

Assessing Health, Promoting Wellness:

Basic First Aid

This article provides basic information about how to take a temperature, pulse, and respiration rate. This information is only for guidance; individuals not trained in medical care should always consult a licensed doctor with questions.

How to Take a Temperature

Three types of thermometers

- Glass-non-mercury*
 - Oral bulb is long and thin
 - Rectal bulb is short and round
- Electronic digital
 - Used for both oral and rectal temperatures
- Tympanic membrane
 - Placed in the ear

*Mercury thermometers no longer recommended—dispose of as hazardous waste.

Four ways to take a temperature

- Oral (mouth)—takes 2–3 minutes to register
- Axillary (armpit)—takes 3–4 minutes to register
- Rectal (in the bottom)—takes 2–3 minutes to register
- Ear—takes 2–3 seconds to register

Instructions for taking a temperature

These instructions are for taking the temperature by mouth or the armpit.

If you use a glass thermometer, shake it down until it reads below **96** degrees Fahrenheit by holding the thermometer and snapping the wrist sharply. If you use an electronic digital thermometer, press the power button and wait until display appears.

- Oral (mouth):

Put the thermometer under the tongue and ask the person to close his or her mouth. After 2–3 minutes, remove the thermometer and read it.
- Axillary (armpit):

Put the thermometer in the center of the armpit and close the arm around the thermometer. After 3–4 minutes, remove the thermometer and read it. This temperature is usually one-half to one degrees below an oral temperature.

Reading a thermometer

- Glass-non-mercury:

Find the silver line in the thermometer. Turn it slowly until you see the numbers on the bottom. Read the number at the end of the silver line. This number is the temperature.

- Electronic digital:

Read the number on the screen of the thermometer. This number is the temperature.

A temperature taken in the armpit is one-half to one degree lower than an oral temperature.

Oral (mouth)

96-98.6
99.4-99.9
101-101.5
102-102.5
103-103.5
104-104.5

Axillary (armpit)

95-98.1
98.4-99.4
100-101
101-102
102-103
103-104

Body temperature will change depending on movement, stress, clothing worn, and the environment temperature.

Temperature

95 or below	Too low
95-98.6	Normal
99-102	Fever
102-106	High fever

Call help if...

The person has any of the following symptoms:

- Fever is over 101 orally (mouth) or 100 axillary (armpit)
- Difficulty breathing
- Has persistent and/or productive cough (thick, colored phlegm)
- Looks ill
- Temperature is below 95 orally (mouth) or 94 axillary (armpit)
- Abnormal movements (e.g., seizure-like movements)

How to Take a Pulse (Heartbeat)

A pulse is the beat you feel against the wall of an artery when your heart beats. A pulse is the same as your heart rate.

Two ways to take a pulse

- **Radial (wrist).** The location of this artery is on the inside of the wrist near the side of your thumb.
- **Carotid (neck).** The location of this artery is on the neck between the windpipe and neck muscle, and just under the lower jawbone.

Radial pulse:

Turn the person's hand over so the palm faces up. Put your index finger (pointer) and your middle finger (long) on the artery on the wrist. Press slightly down until you feel the pulse. Use a watch with a second hand to help you count. Count the pulse for 1 full minute (60 seconds). This number is the pulse rate. You can also count the pulse for 15 seconds. Then multiply the number of heartbeats times 4. This number is the person's pulse rate.

Carotid pulse:

Put your index finger (pointer) and your middle finger (long) on the artery on the person's neck. Press slightly down until you feel the pulse. Use a watch with a second hand to help you count. Count the pulse for 1 full minute (60 seconds). This number is the pulse rate. You can also count the pulse for 15 seconds. Then multiply the number of heartbeats times 4. This number is the person's pulse rate.

A normal pulse rate for an adult at rest is 60 to 80 beats per minute.

Call help if...

The person has any of the following symptoms:

- Pulse rate is below 50
- Pulse rate is above 140
- The pulse is irregular
- Chest pain
- Difficulty breathing
- Looks ill
- Dizzy or feels like passing out
- No pulse is present

How to Take a Respiration (Breathing) Rate

A respiration rate is the number of times a person takes a breath during 1 full minute. One inhale and one exhale equals one breath. Pay attention to the way the person takes a breath. Notice if the breathing is deep or shallow, fast or slow, and if both sides of the chest move equally when the person breathes.

Two ways to take a respiration rate

- Watching
- Feeling

Watching:

Have the person sit or lie down. Ask the person to breathe regularly. Use a watch with a second hand to help you count. Count the number of times the person takes a breath for 1 full minute. This number is the respiration rate. You can also count the breaths for 15 seconds. Then multiply the number of breaths times 4. This number is the person's respiration rate.

Feeling:

Have the person sit or lie down. Ask the person to breathe regularly. Use a watch with a second hand to help you count. Place your hand gently on the person's chest. Count the number of times that your hand goes up and then down for 1 full minute. This number is the respiration rate. You can also count the number of times your hand goes up and down for 15 seconds. Then multiply this number times 4. This number is the person's respiration rate.

A normal breathing rate for an adult at rest is 12 to 20 breaths per minute.

Call help if...

The person has any of the following symptoms:

- A breathing rate below 10 breaths per minute

- A breathing rate above 24 breaths per minute
- Difficulty breathing
- You hear wheezing or gurgling
- Looks ill
- Dizzy or feels like passing out
- Not breathing at all