

澳門特別行政區政府 Governo da Região Administrativa Especial de Macau 衛 牛 局

衛 生 局 Serviços de Saúde

# 疾病預防控制中心 技術指引

#### CDC (Macao SS) Technical Guidelines

No.: 054.CDC.NDIV.GL.2020

Ver.: 3.0

Created on: 2020.02.07 Revised on: 2020.03.26

Page: 1/6

## 預防新型冠狀病毒肺炎 - 正確測量體溫指引

Prevent Novel Coronavirus Pneumonia - Guidelines on Measuring Body
Temperature Correctly

### (I) Common methods of taking body temperature

## 1.1 Taking ear temperature

### 1.1.1 Scope of application

- Applicable for measuring core body temperature and has higher accuracy;
- Non-invasive and suitable for most people;
- Not recommended for persons with obstruction of ear canal caused by ear wax or otitis, or persons wearing hearing aid.

### 1.1.2 Steps for measuring

- Before using a thermometer, read the user instructions carefully and follow the procedure of use;
- Stabilize the head position of the person to be tested, pull his/her ear backwards and upwards to make the ear canal straight;
- Fit the probe tip covered with a plastic jacket slightly into the ear canal, as shown in the image below;
- In general, ear temperature of or above 38°C (100.4°F) is considered a fever. For optimal judgement, please refer to the user instructions for the reference range of temperature readings.

#### 1.1.3 Points to note

- Some ear thermometers provide age range options. In this case, make sure the correct age range is selected for the person to be tested;
- The direction of the probe tip should be correct, otherwise it will give an inaccurate reading;
- The ear pressed against the pillow during sleeping has a higher temperature, so the other ear should be used for taking temperature if one is just awake;
- Probe covers should not be reused to avoid cross infection;



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Page: 2/6

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# Prevent Novel Coronavirus Pneumonia - Guidelines on Measuring Body Temperature Correctly

 Thermometers should be cleaned as recommended in the user manual. Do not immerse digital thermometers in disinfectant or disinfect them with high heat as these will damage the electronic components and affect their normal functioning.

#### (Illustration)



### 1.2 Taking forehead temperature

#### 1.2.1 Scope of application

- As a method of measuring surface temperature, forehead temperature is generally taken for screening purposes only due to greater measurement error;
- Non-invasive and suitable for most people.

#### 1.2.2 Steps for measuring

- Before using a thermometer, read the user instructions carefully and follow the procedure of use;
- Make sure the forehead is free of sweat and not covered by hair, hats, etc.;
- Aim thermometer probe at the centre of forehead from a distance as recommended by the user instructions, and then press the scan button, as shown in the image below. The temperature will display immediately;



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Page: 3/6

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• In general, forehead temperature of or above 37.5°C (99.5°F) is considered a fever. For optimal judgement, please refer to the user instructions for the reference range of temperature readings.

#### 1.2.3 Points to note

- Some forehead thermometers provide "Body" and "Surface" modes. In this case, set the thermometer to "Body" mode;
- Do not measure in front of a fan or air-conditioner outlet, or anywhere exposed to the rain or strong sunlight;
- If the temperature reading indicates a fever, or if there is any doubt, take the body temperature again using another measurement method.

#### (Illustration)



### 1.3 Taking armpit temperature

### 1.3.1 Scope of application

- As a method of measuring surface temperature, this is recommended only when the measuring of core temperature is infeasible, as armpit temperature is less accurate;
- Suitable for persons who are capable of keeping the thermometer in place under their armpit.



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Page: 4/6

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#### 1.3.2 Steps for measuring

- Shake the thermometer before use to lower its reading to below 35°C (95 °F);
- Put the thermometer under the armpit of the person to be tested, then place his/her forearm horizontally on the chest to keep the thermometer in place;
- Wait for 3-5 minutes before removing the thermometer to check the reading. In general, axillary temperature of or above 37.3°C (99.1°F) is considered a fever;
- If a digital thermometer is used for this method, please take the measurement and interpret the reading properly in accordance with the directions of the user manual.

#### 1.3.3 Points to note

- As mercury spill is hazardous to environment and health, the use of mercury thermometer should be avoided as far as possible.
- Thermometers should first be cleansed with water and detergent to remove dirt, and then immersed in 70% alcohol for not less than 10 minutes. After that, wipe dry and store in a dry place.
- For digital thermometers, the cleaning procedures recommended in the user manual should be followed. Do not immerse digital thermometers in disinfectant or disinfect them with high heat as these will damage the electronic components and affect their normal functioning.

#### 1.4 Taking oral temperature

#### 1.4.1 Scope of application

- Applicable for measuring core body temperature;
- Suitable for people who are conscious, cooperative and can close their mouth tight.



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Page: 5/6

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#### 1.4.2 Steps for measuring

- Shake the thermometer before use to lower its reading to below 35°C (95 °F);
- Cover the thermometer with a plastic jacket;
- Place the thermometer under the tongue near the root, close the mouth tight but not bite on the thermometer or talk;
- Wait for 3-5 minutes before removing the thermometer to check the reading. In general, oral temperature of or above 37.5°C (99.5°F) is considered a fever;
- If a digital thermometer is used for this method, please take the measurement and interpret the reading properly in accordance with the directions of the user manual.

#### 1.4.3 Points to note

- Avoid cold or hot food before taking oral temperature;
- As mercury spill is hazardous to environment and health, the use of mercury thermometer should be avoided as far as possible;
- If the person to be tested carelessly bites off the mercury thermometer, he/she should be sent to the hospital immediately for treatment;
- Thermometers should first be cleansed with water and detergent to remove dirt, and then immersed in 70% alcohol for not less than 10 minutes. After that, wipe dry and store in a dry place.
- For digital thermometers, the cleaning procedures recommended in the user manual should be followed. Do not immerse digital thermometers in disinfectant or disinfect them with high heat as these will damage the electronic components and affect their normal functioning.



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### (II) Points to note on monitoring personal body temperature

- 2.1 Temperature should be taken at the same time of the day using the same method to avoid deviations caused by changes in the surroundings or the use of different measurement methods.
- 2.2 As body temperature varies with age, time of the day and level of physical activity, it is recommended to take the temperature twice a day.
- 2.3 Avoid doing exercise or other factors that may affect the body temperature 30 minutes prior to the temperature check.

Centre for Disease Prevention and Control Health Bureau of Macao SAR Government