Student Resource Guide

8. Signs & Symptoms of Illness or Injury

Student Resource Guide: Session 8

Signs and Symptoms of Illness or Injury

OUTCOMES

When you finish this session, you will be able to:

- Identify changes that may be signs and symptoms of illness or injury.
- Identify the appropriate level of response based on an individual's signs and symptoms.
- Make a 911 call and provide necessary information.
- Follow the guidelines for reporting and documenting changes that may be signs and symptoms of illness or injury.
- Take an individual's vital signs including pulse and temperature.
- Describe how to provide first aid for an individual having a seizure.
- Identify ways to prevent health problems for individuals at risk.
- Describe health problems associated with aging.

KEY WORDS

Key Word	Meaning	In My Own Words
Medical Emergency	An unexpected event, illness or injury calling for first aid followed by immediate medical attention to protect an individual's life or safety.	
Routine Treatment	Giving simple first aid or following doctor's orders in response to signs of injury or illness.	
Seizure	An unusual rush of electrical energy in the brain.	
Signs and Symptoms	Changes observed by the DSP or reported by the individual that may indicate disease, illness, or injury.	
Urgent Call to Doctor	A phone call made as soon as possible to the individual's doctor to report serious signs or symptoms of illness or injury.	

ACTIVITY

What Do You Want to Know?

Directions: *Think about the topic of this training session. Answer the first two questions in the space provided below. You will come back to this page at the end of the session to answer the last question.*

What do you **already know** about recognizing signs and symptoms of illness or injury?

What do you **want to know** about recognizing signs and symptoms of illness or injury?

To be answered at the end of the session, during review:
What **have you learned** about recognizing signs and symptoms of illness or injury?

Recognizing Changes

In this session we will talk about how to use the DSP's tools of observation and communication when looking for **signs and symptoms**, or changes that may tell you of an illness or injury. Early identification of an illness or injury can save an individual's life.

As a DSP you get to know an individual by spending time with him or her and learning what is usual for that individual, such as his or her daily routines, behavior, way of communicating, appearance, usual mood, and physical health. If you know what is normal for an individual, you will know when something has changed or is different.

You also need to know an individual's health history. This will help you to notice a change in his or her health and to decide what to do. You will know if the change is something that has happened before and what was done, and you will have some clues as to what you need to do next.

Observation and Communication

To identify changes and gather information that will help you decide what you should do, you will use your tools of observation and communication.

Observation means using all of your senses: sight, hearing, touch, and smell. You may see a physical change, such as tears, redness or swelling of the skin, or cloudy urine. You may hear noisy breathing, crying, moaning, coughing, or screaming. You may feel hot, moist, or cold skin. You may smell an unusual or unpleasant odor coming from the individual's mouth, body, clothing, or body fluids.

Communication includes asking questions and listening to answers from the individual and others. A good detective asks a lot of questions. For example, if an individual tells you that her stomach hurts, you might ask, "When did it start hurting?" or "Can you show me where it hurts?" If you see an individual holding her stomach, frowning, and crying, you might ask the individual, "Does your stomach hurt?"

If the individual is unable to use words to tell you, your detective skills—observation, and communication—become even more important. The individual in the example above is holding her stomach, frowning, and crying. These behaviors provide clues that something is wrong. A good observer notices both words and other ways of communicating, including behavior.

You may also want to ask others. Talking to other staff who know the individual, reading the documentation kept at your facility, such as the facility log, individual logs, or medication records, are good ways of collecting information.

It may be challenging to detect a change. Many individuals with intellectual/developmental disabilities have difficulty communicating. Some may "tell" you that they are in pain by crying, withdrawing, pointing, or screaming, while others may say, "I hurt," or "My stomach hurts." The clues may not always be so obvious and easy to detect. The individuals you support rely on you to identify changes that may be the signs and symptoms of an illness or injury and to see that they receive appropriate treatment.

A C T I V I T Y

Observation and Communication

Directions: *As a class, discuss the scenario below.*

Scenario: Rachel usually comes home from school in a good mood, humming, and happily goes to her room to play with her toys. Today, she comes home from school crying and, when offered a favorite toy, ignores it.

- Do you recognize a change? If so, what?
- How else could you find out what is bothering Rachel?

Learning More About Changes

So now you know that you identify changes by using your observation (see, hear, feel, and smell) and communication (listen and question) skills. Let's learn some more about the types of changes you may observe or learn about.

What Kind of Changes Should the DSP Look For?

Remember, changes may be in an individual's daily routine, behavior, way of communicating, appearance, usual mood, and physical health. The following are some examples of changes that you may observe in each of these areas and some questions that may help you think about the reasons for the changes.

Daily routine: An individual refuses to get out of bed; gets up at a different time; sleeps more or less; eats more or less; changes food preferences (starts eating salty foods); changes grooming habits (likes to brush his/her teeth, but one day refuses); has new toileting accidents; has trouble feeding and dressing himself/herself.

- You may want to ask, "Is the individual behaving differently than yesterday?" "Why is the individual refusing to eat his/her favorite foods?" "What is causing the individual to have trouble sleeping?"

A C T I V I T Y

The Good DSP Detective

Directions: *Get into groups of no more than four. Think about a time that you had to use your observation skills to figure out why there was a sudden change in an individual you support. Tell your group about that time:*

- What was the change that you noticed?
- How did you identify it?

Share one example from your group with the class.

Behavior: An individual who is usually calm starts hitting and kicking; appears more or less active than usual.

- You may want to ask, "Why is the individual acting aggressively to himself or to others?" "What is the individual trying to tell us with this new behavior?"

Ways of communicating: an individual who usually talks a lot stops talking; speech becomes garbled or unclear.

- You may ask, "Has the individual's ability to talk or communicate changed like this before?"

Appearance: An individual who is usually very neat in appearance has uncombed hair and is wearing a dirty, wrinkled shirt; changes in color or appearance of skin, (a sudden redness on the hands or an ashy tone and clammy feel to the skin); any changes in weight, up or down.

- You may ask, "Does it seem like the individual has lost interest in things?" "Is the individual taking less care in his or her personal appearance?"

General manner or mood: Someone who is usually very talkative and friendly becomes quiet and unfriendly; an individual who usually spends time with others suddenly withdraws and wants to be alone.

- You may ask, "Why has the individual's mood changed?" "Does the individual want to be alone all the time or at a specific time?"

Physical Health

Changes in physical health often involve a particular part of the body. Some are changes you may observe, and others are changes an individual may tell you about. For example, you may observe that an individual is pulling his/her ear or an individual may tell you that it hurts.

- You may want to ask, "Is there any apparent change to the individual's skin, eyes, ears, nose, or any other part of the body?"

Some physical changes to pay attention to include:

- **Skin:** Bleeding, swelling, spots or bumps, changes of skin color (blue, gray, red). The individual may scratch or rub their skin.
- **Eyes:** Redness, yellow or green drainage, swelling of the eyelid, excessive tearing. The individual may say that their eyes burn or hurt; they may rub their eyes.
- **Ears:** Redness, fever, drainage from the ear. The individual may say they are dizzy or their ear hurts. They may hear ringing in their ears.
- **Nose:** Clear, cloudy, colored fluid running from the nose. The individual may rub the nose.
- **Mouth and throat:** Redness or white patches at the back of the throat, hoarse voice, fever or skin rash around mouth, facial or gum swelling, gum bleeding. Individual may say they have pain in a tooth or when swallowing or they may refuse to eat.
- **Muscles and bones:** Inability or difficulty moving a leg or an arm that the individual could previously move, stiffness, swelling. Individual may say they have pain in the arms, legs, back.
- **Breathing (lungs):** Cough, phlegm or mucous (fluid) in the lungs, shortness of breath, wheezing, stuffy nose. Individual may say they have pain in nose or chest, dizziness.
- **Heart and blood vessels:** Cold or blue hands or feet, swelling of ankles. Individual may say they have chest pain or shortness of breath or that their hands or feet are numb.

Learning More About Changes (cont.)

- **Abdomen, bowel, and bladder (stomach, intestines, liver, gallbladder, pancreas, urinary tract):** Swollen, hard stomach; vomiting; loose bowel movement or diarrhea; constipation; blood in vomit or bowel movement; fruity smelling breath or urine; difficult, painful and/or burning urination; changes in urine color (clear to cloudy or light to dark yellow). Individual may say they have pain on one or both sides of the mid-back or stomach; chills or a fever.
- **Women's reproductive organs:** Vaginal discharge, itching, unusual odor, burning, changes in menstrual cycle, such as how often a period occurs, how long it lasts, and how heavy the flow of blood is.
- **Men's reproductive organs:** Discharge from penis, pain, itching, redness, increased frequency of urination, difficulty urinating, burning.

To review, a change is anything that is different about an individual's daily routine, behavior, way of communicating, appearance, usual mood, and physical health. In order to recognize a change, you must first know the individual and what is "normal" for that individual. You identify changes by using your observation and communication skills. The individuals you support rely upon you to identify changes and to respond to those changes appropriately.

Assessing What to Do When You Learn About a Change

Many changes in an individual's daily routine, behavior, way of communicating, appearance, mood, and/or physical health, require the DSP to take action. The following information will help you to assess, or think about and decide, the appropriate action in each situation.

After you have identified a change, you must decide whether the change is a potential sign or symptom of illness or injury. Making the right decision involves thinking about the information that you have and making a judgment. Knowledge of the person and his or her health history, including current medications and doctor's orders, are essential.

Different signs and symptoms of illness or injury will require different levels of response, including:

Levels of Emergency Response:

- **911 Call:** Medical emergencies that require immediate medical attention.
- **Urgent Call to Doctor:** Serious signs or symptoms that require a phone call to the individual's doctor as soon as possible.
- **Routine Treatment:** Signs or symptoms that are addressed by simple First Aid or written doctor's orders.

911 Call

A 911 call involves a **medical emergency** that requires immediate medical attention.

If you think you need to call 911, *do it*! Don't call someone to ask if you should. If you have any question in your mind, make the call. Quick action in recognizing signs and symptoms that require emergency medical treatment can be the difference between life and death.

Always call 911 if an individual:

- Has bleeding that can't be controlled
- Is or becomes unconscious (not related to a seizure, seizures will be explained later in this session)
- Has no pulse
- Has trouble breathing or is breathing in a strange way
- Has chest pain or pressure
- Has severe injuries such as broken bones as a result of an accident
- Is choking (not breathing and not coughing)
- Has injuries to the head, neck, or back
- Has gone into shock (a life-threatening condition where the body doesn't have enough blood flow)
- Has a seizure lasting five minutes or has continuous seizures
- Has suffered electrical shock
- Is drowning or near drowning
- Experiences paralysis (the inability to move all or part of the body), numbness, confusion
- Suffers severe burns (burns that cover more than one part of the body or on head, neck, hands, feet, or genitals)

If an individual appears to have been poisoned, first call the Poison Control Center at 1-800-222-1222 to get advice and then call 911.

When you call 911, tell them:

- Who you are
- Where you are
- What has happened
- When it happened

Stay on the phone until the 911 dispatcher tells you to hang up.

While waiting for medical help to arrive, stay calm and help the individual stay calm, stay with him or her, and do necessary first aid and/or CPR. If possible, send another person to watch for and guide the emergency personnel to the scene. When the emergency personnel arrive, provide them with additional information including all medications, allergies, insurance information, and the name and phone number of the individual's primary doctor, that is, the doctor who usually provides care for this individual. It is a good idea to also call the primary doctor as soon as you can.

Urgent Call to Doctor

An **urgent call to a doctor** is needed when serious signs or symptoms require a report be made to the individual's doctor as soon as possible.

Some signs and symptoms indicate a need for immediate medical care. In these situations, the DSP should call the individual's doctor and report the signs and symptoms so that the doctor can assess the person's condition and decide what should be done next. While the person's life may not be in immediate danger, the signs and symptoms listed below are serious, and the DSP must report them to the individual's doctor as soon as they are identified. The following are examples of changes that may be signs and symptoms of illness or injury and that require an urgent call to the doctor:

- Rapid change in behavior or an increase in challenging behavior such as aggression or self-injurious behavior
- Sleeping most of the day; unusual difficulty in waking; being unusually tired
- Scratching or holding one or both ears
- Holding abdomen, or stomach area
- Noticeable change in facial expression or behavior
- Evidence of pain or discomfort that is not easily explained
- New or sudden incontinence (inability to control urination)

Assessing What to Do When You Learn About a Change (cont.)

- Fever of 101 degrees or higher
- Diarrhea or vomiting lasting more than four hours
- Rash lasting several days or getting worse
- Increase in seizure activity
- Sudden limping, inability to walk, or difficulty in movement of any body part
- Severe sore throat/difficulty swallowing
- Infection of an injury such as a cut
- Swelling
- Monitor temperature below 101 degrees

Always report these changes to the doctor as soon as possible. *When in doubt, call the doctor.* When you call the doctor, stay on the phone until you get assistance. If you think the doctor did not understand how serious the situation is, or if the individual gets worse, call 911. Your actions can save a life.

When you call the doctor, tell them:

- Who you are and how you know their patient
- What symptoms the individual has reported to you
- What signs you have observed
- What signs others have observed
- When the change first began or was noticed
- Any recent history of similar signs and symptoms
- Current medications
- Known allergies

A C T I V I T Y

Who Do I Call?

Directions: *Using the following scenario, decide whom you would call and what you would say.*

You are in the kitchen cooking lunch. You have your back to Margaret. Margaret says that she is going into the family room to watch TV. You hear her fall and start to scream. You immediately run to her side. You find her lying on the floor in the family room, clutching her leg, and screaming. Margaret is unable to get up from the floor.

- **Who would you call:**_____
- **Who you are:**_____
- **Where you are:**_____
- **What has happened:**_____
- **When it happened:**_____
- **What you see:**_____

Routine Treatment

Signs or symptoms that may be addressed with simple First Aid or for which there are written doctor's orders are considered to be **routine treatment** and can be treated in the home. For example, a DSP may provide minor First Aid in the home for a small scratch on the finger. Some symptoms reported by the individual, such as a headache or swelling of the ankles, may be treated in the home if there are written doctor's orders that specify what to do. The DSP must be familiar with the individual, his or her health history, medications, and any written doctors' orders before deciding what to do.

ACTIVITY

What Would You Do?

Directions: *For each sign or symptom listed in the left column, decide if you should respond by calling 911, placing an urgent call to the doctor, or providing routine treatment at home. Check the appropriate box on the right columns.*

Sign or Symptom	Your Response		
	911	Urgent Doctor Call	Routine Treatment
Fever of 101 degrees or higher	☐	☐	☐
New or sudden incontinence (inability to control urination)	☐	☐	☐
Rash lasting several days or getting worse	☐	☐	☐
Bleeding that can't be controlled	☐	☐	☐
Severe sore throat/difficulty swallowing	☐	☐	☐
Infection of an injury	☐	☐	☐
Sleeping most of the day; unusual difficulty in waking; unusually tired	☐	☐	☐
Scratching/holding one or both ears	☐	☐	☐
Holding abdomen (or stomach area)	☐	☐	☐
Diarrhea or vomiting lasting more than four hours	☐	☐	☐
A seizure lasting five minutes or continuous seizures	☐	☐	☐
Sudden inability to move, numbness, confusion	☐	☐	☐
Sudden limping, inability to walk, or difficulty in movement	☐	☐	☐
Mosquito bite	☐	☐	☐
Trouble breathing or is breathing in a strange way	☐	☐	☐
Visible swelling with doctor's order to elevate the leg	☐	☐	☐
Minor cut	☐	☐	☐
Is or becomes unconscious not related to a seizure	☐	☐	☐
No pulse	☐	☐	☐
Any evidence of pain or discomfort	☐	☐	☐
Chest pain or pressure	☐	☐	☐
Severe injuries as a result of an accident, such as broken bones	☐	☐	☐
Choking (not breathing and not coughing)	☐	☐	☐
Injuries to the head, neck, or back	☐	☐	☐
Has gone into shock	☐	☐	☐

Measuring Vital Signs

You may be called upon to take an individual's vital signs. The four vital signs are the individual's temperature, pulse, respiration, and blood pressure. Temperature and pulse are vital signs that you will most commonly use as a DSP.

Temperature

Temperature is the amount of heat in the body. Normal temperature is 98.6 degrees F. Anything within one degree lower or higher (97.6 to 99.6) is considered normal.

There are various ways of taking a person's temperature. Determine which method is preferred by the individual you are supporting:

1) Digital - mouth, ear or armpit
2) Temperature sensitive "tongue strips"

Digital thermometers are easy to read and hard to break. To take an individual's temperature by mouth using a digital thermometer:

- Use a plastic slip to cover the thermometer.
- Press the button to set the thermometer.
- Place the thermometer under the individual's tongue; have individual close their mouth (breathing through the nose), for several minutes.
- Take the thermometer out of the individual's mouth; read the temperature when the indicator lights.

If the individual is unable to keep the thermometer under their tongue, you may take a temperature under the armpit (with tip of the thermometer against dry skin and held in place by the arm), waiting five minutes (not four). Exercise raises an individual's temperature, so temperature should be taken at rest.

Do not take a temperature by mouth for an individual who has a history of seizures, breathes through his or her mouth, has just had oral surgery, or is unconscious.

Pulse

Arteries carry blood from the heart to all parts of the body. A pulse is the beat of the heart felt at an artery as a wave of blood passes through the artery. You can feel a pulse every time the heart beats. The easiest and most common place to take a pulse is on the inside of the thumb side of the wrist, using the first two fingers pressed against the skin. Count the number of beats over a 15-second period and multiply by four—this will provide a pulse reading (beats per minute). Repeat the process to check to see if the result is the same. Don't use your thumb because you could end up "counting" your own heart beats when you feel your pulse through your thumb. A normal pulse will be about 70 beats per minute. Anything from 50 to 90 is within normal range for an adult.

Taking a pulse:

- Inside thumb side of wrist (easiest)
- Use first two fingers pressed against the skin
- Count the number of beats over a 15-second period and multiply by four

Respiration

Respiration is the act of breathing air into and out of the lungs. When counting respiration, pay close attention not only to the breathing rate, but also to wheezing, other sounds, and ease or difficulty breathing.

Measuring Vital Signs (cont.)

Respiration (breaths in and out) is best counted without telling the individual what you are doing. If the individual knows you are counting her breath, it may change how she breathes. Count the rise or the fall of the chest for one minute. One respiration is an inhale and an exhale. Remember respiration is an inhale and exhale. Normal respiration rate is 12 to 24 breaths per minute for individuals above the age of 7.

Blood Pressure

Blood pressure is the force or push of the blood against the walls of an artery. A blood pressure device measures blood pressure by tightening a band on the arm (or leg) and then detecting when blood begins to flow again through the arteries in that arm (or leg). The measure of blood pressure is shown using two numbers separated by a slash mark, like this: 120/80. The first number is the systolic measure, where the device used to measure pressure shows blood flowing through the tightened blood vessels. The lower number is the diastolic measure that records when the blood is no longer heard. Blood pressure for adults 18 years of age and older falls in the following categories:

- *Normal:* Less than 120/less than 80
- *High-normal:* 120–139/80–89—pre-hypertension (high blood pressure)
- *High:* 140/90 or higher—hypertension*

Blood pressure is affected by time of day (low at night; peak about eight hours after awakening); emotions (stress increases blood pressure); weight (obesity typically increases blood pressure); activity level; excess sodium (salt) intake; excess alcohol consumption; and use of certain drugs, including birth control pills, steroids, decongestants, and anti-inflammatory medications.

High blood pressure (hypertension) is often called a “silent killer” because symptoms of any kind are rare. If untreated, high blood pressure can harden arteries and result in serious heart problems. If high blood pressure is suspected or has been diagnosed, the doctor may ask the DSP to monitor the individual’s blood pressure. This means the blood pressure should be measured with the same device, at the same time of day, on the same arm (or leg), and with the individual in the same position (for example, sitting up) over a period of time. Anything that might have affected the blood pressure, such as exercise (for example, the individual came in 10 minutes after riding a bike) should be noted. In these situations, the DSP will follow the doctors instructions for taking blood pressure and documenting blood pressure readings.

*Source: American Heart Association, Inc., 2012, http://www.heart.org/HEARTORG/

Reporting and Documenting Changes

Regardless of what action you, as the DSP take, you **must report** (tell it) **and document** (write about it) in some way.

- Medical emergencies must be (1) documented in the individual's record and (2) reported to the regional center, Community Care Licensing and other protective services agencies.
- Urgent calls to the doctor must be (1) documented in the individual's record and (2) may require a special incident report.
- Routine treatment provided in accordance with a written doctor's order or simple first aid must be (1) documented in the individual's record and (2) completed in accordance with a written doctor's order.

Sometimes the correct response is simply to document the change that you have identified. This is important as, over time, you and other DSPs may identify a pattern or trend and provide valuable information in the diagnosing of a health problem. For example, through continuous documentation of your observations, you may discover that an individual is losing interest in activities, which may be a sign or symptom of illness or injury. Many changes occur slowly over time and will only be identified if you and other DSPs consistently document and share observations.

You may be reporting changes (or signs and symptoms) to a number of different people, including a doctor, dentist, regional center service coordinator, behavior specialist, and your administrator. All of these contacts must be documented. Also, remember that signs and symptoms may be an indication of possible abuse or neglect that you are mandated to report to the appropriate protective service agency.

Always report and document changes as soon as possible. Some types of documentation, such as special incident reporting, have regulatory and statutory timelines that must be followed. For example, special incidents must be reported by phone to the regional center within 24 hours and in writing within 48 hours.

Here are some guidelines to add to your DSP toolbox and to use when reporting and documenting changes that may be signs or symptoms of illness or injury:

- Write down what the individual said or did to communicate the change. For example, Bill said, "My stomach hurts," or "Fred walked up to me and pointed to his stomach, frowning and moaning."
- Do not try to make a diagnosis. The DSP is not a health care professional. Describe identified changes only.
- Do not document your personal opinion; for example, "Bill said his arm hurt, but I don't think there is anything really wrong."
- Be specific when reporting and documenting observed changes. For example, "I heard Jane screaming. She was sitting on the couch in the living room. The screaming lasted for about two minutes."
- When reporting and documenting answers to questions, report and document both the question and the response. For example, "Bill told me 'my stomach hurts.' I asked him, 'how long has it hurt?' Bill said, 'Since breakfast, and it really hurts bad.'" In the case where an individual does not verbally respond, the DSP should report and document the individual's response; for example, "I heard Jane screaming. When I asked Jane, 'What's wrong?' she put her hands on her head and began rocking."

ACTIVITY

Signs and Symptoms

Directions: *Read the following scenario and answer the questions.*

John, 57, complained of chest pain to Zac, the DSP on shift. Zac advised John to "take it easy." To be safe, Zac observed him more closely than usual throughout the morning. He also looked at John's record and saw that he had a history of obesity and high cholesterol. He had been to the doctor three times in the last six months for "aches and pains," and no problems were found.

After John had eaten only part of his lunch, he again complained of pain and pressure in his chest. John went to watch TV in the living room. Zac went with him to make sure he was okay. After about 15 minutes, Zac observed that John was pale, sweating, and short of breath.

What are John's signs and symptoms?

What should Zac do next?

In this scenario, did Zac do the right thing?

Managing Chronic Health Care Conditions

In this section you will learn guidelines for supporting individuals with certain long lasting, or chronic, health conditions. Since this curriculum is designed for *all* DSPs, it is impossible to review proper care and management guidelines for all the chronic health conditions that DSPs may see in the individuals they support. DSPs are encouraged to talk to their administrator, the individual's doctor, and the service coordinator, and review health records to learn how to provide the best possible support to individuals with any chronic health conditions. The regional center nurse may also be helpful and should have health care guidelines, called *protocols,* for most chronic health conditions requiring specialized care. Each individual is unique, and care plans can be very different for individuals with the same chronic health condition.

Diabetes

Diabetes is a disease in which the body does not produce or properly use insulin. Insulin is a hormone that is needed to convert sugar, starches and other food into energy needed for daily life. Diabetes occurs when:

- The body does not produce any insulin (Type I diabetes), or
- The body produces very little insulin (Type II diabetes).

Diabetes is a chronic disease with no cure. Individuals with diabetes need to take medication and monitor their disease to stay healthy.

Type I diabetes, or insulin dependent diabetes, is usually diagnosed in childhood or adolescence, but can develop at any age. People with Type I diabetes must monitor their blood sugar (also known as glucose) levels and inject insulin every day. There is no known way to prevent Type I diabetes.

Type II diabetes, or non-insulin dependent diabetes, is the most common form of diabetes. People with Type II diabetes can often control their blood sugar through weight loss, exercise, and careful meal planning. Some may need insulin injections or oral medication to lower blood sugar.

Prevention of Type II Diabetes

Factors such as age, family history and ethnicity cannot be changed. However, a lifestyle that includes a healthy diet, regular exercise, maintaining and monitoring a healthy body weight, and yearly physical exams can reduce the risk of Type II Diabetes.

Who Is at Risk

- People who are overweight, don't exercise, and are over the age of 40.
- People with a family history of diabetes.
- African-Americans, Latinos, Native Americans, Asian Americans and Pacific Islanders.

Common Symptoms of Diabetes

The symptoms of diabetes often seem harmless and may be mistaken for symptoms of other illnesses. The DSP should observe the individual carefully and report these symptoms to the doctor. Diabetes can be diagnosed with a simple blood glucose test. The DSP should observe all individuals carefully and report the following symptoms to the doctor:

- Excessive thirst
- Frequent urination
- Extreme hunger

Diabetes (cont.)

- Unexplained weight loss
- Increased fatigue
- Itchy skin
- Yeast infections
- Slow-healing wounds
- Dry mouth
- Blurred vision
- Irritability
- Leg pain

Problems that May Come with Diabetes

Hyperglycemia and hypoglycemia may happen to individuals who have diabetes. Hyperglycemia means 'high blood glucose' (a high level of sugar in the blood); hypoglycemia means 'low blood glucose' (a low level of sugar in the blood). If hyperglycemia is not treated, a diabetic coma could occur.

Signs and symptoms of hyperglycemia include:

- High levels of sugar in the urine
- Frequent urination
- Increased thirst
- High blood glucose

Individuals with diabetes must check their blood glucose often. The individual's doctor will tell them how often they should check and what their blood glucose levels should be. The DSP should check the individual's medical profile and talk to the individual's doctor to find the safest way to lower the individual's blood glucose level. The doctor may recommend exercise, changes in diet, or changes to the amount or timing of medication. Diabetic coma is life-threatening and needs immediate treatment.

When to Get Urgent Care for an Individual who is Diabetic

Get urgent care if an individual with diabetes:

- Loses consciousness
- Shows signs of high blood sugar:
  - Frequent urination
  - Intense thirst
  - Blurred vision
  - Rapid breathing
  - Fruity smelling breath
- Shows signs of low blood sugar that continue after the person has eaten something containing sugar:
  - Fatigue
  - Weakness
  - Nausea
  - Hunger
  - Double or blurred vision
  - Pounding heart
  - Confusion
  - Irritability
  - Appearance of drunkenness

Preventing Problems

Once again, **Prevention is the #1 Priority:** To prevent hyperglycemia and hypoglycemia, support individuals with diabetes to practice good diabetes care. The idea is to watch for and treat problems early - before they can get worse.

Epilepsy or Seizure Disorders

Of the over 278,000 people currently being served by regional centers, about 16 percent are identified as having epilepsy.

Epilepsy is a medical condition that produces seizures. A **seizure** is an unusual rush of electrical energy in the brain. There are two major types of seizures, partial and generalized, referring to the part of the brain where the seizure happens. If a seizure begins locally in the brain, it is partial. If a seizure happens to the entire brain, it is generalized. Knowing general types of seizures is important for the physician to choose the right medication to prescribe.

Status Epilepticus coming from either a partial or generalized seizure can be life threatening. It is defined as either repetitive seizures or a single, prolonged seizure. Brain damage can occur after about 20 minutes of continuous seizure activity.

When a seizure occurs, observe carefully and document what happened, including how long the person was unconscious (if loss of consciousness occurred). The DSP's documentation of a seizure is critical to the individual's doctor, especially if there is something new to report. Details are helpful in making a proper diagnosis and choosing a treatment (for example, a particular medication or class of medications).

If it is the individual's first (known) seizure, the DSP should place an urgent call to the doctor. If a seizure lasts for five minutes or more, call 911.

The individual's doctor may want to examine spinal fluid to rule out infection or do other tests. If a person has a history of seizures, the doctor may consult with a neurologist. The doctor may prescribe an "as needed" medication for repetitive seizures on a given day or ongoing medication for seizure control. Remember to check the individual for any signs or symptoms of injury; document any injuries that may have occurred during the seizure.

Top 10 First Aid Rules for Seizures

1. Keep calm! The individual is usually not suffering or in danger.
2. Protect the individual from injury by clearing the area of hard or sharp objects. Prevention is the number one priority!
3. Loosen tight clothing. Do not restrain movements.
4. Turn the individual on his/her side with his/her face turned gently sideways or slightly down.
5. Do not put anything into the individual's mouth.
6. Do not give the individual anything to drink.
7. Reassure the individual.
8. Stay with the individual until consciousness returns and confusion goes away.
9. Allow a rest period (10–30 minutes for most people).
10. Document the seizure in the individual's log. Include the amount of time the seizure lasted.

A C T I V I T Y

Understand Seizures and Seizure First Aid

Directions: *Answer the following questions about the information in the video.*

1. When a seizure occurs, what is happening inside the individual's brain?

2. To assist an individual having a generalized seizure, what should you do? Not do? Why?

3. To assist an individual having a partial seizure that doesn't generalize, what should you do? Not do? Why?

4. Under what circumstances is it appropriate to seek medical care right away?

This video about seizures (You Can Do This: Seizure First Aid) is used with the generous permission of its producers: Finding a Cure for Epilepsy and Seizures (faces) at New York University Medical Center. For more information, visit their Website at http://faces.med.nyu.edu.

High-Risk Health Problems

Individuals with intellectual/developmental disabilities have a higher risk for serious health problems. They may be prone to skin breakdown, constipation, choking, sun and heat-related illness. Also age-related health conditions may begin early due to specific developmental disabilities or the treatment of certain conditions. DSPs need to know what preventive actions to take and how to identify changes that may be signs and symptoms of serious health problems.

Skin Breakdown

Of the over 278,000 people currently being served by regional centers, 17 percent are identified as using wheelchairs or needing assistance to walk. Skin breakdown is a serious and constant concern for individuals who use wheelchairs and/or do not change positions. Skin breakdown describes changes to an individual's skin, including scrapes and sores over bony spots such as tailbone and hips.

Individuals who are at High Risk for Skin Breakdown

Individuals who use wheelchairs and/or individuals who do not move around or change positions.

How to Prevent Skin Breakdown

- Assist individual to move and/or change positions every hour.
- Keep the skin dry and clean.

What to Do If Skin Breakdown Occurs

Make sure the individual is seen by a doctor immediately.

Athlete's foot (*tinea pedia*) and jock itch (*tinea cruris*) are very common fungal infections that can cause skin breakdown. Fungus grows best in warm, moist areas of the skin, such as between the toes or in the groin area. Fungus problems can be prevented by drying off skin well after washing, wearing sandals or shoes that allow air to move around the feet, wearing cotton underclothes and socks, and using talcum powder. DSPs should assist individuals to clean and dry foot and groin areas.

Some skin problems are very serious. Others are uncomfortable and passing. Some skin problems can be prevented or at least minimized through diet, proper clothing, and other actions. Some skin problems may be spread by contact, so remember to use hand washing and other infection control techniques. Always seek advice and treatment from the individual's doctor when new problems arise or the existing problem continues.

Constipation

Untreated constipation can lead to serious consequences including the need for surgery, tearing of the bowel, and even death.

Individuals who are at a higher risk for constipation:

- Use wheelchairs or sit for long periods
- Get very little physical activity

Constipation (cont.)

- Drink small amounts of fluids
- Don't eat enough fiber in their diet
- Take certain medications

Preventing Constipation

- Eat a healthy diet with lots of fiber (fruits, vegetables, and whole grains).
- Exercise regularly.
- Drink plenty of fluids, especially water (eight glasses per day).

Each individual has a pattern of bowel movements that is "normal" for him or her. Once the normal pattern of bowel movements is known, the DSP should look for changes that may be signs of constipation. If an individual is not able to tell you that he had a bowel movement, or if the doctor or other health care professional finds that the individual is at risk for problems in this area, the individual program plan (IPP) for that individual may include keeping a record of bowel movements.

Changes that are often signs and symptoms of constipation are:

- A change in the normal pattern of bowel movements (smaller amounts of stool, watery stool or diarrhea, unusual accidents).
- Loss of appetite
- Increase in sleepiness
- Abdominal bloating
- Abdominal pain
- Irritability

Constipation can have serious consequences. If you identify any of these changes, call the individual's doctor to seek medical assistance.

Risks from Exposure to Sun and Heat

Overexposure to sun and heat can cause many problems—anything from mild sunburn to fatal sunstroke. Individuals are at risk of heat-related illness starting at temperatures as low as 80 degrees, depending upon length of exposure and level of physically activity.

Community Care Licensing requires all homes to maintain a comfortable temperature between 68 and 85 degrees at all times. In areas that are extremely hot, the maximum temperature must be 30 degrees less than the outside temperature. [Referenced Title 22, 80088.]

Individuals Who Are at Higher Risk from Exposure to Sun and Heat

In general, children, the elderly, and individuals with developmental disabilities are at the greatest risk for sunburn and heat-related illness. Individuals with fair hair or skin are at higher risk as well. Increased risk is also associated with taking certain medications, including but not limited to:

- Antihistamines used in cold and allergy medications
- Antibiotics (sulfa drugs, tetracyclines).
- Antidepressants
- Antipsychotics
- Cardiovascular drugs
- Oral medications for diabetes
- Non-steroidal, anti-inflammatory drugs used to control pain and inflammation
- Anti-dandruff shampoos

Preventing Sunburn

Sunburn is redness, pain and inflammation caused by exposure to the sun's ultraviolet rays. An individual can burn within 15 minutes any day of the year in California. Sunburns can occur even on an overcast day. People of color can also burn very easily. The degree to which someone burns or "tans" depends on the intensity of the sun's rays and the person's unique response to the exposure. Typical symptoms of sunburn are redness and pain in the skin. In severe cases there is also swelling, blisters, fever, and headaches.

In addition to sunburn, individuals with frequent exposure to the sun's ultra-violet rays have a high risk of developing skin cancer. Skin cancer is the most common form of cancer in the United States.

To prevent sunburn, use sunscreen with a sun protection factor (SPF) of 15 or more. Individuals with fair hair or skin who burn easily should use a sunscreen with SPF 30. Apply sunscreen to all exposed skin surfaces 20 minutes prior to going out in the sun. Reapply throughout the day and after the skin comes in contact with water. Use of sunscreen should be documented in the individual's record.

Treatment Tips: Have the individual drink lots of water. Aloe vera gel and certain other topical Over-the-Counter (OTC) moisturizers help reduce the pain. Contact the doctor immediately if severe blistering occurs, the individual feels very ill, or the individual's temperature is 102 degrees or more.

Preventing Heat-Related Illness

When temperatures rise:

- Wear a hat with a wide brim or use an umbrella.
- Wear light-weight, light-colored, loose fitting cotton clothing.
- Drink 8 to 10 glasses of water a day. Drink even more if you are working or exercising in hot weather. Avoid sugary, caffeinated or alcoholic beverages.
- Take it easy! Limit physical activity during the hottest parts of the day.
- Stay inside if possible.
- If you must be outdoors for long periods of time, stay in a shady spot or bring a sunshade with you.
- For individuals with impaired movement, avoid temperatures above 95 degrees if at all possible.
- In the event of a power outage, consider going to a cool building or air conditioned car.

Never leave a child, an individual with a disability, an elderly person, or an animal in a car on a hot day. In as little as 10 minutes, the temperature in the car can rise almost 20 degrees; anyone left in the car could die.

Heat cramps are painful muscle spasms, usually in the legs or abdomen, caused by over-exposure to heat. The individual usually experiences heavy perspiration or sweating.

Treatment Tips: Have the individual move to a cooler place and rest in a comfortable position. Give him a glass of cool water every 15 minutes, but don't let him drink too quickly. Remove or loosen tight clothing and apply cool wet cloths to the skin. Do not give salt tablets. Call a doctor if the symptoms persist more than two hours.

Heat exhaustion, a serious illness brought on by excessive heat and dehydration, causes an individual to be weak and sweat heavily. At the same time the skin is cold, pale, and clammy. The individual's pulse is weak and shallow. Fatigue, confusion, nausea, fainting, and vomiting may also occur.

Treatment Tips: Call 911 or go to the Emergency Room if:

- The individual's skin is dry even under the armpits and bright red or flushed.
- Body temperature reaches 102 degrees.

Risks from Exposure to Sun and Heat (cont.)

- The individual is confused, seems to be imagining unreal things, or becomes unconscious.

Otherwise, get the individual to a cooler place and in a comfortable position. Give half a glass of cool water every 15 minutes, but don't let the individual drink too quickly. Remove or loosen tight clothing and apply cool wet cloths to the skin, or sponge the body in a bath with cool water.

Heat stroke, also known as sunstroke, is severe illness that occurs when the individual's body has stopped producing sweat, which cools the body. Signs and symptoms of heat stroke are a high body temperature (102 and above), hot dry skin, and a strong rapid pulse. The individual may become unconscious.

Treatment Tips: Call 911 immediately. Move the individual to a cooler place and quickly cool the body by wrapping it in a wet sheet and fanning it. Put ice packs on the individual's ankles, wrists, and armpits to cool the large blood vessels. Keep the individual lying down and check his or her breathing.

Choking

Choking is a blockage of the airway that prevents an individual from breathing. Choking will result in death unless the airway is cleared quickly. Choking is a frequent safety hazard for individuals with developmental disabilities.

Individuals Who Are at Higher Risk

Many individuals with developmental disabilities experience choking related to other chronic health conditions. For instance, individuals with cerebral palsy may have a hard time with chewing and swallowing. These individuals need close observation to help avoid choking. Individuals with other conditions may have trouble with foods of different textures. Individuals taking certain medications may have dry mouth, which makes it harder to swallow. Be aware of individuals who eat or drink too fast. Individuals should be reminded not to talk or laugh with food in their mouths or to eat lying down. Individuals who frequently put too much food in their mouths may need to be provided with smaller amounts of food.

It is especially important to closely monitor individuals who take food from others. These individuals often put too much food in their mouth to avoid being caught.

Common Causes of Choking

- Trying to swallow large portions of poorly chewed food
- Eating while talking or laughing
- Eating too fast
- Walking, playing, or running with food or objects in the mouth
- Certain foods like hot dogs, whole grapes, and hard candies
- Medications that decrease alertness and muscle tone or cause dry mouth
- Poor oral motor (mouth movement) skills
- Difficulty swallowing
- Eating objects that aren't supposed to be eaten
- Vomiting
- Aspiration (inhaling vomit, saliva, food, or a small object)

Signs of Choking

- Clutching the throat with one or both hands
- Inability to speak, cough forcefully, or breathe
- Turning blue in the face
- High-pitched wheeze

Choking (cont.)

Treatment Tips: **It is strongly recommended that every DSP take a Cardio Pulmonary Resuscitation (CPR) class to learn the abdominal thrusts, an emergency procedure used to clear the airway when choking occurs. Classes are widely available. Check with your local Red Cross or Fire Department. By doing so, you may save a life.**

If someone is choking, remember "five-and-five." First, lean the person forward and give them five quick hits on the back between the shoulder blades. If the object does not come out, stand behind them and reach your arms around their waist. Place your fist, thumb side in, just above their navel and grab the fist tightly with your other hand. Pull your fist quickly upward and inward to increase airway pressure behind the object and force it from the windpipe. Do these 'abdominal thrusts' five times, quickly. Continue the back hits and abdominal thrusts until the person can breathe or cough forcefully, the object comes out, or the person becomes unconscious. If the

Health Problems Associated with Aging

Aging is the normal process of time-related changes that occur throughout life. Many individuals with developmental disabilities experience age-related changes early, especially those individuals with cerebral palsy, Down syndrome and metabolic diseases, and some individuals who have a mental illness in addition to a developmental disability. It is the responsibility of the DSP to watch for changes that may be signs of an early age-related health condition and to report these changes to the individual's doctor. Early detection permits early treatment that often adds to the individual's length and quality of life.

Signs and Symptoms of Age-Related Health Conditions

Again, DSPs should use their tools of observation and communication to identify changes in:

- **Daily routines:** Memory loss, inability to perform self-care and other activities they could perform before.
- **Behavior:** Confusion, weakness, unsteadiness, or fatigue.
- **Communication:** Change in ability to respond or initiate communication.
- **Appearance:** Sudden or progressive weight gain or loss.
- **General manner or mood:** Mood change, loss of interest in daily activities.

Physical Health Changes of Aging

Skin: Dry, flaky skin that bruises or tears easily, abnormal hardness, or visible lump on body.

Eyes: Dry eyes, squinting, holding things close to the face or other signs of vision loss.

Ears: Not seeming to pay attention, not responding to questions, or other signs of a hearing loss.

Throat and mouth: Difficulty swallowing, choking or coughing with meals, cracked or loose teeth, trouble chewing, mouth sores or other signs of decreased oral health.

Muscles and bones: Loss of motor control; slowness of movement; unsteady walking; falling; curving of spine; inability to stand up straight; pain without visible injury, especially in joints.

Breathing (lungs): Frequent colds, slow recovery from illness.

Heart and blood vessels: Numb or cold hands or feet, swelling of ankles, chest pain, shortness of breath.

Abdomen, bowel, and bladder (stomach, intestines, liver, gallbladder, pancreas, urinary tract): Constipation, "gassy" or black stools, bleeding, frequent or difficult urination.

SUMMARY

In summary, the DSP learns about changes through observation (using all of his or her senses) and communication with the individual and others. Knowing how to identify changes in an individual's daily routines, behavior, ways of communicating, appearance, mood, and physical health and knowing what to do when you have identified a change enables you to protect individual health and safety and may save a life.

PRACTICE AND SHARE

If there is an individual with a seizure disorder living in the home where you work, find out:

1. What, if any, seizure medication is the individual taking? What are the side effects?

2. Does the individual have an emergency alert bracelet or necklace?

Session 8 Quiz

Signs and Symptoms of Illness or Injury

1. **An example of a change in a person's daily routine is:**
   A) Sleeping much later than usual
   B) Being aggressive to other people
   C) Speaking less than usual
   D) Being mad about something

2. **In order to recognize a change that may be a sign of illness, the DSP must:**
   A) Take the individual's temperature
   B) Know if there are any other sick individuals in the home
   C) Take the individual's blood pressure
   D) Know the individual and what is normal for them

3. **Which one of the following would be most likely to require an urgent call to the individual's doctor?**
   A) Choking
   B) Uncontrolled bleeding
   C) Minor cut
   D) Infection of an injury

4. **Which one of the following may be treated at home, using routine treatment?**
   A) A minor cut
   B) An infection of an injury
   C) Choking on food
   D) Uncontrolled bleeding

5. **Why should you not try to feel for an individual's pulse using your thumb?**
   A) Your thumb isn't sensitive enough to feel a pulse
   B) Your thumb could hurt the individual's wrist
   C) You will feel your own pulse through your thumb
   D) You will need your thumb to count the pulse beats

6. **When reporting and documenting changes that may be signs of illness or injury, the DSP must record:**
   A) The diagnosis, as you see it
   B) What the individual said or did that communicated the change
   C) Your opinion about the individual's behavior
   D) What all the individuals and staff were doing when the change was noticed

7. **Who is at risk for skin breakdown?**
   A) Individuals who don't bathe very often
   B) Individuals who are very active in recreational sports
   C) Individuals who use wheelchairs or who don't change positions often
   D) Individuals who eat unhealthy food

8. **To assist an individual who is having a generalized seizure, you should:**
   A) Place the individual on their side to prevent choking
   B) Restrain the individual's movements
   C) Place something in the individual's mouth to prevent the tongue from being bitten
   D) Leave the room to give the individual their privacy

9. **A high body temperature (102 degrees and above), hot dry skin, and a strong rapid pulse are symptoms of what heat-related condition?**
   A) Sunburn
   B) Heat stroke
   C) Heat exhaustion
   D) Heat cramps

10. **Why is it important for DSPs to watch for early signs of aging?**
    A) Treatment of age-related conditions is not usually included in the IPP
    B) Individuals with developmental disabilities don't usually have age-related conditions
    C) Early treatment may add to the individual's length and quality of life
    D) Individuals with developmental disabilities don't know they are getting older