



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.
- ▶ Know when to call 911 or the doctor or to provide treatment at home.
- ▶ Make a 911 call and provide necessary information.
- ▶ Report signs and symptoms to a doctor correctly.
- ▶ Document changes that may be signs and symptoms of illness or injury and your response.
- ▶ Describe how to take an individual's vital signs including pulse and temperature.
- ▶ Recognize the signs and symptoms of skin breakdown, constipation, overexposure to sun and heat, and choking.
- ▶ Identify ways to prevent skin breakdown, constipation, overexposure to sun and heat, and choking.
- ▶ Describe different types of seizures.
- ▶ Describe how to provide First Aid for a person having a seizure.
- ▶ Identify health problems related to aging.

KEY WORDS

Medical Emergency: An unexpected illness or injury calling for immediate attention to address a threat to an individual's life or safety.

Routine Treatment: Applying simple First Aid or following doctor's orders in response to signs of injury or illness.

Seizure: An abnormal electrical discharge in the brain.

Signs and Symptoms: Evidence of a disease, illness, or injury as observed by the DSP or reported by the individual.

Urgent Call to Doctor: An urgent call to the individual's doctor to report potentially serious signs or symptoms of illness or injury.

Recognizing Changes—the DSP as Detective

A detective is someone who looks for clues or needed facts to help solve a mystery. The DSP acts like a detective when looking for signs and symptoms of illness, uncovering clues, and making decisions about what to do next. In this session we will talk about how to use the DSP’s tools of observation and communication to do good detective work when looking for changes that may be signs and symptoms of illness or injury and what to do when you see a change.

Early identification of changes in an individual’s daily routines, behavior, ways of communicating, appearance, general manner or mood, or physical health can save his or her life. As a DSP, you have many opportunities throughout the day to identify changes that may be signs and symptom of illness or injury.

Good detectives get to know as much as possible about the individual they are observing. You get to know a person 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, general manner or mood, and physical health. If you don’t know what is normal for an individual, you won’t know when something has changed.

You also need to know an individual’s health history. This will help you to recognize a change in his or her physical 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 strong 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 a tear-streaked face, redness or swelling of the skin, or cloudy urine. You may hear labored or 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, or body fluids.



Communication includes both asking questions of and listening to 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, grimacing, 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, listening, and questioning—become even more important. The individual in this example is holding her stomach, grimacing, and crying. These behaviors provide good clues that something is wrong. A good listener “hears” both words and other ways of communicating, including behavior.

You may also want to ask others. Talking to other staff at the change of shift or at the individual's day program, reading the documentation kept at your facility, such as the facility log, individual logs, or medication records, are all good ways of collecting information.

It may be challenging to detect a change. Many individuals with developmental disabilities have difficulty communicating with others. 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 be a good detective and to identify changes that may be the signs and symptoms of an illness or injury and to ensure that they receive appropriate treatment.

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. Remember, changes may be in an individual's daily routine, behavior, way of communicating, appearance, general manner or mood, and physical health. The following are some examples of change that you may learn about in each of these areas and some questions that may help you.

Daily routine: an individual who usually goes to church on Sunday 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 teeth but one day refuses to brush his teeth).

- ▶ You may want to ask, "Is the individual behaving differently than yesterday?" "Is the individual having new toileting accidents or trouble feeding or dressing himself?" "Is the individual refusing to eat his favorite foods?" "Is the individual having difficulty sleeping?"

ACTIVITY

The Good DSP Detective

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

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

Share an example 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, “Does the individual appear more or less active than usual?” “Is the individual acting aggressively to himself or to others?”

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?”

Appearance: an individual who is usually very neat in appearance goes to work with uncombed hair, in a dirty, wrinkled shirt; changes in color or appearance (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 dress?”

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

- ▶ You may ask, “Has the individual’s mood changed?” “Does the individual want to be alone all the time?”

Physical Health

Changes in physical health are often identified by changes involving a particular part of the body. Some are changes you may observe, and others are changes an individual may tell you. For example, you may observe that an individual is pulling his ear or an individual may tell you that his ear 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:** Red, cut, swelling, rash.
- ▶ **Eyes:** Redness, yellow or green drainage, swelling of the eyelid, excessive tearing, or the individual reporting eyes burning and/or pain.
- ▶ **Ears:** Pulling at ear, ringing in the ears, redness, fever, diminished hearing, drainage from the ear canal, the individual reporting dizziness or pain.
- ▶ **Nose:** Runny discharge (clear, cloudy, colored), rubbing nose.
- ▶ **Mouth and throat:** Refusing to eat, redness, white patches at the back of the throat, hoarse voice, fever or skin rash, toothache, facial or gum swelling, gum bleeding, fever, individual reporting pain when swallowing.
- ▶ **Muscles and bones:** Inability to move a leg or an arm that the individual could previously move, stiffness, limited range of motion, individual reporting pain in the arms, legs, back.
- ▶ **Breathing (lungs):** Chest pain, cough, phlegm (mucous), shortness of breath or wheezing, fever, rash, stiff neck, headache, chills, nasal congestion, individual reporting pain in nose or teeth, dizziness.
- ▶ **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):** Constant or frequent abdominal pain; bloating; vomiting; loose stools or diarrhea; constipation; blood in vomit or stools;

fever; fruity smelling breath; difficult, painful and/or burning urination; changes in urine color (clear to cloudy or light to dark yellow); fruity smelling urine; nausea; pain on one or both sides of the mid-back; chills.

- ▶ **Women’s health:** Vaginal discharge, itching, unusual odor, burning, changes in menses, such as change in frequency, length, and flow.
- ▶ **Men’s health:** Discharge from penis, pain, itching, redness, burning.

To review, a change is anything that is different about an individual’s daily routine, behavior, way of communicating, appearance, general manner or 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, if not most changes in an individual’s daily routine, behavior, way of communicating, appearance, manner or mood, and/or physical health, require the DSP to take action. The following information will help you decide the appropriate action in each situation.

After you have identified a change, you must assess whether the change is a potential sign or symptom of illness or injury. Making the right decision involves taking everything you know and applying common-sense judgment. Knowledge of the person and his or her health history, including current medications and doctor’s orders, are essential.

You should immediately recognize several changes as a sign or symptom of illness or injury. These signs and symptoms will require different levels of response, including:

Levels of Emergency Response:

- ▶ **911 Call:** Medical emergencies that require immediate medical attention.
- ▶ **Urgent Call to Doctor:** Potentially serious signs or symptoms that require an urgent report to the individual’s doctor.
- ▶ **Routine Treatment:** Signs or symptoms that are addressed by simple First Aid or written doctor’s orders.

911 Call

A 911 call involves medical emergencies that require 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. Timeliness 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).
- ▶ 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.
- ▶ Has a seizure lasting five minutes or has continuous seizures.
- ▶ Has suffered electrical shock.
- ▶ Is drowning or near drowning.
- ▶ Experiences paralysis, 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 1-800-8-POISON (1-800-876-4766) 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 dispatcher tells you to hang up.

While waiting for emergency medical personnel, stay calm and reassure the individual, stay with the him or her, and do necessary first-aid and/or CPR. If possible, send another person to watch for the ambulance to quickly guide the emergency personnel to the scene. When the emergency personnel arrive, provide them

with additional information including current medications, allergies, insurance information, and the name and phone number of the individual's primary doctor. 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 prompted by potentially serious signs or symptoms that require a timely report to the individual's doctor.

Some signs and symptoms indicate a need for urgent 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 determine the appropriate course of action. While the person's life may not be immediately threatened, 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 arousing; unusual fatigue.
- ▶ Scratching or holding one or both ears.
- ▶ Holding abdomen.
- ▶ Dramatic change in facial expression or demeanor.
- ▶ Evidence of pain or discomfort that is not easily explained.
- ▶ New or sudden onset of incontinence.
- ▶ Onset of 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.
- ▶ Onset of limping, inability to walk, or difficulty in movement.
- ▶ Severe sore throat/difficulty swallowing.
- ▶ Infection at injury site.
- ▶ Swelling.

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 it gets worse, call 911. Your actions can save a life.

When you call the doctor, tell him or her:

- ▶ 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.

ACTIVITY

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:** _____

Routine Treatment

Signs or symptoms that may be addressed with simple First Aid or for which there are written doctor's orders 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.

A C T I V I T Y

What Would You Do?

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
Onset of fever of 101 degrees or higher	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New or sudden onset of incontinence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rash lasting several days or getting worse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bleeding that can't be controlled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Severe sore throat/difficulty swallowing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Infection at injury site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sleeping most of the day; unusual difficulty in arousing; unusual fatigue	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scratching/holding one or both ears	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Holding abdomen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Diarrhea or vomiting lasting more than four hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A seizure lasting five minutes or continuous seizures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paralysis, numbness, confusion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Onset of limping, inability to walk, or difficulty in movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mosquito bite	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trouble breathing or is breathing in a strange way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visible swelling with doctor's order to elevate the leg	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minor cut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is or becomes unconscious not related to a seizure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No pulse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Any evidence of pain or discomfort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chest pain or pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Severe injuries as a result of an accident, such as broken bones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Choking (not breathing and not coughing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Injuries to the head, neck, or back	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has gone into shock	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Measuring Vital Signs

In your role as a detective, 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 a degree either side (97.6 to 99.6) is considered normal.

There are various methods of taking a person's temperature. The most common is to use a digital thermometer. Digital thermometers are easy to read and hard to break.

To take an individual's temperature using a digital thermometer:

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

If the individual is unable to keep the thermometer under his tongue, you may take his 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 use an oral thermometer 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 (beats per minute) 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 interval and multiply by four. Repeat the process to check for consistency. Don't use your thumb because you could end up "reading" your own heart beats. A normal pulse will be about 70 beats per minute. Anything from 50 to 90 is within normal range for an adult.

Reading a pulse:

- ▶ Inside thumb side of wrist (easiest).
- ▶ Use first two fingers pressed against the skin (not the thumb).
- ▶ Count the number of beats over a 15-second period and multiply by four.

Respiration

Respiration is the act of breathing air into the lungs 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.

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. In individuals above the age of 7, a normal respiration rate will be 12 to 24 breaths per minute.

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Blood Pressure

Blood pressure is the amount of force the blood exerts when it is pushing against the walls of an artery. Blood pressure for adults 18 years of age and older falls in the following categories:

Normal: Below 120/80

High-normal: 120–139/80–89—pre-hypertension (high blood pressure)

High: 140/90 or higher—hypertension*

*Source: American Heart Association, Inc., 2002.

Normal blood pressure for children is lower.

The first number is the systolic measure, where the device that measures pressure by constricting the arm (or leg) first lets blood course through the vessels.

The lower number is the diastolic measure that records pressure when the

blood is no longer heard. High blood pressure (hypertension) is often called a “silent killer” because symptoms of any kind are rare and such pressure, if persistent, can harden arteries and result in serious heart problems.

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.

If high blood pressure is suspected or has been diagnosed, the doctor may ask the DSP to take consistent readings under the same conditions over a period of time. 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). Mark down anything that might have affected the blood pressure, such as exercise (for example, the individual came in 10 minutes after riding a bike). In these situations, the DSP will follow the doctors instructions for taking blood pressure and documenting blood pressure readings.



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) submitted in a special incident report that must be made to both the regional center and Community Care Licensing and other protective services agencies as required.
- ▶ Any call to the doctor must be documented in the individual's record and may require a special incident report.
- ▶ Any treatment provided in accordance with a written doctor's order or simple First Aid must also be documented in the individual's record.

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 docu-

mentation, 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 documentation 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 Tom, the DSP on shift. Tom advised him to “take it easy.” To be safe, Tom observed him more closely than usual throughout the morning. He also looked at John’s record and saw 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. Tom went with him to make sure he was okay. After about 15 minutes, Tom observed that John was pale, sweating, and short of breath.

.....
What are John’s signs and symptoms?

.....
What should Tom do next?

.....
In this scenario, did Tom do the right thing?

Managing Chronic Health Care Conditions

In this section you will learn guidelines for supporting people with certain 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 will encounter. 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

Our bodies convert the food we eat into fuel (glucose). Insulin is a hormone produced by the pancreas (an organ behind the stomach) that controls the amount of glucose in the blood. Diabetes occurs when:

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

Diabetes is a chronic disease with no cure. People with diabetes need to manage their disease to stay healthy.

Type I diabetes, or insulin dependent diabetes, usually occurs in childhood or adolescence but can develop at any age. People with Type I diabetes must inject insulin every day. There is no known way to prevent Type I diabetes.

Type II diabetes, or non-insulin dependent diabetes, is more common among adults, especially those who are overweight and over age 40. Over 17 million Americans have Type II diabetes. People with Type II diabetes can often control their blood sugar through weight control, regular exercise, and a sensible diet. Some may need insulin injections or oral medication to lower blood sugar.

How to Prevent Type II Diabetes

- ▶ Regular daily exercise.
- ▶ Maintaining a healthy body weight.

Who Is at Risk

- ▶ People who are overweight.
- ▶ People over age 40.
- ▶ People with a family history of diabetes.
- ▶ African-Americans, Hispanics, or Native Americans.

The symptoms of diabetes are often mild and frequently ignored. The DSP should observe the individual carefully and report these symptoms to the doctor. Diabetes can be diagnosed with a simple blood glucose test. Common symptoms of diabetes are:

- ▶ Increased thirst
- ▶ Frequent urination
- ▶ Increased appetite
- ▶ Unexplained weight loss or gain
- ▶ Fatigue
- ▶ Skin infections
- ▶ Slow-healing wounds
- ▶ Recurrent vaginitis
- ▶ Blurred vision

- ▶ Tingling or numbness of the hands or feet
- ▶ Itching of the skin

Get urgent care if an individual with diabetes:

- ▶ Loses consciousness.
- ▶ If signs of high blood sugar develop that include:
 - Frequent urination
 - Intense thirst
 - Dim vision
 - Rapid breathing
 - Fruity smelling breath

- ▶ If signs of low blood sugar continue after the person has eaten something containing sugar that include:
 - Fatigue, weakness, nausea
 - Hunger
 - Double or blurred vision
 - Pounding heart
 - Confusion, irritability, appearance of drunkenness

Epilepsy or Seizure Disorders

Of the nearly 190,000 people currently being served by regional centers, 24 percent are identified as having epilepsy.

A **seizure** is an abnormal electrical discharge in the brain. Seizures were once classified as “petit mal” and “grand mal.” Today, the classification has two major categories, partial and generalized. This refers to origin in the brain. If a seizure begins locally in the brain, it is partial. If it encompasses the entire brain, it is generalized. Knowing general types of seizures is important to the neurologist in finding the right medication to prescribe.

Status Epilepticus stemming from either a partial or generalized seizure is potentially life threatening. It is defined as either repetitive tonic-clonic convulsions (without recovery) or a single, prolonged seizure. Brain damage can occur after about 20 minutes.

When a seizure occurs, observe the event carefully and document what oc-

curred, including how long the person was unconscious (if loss of consciousness occurred). The DSP’s documentation of a seizure can be vitally important to the individual’s doctor, especially if there is something new. Details are helpful in making a proper diagnosis that, in turn, is related to the intervention (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. Also call the physician who may want to examine spinal fluid to rule out infection or do other tests. If a person has a history of seizures, consult with the neurologist. The doctor may want to prescribe an “as needed” medication for repetitive seizing on a given day or ongoing medication for seizure control. The doctor also may give specific directions to call 911 after some specific number of minutes (say 5, 10, 15, or 20), depending on the individual.

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. Prevention is the number one priority!
3. Loosen tight clothing. Do not restrain movements.
4. Turn the individual on his side with his 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. Stand by until consciousness returns and confusion abates.
9. Allow a rest period (10–30 minutes for most people).
10. Document the seizure in the individual's log.

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 tonic-clonic (that is, "grand mal") 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?

High-Risk Health Problems

Individuals with developmental disabilities have a higher risk of serious health problems. They may be prone to skin breakdown, constipation, choking, sun and heat-related illness, and the early onset of age-related health conditions 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 these conditions.

Skin Breakdown

Of the nearly 190,000 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. Pressure sores are skin breakdown over bony spots such as tailbone and hips.

Athlete's foot (*tinea pedis*) and jock itch (*tinea cruris*) are very common fungal infections that can cause skin breakdown. Like bacteria, fungi grow best in warm, moist areas of the skin, such as between the toes or in the groin. Fungus problems can be prevented by thorough drying off, wearing sandals or shoes that "breathe," wearing cotton underclothes and socks, and using talcum powder. DSPs should assist individuals to clean and dry both areas.

Who Is at Risk for Skin Breakdown?

Individuals who use wheelchairs and/or people with mobility challenges.

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.

How to Prevent Skin Breakdown

- ▶ Frequent movement and/or changing positions.
- ▶ Keeping the skin dry and clean.

What to Do If Skin Breakdown Occurs or Is Expected

Make sure the individual is examined by a doctor immediately.

Constipation

Untreated constipation can lead to serious consequences including the need for surgical removal of the impacted fecal matter, rupture of the bowel, and even death.

Individuals who are at a higher risk for constipation:

- ▶ Have mobility challenges, such as using wheelchairs.
- ▶ Get very little regular exercise.

- ▶ 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 that him or her. Once the normal pattern of bowel movements is established, the DSP should look for any indication of a change. When an individual is not able to tell you that he had a bowel movement, or the doctor or other health care professional has determined that the individual is at risk for problems in this area, the individual

program plan plan 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 and fussiness.
- ▶ Abdominal bloating.
- ▶ Persistent abdominal pain.
- ▶ Change in behavior.

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.]

Preventing Sun- and Heat-Related Illnesses

It is the DSP's responsibility to protect each individual from sunburn, heat cramps, heat exhaustion, and heat stroke.

Individuals Who Are at Higher Risk

In general, children, the elderly, and individuals with developmental disabilities are at the greatest risk for sunburn and heat-related illness. Increased risk is also associated with taking certain medications and having certain characteristics, 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.
- ▶ Fair hair or skin.

Preventing Sunburn and Heat-Related Illness

To prevent sunburn, use sunscreen with an 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.

When temperatures rise:

- ▶ Wear a hat with a wide brim and lightweight and light colored clothing or use an umbrella.
- ▶ Wear long-sleeved, light cotton clothing.
- ▶ Drink 8 to 10 glasses of water a day. Drink even more if you are working or exercising in hot weather. Avoid 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 car can become a fatal furnace.

Sunburn is 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 ultraviolet rays have a high risk of developing skin cancer. Skin cancer is the most common form of cancer in the United States.

Treatment Tips: Have the individual drink lots of water. Aloe vera gel and certain other topical 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.

Heat cramps are painful muscle spasms usually in the legs or abdomen. 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. Do not give salt tablets. Call a doctor if the symptoms persist more than two hours.

Heat exhaustion 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.
- ▶ The individual is delirious, disoriented, or 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, or sponge the body in a bath with cool water.

Heat stroke, also known as sunstroke, occurs when the individual's temperature control system 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 immediately. Choking is a frequent safety hazard for individuals with developmental disabilities.

Individuals Who Are at Higher Risk

Many individuals with developmental disabilities experience choking episodes secondary to chronic health conditions. Cerebral palsy, which is often associated with difficulties in chewing and swallowing, is the most common. These individuals need close observation to help avoid choking incidents. 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 excitedly or laughing.
- ▶ Eating too fast.
- ▶ Eating and walking, playing, or running with food or objects in the mouth.
- ▶ Eating certain foods like hot dogs, whole grapes, and hard candies.
- ▶ Taking medications that decrease alertness and muscle tone or cause dry mouth.
- ▶ Poor oral motor skills.
- ▶ Difficulty swallowing.
- ▶ Eating foreign objects.
- ▶ Vomiting.
- ▶ Aspiration (inhaling vomit, saliva, food, or a foreign 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.

Treatment Tips: It is strongly recommended that every DSP take a **Cardio Pulmonary Resuscitation (CPR) class to learn the Heimlich maneuver, the typical 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, immediately apply quick, upward abdominal thrusts (Heimlich maneuver). This will usually dislodge the object stuck in the person's windpipe. If the individual is in a wheelchair, get them out of the wheelchair to perform the Heimlich maneuver.

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 earlier than the general population. This is particularly true for 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 identify changes that may indicate an early onset of an 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: Inability to perform self-care activities previously performed may indicate a memory loss.
- ▶ Behavior: Confusion, weak, unsteady, or tired.
- ▶ Communication: Ability to respond or initiate communication changes.
- ▶ 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, bruises or tears easily, abnormal hardness, or visible lump on body.

Eyes: Dry eyes, squinting, or holding things close to the face may be a sign of vision loss.

Ears: Seemingly not paying attention, such as not responding to questions, may be a sign of a hearing loss.

Throat and mouth: Difficulty swallowing, choking or coughing with meals, cracked or loose teeth, trouble chewing, or mouth sores may be a sign of decreased oral health.

Muscles and bones: Loss of motor coordination; slowness of movement; unsteady gait; falling; curving of back; 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, or many trips to the bathroom.

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, general manner or 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

In the home where you work, look around and answer the following questions:

1. Where are emergency phone numbers kept?
2. Is the poison control phone number available? If not, share the number with your administrator.
3. What other emergency information is available?

If you support an individual with a seizure disorder, answer the following:

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?

Signs and Symptoms of Illness

1	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
2	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
3	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
4	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
5	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
6	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
7	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
8	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
9	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D
10	<input type="checkbox"/> A	<input type="checkbox"/> B	<input type="checkbox"/> C	<input type="checkbox"/> D

- An example of a change in a person's daily routine is:**
 - Sleeping much later than usual.
 - Suddenly becoming aggressive to other people.
 - Speaking much less than is normal for that person.
 - Unexplained changes in the appearance of the skin.
- When calling 911, you should always:**
 - Get the name of the dispatcher for the facility's records.
 - End the call within two minutes to free the line for another caller.
 - Tell the dispatcher your opinion about what is happening.
 - Tell the dispatcher who and where you are.
- Which one of the following would be least likely to require an urgent call to the person's doctor?:**
 - Infection at the site of an injury.
 - An increase in seizure activity.
 - Fever of 101 degrees.
 - Headache.
- Headaches and swelling of ankles are examples of changes in a person's health condition that may be treated in the home if::**
 - There are written orders from a doctor prescribing the home treatment.
 - An experienced DSP has decided the health change is not serious.
 - The person does not want the doctor to know about the situation.
 - If is not possible to reach the 911 dispatcher.
- The easiest and most common place to take a pulse is:**
 - In the quietest room available inside the facility,
 - Between 50 and 90 beats per minute.
 - On the inside of the thumb side of the person's wrist.
 - Under the armpit, unless the person can shut their mouth completely.
- Of the following, the single most important reason for documenting changes in a person's health is:**
 - To practice your skills as a DSP at every opportunity.
 - To make it easier to be aware of health changes that occur slowly over time.
 - To document that the person's health has improved as a result of the good care being given in the home.
 - To accurately report abuse to a protective service agency.
- Athlete's Foot and Jock Itch are common fungal infections of the skin that can often be prevented by:**
 - Keeping body parts covered as a barrier against air-borne fungus.
 - Removal of the toes and groin especially in individuals with chronic infections.
 - Keeping body parts dry and well-aired.
 - Limiting unsupervised contact between individuals and athletes.

8. **To assist a person who is having a tonic-clonic seizure, you should:**
 - A) Place the person on their side, if possible, so that he or she does not choke.
 - B) Strongly restrain the person's movements, to prevent injury.
 - C) Place a clean cloth in the mouth to prevent the tongue from being bitten.
 - D) Gently, but firmly, keep the person's back to the floor or other flat surface.
9. **Which one of the following may be a symptom of sunburn?:**
 - A) Overcast days.
 - B) Redness and pain in the skin.
 - C) A temperature between 68 and 85 degrees.
 - D) Sitting in a car for more than 15 minutes on a hot day.
10. **The DSP looks out for early signs of conditions associated with old age mainly because:**
 - A) Persons with developmental disabilities tend to get older as time passes.
 - B) No person should get old unless it is a preference noted in their IPP.
 - C) Early treatment may add quality and length to the person's life.
 - D) Conditions that develop later in old age cannot be treated successfully.