



**Volume 4, Issue 8  
September 15, 2011**

A Publication of the Office of  
Training and Professional  
Development

### Common Concerns among The Fatal Four

The Fatal Four often go unrecognized for several reasons, which call for our concentration and awareness. The following are reasons for the need to monitor carefully:

1. Subtle Symptoms
2. Communication Challenges
3. Suddenness of Disorder (Seizures)
4. Unpredictability



*This Learning Curve is based on information from Provider Network Operations, Oregon: Department of Human Services, Care First, Bob Klaehn, MD, Arizona: Division of Developmental Disabilities and Office of Developmental Primary Care: University of California, San Francisco*

## *The Fatal Four*

*“Overview: Four major challenges that impact people with developmental disabilities”*

### *Serving People with Disabilities in Community Settings*



#### What is “The Fatal Four”?

There are four major health issues that impact people with developmental disabilities at a greater rate and with more severity than those in the general population. These health issues are commonly called “The Fatal Four”, and include aspiration, dehydration, constipation and seizures.

Over the next several months the Learning Curve will address each of “The Fatal Four” topics in order to provide background information, highlight the unique challenges to each, as well as offer any recent developments in treatment.

This series will begin with a brief overview of “The Final Four” and guidelines in order to minimize each condition’s risks.

#### Aspiration

Aspiration is the inhalation of food, fluid, saliva, medication or other foreign material into the trachea and lungs during or following swallowing.

The following factors are signs that someone may be more at risk for aspiration:

- Need to be fed by others
- History of choking, coughing or gagging while eating
- Needs modified food texture
- Individual takes medication that may decrease voluntary muscle coordination or cause drowsiness

If aspiration occurs, there are several interventions that have been found to be successful in preventing or treating it.

Guidelines on how to prevent or minimize the risk of aspiration include:

- Changing diet consistency, texture or temperature;
- Slow the pace of eating and decrease size of bites;
- Utilize position to enhance swallowing during meal times; and
- Keep in an upright position after meals for 45 minutes or as ordered.

#### Dehydration

Dehydration occurs when the body loses more fluid than it replaces. These fluids are needed for temperature control,

chemical balance and for cells to make energy and get rid of waste products.

The following factors place individuals at risk for dehydration:

- Unable to access fluids without assistance
- Person needs assistance with drinking or taking fluids
- Dysphagia with coughing and choking during meals
- Frequently refusing foods and fluids

Guidelines in order to address dehydration include:

- Individuals should be encouraged to drink 8-10 glasses of fluid every day;
- If the person is reluctant to drink fluids, offer foods high in fluid content, such as ripe or juicy fruits; and

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- Persons who are very active, work hard, have a fever or perspire heavily need more fluids.

#### Constipation

Constipation occurs when an individual has difficulty passing stool; the stools are hard, dry and often look like marbles. Stools are normal when is soft, normal sized and passed easily out of the bowel. The frequency of bowel movements varies from person to person.

Factors that place people at risk for constipation include:

- Neuromuscular degenerative disorders;
- Muscle weakness;
- Diets without enough fiber and fluids; and
- Poor swallowing skills with aspiration risk.

Constipation may be prevented or minimized by the following interventions:

- Encourage physical activity to increase muscle tone and strength;
- Positioning schedule for non-mobile individuals with time in an upright position;
- Review medications for side effects; and
- Provide affected individuals with a high fiber, low fat diet.

#### Seizure Disorder (Epilepsy)

Individuals with developmental disabilities are more likely to have seizures because of an underlying brain dysfunction. Epilepsy is a disorder of the brain that is characterized by recurring seizures. Head injuries, brain tumors and brain congenital abnormalities are causes of epileptic seizures.

Factors that place people at risk for seizures include:

- Prenatal and postnatal brain injury, such as trauma, anoxia and infection;
- Congenital brain malformations;
- Brain tumors, clots, hemorrhage, aneurysms;
- Traumatic brain injuries.

Encouraging a healthy lifestyle helps those with seizure disorders manage their condition. The following steps can be taken to help decrease the severity and or frequency of seizures:

- Take prescribed seizure medication;
- Manage stress;
- Eat healthy foods;
- Exercise regularly; and
- Maintain a healthy weight.