14
Core Healthcare Skills

1. Explain the importance of monitoring vital signs

Home health aides monitor, document, and report clients' **vital signs**. Vital signs are important. They show how well the vital organs of the body, such as the heart and lungs, are working. They consist of the following:

- Measuring the body temperature
- Counting the pulse rate
- Counting the rate of respirations
- Measuring the blood pressure

Watching for changes in vital signs is very important. Changes can indicate a client's condition is worsening. An HHA should always notify the supervisor in these situations:

- The client has a fever (temperature is above average for the client or outside the normal range)
- The client has a respiratory or pulse rate that is too rapid or too slow
- The client's blood pressure changes
- The client's pain is worse or is not relieved by pain management

Ranges for Adult Vital Signs

Temp. Site	Fahrenheit	Celsius
Mouth (oral)	97.6°–99.6°	36.4°–37.6°
Rectum (rectal)	98.6°–100.6°	37.0°–38.1°
Armpit (axillary)	96.6°–98.6°	35.9°–37.0°
Ear (tympanic)	96.6°–99.7°	35.9°–37.6°
Temporal Artery (forehead)	97.2°–100.1°	36.2°–37.8°

Normal Pulse Rate: 60–100 beats per minute
Normal Respiratory Rate: 12–20 respirations per minute

Blood Pressure

Normal	Systolic Diastolic	90–119 mm Hg *and* 60–79 mm Hg
Low (hypotensive)	Systolic Diastolic	Below 90 mm Hg *or* Below 60 mm Hg
Elevated	Systolic Diastolic	120–129 mm Hg *and* Less than 80 mm Hg
Stage 1 hypertension	Systolic Diastolic	130–139 mm Hg *or* 80–89 mm Hg
Stage 2 hypertension	Systolic Diastolic	At or over 140 mm Hg *or* At or over 90 mm Hg
Hypertensive crisis	Systolic Diastolic	Over 180 mm Hg *and/or* Over 120 mm Hg

Temperature

Body temperature is normally very close to 98.6°F (Fahrenheit) or 37°C (Celsius). Body temperature reflects a balance between the heat created by the body and the heat lost to the environment. Many factors affect body temperature: age, illness, stress, environment, exercise, and the circadian rhythm can all cause changes in body temperature. The **circadian rhythm** is the 24-hour day-night cycle. Average temperature readings change throughout the day. People tend to have lower temperatures in the morning.

Increases in body temperature may indicate an infection or disease.

There are different sites for measuring the body's temperature: the mouth (oral), the rectum (rectal), the armpit (axillary), the ear (tympanic), and the temporal artery (the artery just under the skin of the forehead). The different sites require different thermometers. Common types of thermometers include the following:

- Digital
- Electronic
- Tympanic
- Temporal artery
- Mercury-free

A digital thermometer can be used to measure an oral, rectal, or axillary temperature. This thermometer displays the results digitally in 2 to 60 seconds (Fig. 14-1). The thermometer will beep or flash when the temperature has registered. A digital thermometer is battery-operated and requires battery replacement periodically. This thermometer may require a disposable plastic sheath to cover the probe to help prevent infection. The sheath is used once and is then discarded.

Fig. 14-1. *A digital thermometer.*

An electronic thermometer can be used to measure an oral, rectal, or axillary temperature (Fig. 14-2). This thermometer registers the temperature digitally in 2 to 60 seconds. The thermometer flashes or makes a sound when the temperature is displayed. An electronic thermometer is battery-operated and is stored in a wall unit for recharging when it is not in use. A probe cover is applied before use and is only used once before being discarded.

Fig. 14-2. *An electronic thermometer.* (PHOTO COURTESY OF WELCH ALLYN, WWW.WELCHALLYN.COM, 800-535-6663)

A tympanic thermometer is used to measure the temperature reading in the ear (Fig. 14-3). This thermometer registers the temperature in seconds. However, this thermometer may require more practice to be able to use it accurately.

Fig. 14-3. *A tympanic thermometer.*

A temporal artery thermometer determines the temperature reading by measuring the heat from the skin over the temporal artery, the artery under the skin of the forehead. This is done by a gentle stroke or scan across the forehead, and the reading is registered in about three seconds (Fig. 14-4). A temporal artery thermometer is noninvasive, which means that it does not need to be inserted into the body.

Fig. 14-4. *A temporal artery thermometer.* (PHOTO COURTESY OF EXERGEN CORPORATION, WWW.EXERGEN.COM, 800-422-3006)

A mercury-free thermometer can be used to measure an oral, rectal, or axillary temperature. Thermometers are usually color-coded to distinguish between an oral thermometer and a rectal thermometer. Oral thermometers are usually green or blue. Rectal thermometers are usually red (Fig. 14-5).

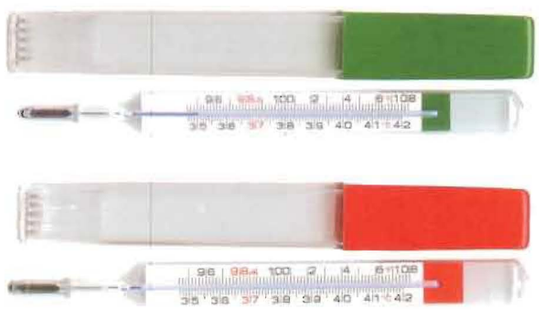

Fig. 14-5. *A mercury-free oral thermometer and a mercury-free rectal thermometer. Oral thermometers are usually green or blue; rectal thermometers are usually red.*
(PHOTOS COURTESY OF RG MEDICAL DIAGNOSTICS OF WIXOM, MI, RGMD.COM)

Numbers on the thermometer allow the temperature to be read after it registers. Most thermometers show the temperature in degrees Fahrenheit (F). Each long line represents one degree and each short line represents two-tenths of a degree. Some thermometers show the temperature in degrees Celsius (C), with the long lines representing one degree and the short lines representing one-tenth of a degree. Small arrows or highlighted numbers show the normal temperature: 98.6°F and 37°C (Fig. 14-6).

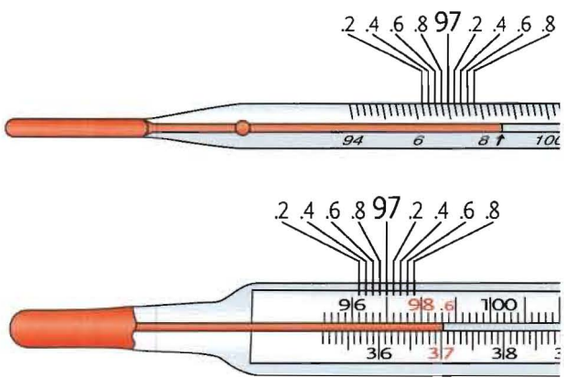

Fig. 14-6. *This shows a normal temperature reading: 98.6°F and 37°C.*

Environmentally Friendly Care

Mercury Glass Thermometers

Using mercury glass or glass bulb thermometers to measure oral, rectal, or axillary temperatures is no longer common because mercury is a dangerous, toxic substance. Many states have passed laws banning the sale of mercury thermometers.

Mercury glass thermometers may still be used in the home, however, so it is beneficial to know a little bit about them. Mercury glass thermometers have a stem and a bulb. The stem has a column for the mercury to go up and down; the bulb stores the mercury. The bulb is available in either a long, slim shape or a blunt, rounded shape. Mercury is silver in color. If a thermometer's bulb is any color other than silver, it is not a mercury thermometer.

It is very important that a thermometer that has the long, slim bulb never be used to take a rectal or axillary temperature. This is because the slender bulb could break in the client's rectum or armpit, causing injuries and exposing the client to mercury. Thermometers with long, slim bulbs should only be used to take oral temperatures.

Thermometers with blunt, rounded bulbs can be used to take rectal and axillary temperatures. The blunt bulbs can also be used for oral temperatures. However, a thermometer with a blunt bulb that has been used to take a rectal temperature should never be used to take an oral temperature.

To clean a mercury glass thermometer, the HHA can wipe it with alcohol wipes from clean to dirty (stem to bulb). Hot water should never be used on a mercury thermometer, because hot water can heat the mercury and break the thermometer.

If a mercury glass thermometer must be used, the HHA should use it carefully. If the thermometer breaks, the HHA must never touch the mercury or broken glass. There are specific procedures that must be followed to dispose of mercury safely. The HHA should know her agency's policies and procedures regarding the safe disposal of mercury. If a client still uses a mercury glass thermometer, the HHA should check with the supervisor about replacing it.

There is a range of normal temperatures. Some people's temperatures normally run low. Others in good health will run slightly higher temperatures. Normal temperature readings also vary according to the method used to take the temperature. A rectal temperature is considered to be the most accurate. However, measuring a rectal temperature on an uncooperative person,

such as a client with dementia, can be dangerous. An axillary temperature is considered the least accurate.

A home health aide should not measure an oral temperature on a person who:

- Is unconscious
- Has recently had facial or oral surgery
- Is younger than 5 years old
- Is confused or disoriented
- Is heavily sedated
- Is likely to have a seizure
- Is coughing
- Is using oxygen
- Has facial paralysis
- Has a nasogastric tube (a feeding tube that is inserted through the nose and goes into the stomach)
- Has sores, redness, swelling, or pain in the mouth
- Has an injury to the face or neck

Measuring and recording an oral temperature

Equipment: clean digital, electronic, or mercury-free thermometer, gloves, disposable sheath/cover for thermometer, tissues, pen and paper

Do not take an oral temperature if the client has smoked, eaten food or drunk fluids, chewed gum, or exercised in the last 10 to 20 minutes.

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Put on gloves.
5. **Digital thermometer**: Put on the disposable sheath. Turn on the thermometer and wait until the ready sign appears.

   Electronic thermometer: Remove the probe from the base unit. Put on the probe cover.

   Mercury-free thermometer: Hold the thermometer by the stem. Before inserting it in the client's mouth, shake the thermometer down to below the lowest number (at least below 96°F or 35°C). To shake the thermometer down, hold it at the end opposite the bulb with the thumb and two fingers. With a snapping motion of the wrist, shake the thermometer (Fig. 14-7). Stand away from furniture and walls while doing so.

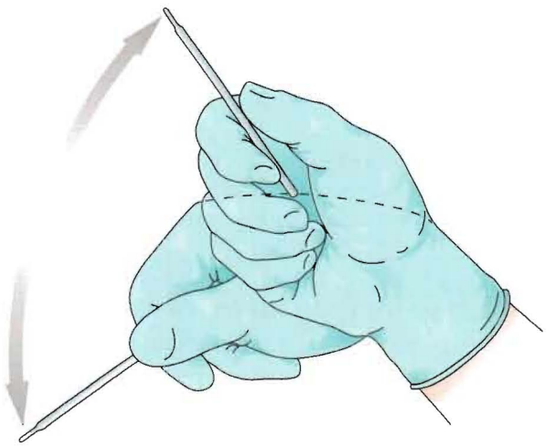

Fig. 14-7. *Shake thermometer down to below the lowest number before inserting it into a client's mouth.*

6. **Digital thermometer**: Insert the end of the thermometer into the client's mouth, under the tongue and to one side.

   Electronic thermometer: Insert the end of the thermometer into the client's mouth, under the tongue and to one side.

   Mercury-free thermometer: Put on a disposable sheath if available. Insert the bulb end of the thermometer into the client's mouth, under the tongue and to one side.
7. **For all thermometers**: Tell the client to hold the thermometer in her mouth with her lips closed (Fig. 14-8). Assist as necessary. The client should breathe through her nose. Ask the client not to bite down or talk.

Fig. 14-8. While the thermometer is in the client's mouth, she should keep her lips closed.

Digital thermometer: Hold in place until the thermometer blinks or beeps.

Electronic thermometer: Hold in place until you hear a tone or see a flashing or steady light.

Mercury-free thermometer: Hold in place for at least three minutes.

8. **Digital thermometer**: Remove the thermometer. Read the temperature on the display screen. Remember the temperature reading.

   Electronic thermometer: Read the temperature on the display screen. Remember the temperature reading. Remove the probe.

   Mercury-free thermometer: Remove the thermometer. Wipe it with a tissue from stem to bulb or remove the sheath. Discard the tissue or sheath. Hold the thermometer at eye level. Rotate until the line appears, rolling the thermometer between your thumb and forefinger. Read the temperature. Remember the temperature reading.

9. **Digital thermometer**: Using a tissue, remove and discard the sheath. Replace the thermometer in the case.

   Electronic thermometer: Press the eject button to discard the cover. Return the probe to the holder.

   Mercury-free thermometer: Clean the thermometer according to policy. Rinse with clean water and dry. Return it to the case.

10. Remove and discard your gloves.
11. Wash your hands.
12. Immediately record the temperature, date, time, and method used (oral).

Rectal temperatures may be necessary for clients who are unconscious, have missing teeth or dentures that do not fit properly, or have difficulty breathing through the nose. Rectal thermometers should be lubricated and inserted 1/2 to 1 inch for adults. The home health aide must always explain what she will do before starting this procedure. The HHA needs the client's cooperation to take a rectal temperature. She should ask the client to hold still and reassure him that the procedure will only take a few minutes. It is important to hold onto the thermometer at all times while the thermometer is in the rectum.

Measuring and recording a rectal temperature

Equipment: clean digital, electronic, or mercury-free rectal thermometer, lubricant, gloves, tissue, disposable sheath/cover, pen and paper

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible. Remind the client that the procedure will take only a few minutes.
3. Provide privacy for the client.
4. If the bed is adjustable, adjust the bed to a safe working level, usually waist high. If the bed is movable, lock the bed wheels.
5. Assist the client to a left-lying (Sims') position (Fig. 14-9). An infant can be placed on

his back or stomach for measuring rectal temperature.

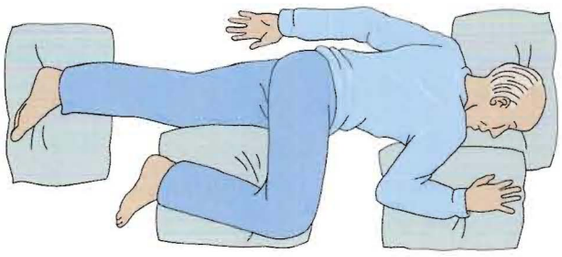

Fig. 14-9. *The client must be in the left-lying (Sims') position.*

6. Fold back the linens to expose only the rectal area.
7. Put on gloves.
8. **Digital thermometer**: Put on the disposable sheath. Turn on the thermometer and wait until the ready sign appears.

   Electronic thermometer: Remove the probe from the base unit. Put on the probe cover.

   Mercury-free thermometer: Hold the thermometer by the stem. Shake the thermometer down to below the lowest number. Put on the disposable sheath.
9. Apply a small amount of lubricant to tip of the bulb or probe cover.
10. Separate the buttocks. Gently insert thermometer into rectum 1/2 to 1 inch. Stop if you meet resistance. Do not force the thermometer into the rectum (Fig. 14-10).

Fig. 14-10. *Gently insert a lubricated rectal thermometer 1/2 to 1 inch into the rectum. Do not force it into the rectum.*

11. Replace the sheet over the buttocks while holding on to the thermometer at all times.
12. **Digital thermometer**: Hold in place until the thermometer blinks or beeps.

    Electronic thermometer: Hold in place until you hear a tone or see a flashing or steady light.

    Mercury-free thermometer: Hold in place for at least three minutes.
13. Gently remove the thermometer. Wipe it with a tissue from stem to bulb or remove the sheath. Discard the tissue or sheath.
14. Read the thermometer at eye level as you would for an oral temperature. Remember the temperature reading.
15. **Digital thermometer**: Clean the thermometer according to policy and replace it in the case.

    Electronic thermometer: Press the eject button to discard the cover. Return the probe to the holder.

    Mercury-free thermometer: Clean the thermometer according to policy. Rinse with clean water and dry. Return it to the case.
16. Remove and discard your gloves.
17. Wash your hands.
18. Assist the client to a safe and comfortable position. If you raised an adjustable bed, return it to its lowest position.
19. Immediately record the temperature, date, time, and method used (rectal).

Tympanic thermometers can be used to take a fast temperature reading. The HHA should tell the client that she will be taking his temperature by placing a thermometer in the ear canal. She should reassure the client that the procedure is painless. The short tip of the thermometer will only go into the ear 1/4 to 1/2 inch.

Measuring and recording a tympanic temperature

Equipment: tympanic thermometer, gloves, disposable probe sheath/cover (if used), pen and paper

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Put on gloves.
5. Put a disposable sheath over the earpiece of the thermometer.
6. Position the client's head so that the ear is in front of you. Straighten the ear canal by gently pulling up and back on the outside edge of the ear for an adult (Fig. 14-11). Pull straight back for infants and children. Insert the covered probe into the ear canal and press the button.

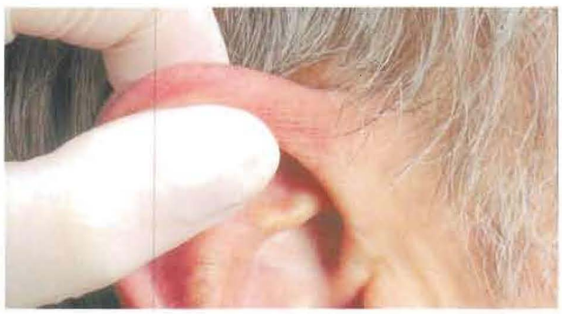

Fig. 14-11. *Straighten the ear canal by gently pulling up and back on the outside edge of the ear.*

7. Hold the thermometer in place until the thermometer blinks or beeps.
8. Read temperature. Remember the temperature reading.
9. Discard the sheath. Return the thermometer to storage or to the battery charger if thermometer is rechargeable.
10. Remove and discard your gloves.
11. Wash your hands.
12. Immediately record the temperature, date, time, and method used (tympanic).

Axillary temperatures are not as accurate as temperatures measured at other sites. However, they can be safer if a client is confused, disoriented, uncooperative, or has dementia. The axillary area must be clean and dry before measuring the temperature.

Measuring and recording an axillary temperature

Equipment: clean digital, electronic, or mercury-free thermometer, gloves, tissues, disposable sheath/cover, pen and paper

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. If the bed is adjustable, adjust the bed to a safe working level, usually waist high. If the bed is movable, lock the bed wheels.
5. Put on gloves.
6. Remove the client's arm from the sleeve of the gown or top to allow skin contact with the end of the thermometer. Wipe the axillary area with tissues before placing the thermometer.
7. **Digital thermometer**: Put on the disposable sheath. Turn on the thermometer and wait until the ready sign appears.

   Electronic thermometer: Remove the probe from the base unit. Put on the probe cover.

   Mercury-free thermometer: Hold the thermometer by the stem. Shake the thermometer down to below the lowest number. Put on the disposable sheath.

8. Position the thermometer (bulb end for mercury-free) in the center of the armpit. Fold the client's arm over his chest.
9. **Digital thermometer**: Hold in place until the thermometer blinks or beeps.

   Electronic thermometer: Hold in place until you hear a tone or see a flashing or steady light.

   Mercury-free thermometer: Hold in place, with the arm close against the side, for 8 to 10 minutes (Fig. 14-12).

Fig. 14-12. *After inserting the thermometer, fold the client's arm over his chest and hold it in place for 8 to 10 minutes.*

10. **Digital thermometer**: Remove the thermometer. Read the temperature on the display screen. Remember the temperature reading.

    Electronic thermometer: Read the temperature on the display screen. Remember the temperature reading. Remove the probe.

    Mercury-free thermometer: Remove the thermometer. Wipe it with a tissue from stem to bulb or remove the sheath. Discard the tissue or sheath. Read the thermometer at eye level as you would for an oral temperature. Remember the temperature reading.
11. **Digital thermometer**: Using a tissue, remove and discard the sheath. Replace the thermometer in the case.

    Electronic thermometer: Press the eject button to discard the cover. Return the probe to the holder.

    Mercury-free thermometer: Clean the thermometer according to policy. Rinse with clean water and dry. Return it to the case.
12. If you raised an adjustable bed, return it to its lowest position.
13. Remove and discard your gloves.
14. Wash your hands.
15. Immediately record the temperature, date, time, and method used (axillary).

Pulse

The pulse is the number of heartbeats per minute. The beat that is felt at certain pulse points in the body represents the wave of blood moving through an artery as a result of the heart pumping. The most common site for monitoring the pulse rate is on the inside of the wrist, where the radial artery runs just beneath the skin. This is called the **radial pulse**. The procedure for counting this pulse rate is located later in this chapter. The **brachial pulse** is the pulse inside the elbow, about 1 to 1 1/2 inches above the elbow. The radial and brachial pulses are involved in measuring blood pressure, which is explained later in this chapter. Common pulse sites are shown in Figure 14-13.

For adults, the normal pulse rate is 60 to 100 beats per minute. Small children have more rapid pulses, in the range of 100 to 120 beats per minute. A newborn baby's pulse may be as high as 120 to 140 beats per minute. Many things can affect pulse rate, including exercise, fear, anger, anxiety, heat, infection, illness, medications, and pain. A high or low rate does not necessarily indicate disease. However, sometimes the pulse

rate can signal that illness exists. For example, a rapid pulse may result from fever, infection, or heart failure. A slow or weak pulse may indicate infection.

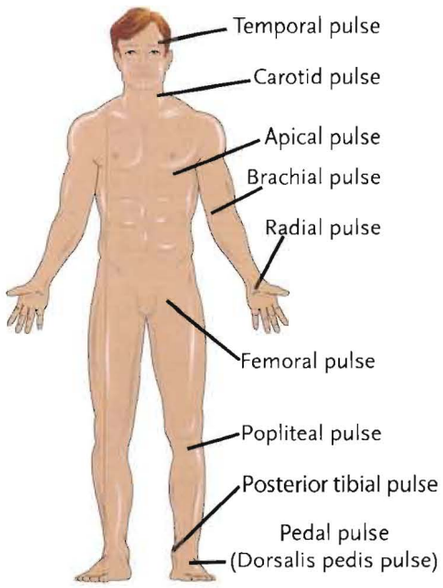

Fig. 14-13. *Common pulse sites.*

The **apical** (*AY-pi-kul*) **pulse** is heard by listening directly over the heart with a stethoscope. A **stethoscope** is an instrument designed to listen to sounds within the body, such as the heart beating or air moving through the lungs (Fig. 14-14). This is often the easiest method for counting the pulse rate in infants and small children because their pulse points are harder to find.

Fig. 14-14. *The diaphragm (the larger side) of the stethoscope is used to hear a pulse and to measure blood pressure.*

The apical pulse is on the left side of the chest, just below the nipple. For adult clients, the apical pulse may be checked when the person has heart disease or takes medication that affects the heart. It may also be taken on clients who have a weak radial pulse or an irregular pulse.

Counting and recording apical pulse

Equipment: stethoscope, watch with second hand, alcohol wipes, pen and paper

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Before using the stethoscope, wipe the diaphragm and earpieces with alcohol wipes.
5. Fit the earpieces of the stethoscope snugly in your ears. Place the flat metal diaphragm on the left side of the chest, just below the nipple. Listen for the heartbeat.
6. Use the second hand of your watch. Count the heartbeats for one full minute (Fig. 14-15). Each "lub-dub" you hear is counted as one beat. A normal heartbeat is rhythmical. Leave the stethoscope in place while counting respirations.

Fig. 14-15. *Count the heartbeats for one full minute to measure the apical pulse.*

7. Wash your hands.

8. Immediately record the pulse rate, date, time, and method used (apical). Note any irregularities in the rhythm.
9. Clean the earpieces and diaphragm of the stethoscope with alcohol wipes. Store the stethoscope.
10. Wash your hands.

In addition to other vital sign measurements, some HHAs may be asked to obtain a pulse oximeter reading. A pulse oximeter is a device that uses a light to determine the amount of oxygen in the blood. A pulse oximeter also measures a person's pulse rate (Fig. 14-16).

Fig. 14-16. *A pulse oximeter sensor is usually clipped on a person's finger to measure the amount of oxygen in the blood, as well as pulse rate.*

A pulse oximeter may be used when clients have had surgery, are on oxygen, are in intensive care, or have cardiac or respiratory problems. When asked to obtain this reading, the HHA should report the oxygen percentage to her supervisor, who will determine if the level is adequate for the client.

Respirations

Respiration is the process of inhaling air into the lungs, or **inspiration**, and exhaling air out of the lungs, or **expiration**. Each respiration consists of an inspiration and an expiration. The chest rises during inspiration and falls during expiration.

The normal respiration rate for adults ranges from 12 to 20 breaths per minute. Infants and children have a faster respiratory rate. Infants normally breathe at a rate of 30 to 40 respirations per minute.

Different types of respirations include the following:

- **Apnea**: the absence of breathing
- **Dyspnea**: difficulty breathing
- **Eupnea**: normal respirations
- **Orthopnea**: shortness of breath when lying down that is relieved by sitting up
- **Tachypnea**: rapid respirations
- **Bradypnea**: slow respirations
- **Cheyne-Stokes**: alternating periods of slow, irregular respirations and rapid, shallow respirations, along with periods of apnea

The respiratory rate is usually counted directly after counting the pulse rate because people tend to breathe more quickly if they know they are being observed. The home health aide should keep his fingers on the client's wrist or on the stethoscope over the heart. He should not make it obvious that he is observing the client's breathing and should not mention that he is counting respirations. If it is difficult to remember the pulse rate after counting the respiratory rate, the HHA can use a pencil and paper to jot down the pulse rate before counting respirations. Once the respiratory rate has been obtained, both the pulse and respiration rates should be documented on the visit notes.

Counting and recording radial pulse and counting and recording respirations

Equipment: watch with a second hand, pen and paper

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.

4. Place the tips of your index finger and middle finger on the thumb side of the client's wrist to locate the radial pulse (Fig. 14-17). Do not use your thumb.

Fig. 14-17. *Count the radial pulse by placing the fingertips of your index finger and middle finger on the thumb side of the client's wrist.*

5. Count the beats for one full minute.
6. Keeping your fingertips on the client's wrist, count respirations for one full minute (Fig. 14-18). Observe for the pattern and character of the client's breathing. Normal breathing is smooth and quiet. If you see signs of difficult breathing, shallow breathing, or noisy breathing, such as wheezing, report it to your supervisor.

Fig. 14-18. *Count the respiratory rate directly after counting the radial pulse rate. Do not make it obvious that you are watching her breathing.*

7. Wash your hands.
8. Immediately record the pulse rate, date, time, and method used (radial). Notify your supervisor if the pulse is less than 60 beats per minute, over 100 beats per minute, or if the rhythm is irregular. Record the respiratory rate and the pattern or character of breathing.

Blood Pressure

Blood pressure is an important indicator of a person's health. The measurement shows how well the heart is working. Blood pressure is measured in millimeters of mercury (mm Hg) and is recorded as a fraction—for example, 120/80. There are two parts of blood pressure: the systolic (*sis-TOL-ik*) measurement and the diastolic (*DYE-a-stol-ik*) measurement.

In the **systolic** phase, which is the top number of the blood pressure reading, the heart is at work, contracting and pushing the blood from the left ventricle of the heart. The reading shows the pressure on the walls of the arteries as blood is pumped through the body. The normal range for systolic blood pressure is below 120 mm Hg.

The second measurement reflects the **diastolic** phase, which is the bottom number of the reading. This phase is when the heart relaxes. The diastolic measurement is always lower than the systolic measurement. It shows the pressure in the arteries when the heart is at rest. The normal range for adults is below 80 mm Hg.

When blood pressure is consistently high, it may be categorized as elevated, stage 1 hypertensive, stage 2 hypertensive, or hypertensive crisis. People with high blood pressure (**hypertension**) (*high-per-TEN-shun*) have elevated systolic and/or diastolic blood pressures. The ranges for the different categories of hypertension are listed in the orange box on page 237.

When blood pressure is low (below 90 mm Hg or below 60 mm Hg), it is called **hypotension** (*high-poh-TEN-shun*). A loss of blood or slowed blood flow can cause hypotension, which can be life-threatening if it is not corrected.

Blood pressure is affected by many factors, including aging, exercise, stress, pain, medications, illness, obesity, alcohol intake, tobacco products, and the volume of blood in circulation.

Blood pressure is measured with either a manual or electronic **sphygmomanometer**

(*sfig-moh-ma-NOM-e-ter*). An aneroid sphygmomanometer is a type of manual sphygmomanometer (Fig. 14-19). This sphygmomanometer consists of a cuff, a bulb, and a pressure gauge. Inside the cuff is an inflatable balloon that expands when air is pumped into the cuff. Two pieces of tubing are connected to the cuff. One leads to a rubber bulb that pumps air into the cuff. A pressure control button allows a person to control the release of air from the cuff after it is inflated. The other piece of tubing is connected to a pressure gauge with numbers that shows the blood pressure. Manual sphygmomanometers require the use of a stethoscope to determine the blood pressure reading.

Fig. 14-19. *A type of aneroid sphygmomanometer.*

With an electronic sphygmomanometer, the systolic and diastolic pressure readings are displayed digitally. In addition to blood pressure, an electronic sphygmomanometer may also measure other vital signs, such as pulse rate, respiratory rate, and temperature, as well as checking blood oxygen levels (Fig. 14-20). The cuff usually inflates and deflates automatically, and the use of a stethoscope is not required with electronic sphygmomanometers.

When measuring blood pressure, the first sound heard is the systolic pressure (top number). When the sound changes to a soft muffled thump or disappears, this is the diastolic pressure (bottom number).

Blood pressure should not be measured on an arm that has an IV, a dialysis shunt, or any medical equipment. A side that has a cast, recent trauma, paralysis from a stroke, burn(s), or breast surgery (mastectomy) should be avoided.

Fig. 14-20. *This type of electronic sphygmomanometer measures blood pressure, as well as other vital signs.*

It is important to use a cuff that is the correct size when measuring blood pressure. Available cuff sizes for adults include small adult, adult, large adult, and thigh. There are also sizes available for infants and children.

Measuring and recording blood pressure manually

Equipment: sphygmomanometer, stethoscope, alcohol wipes, pen and paper

Do not check blood pressure if the client has smoked, eaten food, drunk alcohol or fluids containing caffeine, or exercised in the last 30 minutes.

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Before using the stethoscope, wipe the diaphragm and earpieces with alcohol wipes.
5. Ask the client to roll up his sleeve so that his upper arm is exposed. Do not measure blood pressure over clothing.
6. Position the client's arm with his palm up. The arm should be level with the heart.

7. With the valve open, squeeze the cuff to make sure it is completely deflated.
8. Place the blood pressure cuff snugly on the client's upper arm. The center of the cuff with sensor/arrow is placed over the brachial artery (1–1½ inches above the elbow, toward the inside of the elbow) (Fig. 14-21).

Fig. 14-21. *Place the center of the cuff over the brachial artery.*

9. Ask the client to remain still and quiet during the measurement.
10. Locate the brachial pulse with your fingertips.
11. Place the earpieces of the stethoscope in your ears.
12. Place the diaphragm of the stethoscope over the brachial artery.
13. Close the valve (clockwise) until it stops. Do not overtighten it (Fig. 14-22).

Fig. 14-22. *Close the valve by turning it clockwise until it stops. Do not overtighten it.*

14. Inflate the cuff to between 160 mm Hg and 180 mm Hg. If a beat is heard immediately upon cuff deflation, completely deflate the cuff. Reinflate the cuff to no more than 200 mm Hg.
15. Open the valve slightly with your thumb and index finger. Deflate the cuff slowly.
16. Watch the gauge and listen for the sound of the pulse.
17. Remember the reading at which the first pulse sound is heard. This is the systolic pressure.
18. Continue listening for a change or muffling of pulse sound. The point of a change or the point at which the sound disappears is the diastolic pressure. Remember this reading.
19. Open the valve to deflate the cuff completely. Remove the cuff.
20. Wash your hands.
21. Immediately record both the systolic and diastolic pressures. Record the numbers like a fraction, with the systolic reading on top and the diastolic reading on the bottom (for example: 110/70). Note which arm was used. Use RA for right arm and LA for left arm. (You may need to note the client's position when blood pressure is measured, i.e., lying down, sitting, or standing.)
22. Wipe the diaphragm and earpieces of the stethoscope with alcohol wipes. Store equipment.
23. Wash your hands.

Measuring and recording blood pressure electronically

Equipment: electronic blood pressure machine, pen and paper

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.

3. Provide privacy for the client.
4. Ask the client to roll up his sleeve so that his upper arm is exposed. Do not measure blood pressure over clothing.
5. Position the client's arm with his palm up. The arm should be level with the heart.
6. Make sure the cuff is completely deflated. Place the blood pressure cuff snugly on the client's upper arm. The center of the cuff with sensor/arrow is placed over the brachial artery (1–1½ inches above the elbow, toward the inside of the elbow).
7. Ask the client to remain still and quiet during the measurement.
8. Turn on the blood pressure machine and press the start button.
9. When the measurement is complete, the reading will be displayed on the screen and the machine may beep. The cuff should deflate.
10. Remove the cuff.
11. Wash your hands.
12. Immediately record both the systolic and diastolic pressures that are displayed on the screen. Note which arm was used.
13. Store equipment.
14. Wash your hands.

Pain

Although pain is not considered a vital sign, it is very important to monitor and manage. Pain is uncomfortable and it can greatly affect a client's quality of life and ability to perform self-care. It can quickly drain energy and hope. Pain is a subjective experience (something reported by a person) and vital signs are objective measurements (information collected by using the senses). Pain is also a personal experience, which means it is different for each person.

Because home health aides spend the most time with clients, they play a significant role in pain monitoring, management, and prevention. Care plans are made and adjusted based on HHAs' reports.

Pain is not a normal part of aging. Sustained pain may lead to withdrawal, depression, and isolation. HHAs must treat clients' complaints of pain seriously (Fig. 14-23). They should listen to what clients are saying about the way they feel. They should take action to help them. If a client complains of pain, the HHA should ask the following questions and then immediately report the information to the supervisor:

Fig. 14-23. *The home health aide should believe clients when they say they are in pain and take quick action to help them. Being in pain is unpleasant. The HHA should be empathetic and responsive.*

- Where is the pain?
- When did the pain start?
- How long does the pain last? How often does it occur?
- How severe is the pain? To help assess this, the HHA can ask the client to rate the pain on a scale of 0 to 10, with 0 being no pain and 10 being the worst pain the client can imagine.
- Can you describe the pain? For example, is it a dull, aching, sharp, piercing, or stabbing pain? The HHA should use the client's words when reporting to the supervisor.
- What makes the pain better? What makes the pain worse?

- Do you remember what you were doing when the pain started?

Clients may have concerns about their pain. These concerns may make them hesitant to report their pain. Barriers to managing pain include the following:

- Fear of addiction to pain medication
- Feeling that pain is a normal part of aging
- Worrying about constipation and fatigue from pain medication
- Feeling that caregivers are too busy to deal with their pain
- Feeling that too much pain medication will cause death

HHAs should be patient and caring when helping clients in pain. If clients are worried about the effects of pain medication or have questions about it, the HHA should tell the supervisor. Some people do not feel comfortable saying that they are in pain. A person's culture affects how she responds to pain. In some cultures, there is a belief that it is best not to react to pain, while in other cultures, people are encouraged to express pain freely. Body language or other messages that a client may be in pain are important for the HHA to observe.

Observing and Reporting: Pain

- O/R Increased pulse, respirations, blood pressure
- O/R Sweating
- O/R Nausea
- O/R Vomiting
- O/R Tightening the jaw
- O/R Squeezing eyes shut
- O/R Holding or guarding a body part
- O/R Clenching fists
- O/R Frowning
- O/R Grinding teeth
- O/R Increased restlessness
- O/R Agitation or tension
- O/R Change in behavior
- O/R Crying
- O/R Sighing
- O/R Groaning
- O/R Breathing heavily
- O/R Rocking
- O/R Pacing
- O/R Repetitive movements
- O/R Difficulty moving or walking

Guidelines: Measures to Reduce Pain

- G Report complaints of pain or unrelieved pain promptly to your supervisor. Be prepared to report the client's other vital signs when calling your supervisor.
- G Gently position the body in proper alignment. Use pillows for support. Assist in frequent changes of position if the client desires it.
- G Give back rubs.
- G Ask if the client would like to take a warm bath or shower.
- G Assist the client to the bathroom or commode or offer the bedpan or urinal.
- G Encourage slow, deep breathing.
- G Provide a calm and quiet environment. Use soft music to distract the client.
- G If a client is taking pain medication, remind him when it is time to take it (Chapter 15).
- G Be patient, caring, gentle, empathetic, and responsive to clients who are in pain.

Weight and Height

Measuring a client's weight and height are part of a home health aide's regular care. Height is checked less frequently than weight. Weight

changes can be signs of illness. They can also affect the medication doses a client needs. For these reasons, the HHA must report any weight loss or gain, no matter how small.

Weight will be measured using pounds or kilograms. A pound is a unit of weight equal to 16 ounces. Kilograms are units of metric measurement. A kilogram is a unit of mass equal to 1000 grams; one kilogram equals 2.2 pounds.

Clients who are unable to get out of bed can be weighed using a chair scale. If this equipment is needed, the agency will provide it. Clients who are ambulatory can be weighed on a bathroom scale or a standing scale. The HHA should keep the following in mind when weighing a client:

- Always explain what she will do before beginning any procedure. She will need the client's cooperation to measure weight properly.
- Provide for privacy, as some people are sensitive about their weight.
- Always weigh at the same time of day, with client wearing the same amount of clothing. Have the client void, or empty her bladder, before she is weighed.
- Scales for home use may differ in accuracy and consistency. To see how accurate a home scale is, she can test it by weighing an object with a known weight. Because scales can differ, using the same scale each time to weigh the client will help identify weight gain or loss that must be reported.

Measuring and recording weight of an ambulatory client

Equipment: bathroom scale or standing scale, pen and paper

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. If using a bathroom scale, set the scale on a hard surface (not on carpet) in a place the client can get to easily.
5. Make sure the client is wearing nonskid shoes that are fastened before walking to the scale.
6. Start with the scale balanced at zero before weighing the client (Fig. 14-24).

Fig. 14-24. *The scale must be balanced at zero before beginning to obtain a client's weight. On the top is a digital scale and on the bottom is a standing scale.* (PHOTO COURTESY OF DETECTO, WWW.DETECTO.COM, 800-641-2008)

7. Help the client step onto the center of the scale as needed, facing the scale. Be sure she is not holding, touching, or leaning against anything. This interferes with weight measurement. However, do not force the client to let go if she is holding on to something. If you are unable to obtain a weight, notify your supervisor.
8. Determine the client's weight.

   Using a bathroom scale: Read the weight on the display screen or when the dial has stopped moving.

   Using a standing scale: Balance the scale by making the balance bar level. Move the small and large weight indicators until the bar balances. Read the two numbers shown (on the small and large weight indicators) when the bar is balanced. Add these two numbers together. This is the client's weight (Fig. 14-25).

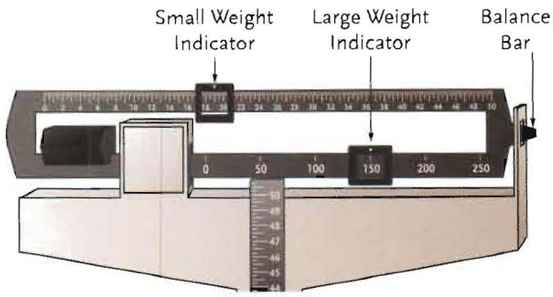

Fig. 14-25. *Move the small and large weight indicators until the bar balances. The weight shown in the illustration is 169 pounds.*

9. Help the client to safely step off the scale before recording weight. Help her back into a comfortable position.
10. Wash your hands.
11. Immediately record the client's weight in pounds (lb) or kilograms (kg), depending on policy. Report any changes in client's weight to your supervisor.
12. Store the scale if it was moved.
13. Wash your hands.

Measuring and recording height of a client

Some clients will be unable to get out of bed. If so, height can be measured using a tape measure (Fig. 14-26).

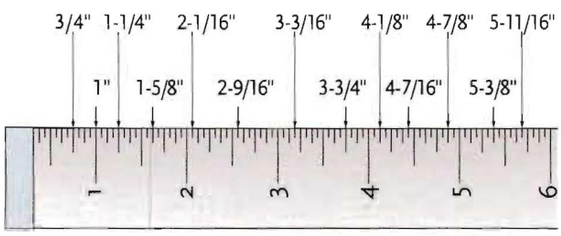

Fig. 14-26. *An illustration of a tape measure with markings.*

Equipment: tape measure, pencil, pen and paper

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Position the client lying straight in bed, flat on his back with his arms and legs at his sides. Be sure the bed sheet is smooth underneath the client.
5. Make a small pencil mark on the sheet at the top of the head.
6. Make another mark at the client's heel.
7. With the tape measure, measure the distance between the marks.
8. Wash your hands.
9. Immediately record the height.
10. Store equipment.
11. Wash your hands.

For clients who can get out of bed, you will measure height while they stand against a wall.

Equipment: tape measure, pencil, pen and paper

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Have the client stand with his back to the wall, with his arms at his sides and without shoes. A hard floor is better than carpet.
5. Make a pencil mark on the wall at the top of the client's head.
6. To determine the client's height, ask the client to step away. Use the tape measure to measure the distance between the pencil mark and the floor.
7. Wash your hands.
8. Immediately record the height.
9. Store equipment.
10. Wash your hands.

For clients who can get out of bed, you can also measure height using a standing scale.

Equipment: standing scale, pen and paper

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Make sure the client is wearing nonskid shoes that are fastened before walking to the scale.
5. Help the client to step onto the scale, facing away from the scale.
6. Ask the client to stand straight if possible. Help as needed.
7. Pull up the measuring rod from back of the scale and gently lower the rod until it rests flat on the client's head (Fig. 14-27).

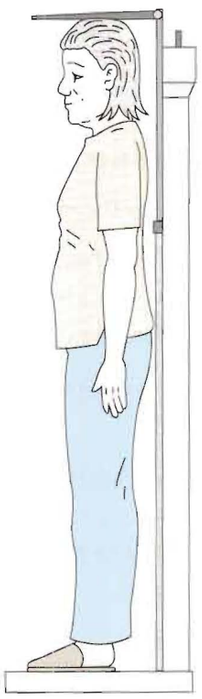

Fig. 14-27. *To determine height on a standing scale, gently lower the measuring rod until it rests flat on the client's head.*

8. Determine the client's height.
9. Assist the client in stepping off the scale before recording height. Make sure that the measuring rod does not hit the client on the head while helping the client off of the scale.
10. Wash your hands.
11. Immediately record the height.

2. List three types of specimens that may be collected from a client

Home health aides may be asked to collect a specimen from a client. A **specimen** is a sample that is used for analysis in order to try to make a diagnosis. Different types of specimens are used for different tests.

There are factors to consider when collecting specimens. Body wastes and elimination needs are very private matters for most people. Having another person handle body wastes may make clients embarrassed and uncomfortable. The HHA should be sensitive to this, and be empathetic. She should think about how difficult this may be for the client. When collecting specimens, it is important that the HHA behave professionally. If she feels that this is an unpleasant task, she should not make it known. She should not make faces or frown or use words that let the client know she is uncomfortable. Remaining professional while collecting specimens can help put clients at ease. A supervisor may have more ideas on how to make clients more comfortable.

Different states have different rules about what home health aides are allowed to do. Each HHA should understand her state's guidelines before performing any procedures.

Sputum Specimens

Sputum (*SPYOO-tum*) is thick mucus coughed up from the lungs. It is not the same as saliva, which comes from the mouth. People with colds

or respiratory illnesses may cough up large amounts of sputum. Sputum specimens may help diagnose respiratory problems or illness, or evaluate the effects of medication.

Early morning is the best time to collect sputum. The client should cough up the sputum and spit it directly into the specimen container. Because sputum may be infectious, the HHA should not let the client cough on him. Standing behind the client during the collection process may prevent sputum from coming into contact with the HHA. Proper personal protective equipment (PPE) must be worn when collecting sputum. The required PPE are gloves and a special mask. It is important that the HHA's hands and the specimen container are clean before beginning this procedure.

The seal must be intact on specimen containers before they are used. This helps avoid specimen contamination. All specimens must be labeled with the client's first and last name, date of birth, address, and the date and time the specimen was collected.

Collecting a sputum specimen

Equipment: specimen container and lid, completed label (labeled with client's name, date of birth, address, date, and time), specimen bag, tissues, gloves, N95 or other required mask as indicated in the care plan

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Put on the mask and gloves.
5. Stand behind the client if the client can hold the specimen container by himself. Ask the client to cough deeply, so that sputum comes up from the lungs. To prevent the spread of infectious material, give the client tissues to cover his mouth while coughing. Ask the client to spit the sputum into the specimen container.
6. When you have obtained a good sample (about two tablespoons of sputum), cover the container tightly. Wipe any sputum off the outside of the container with tissues. Discard the tissues. Apply the label, place the container in a clean specimen bag (or plastic bag), and seal the bag.
7. Remove and discard your gloves and mask.
8. Wash your hands.
9. Document the procedure.

Stool Specimens

Stool (feces) specimens are collected so that the stool can be tested for blood, pathogens, and other things, such as worms or amoebas. If the client uses a bedpan or portable commode for elimination, that is where the HHA will collect the stool specimen. If the client uses the toilet, a special container (often called a **hat**) will be used. A hat fits into the toilet bowl to collect and measure stool and urine (Fig. 14-28). Hats must be cleaned after each use.

Fig. 14-28. *A "hat" is a container that is placed under the toilet seat to collect a specimen.*

The home health aide should ask the client to let her know when he is ready to have a bowel movement, and she should be ready to collect the specimen. The HHA should explain that urine or toilet paper should not be included in the sample because they can ruin the sample and create the need for a new specimen.

Collecting a stool specimen

Equipment: specimen container and lid, completed label (labeled with client's name, date of birth, address, date, and time), specimen bag, 2 tongue blades, 2 pairs of gloves, bedpan (if client cannot use a portable commode or toilet), hat for toilet (if client uses commode or toilet), plastic bag, toilet paper, disposable wipes, supplies for perineal care

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Put on gloves.
5. When the client is ready to move his bowels, ask him not to urinate at the same time and not to put toilet paper in with the sample. Provide a plastic bag to discard toilet paper separately.
6. Fit the hat to the toilet or commode, or provide the client with the bedpan.
7. Make sure the bed is in its lowest position. Place toilet paper, disposable wipes, and a bell or other way to call you within the client's reach. Ask the client to clean his hands with a wipe when finished if he is able.
8. Remove and discard your gloves. Wash your hands. Leave the room and close the door.
9. When called by the client, return and wash your hands. Put on clean gloves. Give perineal care if help is needed.
10. Using the two tongue blades, take about two tablespoons of stool and put it in the container. Without touching the inside of the container, cover it tightly. Apply the label, place the container in a clean specimen bag, and seal the bag.
11. Wrap the tongue blades in toilet paper and put them in plastic bag with the used toilet paper. Discard bag in the proper container.
12. Empty the bedpan or container into the toilet. Turn the faucet on with a paper towel. Rinse the bedpan or container with cold water first and empty it into the toilet. Flush the toilet. Then clean the bedpan or container with hot, soapy water and store. Store the equipment.
13. Store the specimen properly.
14. Remove and discard your gloves.
15. Wash your hands.
16. Document the procedure. Note amount and characteristics of stool.

Urine Specimens

Urine specimens may be categorized as routine, clean catch (midstream), or 24-hour. A **routine urine specimen** is collected anytime the client voids, or urinates. The client will void into a bedpan, urinal, commode, or hat. Some clients will be able to collect their own urine specimens. Others will need help. The HHA should be sure to explain exactly how the specimen must be collected (Fig. 14-29).

Fig. 14-29. *Specimens must always be labeled with the client's name, date of birth, address, and the date and time. A specimen may need to be placed into a clean specimen bag once it is collected.*

Collecting a routine urine specimen

Equipment: specimen container and lid, completed label (labeled with client's name, date of birth, address, date, and time), specimen bag, 2 pairs of gloves, bedpan or urinal (if client cannot use a portable commode or toilet), hat for toilet (if client uses portable commode or toilet), plastic bag, toilet paper, disposable wipes, paper towels, supplies for perineal care

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Put on gloves.
5. Fit the hat to the toilet or commode, or provide the client with the bedpan or urinal. Ask the client to void into the hat, urinal, or bedpan. Ask the client not to put toilet paper in with the sample. Provide a plastic bag to discard toilet paper separately.
6. Make sure the bed is in its lowest position. Place toilet paper, disposable wipes, and a bell or other way to call you within the client's reach. Ask the client to clean his hands with a wipe when finished if he is able.
7. Remove and discard your gloves. Wash your hands. Leave the room and close the door.
8. When called, return and wash your hands. Put on clean gloves. Give perineal care if help is needed.
9. Take the bedpan, urinal, or hat to the bathroom.
10. Pour urine into the specimen container until the container is at least half full.
11. Cover the urine container with its lid. Do not touch the inside of the container. Wipe off the outside with a paper towel and discard the paper towel.
12. Apply the label, place the container in a clean specimen bag, and seal the bag.
13. Discard extra urine in the toilet. Turn the faucet on with a paper towel. Rinse the bedpan, urinal, or hat with cold water and empty it into the toilet. Flush the toilet. Store equipment.
14. Remove and discard your gloves.
15. Wash your hands.
16. Document the procedure. Note amount and characteristics of urine.

The **clean-catch specimen**, or midstream specimen (CCMS), does not include the first and last urine voided in the sample. The perineal area is cleaned and then the client urinates a small amount into the toilet to clear the urethra. The client then begins urinating again into a clean or sterile container, stopping before urination is complete. The container is removed, and the client finishes urinating into the toilet. This specimen is collected to detect bacteria in the urine.

Collecting a clean-catch (midstream) urine specimen

Equipment: specimen kit with container and lid, completed label (labeled with client's name, date of birth, address, date, and time), specimen bag, cleansing wipes, gloves, bedpan or urinal (if client cannot use a portable commode or toilet), plastic bag, toilet paper, disposable wipes, paper towels, supplies for perineal care

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Put on gloves.
5. Open the specimen kit. Do not touch the inside of the container or the inside of the lid.

6. If client cannot clean his perineal area, you will do it. Use the cleansing wipes to do this. Be sure to use a clean area of the wipe or a clean wipe for each stroke. See bed bath procedure in Chapter 13 for a reminder on how to give perineal care.
7. Ask the client to urinate a small amount into the bedpan, urinal, or toilet, and to stop before urination is complete.
8. Place the container under the urine stream and have the client start urinating again until the container is at least half full. Ask the client to stop urinating and remove the container. Have the client finish urinating in bedpan, urinal, or toilet.
9. After urination, provide a plastic bag so that the client can discard the toilet paper. Give perineal care if help is needed. Ask the client to clean his hands with a wipe if he is able.
10. Cover the urine container with its lid. Do not touch the inside of container. Wipe off the outside with a paper towel and discard the paper towel.
11. Apply the label, place the container in a clean specimen bag, and seal the bag.
12. If using a bedpan or urinal, discard extra urine in the toilet. Turn the faucet on with a paper towel. Rinse the bedpan or urinal with cold water and empty it into the toilet. Flush the toilet. Store equipment.
13. Remove and discard your gloves.
14. Wash your hands.
15. Document the procedure. Note amount and characteristics of urine.

A **24-hour urine specimen** collects all the urine voided by a client in a 24-hour period. It is used to test for certain chemicals and hormones. Usually the collection begins at 7 a.m. and continues until 7 a.m. the next day. When beginning a 24-hour urine specimen collection, the client must void and discard the first urine so that the collection begins with an empty bladder. All urine must be collected and stored properly. If any is accidentally thrown away or improperly stored, the collection will need to be started over. Since the HHA will probably not be present during all 24 hours of the test, it is important for her to explain the collection fully to the client and family members.

Collecting a 24-hour urine specimen

Equipment: 24-hour specimen container with lid, completed label (labeled with client's name, date of birth, address, date, and time), bedpan or urinal (for clients confined to bed), hat for toilet (if client can use portable commode or toilet), bucket of ice (if the urine must be kept cold; a clearly marked container may also be able to be put in the refrigerator), funnel (if the container opening is small), gloves, toilet paper, disposable wipes, supplies for perineal care

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. When beginning the collection, have the client completely empty his bladder. Discard the urine and note the exact time of this voiding. The collection will run until the same time the next day.
5. Wash your hands and put on gloves each time the client voids.
6. Ask the client not to put toilet paper in with the sample each time the client voids. Pour urine from the bedpan, urinal, or hat into the container, using the funnel as needed. Container may be stored at room temperature, on ice, or in the refrigerator. Follow the supervisor's instructions.

7. After each voiding, help as necessary with perineal care. Ask the client to clean his hands with a wipe after each voiding if he is able.
8. Be sure the client or family member understands that all urine is to be saved, even when you are gone. Demonstrate how to pour the urine into the container. Remind them to store the container properly (room temperature, in the bucket of ice, or in the refrigerator if ordered).
9. Clean equipment after each voiding.
10. Remove and discard your gloves.
11. Wash your hands.
12. Document the time of the last void before the 24-hour collection period began, and the last void of the 24-hour collection period.

Urine Straining

Urine straining is the process of pouring all urine through a fine filter to catch any particles that are present. Urine is strained to discover the presence of kidney stones that can develop in the urinary tract. These stones can be as small as grains of sand or as large as golf balls. If any stones are found, they are saved and then sent to a laboratory for examination. A routine urine specimen is collected first in order to strain urine. In the bathroom, the home health aide will pour it through a strainer or a 4x4-inch piece of gauze into a specimen container. Any stones that are present are wrapped in the filter and placed in the specimen container and then into a clean specimen bag to go to the laboratory.

3. Describe the importance of fluid balance and explain intake and output (I&O)

To maintain health, the body must take in a certain amount of fluid each day. Fluid comes in the form of liquids that a person drinks and is also found in semiliquid foods like gelatin, soup, ice cream, pudding, and yogurt. The fluid a person consumes is called **intake**, or **input**.

A general recommendation for daily fluid intake is 64 ounces (or eight 8-ounce glasses) for a healthy person. However, that is not necessarily a firm guideline for health. Some people may need more than 64 ounces, while others may need less. The amount needed depends on factors such as activity, heat, and overall health. If a person's intake is not in a healthy range, he can become dehydrated. Dehydration is a serious medical condition that requires immediate attention. More information on dehydration is in Chapter 22.

All fluid taken in each day cannot remain in the body. It must be eliminated as **output**. Output includes urine, feces (including diarrhea), and vomitus, as well as perspiration, moisture in the air that a person exhales, and wound drainage. If a person's intake exceeds his output, fluid builds up in body tissues. This fluid retention can cause medical problems and discomfort.

Fluid balance is maintaining equal input and output, or taking in and eliminating equal amounts of fluid. Most people do this naturally but some clients must have their intake and output, or I&O, monitored and documented due to illness or special diets. To monitor this, the HHA will need to measure and document all fluids and foods the client takes in by mouth, as well as all urine and vomitus produced. This information is recorded on an Intake and Output (I&O) sheet if provided by the agency, but it can also be done on regular paper (Fig. 14-30).

To measure these amounts, the HHA should use separate measuring containers for input and output; these containers should not be mixed up. Measuring cups can be used. If a client frequently drinks out of one type of cup, the HHA can measure the amount that cup holds. Masking tape placed on the outside of the cup can be used to mark different quantities. This makes it easier to keep track of input.

INTAKE-OUTPUT RECORD

Resident/Patient Name		Room No.
FLUID INTAKE	URINE	EMESIS or DRAINAGE
7:00 A.M. to 3:00 P.M.		
8-Hour Total		
3:00 P.M. to 11:00 P.M.		
8-Hour Total		
11:00 P.M. to 7 A.M.		
8-Hour Total		

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Fig. 14-30. *A sample intake and output (I&O) record.*
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Fluids are usually measured in milliliters (mL). Milliliters are units of measurement in the metric system. One milliliter is 1/1000 of a liter. Ounces (oz) are converted to milliliters. One ounce equals 30 milliliters, so to convert ounces to milliliters, the number of ounces must be multiplied by 30. Graduates are containers that measure fluid in milliliters and may also measure in ounces (Fig. 14-31). Some common conversions are listed in the orange box.

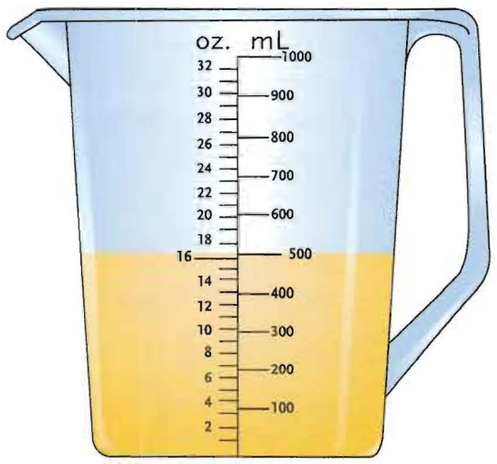

Fig. 14-31. *A graduate is a measuring container for measuring fluid volume.*

Conversions

One ounce equals 30 milliliters. To convert ounces to milliliters, the number of ounces must be multiplied by 30.

1 oz = 30 mL
2 oz = 60 mL
3 oz = 90 mL
4 oz = 120 mL
5 oz = 150 mL
6 oz = 180 mL
7 oz = 210 mL
8 oz = 240 mL
¼ cup = 2 oz = 60 mL
½ cup = 4 oz = 120 mL
1 cup = 8 oz = 240 mL

Before beginning, the HHA should explain to the client that she needs to keep track of his intake. The HHA should ask the client to let her know when he drinks something (if it is not something she served to him) and how much it was.

Measuring and recording intake and output

Equipment: I&O sheet, graduate (measuring container), pen and paper

Measure intake first.

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Using the graduate, measure the amount of fluid a client is served. Note the amount on paper, not in the visit notes. (If the amount is between measurement lines, you may need to round up to the nearest 25 mL. Follow policy.)
5. When client has finished a meal or snack, measure any leftover fluids. Note this amount on paper.
6. Subtract the leftover amount from the amount served. If you have measured in ounces, convert to milliliters (mL) by multiplying by 30.
7. Document the amount of fluid consumed (in mL) in the visit notes and/or in the input column of I&O record, as well as the time and the type of fluid consumed. Report anything unusual, such as the client refuses to drink, drinks very little, is nauseated, etc.
8. Wash your hands.

Measuring output is the other half of monitoring fluid balance.

Equipment: I&O sheet, graduate, paper towel, gloves, pen and paper

1. Wash your hands.
2. Put on gloves before handling a bedpan or urinal.
3. Pour the contents of the bedpan or urinal into the graduate. Do not spill or splash any of the urine.
4. Place the graduate on a flat surface. Measure the amount of urine at eye level. Keep the container level (Fig. 14-32). Note the amount on paper, converting to mL if necessary. (If the amount is between measurement lines, you may need to round up to the nearest 25 mL. Follow policy.)

Fig. 14-32. *Keep the container on a flat surface while measuring output.*

5. After measuring urine, empty the graduate into the toilet without splashing.
6. Turn the faucet on with a paper towel. Rinse the graduate with cold water and pour rinse water into the toilet.
7. Rinse the bedpan/urinal with cold water and pour rinse water into the toilet. Flush the toilet. Clean and store equipment.
8. Remove and discard your gloves.
9. Wash your hands before recording output.
10. Immediately document the time and amount of urine in the output column on the sheet. For example: 1545 hours, 200 mL urine.

    To measure vomitus, pour from the basin into the measuring container, then discard it in the toilet. If client vomits on the bed or floor, estimate the amount. Document **emesis** (*EM-e-sis*, or vomiting) and amount in the visit notes and/or in output column of the I&O sheet.

Emesis, or vomiting, must be documented. It may be a sign of illness or of a reaction to medication. Some clients, such as people with cancer who are undergoing chemotherapy, may vomit frequently as a result of treatment. Vomiting is unpleasant. The HHA should handle it calmly and provide comfort to the client.

Guidelines: Vomiting

- Treat vomitus as you treat urine and other potentially infectious wastes. Follow Standard Precautions. Always wear gloves when handling it. Flush vomitus down the toilet. Clean spills thoroughly with a disinfecting solution of bleach and water.
- Provide comfort to a client who has vomited. Stay calm and offer a basin if you think he may vomit again. Remove soiled sheets or clothing promptly. Provide a wet washcloth to wipe face, mouth, or hands. Offer a drink of water or oral care to clean the mouth.
- Provide plenty of fluids to the client who has vomited. Water, diluted juices, or sports drinks may help prevent dehydration. Discontinue solid foods when vomiting occurs. Check with your supervisor for what you can serve. Clear liquids or a bland diet may be recommended.
- Because you may not know when a client is going to vomit, you may not have time to explain what you will do and assemble supplies ahead of time. Talk to the client soothingly as you help him clean up. Tell him what you are doing to help him.

Observing, reporting, and documenting emesis

Equipment: emesis basin, 2 pairs of gloves, pen and paper or I&O sheet, supplies for oral care

1. Put on gloves.
2. Make sure the head is up or turned to one side. Place an emesis basin under the chin. Remove it when vomiting has stopped.
3. Remove soiled linens or clothes. Set aside for laundering. Replace with fresh linens or clothes.
4. If the client's I&O is being monitored, measure and note the amount of vomitus.
5. Flush vomit down the toilet unless vomit is red, has blood in it, or looks like wet coffee grounds. If these signs are observed, call your supervisor before disposing of the vomit. After discarding the vomit, wash, dry, and store the basin.
6. Remove and discard your gloves.
7. Wash your hands.
8. Put on clean gloves.
9. Provide comfort to client: wipe the face and mouth, position comfortably, and offer a drink of water or oral care (Fig. 14-33). Oral care helps get rid of the taste of vomit in the mouth.

Fig. 14-33. *Be calm and comforting when helping a client who has vomited.*

10. Launder soiled linens and clothes promptly in hot water.
11. Remove and discard your gloves.
12. Wash your hands again.

13. Document time, amount, color, and consistency of vomitus.
14. Report to your supervisor immediately and get instructions for diet.

4. Describe the guidelines for catheter care

Some clients may have a urinary catheter. A **catheter** (*KATH-et-er*) is a thin tube inserted into the body that is used to drain or inject fluids. A **urinary catheter** is used to drain urine from the bladder. A **straight catheter** is a type of urinary catheter that is inserted to drain urine from the bladder and is removed after urine is drained. It does not remain inside the person. An **indwelling catheter** (also called a *Foley catheter*) remains inside the bladder for a period of time (Fig. 14-34). The urine drains into a bag.

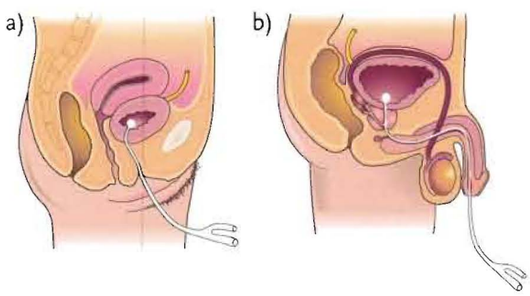

Fig. 14-34. *An illustration of a) an indwelling catheter (female) and b) an indwelling catheter (male).*

Another type of catheter that is used for males is an external catheter, or **condom catheter** (also called a *Texas catheter*). It has an attachment on the end that fits onto the penis and is fastened with special tape. Urine drains through the catheter into the tubing, then into the drainage bag. A smaller bag, called a leg bag, attaches to the leg and collects the urine. The condom catheter is changed daily or as needed. In some states, home health aides are allowed to change a condom catheter. However, in other states, nurses must perform this procedure.

Nurses or doctors insert urinary catheters. Home health aides do not insert, irrigate, or remove catheters. HHAs may be asked to give daily catheter care, clean the area around the urethral opening, and empty the drainage bag. The bag is emptied into a measuring container (a graduate).

Due to serious complications, such as infections, that can result from poor catheter care, it is very important that home health aides follow proper guidelines for urinary catheters.

Guidelines: Catheters

- G Thoroughly wash your hands before giving catheter care.
- G Keep the genital area clean to prevent infection. Because the catheter goes all the way into the bladder, bacteria can enter the bladder more easily. Daily care of the genital area (perineal care) is especially important.
- G Make sure the drainage bag always hangs lower than the hips or bladder. Urine must never flow from the bag or tubing back into the bladder. This can cause infection.
- G Keep the drainage bag off the floor. Make sure the catheter tubing does not touch the floor.
- G To help keep urine draining properly, keep the tubing as straight as possible. Make sure there are no kinks in the tubing and that the client is not sitting or lying on the tubing.

Observing and Reporting: Catheter Care

- O/R Blood in the urine or urine that looks unusual in any way
- O/R Catheter bag does not fill after several hours
- O/R Catheter bag fills suddenly
- O/R Catheter is not in place

- O/R Urine leaks from the catheter
- O/R Client reports pain or pressure
- O/R Odor is present

Providing catheter care

Equipment: bath blanket, disposable bed protector, bath basin with warm water, soap, 2–4 washcloths or disposable wipes, 2 towels, gloves

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. If the bed is adjustable, adjust the bed to a safe level, usually waist high. If the bed is movable, lock the bed wheels.
5. Lower the head of the bed. Position the client lying flat on her back.
6. Remove or fold back the top bedding, keeping the client covered with the bath blanket.
7. Test the water temperature against the inside of your wrist. Water temperature should be no higher than 105°F. Have the client check the temperature to see if it is comfortable. Adjust if necessary.
8. Put on gloves.
9. Ask the client to flex her knees and raise her buttocks off the bed by pushing against the mattress with her feet. Place a clean bed protector under her perineal area, including her buttocks.
10. Expose only the area necessary to clean the catheter. Avoid overexposing the client.
11. Place a towel under the catheter tubing before washing.
12. Wet a washcloth in the basin. Apply soap to a washcloth. Clean the area around the meatus. Use a clean area of the washcloth for each stroke.
13. Hold the catheter near the meatus. Avoid tugging the catheter throughout the procedure.
14. Clean at least four inches of the catheter nearest the meatus. Move in only one direction, away from the meatus (Fig. 14-35). Use a clean area of the washcloth for each stroke.

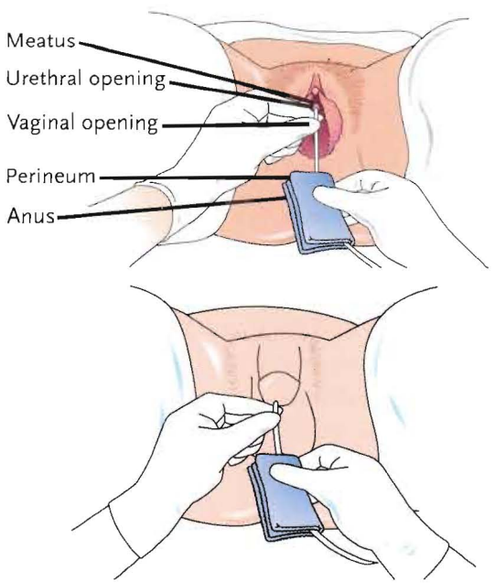

Fig. 14-35. *Hold the catheter near the meatus to avoid tugging the catheter. Moving in only one direction, away from the meatus, helps prevent infection. Use a clean area of the washcloth for each stroke.*

15. Dip a clean washcloth in the water. Rinse the area around the meatus, using a clean area of the washcloth for each stroke. With a clean, dry towel, dry the area around the meatus.
16. Dip a clean washcloth in the water. Rinse at least four inches of the catheter nearest the meatus. Move in only one direction, away from the meatus. Use a clean area of the washcloth for each stroke.
17. With a clean, dry towel, dry at least four inches of the catheter nearest the meatus. Move in only one direction, away from the meatus. Do not tug the catheter.
18. Remove the bed protector from under the client and discard. Remove the towel from under the catheter tubing and place it in the proper container.

19. Place linen and used washcloths in the proper containers. Empty the basin into the toilet and flush the toilet. Clean and store the basin.
20. Remove and discard your gloves.
21. Wash your hands.
22. Replace the top covers and remove the bath blanket and place it in the proper container.
23. If you raised an adjustable bed, return it to its lowest position.
24. Help the client dress. Arrange the covers. Check that the catheter tubing is free from kinks and twists and that it is securely taped to the leg.
25. Wash your hands again.
26. Document procedure and any observations.

Emptying the catheter drainage bag

Equipment: graduate (measuring container), alcohol wipes, paper towels, gloves

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Put on gloves.
5. Place a paper towel on the floor under the drainage bag. Place the graduate on the paper towel.
6. Open the clamp on the drainage bag so that urine flows out of the bag and into the graduate (Fig. 14-36). Do not let the spout or clamp touch the graduate.
7. When urine has drained out of the bag, close the clamp. Using alcohol wipes, clean the drain spout. Replace the drain spout in its holder on the bag.
8. Go into the bathroom. Place the graduate on a flat surface and measure at eye level. Note the amount and characteristics of urine. Empty urine into the toilet and flush the toilet.

Fig. 14-36. *Keep the spout and clamp from touching the graduate while draining urine.*

9. Clean and store the graduate. Discard paper towels.
10. Remove and discard your gloves.
11. Wash your hands.
12. Document procedure and amount of urine.

Changing a condom catheter

Equipment: condom catheter and collection bag, catheter tape, plastic bag, bath blanket, disposable bed protector, gloves, supplies for perineal care

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. If the bed is adjustable, adjust the bed to a safe level, usually waist high. If the bed is movable, lock the bed wheels.

5. Lower the head of the bed. Position the client lying flat on his back.
6. Remove or fold back the top bedding, keeping the client covered with the bath blanket.
7. Put on gloves.
8. Place a clean bed protector under his perineal area, including his buttocks.
9. Adjust the bath blanket to only expose the genital area.
10. Gently remove the condom catheter. Place condom and tape in the plastic bag.
11. Assist as necessary with perineal care.
12. Move pubic hair away from the penis so it does not get rolled into the condom.
13. Hold the penis firmly. Place the condom at the tip of the penis and roll toward the base of the penis. Leave space (at least one inch) between the drainage tip and glans of penis to prevent irritation. If client is not circumcised, be sure that the foreskin is in its normal position.
14. Secure the condom to the penis with the special tape provided (Fig. 14-37). Apply the tape in a spiral manner. Never wrap tape all the way around the penis because it can impair circulation.

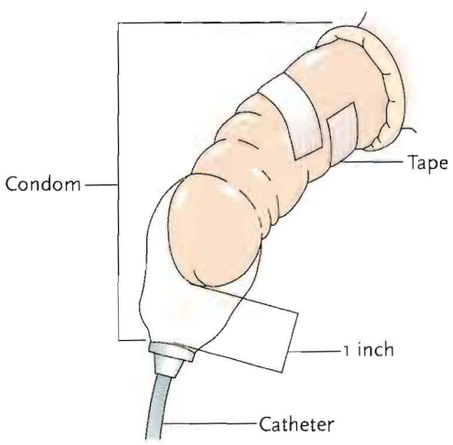

Fig. 14-37. *Gently secure the condom to the penis with provided tape, applying it in a spiral.*

15. Connect the catheter tip to the drainage tubing. Do not touch the tip to any object but the drainage tubing. Make sure the tubing is not twisted or kinked.
16. Check to see if collection bag is secured to the leg. Make sure the drain is closed.
17. Remove and discard the bed protector. Discard used supplies in the plastic bag. Place soiled clothing and linens in proper containers. Clean and store supplies.
18. Remove and discard your gloves.
19. Wash your hands.
20. Replace the top covers. Remove the bath blanket and place it in the proper container. Make sure the client is comfortable. If you raised an adjustable bed, return it to its lowest position.
21. Wash your hands again.
22. Document procedure and any observations.

5. Explain the benefits of warm and cold applications

Applying heat or cold to injured areas can have several positive effects. Heat relieves pain and muscular tension. It reduces swelling, elevates the temperature in the tissues, and increases blood flow. Increased blood flow brings more oxygen and nutrients to the tissues for healing.

Cold applications can help stop bleeding. They help prevent swelling, reduce pain, and bring down high fevers. Applying ice bags or cold compresses immediately after an injury can stop bleeding and prevent swelling.

Home health aides must be very careful when using these applications. They should know how long the application should be performed and should use the correct temperature as given in the care plan. When warm and cold applications

are applied for too long, the opposite effect of what is intended results. Clients receiving warm or cold applications should be checked often, especially those who have conditions that may make them unaware of possible injury.

Warm and cold applications may be dry or moist. Moisture strengthens the effect of heat and cold. This means that moist applications are more likely to cause injury. Paralysis, numbness, disorientation, confusion, dementia, and other conditions may cause a person to be unable to feel, notice, or understand damage that is occurring from a warm or cold application. For example, a client recovering from a stroke who has paralysis on one side may not be able to feel if a warm pack is burning his skin. A client with Alzheimer's disease may not understand that he is being burned and/or be able to communicate pain clearly.

Moist applications include the following:

- Compresses (warm or cold)
- Soaks (warm or cold)
- Tub baths (warm)
- Sponge baths (warm or cold)
- Sitz baths (warm)
- Ice packs (cold)

Dry applications include the following:

- Electric heating pads (warm)
- Disposable warm packs (warm)
- Ice bags (cold)
- Disposable cold packs (cold)

Home health aides may be allowed to prepare and apply warm water bottles, heating pads, warm compresses or soaks, ice packs, and cold compresses. If other methods are allowed, a supervisor will train the HHA. The HHA should only perform procedures that are assigned to him and that he is trained to do.

Observing and Reporting: Warm and Cold Applications

These signs indicate that the application may be causing tissue damage and should be reported:

- O/R Excessive redness
- O/R Pain
- O/R Blisters
- O/R Numbness

An electric heating pad may be ordered in the care plan. When using an electric heating pad, the HHA should follow these guidelines:

Guidelines: Electric Heating Pads

- G Check the skin frequently for redness or pain. Electric heating pads do not cool down. Having it just a little too hot can be very dangerous for the client.
- G Make sure any electric heating pad you use is in good shape. Do not use it if the cord is frayed or if wires are exposed.
- G Do not use a pin to fasten the pad. The pin could contact a wire inside the pad and cause a shock.
- G Do not allow the client to lie on top of an electric heating pad.
- G Do not allow the client to use an electric heating pad near a source of water.

A washcloth or a commercial warm compress may be used as a warm compress. There are different types of commercial compresses available (Fig. 14-38). If these are provided, the home health aide should follow the package directions and the care plan's instructions.

Fig. 14-38. *Disposable warm compresses are used only once and then discarded.* (PHOTO COURTESY OF ARIEL HARTMAN, MCKESSON MEDICAL-SURGICAL, MMS.MCKESSON.COM, 804-264-7702)

Applying warm compresses

Equipment: washcloth or compress, plastic wrap, towel, basin

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Fill basin one-half to two-thirds full with warm water. Test water temperature against the inside of your wrist to ensure it is safe. Water temperature should be no higher than 105°F. Have the client check the temperature to see if it is comfortable. Adjust if necessary.
5. Soak the washcloth in the water and wring it out. Immediately apply it to the area. Note the time. Quickly cover the washcloth with plastic wrap and the towel to keep it warm (Fig. 14-39).
6. Check the area every five minutes. Remove the compress if the area is red or numb or if the client complains of pain or discomfort. Change the compress if cooling occurs. Remove the compress after 20 minutes.

Fig. 14-39. *Cover compresses to keep them warm.*

7. Discard plastic wrap. Empty the basin in the toilet. Rinse the basin and pour rinse water in the toilet. Flush the toilet. Clean and store the basin and other supplies. Put laundry in the hamper.
8. Wash your hands.
9. Document the time, length, site of procedure, and any observations.

Administering warm soaks

Equipment: basin or bathtub (depending on the area to be soaked), bath blanket, towel, disposable absorbent pad

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Fill the basin or tub half full of warm water. Test the water temperature against the inside of your wrist to ensure it is safe. Water temperature should be no higher than 105°F. Have the client check the temperature to see if it is comfortable. Adjust if necessary.
5. Place the basin on a disposable absorbent pad (protective barrier), in a comfortable position for the client.

6. Immerse the body part in the basin or help the client into the tub. Pad the edge of the basin with a towel (Fig. 14-40). Use a bath blanket to cover the rest of the client, if needed, for extra warmth.

Fig. 14-40. *Pad the edge of the basin with a towel to make the client more comfortable.*

7. Check the water temperature every five minutes. Add hot water as needed to maintain the temperature. Never add water hotter than 105°F to avoid burns. To prevent burns, ask the client not to add hot water. Observe the area for redness. Discontinue the soak if the client complains of pain or discomfort.
8. Soak for 15–20 minutes or as ordered in the care plan.
9. Remove basin or help the client out of the tub. Use the towel to dry the client.
10. Drain the tub or empty the basin in the toilet. Rinse the basin and pour rinse water in the toilet. Flush the toilet. Clean and store the basin and other supplies. Put laundry in the hamper.
11. Wash your hands.
12. Document the time, length, and site of procedure. Report the client's response and any of your observations about the skin.

Using a hot water bottle

Equipment: hot water bottle, cloth cover or towel

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Fill the bottle half full with warm water (no higher than 105°F, or 98°F for infants and small children or older adults).
5. Press out excess air and seal the bottle.
6. Dry the bottle and check for leaks. Cover with a cloth cover or towel.
7. Apply the bottle to the area ordered. Check skin every five minutes for redness or pain. If redness or pain are present, add cold water to the bottle to reduce the temperature.
8. Remove the bottle after 20 minutes or as ordered in the care plan.
9. Empty the hot water bottle. Wash and store supplies.
10. Wash your hands.
11. Document the time, length, and site of procedure. Document the client's response and any of your observations about the skin.

Another type of heat application is a **sitz bath**, or a warm soak of the perineal area. Sitz baths clean perineal wounds and reduce inflammation and pain. Sitz baths cause circulation to be increased to the perineal area. Voiding may be stimulated by a sitz bath. Clients with perineal swelling (such as hemorrhoids) or perineal wounds (such as those that occur during childbirth) may be ordered to take sitz baths. Because the sitz bath causes increased blood flow to the pelvic area, blood flow to other parts of the body is decreased. Clients may feel weak, faint, or dizzy after taking a sitz bath. Home health aides must always wear gloves when helping with a sitz bath.

A disposable sitz bath fits on the toilet seat and is attached to a rubber bag containing warm water (Fig. 14-41).

Fig. 14-41. *A disposable sitz bath.* (PHOTO COURTESY OF NOVA MEDICAL PRODUCTS, WWW.NOVAJOY.COM)

Assisting with a sitz bath

Equipment: disposable sitz bath, towels, gloves

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Put on gloves.
5. Fill the sitz bath two-thirds full with warm water. Place the sitz bath on the toilet seat. Check the water temperature. Normally water temperature should be no higher than 105°F.
6. Help the client undress and sit on the sitz bath. A valve on the tubing connected to the bag allows the client or you to refill the water in the sitz bath with warm water.
7. You may be required to stay with the client for safety reasons. If you leave the room, check on the client every five minutes to make sure she is not dizzy or weak. Stay with a client who seems unsteady.
8. Help the client off of the sitz bath after 20 minutes. Provide towels and help with dressing if needed.
9. Clean and store supplies. Discard disposable supplies as indicated in the care plan. Put laundry in hamper.
10. Remove and discard your gloves.
11. Wash your hands.
12. Document the procedure, including the time and length of procedure, the client's response, and the water temperature.

There are different types of commercial packs available, which may be used instead of traditional ice packs. If these are provided, the HHA should follow the package directions and the care plan's instructions. Some cold packs are disposable, while others are cleaned and reused.

Applying ice packs

Equipment: cold pack or sealable plastic bag and crushed ice, towel to cover pack or bag

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Fill the plastic bag or ice pack one-half to two-thirds full with crushed ice. Seal the bag. Remove excess air. Cover bag or ice pack with towel (Fig. 14-42).

Fig. 14-42. *Seal the bag filled with ice and cover it with a towel.*

5. Apply the bag or pack to the area as ordered. Note the time. Use another towel to cover the bag if it is too cold.

6. Check the area after five minutes for blisters, or pale, white, or gray skin. Stop treatment if the client reports numbness or pain.
7. Remove the bag or pack after 20 minutes or as ordered in the care plan.
8. Return the ice bag or pack to the freezer. Put laundry in the hamper.
9. Wash your hands.
10. Document the time, length, and site of procedure. Report the client's response and any of your observations about the skin.

A washcloth dipped in cold water may be used as a cold compress; disposable or reusable compresses are also available (Fig. 14-43). Home health aides should follow instructions on the package.

Fig. 14-43. *Disposable cold compresses are used only once and then discarded.* (PHOTO COURTESY OF ARIEL HARTMAN, MCKESSON MEDICAL-SURGICAL, MMS.MCKESSON.COM, 804-264-7702)

Applying cold compresses

Equipment: basin filled with water and ice, 2 washcloths, disposable bed protector, towels

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. Place the bed protector under the area to be treated. Rinse a washcloth in the basin and wring it out. Cover the area to be treated with a towel. Apply the cold washcloth to the area as directed (Fig. 14-44). Change washcloths often to keep the area cold.

Fig. 14-44. *Wring out the washcloth before applying it to the area to be treated.*

5. Check the area after five minutes for blisters, or pale, white, or gray skin. Stop treatment if the client complains of numbness or pain.
6. Remove compress after 20 minutes or as ordered in the care plan. Give the client towels as needed to dry the area.
7. Empty, clean, and store the basin. Put laundry in the hamper.
8. Wash your hands.
9. Document the time, length, and site of procedure. Report the client's response and any observations about the skin.

6. Explain how to apply nonsterile dressings

Sterile dressings cover new, open, or draining wounds. A nurse changes these dressings. Nonsterile dressings are applied to dry, closed wounds that have less chance of infection. Home health aides may change nonsterile dressings.

Changing a dry dressing using nonsterile technique

Equipment: package of 4"x4" gauze dressings, adhesive tape, scissors, 2 pairs of gloves, plastic bag

1. Wash your hands.

The terms *colostomy* and *ileostomy* indicate what section of the intestine was removed and the type of stool that will be eliminated. A **colostomy** is a surgically created opening into the large intestine to allow stool to be expelled. With a colostomy, stool will generally be semisolid. An **ileostomy** is a surgically created opening into the end of the small intestine to allow stool to be expelled. Stool will be liquid and may be irritating to the client's skin.

Clients who have had an ostomy wear a disposable pouching system that fits over the stoma to collect the feces (Fig. 14-49). The pouching system is attached to the skin by adhesive, and a belt may also be used to secure it.

Fig. 14-49. *The top and middle photos show an ostomy drainage pouch and a skin barrier for a drainable (reusable) system. The bottom photo shows a closed (disposable) system that is only used once before being discarded.* (PHOTOS COURTESY OF HOLLISTER INCORPORATED, LIBERTYVILLE, ILLINOIS, WWW.HOLLISTER.COM)

Many people manage the ostomy appliance by themselves. Employers should provide training before home health aides provide this care and will let them know what specific care is allowed.

Guidelines: Ostomy Care

- Always wash hands carefully and wear gloves when providing ostomy care. Follow Standard Precautions.
- Help clients with ostomies wash their hands properly.
- Make sure that the client receives regular, careful skin care. Observe and report any changes in the skin to help prevent skin breakdown.
- Empty and clean the ostomy pouch whenever stool is eliminated.
- Skin barriers protect the skin around the stoma from irritation by the waste products and/or the adhesive material that is used to secure the pouch to the body. Barriers may come in the form of a powder, gel, cream, ring, paste, wafer, or square.
- Clients who have an ileostomy may experience food blockage. A food blockage is a large amount of undigested food, usually high-fiber food, that collects in the small intestine and blocks the passage of stool. Food blockages can occur if the client eats large amounts of foods that are high in fiber and/or if the client does not chew the food well. Follow the diet instructions in the care plan. Chapter 22 contains more information about helping a client eat.
- Encourage fluids and proper diets. Clients with ileostomies need to drink plenty of fluids because they lose extra liquid in their stools. They may also be on high-potassium diets due to rapid elimination.
- Many clients with ostomies feel they have lost control of a basic bodily function. They

may be embarrassed or angry about the ostomy. Be sensitive and supportive when working with these clients. Always provide privacy for ostomy care. Behave professionally and do not act uncomfortable with any aspect of ostomy care.

G Ostomy pouches are made to be odor resistant. If odors are present, it may be due to a leak or improper cleaning. Report odors to your supervisor.

G Observe how the client is reacting to the ostomy and his general attitude. Report any emotional or physical problems with adjusting to the ostomy to your supervisor.

G Most agencies will not allow HHAs to care for a new ileostomy or colostomy or an ileostomy or colostomy that shows any problem, such as skin irritation. Follow your agency's policies. If you have any questions, discuss them with your supervisor.

Observing and Reporting: Ostomies

O/R Changes in color, amount, frequency, or odor of stool

O/R Any skin changes at stoma site, such as sores, excessive redness, or swelling

O/R Leaking stool

O/R Absence of stool

O/R Watery stool with green, stringy material

O/R Abdominal cramps

O/R Vomiting

Caring for an ostomy

Equipment: disposable bed protector, bath blanket, clean ostomy pouching system, belt (if needed), disposable wipes (made for ostomy care), basin of warm water, washcloth, 2 towels, plastic bag, gloves

1. Wash your hands.
2. Explain the procedure to the client, speaking clearly, slowly, and directly. Maintain face-to-face contact whenever possible.
3. Provide privacy for the client.
4. If the bed is adjustable, adjust the bed to a safe level, usually waist high. If the bed is movable, lock the bed wheels.
5. Put on gloves.
6. Place the bed protector under the client. Cover the client with the bath blanket. Pull down the top sheet and blankets. Expose only the ostomy site. Offer the client a towel to keep clothing dry.
7. Undo the ostomy belt if used. Remove the ostomy pouch carefully. Place it in the plastic bag. Note the color, odor, consistency, and amount of stool in the pouch.
8. Wipe the area around the stoma with disposable wipes for ostomy care. Discard the wipes in the plastic bag.
9. Using a washcloth and warm water, wash the area in one direction, away from the stoma (Fig. 14-50). Rinse. Pat dry with another towel.

Fig. 14-50. *Wash area gently, moving in one direction, away from the stoma.*

10. Place the clean ostomy drainage pouch on the client, following your supervisor's instructions. Hold in place and seal securely. Make sure the bottom of the pouch is clamped.
11. Remove the disposable bed protector and discard. Place soiled linens in proper containers. Discard the plastic bag properly.

12. Remove and discard your gloves.
13. Wash your hands.
14. Return bed to lowest position if adjusted.
15. Document procedure and any observations. Note any changes to the stoma and surrounding area. A normal stoma is red and moist, and looks like the lining of the mouth. Call your supervisor if stoma appears very red or blue or if swelling or bleeding is present. Report any sign of skin breakdown around the stoma.

The Appendix at the back of this book contains more advanced information on colostomies for HHAs who are allowed to provide this care.

Gastrostomies, tracheostomies, and urostomies are other types of ostomies. A gastrostomy is a surgically created opening into the stomach from the abdomen wall. A tracheostomy is a surgically created opening through the neck into the trachea. A urostomy is a surgically created opening to divert urinary flow away from the bladder. More information on gastrostomies is in Chapter 22. More information on tracheostomies is in the Appendix at the back of the book.

9. Describe how to assist with an elastic bandage

Elastic bandages, also called *nonsterile bandages, self-adhering bandages, ACE bandages,* or *ACE wraps,* are stretchy bandages that are used to hold dressings in place, secure splints, and support and protect body parts (Fig. 14-51). In addition, these bandages may decrease swelling that occurs from an injury.

HHAs may be required to assist with the use of an elastic bandage. Duties may include bringing the bandage to the client, positioning the client to apply the bandage, washing and storing the bandage, and documenting observations. Some states may allow HHAs to apply and remove elastic bandages. If allowed to assist with these bandages, the HHA can follow these guidelines:

Fig. 14-51. *This is one type of elastic bandage.*

Guidelines: Elastic Bandages

- Keep the area to be wrapped clean and dry.
- Apply elastic bandages snugly enough to control bleeding and prevent movement of dressings. However, make sure that the body part is not wrapped too tightly, which can decrease circulation.
- Wrap the bandage evenly, in a figure eight pattern, so that no part of the wrapped area is pinched.
- Do not tie the bandage because this cuts off circulation to the body part; the end is held in place with special clips, tape, or Velcro.
- Remove the bandage as often as indicated in the care plan.
- Check the bandage often because it can become loose, which causes it to lose effectiveness, or it can become bunched up, which causes pressure and possible discomfort.
- Check on the client 10–15 minutes after the bandage is first applied to see if there are any signs of poor circulation. Signs and symptoms of poor circulation include the following:
  - Swelling
  - Pale, gray, cyanotic (bluish), or white skin

- Shiny, tight skin
- Cold skin
- Sores
- Numbness
- Tingling
- Pain or discomfort

G Loosen the bandage if you note any signs of poor circulation and call your supervisor immediately.

Chapter Review

1. List four vital signs that must be monitored.
2. What are the sites for measuring the body's temperature?
3. Which temperature site is considered to be the most accurate?
4. What is the most common site for monitoring the pulse?
5. Where is the apical pulse located?
6. Why should respirations be counted immediately after measuring the pulse rate?
7. List and define the two phases of measuring blood pressure.
8. List seven measures to reduce pain.
9. Why must HHAs report any weight loss or gain that a client has?
10. List the types of specimens HHAs may be asked to collect.
11. When is the best time of day to collect a sputum specimen?
12. What is a clean-catch urine specimen?
13. Define fluid balance.
14. How many milliliters (mL) are equal to one ounce (oz)?
15. A home health aide serves Mrs. Wyant a glass of milk. The HHA knows the glass holds 180 milliliters (mL). Mrs. Wyant finishes most, but not all, of the milk. The HHA measures the leftover milk, and it is ¼ cup. How many milliliters of milk are left?
16. Ms. Cahill drinks tea in the morning. Her mug holds 10 ounces, and 3 ounces are left in the mug. What was her input in milliliters (mL)?
17. Why must an HHA document emesis (vomitus)?
18. Why should the catheter drainage bag always be kept lower than the hips or the bladder?
19. Why should catheter tubing be kept as straight as possible?
20. What are the benefits of warm applications? What are the benefits of cold applications?
21. When are nonsterile dressings usually used?
22. When should elastic stockings be applied?
23. How often should an ostomy pouch be emptied?
24. List six signs of poor circulation that an HHA should look for when an elastic bandage is applied.