

Factors Affecting Nutritional Needs of People with Developmental Disabilities

Course 119
Record 868

I. Factors Affecting Nutritional Needs of People with Developmental Disabilities

People with disabilities frequently have special nutrition concerns which can result in a variety of outcomes such as disorders of growth and weight gain and which require special dietary planning and monitoring. Some of the factors affecting nutritional needs are:

Poor eating skills – chewing, swallowing, poor coordination, and delayed swallowing, and aspiration of fluid and food into the lungs (which can lead to respiratory illnesses and may result in the need for a gastrostomy tube).

If you are assisting a person to eat and they continually cough or sound like they are trying to clear their throat, that is a flag that something may be going on with their ability to swallow. Some people don't have a protective cough and are aspirating food into their lungs. Some of the signs and symptoms of aspiration include the following:

- coughing during or immediately after the meal;
- wet or gurgly voice;
- increased congestion during or after the meal;
- runny nose, watery eyes, lethargic, irritable, or;
- changes in facial color (dusky, bluish or reddening of face, around mouth and eyes)

You should report these signs and symptoms to your house nurse. There are tests which can be performed to find out what is going on and a variety of things that can be done to help prevent or reduce gagging episodes or choking during the meal

Lack of movement due to physical disabilities – increases the likelihood of constipation and/or obesity.

Behavioral issues – rumination (bringing food up, chewing, and swallowing again), gagging, vomiting, and pica (eating indigestible). These behaviors can be dangerous to the health of the person.

Poor dental health – poor dental hygiene can cause tooth and gum disease which leads to poor appetite or inability to eat.

Constipation – can result from not drinking enough fluid, not having enough fiber in the diet, not moving enough, medications, poor muscle tone, and inadequate function of nerve endings in the bowel which frequently affects people with cerebral palsy.

What can you do to help people prevent constipation? You can make sure that each person is offered plenty to drink. Everyone needs about eight - 8 ounce glasses of fluids per day. Water is the best for your body but sometimes people won't choose to drink that much water. Second choices are juices, milk, coffee, tea and pop. Beverages containing caffeine are not as good a choice as those beverages that are caffeine - free. Caffeine acts as a diuretic.

Fiber in the diet is another way to help prevent constipation. In addition to the fruits and vegetables included in the regular menu, you can also make available bran cereals. Another great food to help with constipation is prunes and prune juice.

Sometimes no matter how much a person eats of the natural laxatives, it isn't enough to prevent constipation. Frequently a Dr. will order Milk of Magnesia, Unifiber (which is like Metamucil), or prescribed laxatives. When that isn't enough, sometimes suppositories or enemas are prescribed to treat constipation problems.

With some individuals, you will be asked to keep bowel records so we can be sure to not let them go too long between bowel movements. For the person's health and well-being good record keeping is very important in this area. In some situations, a person has a standing order to receive a suppository if they go longer than a certain time without having a bowel movement. Suppositories used in this manner can be very helpful and can make the person feel much better. However, if someone gets a suppository because of poor documentation, then giving a suppository is a rather intrusive procedure. It is important to make sure that doesn't happen.

Dehydration – results from not drinking enough fluid (can occur when a person has difficulty swallowing) and affects electrolyte balance and other vital body functions. This is a very serious medical condition and should be avoided. Warning signs of dehydration can be: thirst, loss of appetite, flushed skin, drowsiness, and increase in body temperature, pulse rate, and breathing rate. If you have reason to believe a person may be dehydrated, contact your house nurse immediately.

Seizure medications and other drugs may affect nutrition – anti epileptic drugs frequently affect people's appetites and can cause nausea/vomiting/constipation or gum overgrowth which makes eating difficult.

Cholesterol – some drugs may cause elevated blood cholesterol. People with Down Syndrome may have more predisposition to high cholesterol levels.

Gastrostomy/Nasogastric tubes – are surgically inserted as a result of chronic problems with eating orally which cause extreme nutritional or health concerns threatening the person's overall well-being. Tubes may be used to augment eating orally or may replace it altogether. Tube feedings require special training and support.

Other related disorders – Prader-Willi syndrome is often accompanied by mental retardation and results in the person developing an almost insatiable appetite which can lead to obesity unless preventive measures are taken.

II. State and Federal Regulations Concerning Nutrition and Dietary Services

There are government regulations which affect nutrition services for group homes and other residential facilities. The federal regulations affect homes certified as Intermediate Care Facilities for People with Mental Retardation (ICFs/MR). Additionally, Minnesota has regulations affecting those same services under the Supervised Living Program (SLF) regulations.

A. Minnesota SLF Regulations

1. Frequency of Meals

There must be no more than 14 hours between the evening meal and breakfast (unless a substantial snack was offered and documentation made). At least three meals must be made available at regular times during each day.

2. Quality and Variety

Food and beverages must be palatable, of adequate quantity and variety, attractively served at appropriate temperatures and prepared by methods which conserve nutritional value. It is recommended that dishes be used rather than compartment trays. Food service must recognize and provide for the physiological, cultural, emotional, and developmental needs of each person. All meals provided must be planned, prepared, and served by persons who have received instruction in food - handling techniques and practices.

3. Dietary Service

The food and nutritional needs of individuals are to be met in accordance with their needs and the dietary allowances stated in the Recommended Dietary Allowances of the National Academy of Sciences.

4. Menu Planning

All menus, including special diets, must be planned, dated, and available for review for a minimum of one week in advance of the date they are to begin. Notations must be made of any substitutions in the meals actually served and these must be of equal nutritional value (i.e. from the same food group/type). Records of menus actually served and foods purchased (receipts may suffice) must be on file for six months. A reasonable variety of foods must be provided. A file of tested recipes, adjusted to a yield appropriate for the size of the program, must be maintained on the premises. (In other words, if the program serves six individuals and two staff eat with the individuals, the recipes must yield eight servings or be converted to that yield.)

5. Modified Diets

If the program serves individuals in need of medically prescribed therapeutic diets, there must be evidence that such diets are provided as ordered by the attending physician.

B. Federal ICF/MR Regulations

1. Food and Nutrition Services

- a. Each individual must receive a nourishing, well-balanced diet including modified and specially pre scribed diets.
- b. A qualified dietitian must be employed either full-time, part-time, or on a consultant basis at the program's discretion.
- c. If a qualified dietitian is not employed full-time, the program must designate a person to serve as director of food services.
- d. The person's interdisciplinary team, including a qualified dietitian and physician, must prescribe all modified and special diets including those used as a part of a program to manage an individual's inappropriate behavior.
- e. Foods proposed for use as a primary reinforcement of adaptive behavior are evaluated in light of the person's nutritional status and needs.
- f. Unless otherwise specified by medical needs, the diet must be prepared at least in accordance with the latest edition of the recommended dietary allowances of the Food and Nutrition Board of the National Research Council, National Academy of Sciences, adjusted for age, sex, disability and activity.

2. Meal Services

- a. Each person must receive at least three meals daily, at regular times comparable to normal mealtimes in the community with:
 - i. Not more than 14 hours between a substantial evening meal and breakfast of the following day, except on weekends and holidays when a nourishing snack is provided at bedtime, 16 hours may elapse between a substantial evening meal and breakfast;
 - and

same day.

- ii. Not less than 10 hours between breakfast and the evening meal of the

- b. Food must be served:

- i. In appropriate quantity;

- ii. At appropriate temperature;

- iii. In a form consistent with the developmental level of the person; and

- iv. With appropriate utensils.

- c. Food served to individuals individually and uneaten must be discarded.

3. Menus

- a. Menus must:

- i. Be prepared in advance;

- ii. Provide a variety of foods at each meal;

- iii. Be different for the same days of each week and adjusted for seasonal changes; and

- iv. Include the average portion sizes for menu items.

- b. Menus for food actually served must be kept on file for 30 days.

4. Dining Areas and Service

The program must:

- a. Serve meals for all individuals, including persons with ambulating deficits, in dining areas, unless otherwise specified by the interdisciplinary team or a physician;

- b. Provide table service for all individuals who can and will eat at a table, including individuals in wheelchairs;

- c. Equip areas with tables, chairs, eating utensils, and dishes designed to meet the developmental needs of each person;

- d. Supervise and staff dining rooms adequately to direct self-help dining procedures to assure that each person receives enough food and to assure that each person eats in a manner consistent with his or her developmental level; and

e. Ensure that each person eats in an upright position, unless otherwise specified by the interdisciplinary team or a physician.

III. Staff Roles at Meal Time

Eating is one of the most basic human activities. We all have plenty of experience with eating and it should be a fairly simple, natural process to assist individuals at meal time. As we have just discussed, however, there are a number of issues which can complicate matters. Dealing with the special needs of individual persons as well as complying with all of the regulatory requirements can make meal time a hectic and stressful time for staff and individuals unless care is taken to avoid this.

In addition to providing our bodies with needed nutrition, meal times are supposed to be a time for socialization and relaxation. Meal times are also important times for implementing active treatment, whether through formal training programs or informal interaction with peers and staff. Even with all of this structure, it is important for you to realize that your place of work is the person's home. The following are some suggestions which should help you maintain the proper focus during meal times.

Hands of individuals and staff should be clean – assist or remind individuals who may need help.

Develop an atmosphere for meals – try to promote a calm, non-rushed eating experience.

Turn off television and loud music – quiet music is okay.

Assist individuals do as much as possible to prepare table and serving dishes.

Assist individuals in getting to the table if needed – help individuals in wheelchairs into regular chairs if possible.

Use calm, quiet voices.

Make table conversation – discuss what happened that day or plans for the evening, next day, next week, etc.

Be aware of the presentation of food and how its looks affects the person's acceptance.

Keep your personal food preferences to yourself (i.e. if you hate peas, don't share this information with persons who may be influenced by your preferences. This may have the effect of removing a choice or opportunity from the person).

Practice meal time conversation with individuals (not coworkers).

Role model appropriate table manners at all times both at home and in the community (including use of napkins, condiments, passing, serving, etc.).

Insure that any eating procedures or programs are carried out during mealtime (i.e. make sure that you know meal time programs, understand adaptive equipment used, are familiar with the individual's ability level and need for assistance, etc.).

If you are assisting a person to eat ask them how they prefer to be fed or if they are unable to tell you, put yourself in their place to try to determine their preferences (i.e. make sure they are positioned properly and can see the plate, tell them what's on the plate, give them choices about what to eat next, make sure you understand their way of communicating those choices, etc.).

IV. Sanitation & Hand Washing

Using good sanitation procedures before, during, and after meal times is essential in maintaining your own health as well as that of the individuals. It is important to make good sanitation a habit that becomes second nature. The following are some things to keep in mind in accomplishing this:

The hands of individuals and staff need to be kept clean throughout food preparation, meal time, and cleanup.

Cross contamination in food handling refers to the transfer of bacteria from one food to another (such as from raw chicken to a salad when using the same cutting board without adequate washing) or from one person to another. Hand washing is the best way of avoiding cross contamination at meal time.

It is vitally important that hands be washed when moving between tasks of personal care assistance to individuals (i.e., when going from assisting with toileting or going to the toilet yourself or assisting with dressing to assisting with eating or food preparation).

Some individuals may be able to wash their hands without assistance and only need to be reminded. It may be a good idea, however, to observe the person washing his or her hands to insure that proper technique is used. This can be done discreetly by asking the person to wash up prior to beginning the meal. If necessary, you can then prompt the person to do a more complete job.

If you are assisting persons with eating, you must wash your hands between assisting different individuals. If you are assisting one individual and you need to briefly break away and help another,

you should wash your hands before and after helping the second person.

Hand washing technique

The following is a step by step procedure for washing hands:

Wet hands and exposed areas of the wrist and forearms with warm (110°) running water.

Apply soap to palm of hand; join hands, palm to palm working up a lather on hands, wrists, and forearms.

Interlock fingers and work them back and forth and from side to side; cover all areas between fingers with soap. (Remember that the amount of friction used when rubbing hands is the most critical factor – more so than water temperature and amount or type of soap used – keep up the friction for at least 15 seconds.)

To cleanse nails and finger tips, cup the finger tips within the palm of the hands and rub vigorously.

Rinse, proceeding from fingertips, hands, wrists, and forearms under warm running water.

Dry hands, then arms with single use paper towels.

Turn off water using paper towel.

Discard paper towels without touching the cover of the waste container.

V. Food Handling Techniques

In addition to the personal sanitation procedures discussed earlier, following some basic food handling techniques can also protect the health and safety of individuals and staff. Some of the procedures to remember are as follows:

Use proper measuring tools for preparing individuals' plates or assisting them to prepare their own plates to assure appropriate serving sizes and portion control.

Be aware of illness in staff and individuals and guard against passing illness through preparation of food.

Learn the proper use of all kitchen equipment (food processor, blender, mixer, microwave, garbage disposal, etc.) and assist individuals in learning to use as indicated by their needs and ability level.

Make sure that the kitchen area, surfaces, and appliances are thoroughly cleaned prior to

and after
any food preparation.

Review the cleaning schedule and procedures for your program's kitchen and make sure
you understand your role in this process.

Check all vegetables, fruit, and meat for freshness before preparing. Any "suspicious"
foods (potentially spoiled) should be discarded. Check with the person in charge before
discarding any food you think may be spoiled.

Keep hot food hot and cold food cold. The goal is to keep food out of the temperature
"danger zone" of approximately 40 - 150° F. Food held in this range provides optimum
conditions for the growth of bacteria which can result in food-borne illnesses.

Store the remaining contents of opened food packages in containers with tight fitting lids
which can be easily sanitized.

Wash raw fruits and vegetables with clean water before serving.

Try to time food preparation so there is a minimum "holding" time between when the food
is ready and when it is served. This may require some creative food preparation procedures if
there is a need to assist a number of individuals with eating such that eating in "shifts" may be
necessary.

Potentially hazardous foods (such as ground meats, casseroles, gravy, and egg salad)
that have been cooked and then refrigerated, if reheated, must be heated rapidly to 165° F or
higher throughout before being served.

Special care should be used in preparing and serving meat or poultry salads, potato and
egg salads.

All ingredients should be at refrigerator temperature when the salads are made and
must be mixed with utensils, not hands.

Always wash your hands and any kitchen surfaces and utensils after handling raw eggs
or poultry.

Large casseroles, stews, puddings, etc. should be stirred thoroughly during the cooking
process so the cooking is complete to the center of the food mass.

Potentially hazardous foods as described earlier should be thawed in one of the following
ways:

- a. in the refrigerator at a temperature not to exceed 40° F.
- b. under running tap water at a temperature of 70° F or below and allowing the water to discharge directly into the drain.
- c. in a microwave oven only when the food will be immediately cooked after thawing.

Poultry, poultry stuffings, stuffed meats, and stuffing containing meats must be cooked to heat all parts of the food to at least 165° F.

Only commercially canned foods may be used. Home canned foods are not acceptable.

Cream-filled pastries should be used as soon as possible after baking or refrigerated until served.

Such foods should never be kept overnight.

Bread for cooking or baking purposes should be thoroughly dried and stored in a tightly covered seamless container constructed of smooth and easily cleanable material.

Leftovers should be eliminated with proper planning. Where leftovers of sufficient quantity remain, they should be put in smaller containers, covered, labeled, dated, and immediately refrigerated or frozen. Refrigerated items should be used not later than the day following preparation. Food needing reheating must be heated rapidly to an internal temperature of 165° F or higher before being served.