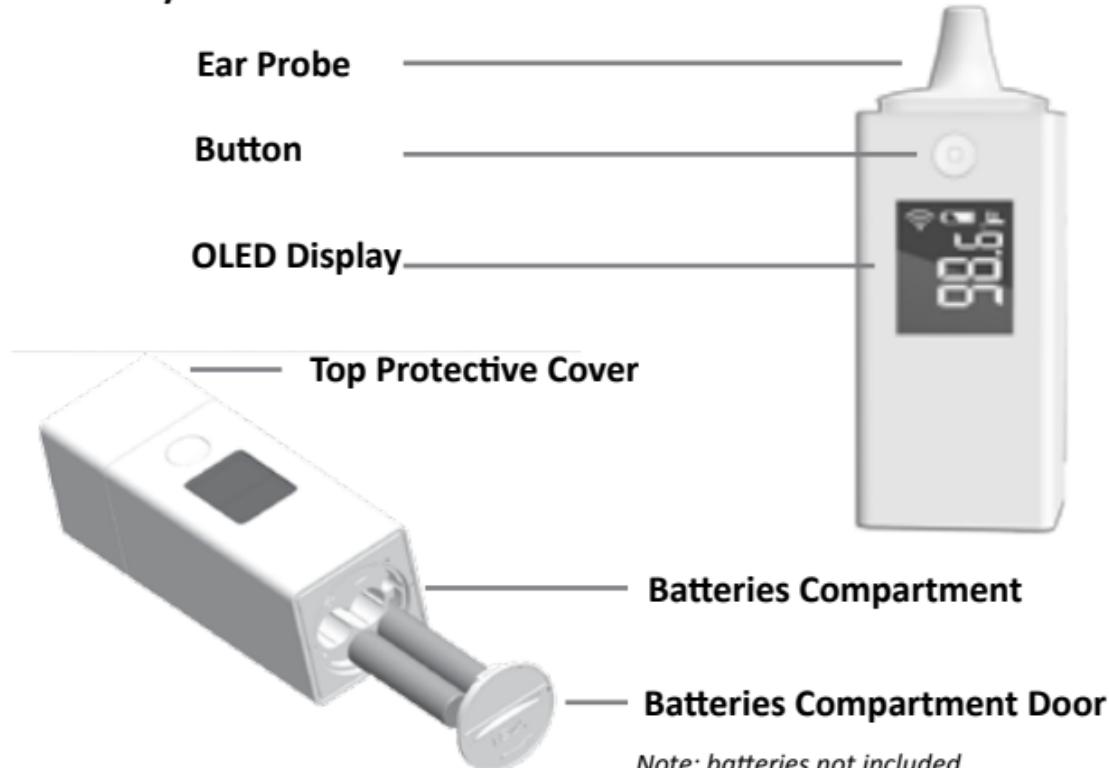
Your healthcare providers want to get an accurate picture of your body temperature and chart what happens over time. Body temperature is a vital indicator of one's health. A number of diseases are accompanied by characteristic changes in body temperature. Likewise, the course of certain diseases can be monitored by measuring body temperature. The efficiency of many treatments can be evaluated by monitoring body temperature and changes therein. Fever is a reaction to disease-specific stimuli, where the set point of the temperature control center is varied to promote the body's defenses against the disease process. Fever is the most common form of pathological (disease-related) elevation of body temperature.

To ensure a reliable reading follow these recommendations:

- Do not take a reading while eating, talking, drinking alcohol, smoking, exercising, and bathing for more than 30 minutes before taking your measurement. Rest for 15 minutes before taking the measurement.
- Do not take measurement when you have your ear covered.
- Do not take measurement when you have been exposed to extreme temperature.
- Remain still and do not talk during measurement.
- For accuracy, the ear must be free from excess earwax build-up.

2 Operating Instruction

2.1 Know your NantLife Smart Ear Thermometer



Note: batteries not included

2.2 Unit Display

Ear Temperature Indicator



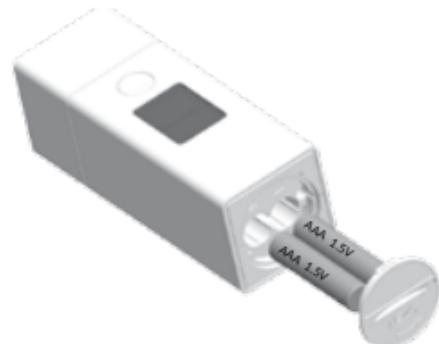
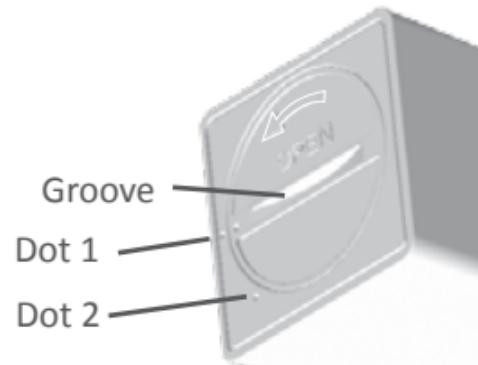
- Wireless Transmission Signal
- Low Power Indicator
- Temperature Unit

2.3 Display Symbols

Symbols	Operation	Measure/Solution
°F	Temperature unit	Fahrenheit
°C	Temperature unit	Celsius
	Low Power Indicator	Replace batteries
	Wireless Data Transmission	see section 4.2.3

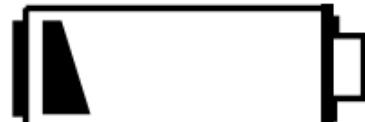
2.4 Batteries Installation

- To open, place a coin in the groove of the battery cover and following the arrow, turn the cover towards dot 2, the cover will popup once in the right position.
- Install 2 “AAA” size batteries so the + (positive) and the – (negative) match the polarities of the battery compartment.
- To close the compartment, line up the groove dot with dot 2 and turn towards dot 1 until secure.



2.5 Batteries Replacement

When the low battery indicator appears on the display screen, turn off the Ear Thermometer and remove all the batteries.



Low batteries signal

Replace with new 2 "AAA" 1.5V alkaline batteries.

WARNING: If battery fluid gets in your eyes, rinse with plenty of clean water and contact a physician immediately.

CAUTION: Dispose of the device and empty batteries according to applicable local regulations.

Unlawful disposal may cause environmental pollution.

2.6 Using the Ear Thermometer

- Remove the ear probe cover
- Check the ear probe for cleanliness and obstruction
- Wipe gently the probe if necessary with a 70% alcohol swab or
- a soft cloth moistened with 70% alcohol
- Dry thoroughly before using

2.6.1 Menu Setting

To enter the Menu Setting:

1. Press the button to start the device
2. Press and hold the button for 3 seconds to enter in the menu screen (figure 1)
3. The white dot shows in front of the Bluetooth line. If desired, press the button quickly one more time to switch the Bluetooth function off. A crossed wireless signal indicates that the Bluetooth is off (figure 2)
4. Press and hold the button for 3 seconds to go down to the unit line (figure 3)
Press the button quickly to reach the desired unit (figure 4)
5. Press and hold the button to exit, the white dot shows on the Exit line (figure 4)
6. Press the button quickly to exit the menu

• Bluetooth ↳
Unit °C/°F °C
Exit

figure 1

• Bluetooth ↳
Unit °C/°F °C
Exit

figure 2

Bluetooth ↳
• Unit °C/°F °F
Exit

figure 3

Bluetooth ↳
Unit °C/°F °F
• Exit

figure 4

2.7 Taking a Measurement

- Press and release the button to turn on the thermometer, the thermometer displays the logo NantLife for 2 seconds and zero value.
 - Insert gently the probe into the ear canal.
-
- Press and release the button one more time.
 - Do not remove the probe from the ear canal until it beeps.
 - After the beep, remove gently the probe from the ear canal
 - Do not turn off the thermometer, it will automatically power off



Warning: If you experience any discomfort, remove the ear probe from the ear canal immediately. Stop using the device and contact our customer support

2.8 Bluetooth Activation & Pairing

2.8.1 Pairing with Smartphones: 3 easy steps

First, set up your mobile phone to receive data by Bluetooth (see your mobile phone user guide). If your phone is already activated, go to Step 1.

(If NantLife has already prepared the pairing of the device, go directly to 2.10 page..... “transmitting readings”.

Step 1: Press the button to activate the Smart Ear Thermometer.

The screen turns on. The device is activated.

Step 2: On your smartphone NantLife application, hit the “Scan” button

Step 3: When the Ear Thermometer icon is highlighted, select it to pair.

Caution: Your mobile phone must have a wireless Bluetooth LE Interface. You can find more information at www.nantlife.com

2.8.2 Pairing with HBox®: 3 easy steps

Step 1: Press the button of the Ear Thermometer to activate it.

The screen turns on. The sensor is activated.

Step 2: **Plug the HBox® in a wall electrical outlet. The LED green light turns on.**

Step 3: **Gently tap to pair the activated Smart Pulse Oximeter with the HBox®.**

The LED yellow light will flash or a music will play to confirm pairing.

2.9 Data Transmission

The measurement results saved in the Smart Ear Thermometer are transmitted automatically to the Bluetooth® enabled smartphone and/or The HBox® hub.

The models of transmission include Realtime Bluetooth® transmission and Non-Realtime Bluetooth® transmission. After measurement, the reading is transmitted automatically. The wireless sign flashes first and becomes stable showing a successful data transmission. The Ear Thermometer stores the latest 50 records if it cannot transmit the data to a paired device.

2.10 Using the software and the application

NantLife Health Management Software and Application allow you to connect, control and share your vital signs with the persons of your choice on a secured Healthcare dedicated platform.

To create your Virtual Health Diary, you can access NantLife portal at NantLife.com and/or download for free NantLife application from the Apple store and Android Apps stores.



NantLife Application Health Diary



NantLife Application Menu

2.11 Evaluation by your care provider

Your measurements are now stored in your virtual NantLife virtual Health Diary. You can share them with care providers, nurses, and family members. For more information on sharing, please go www.NantLife.com

3 Care and Maintenance

3.1 Cleaning

If required, wipe the plastic casing with a damp cotton cloth only.

Do not use abrasive or volatile cleaners.

Clean the ear probe with a soft cloth dampened with 70% isopropyl alcohol before and after each measurement. The probe is not waterproof, do not immerse in any liquid and dry thoroughly. The body of the thermometer is not water resistant. Never put the thermometer under a running tap or submerge it. Do not use abrasive cleaners.

3.2 Maintenance

Place back the top cover of the thermometer to protect the probe when not in use.

Remove the batteries if the unit will not be used for three months or longer.

Use the unit in a manner that is consistent with the user guide manual provided.

4 Troubleshooting

4.1 Error Indicator

Error	Cause	Solution
“ —— ”	the measure is out of preset range	Use the device at the operating ambient condition

4.2 Troubleshooting tips

Description	Solution
The button is pressed but the measurement does not take place, no beep	Check the batteries and replace them if necessary
No symbols appear on the screen	Check the batteries and replace them if necessary
Battery symbol appears empty on the screen	Replace the batteries

5 FCC Statement

POTENTIAL FOR RADIO/TELEVISION INTERFERENCE (for U.S.A. only)

This equipment has been tested and complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the user guide manual, might cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the product does cause harmful interference to radio or television reception, which can be determine by turning the product on and off, the user is encourage to try to correct the interference by one of the following actions:

- Reorient or relocate the receiving antenna
- Increase the separation between the product and the receiver
- Consult the dealer or an experience radio/TV technician for help
- Plug the product (if relevant) in an outlet on a circuit different from that to which the receiver is connected. NantLife is not responsible for any radio or television interference caused by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the users authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device might not cause harmful interference, and (2) this device must accept any interference received, including interference that might cause undesired operation.

POTENTIAL FOR RADIO/TELEVISION INTERFERENCE (for Canada only)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Canadian Department of Communications. Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", ICES-003 édictée par le ministre des communications.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to use the equipment.

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Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to use the equipment.

6 CE mark

NantLife Ear Thermometer complies with the provisions of Council Directive 93/42/EEC of 14 June 1993 as well as national laws concerning medical devices.

It also complies with the provisions of Council Directive 99/5/EC(R&TTE). It carries the CE mark as proof of this. This model complies with the provisions of the European Standard EN 12470-5:2003 Clinical thermometers—Part 5: Performance of infra-red ear thermometer (with maximum device); EN 60601-1:2006 Medical

electrical equipment, Part 1: General requirements for safety; EN60601-1-2:2007
Medical electrical equipment- Part 1: General requirements for safety -2: Collateral
standard- Electromagnetic compatibility- Requirement and tests.

7 Warranty

1. The Smart Ear Thermometer is warranted to be free from defects in material and workmanship appearing within one year from the date of purchase when the meter is used in accordance with the instructions provided with the monitor. Proof of purchase must be supplied in the form of a payment receipt. Include a \$5.00 for return shipping and handling. Include a letter with your name, address, phone number, and description of the problem. Pack the product carefully to prevent damages during transportation.
2. Defects due to faulty material or workmanship will be repaired free of charge during the warranty period.
3. The warranty period is not extended as a result of warranty services being provided, either for the devices as a whole or for any components.
4. The warranty excludes:
 - Any damage caused by improper use, e.g. through failure to observe the operating instructions,

- Damage caused by maintenance or interventions carried out by the purchaser or unauthorized third parties
 - Damage resulting from transport, either from the manufacturer to the consumer, or on the way to the customer services.
 - Component parts subject to normal wear and tear (cuff, batteries etc.)
5. Liability is excluded for direct or indirect damage caused by the device, even if the damage to the device falls within the terms of the warranty
 6. The above warranty extends only to the original retail purchaser.
 7. Unauthorized modification of the warranty card invalidates it.
 8. NantLife shall not be liable for loss of use or any other incidental, consequential or indirect costs, expenses or damages.

To obtain warranty service contact NantLife for the address of the repair location.

For Customer Service

Visit our website at www.NantLife.com

Call toll free at 1-855-NANTCARE - 1-855-626-8227

Add a Nurse to your wireless monitoring
Visit us at www.NantCare.com



Vital Signs Monitoring, Medication Management, Coaching, Training

8 Specifications

Model	STE4.0
Measuring Range	+32°C to +43°C +89.6°F to +109.4°F
Operating temperature	+10°C to +40°C +50°F to +104°F
Operating humidity	15% to 95%
Storage temperature	-20°C to +60°C -4°F to +140°F
Storage Humidity	10% to 95% RH no condensation
Temperature Units	°C for Celsius and °F for Fahrenheit
Accuracy <i>Meet the accuracy requirement specified in ASTM E 1965-98</i>	±0.2°C (±0.4°F) for the range of 36.0°C to 39.0°C (96.8°F to 102.2F) ±0.3°C (±0.5°F) for the range less then 36°C or greater than 39.1°C
Memory Capacity	50 measurements
Display Resolution	0.1°C (0.1°F)
Display OLED	organic light-emitting diode
Operating elements	One button: start/stop

Data transmission	Bluetooth Class II – Bluetooth Class 4
Power supply	2 alkaline 1.5V AAA batteries
Unit Dimensions with top cover	40mm x 40mm x 113mm (1.57" x 1.57" x 4.45")
Weight	90g (3.2oz) not including batteries
Batteries Life	Approximately 300 uses starting with new alkaline batteries

Note: These specifications are subject to change without notice.

9 Manufacturer

Manufactured by NantCare LLC - Made in China

Distributed by NantCare LLC dba NantLife

2929 N 44th Street - Phoenix, Arizona 85018

Toll free phone 1-855-NANTCARE - www.NantLife.com

The manufacturer has calibrated the device for a period of two years. Metrological inspection and adjustment must take place of two years. Metrological inspection and adjustment is subject to a fee and can be carried out by NantLife, a responsible authority, or an authorized maintenance service.

NantLife certifies that:

The NantLife Smart Ear Thermometer meets the standard:

ASTM E1965-98:2003, Standard specification for infrared thermometers for intermittent determination of patient temperature.

The NantLife Smart Ear Thermometer meets the relevant provisions of the Council Directive 93/42/EEC of 14 June 1993 concerning medical devices.

KNOW YOUR THERMOMETER

INSTALL THE BATTERIES

BOX CONTENTS

1 USER GUIDE



1 USER MANUAL

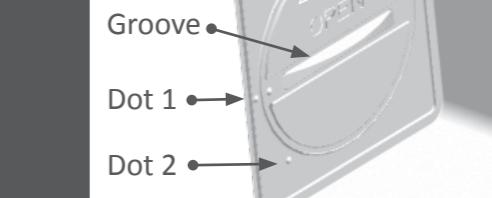


1 EAR DIGITAL THERMOMETER
WITH COVER



OLED SCREEN BUTTON

EAR PROBE



Groove

Dot 1

Dot 2

3

- To open, place a coin in the groove of the battery cover and following the arrow, turn the cover towards dot 2

- Install 2 "AAA" 1.5V batteries in the compartment



- Follow the polarity signs in the compartment when placing the 2 "AAA" batteries

- To close the compartment, line up the groove dot with dot 2 and turn towards dot 1 until secure

TURN THE THERMOMETER ON

- Turn the Ear Thermometer on by pushing the button once
- The screen turns on and the NantLife logo displays
- Then the screen shows as in the illustration below

Note: the thermometer will turn off after 20 seconds of inactivity



5

TAKE YOUR MEASUREMENT

- Insert gently the thermometer ear probe into the ear canal
- Press and release the button
- Do not remove the probe from the ear canal until it beeps
- After the beep, remove gently the probe from the ear canal



Warning:

If you experience any discomfort:

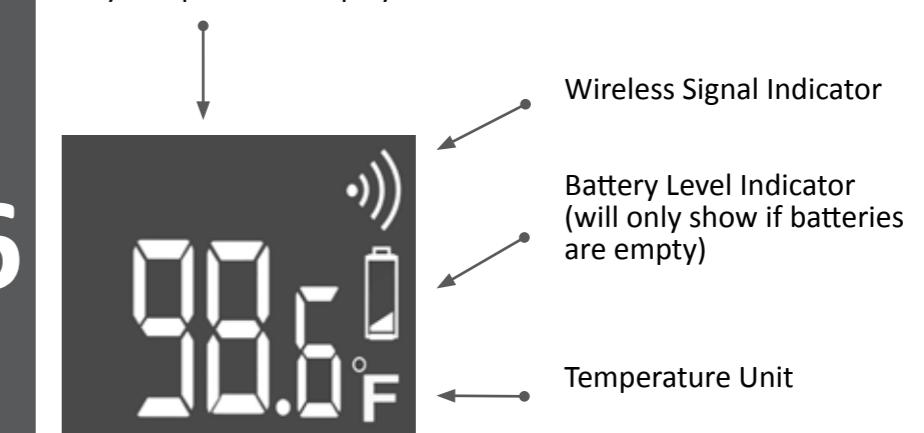
- Remove the ear probe from the ear canal immediately.
- Stop using the device and contact our customer support at support@NantCare.com

6

READ YOUR MEASUREMENT

- After a successful measurement, the display shows like the example below:

Body Temperature Display



- The thermometer shuts down automatically

Please refer to your user manual section 1.4 for more general information about body temperature.

Smart Body Scale



HCube 3 in 1



Smart Ear Thermometer



Complete your
Health Management
with a full range
of NantLife Wireless
Medical Devices

www.NantLife.com

Smart Pulse Oximeter



HPod for Glucometer



HBox Hub



Add a Nurse
to monitor your
vital signs



www.NantCare.com

IMPORTANT REGULATORY INFORMATION

This device complies with Part 15 of the FCC Rules: Operation is subject to the following two conditions:

1. This device may not cause harmful interference and
2. This device must accept any interference that is received, including any interference that may cause undesired operation.

WARNING:

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.