

CONTINUING EDUCATION ARTICLE

Self-Feeding With the Adult Population: Back to Basics

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ABSTRACT

Self-feeding is a basic life skill throughout the life span. Individuals may experience cognitive and physical changes as they age that can impact their ability to independently self-feed. Self-feeding is an ADL within the scope of practice of occupational therapy that can be assessed and modified to maximize independence. This article provides occupational therapy practitioners with information and evidence-based practice recommendations for positioning, adaptive equipment, liquid/diet modifications, physical/verbal assistance, and education of caregivers when addressing self-feeding with adults.

LEARNING OBJECTIVES

After reading this article, you should be able to:

1. Describe the safe positions for self-feeding based on a seating system (e.g., bed, wheelchair, chair)
2. Differentiate between a variety of diet/liquid modifications and the use of descriptions and visuals
3. Determine the proper use and potential benefits of adaptive equipment

4. State how to effectively assist adults both physically and verbally during self-feeding to maximize independence and reduce caregiver burden
5. Describe how to support caregiver education (family and nursing staff) on the use and purpose of adaptive equipment, how to assist individuals during self-feeding, and how to maintain safety during self-feeding tasks

INTRODUCTION

As people age, self-feeding is an ADL that can be affected due to a variety of medical conditions that impact motor and/or processing skills. The Occupational Therapy Practice Framework defines feeding as “setting up, arranging, and bringing food [or liquid] in from the plate or cup to the mouth; sometimes called self-feeding” (AOTA, 2014, p. S19). Individuals with cognitive or physical dysfunction can decline in independence with self-feeding tasks due to their conditions. Conditions that may impact self-feeding independence include, but are not limited to: arthritis, Parkinson’s disease, dementia, cerebral vascular accident (CVA), multiple sclerosis, limitations of active range of motion in bilateral upper extremities, decreased fine motor control in hands, decreased vision, and difficulty concentrating during tasks. Occupational therapists can positively influence a person’s independence with self-feeding through the use of their unique skill set by adapting the equipment and the environment, and/or educating the client on compensatory techniques.

GENERAL PRINCIPLES IN SELF-FEEDING

Try to imagine what it would be like to lose the ability to self-feed, and how you would feel if that were to occur. When sitting to assist a client, state your name and your title, and establish eye contact throughout the meal (Comagine Health, 2019). “Sitting with your clients at eye level helps with communication and reassures them you are there to help” (Anderson, 2017). Prior to beginning assistance with meals, wash your hands; have the client wash their hands; and ensure they have their dentures, hearing aids, or glasses (Texas Health & Human Services, 2013).

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Remember to ask the adult or their caregiver whether they have any rituals prior to their meals. This may include blessing the food or praying (Amella & Batchelor-Murphy, 2019). Maintain respect while assisting with self-feeding, helping only when necessary and sitting next to the client versus standing over them (Texas Health & Human Services, 2013). Self-feeding is a time for social interaction, with some sitting with their families or having friends over for conversation. When safe to do so, maintain a conversation with the client and focus on the meal (Amella & Batchelor-Murphy, 2019). As occupational therapy practitioners, we must remember that an adult client who has lost the ability to self-feed may be frustrated and unsure of why the intervention is occurring. They may be hesitant and resistive to assistance, which is why maintaining respect throughout these tasks is significant.

Positioning for Self-Feeding

Have you ever tried to eat lying down, sitting in a slouched position, or leaning to one side? Positioning during self-feeding is a top priority and should be one of the first components addressed when adult clients present with decreased independence in self-feeding. Whether they are seated in a wheelchair, armchair, or in bed, position the adult to maximize independence and safety with self-feeding. Positioning for self-feeding is essential to prevent aspiration or choking. The Bridgepoint Active Healthcare *Mealtime Assistance Program Handbook* (Szpiech, 2014) provides information, along with photos, on optimal positioning based on seating systems. Positioning is very similar for clients in wheelchairs and standard chairs. When addressing feeding, the first priority is to ensure that the individual is sitting upright without any lateral lean (Szpiech, 2014). As occupational therapy practitioners, we often see our clients sitting at the very edge of their wheelchairs. When the pelvis is tilted posteriorly and the thoracic spine is in kyphosis, a person is said to be sacral sitting (Kamegaya, 2016). During self-feeding tasks, the client should instead be sitting as far back in their chair as possible with their knees bent at 90° (Szpiech, 2014). Their feet should be either resting on the floor or on footrests (see Figure 1). The head of the bed should be positioned between 75° and 90°; however, some clients may not tolerate that position, so the goal is to be as close as possible to between 75° and 90° (Szpiech, 2014). Figure 2 provides a visualization of positioning up at 90°. Many hospital beds do not allow for a full 90° positioning, so bolsters, pillows, or wedges can be used to obtain optimal positioning in bed or in a wheelchair. Being positioned as close as possible to either the table or tray table

is optimal. “This will minimize the amount of food that falls into the lap and can discourage slouching, which can interfere with swallowing” (Fulton, 2015). Following a CVA with upper extremity involvement, the affected extremity should be supported on either an arm tray or a pillow (Szpiech, 2014). It is imperative that those at a higher risk for aspiration, choking, or severe GERD stay sitting in an upright position for at least 1 hour after eating, and that those in bed have their heads no lower than 60° for at least 1 hour after eating to reduce the chance of silent aspiration from reflux (Szpiech, 2014). Seating and positioning should be one of the first things observed with adults who have difficulty with self-feeding.

Physical Assistance and Verbal Cueing

A decline in one’s ability to self-feed does not necessitate total assistance from a caregiver. In some cases, providing small verbal cues or slight physical assist can help increase independence. It is essential to encourage independence with a self-feeding task before jumping in to help. Clients who may be easily distracted in larger dining areas may require increased verbal cues and prompting. If an individual has stopped eating due to distractions, reminding them to continue eating and redirecting them to their task is an appropriate cue (Comagine Health, 2019). The same technique of verbal cueing can be effective if the client uses their fingers versus utensils, or they use incorrect utensils. Simple prompts for using utensils, or ensuring appropriate utensil choice, may be enough to assist the client in increasing their independence in self-feeding, without physical assistance. Table 1 (see p. CE-3) provides examples of situations in which verbal prompts can be trialed.

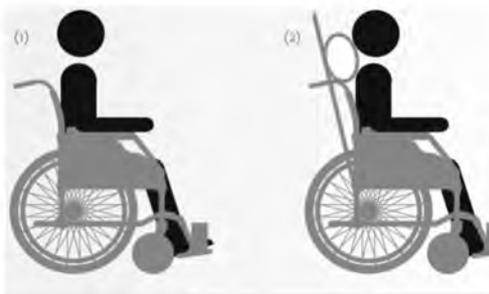


Figure 1. Recommended safe positioning in a standard or modified wheelchair as well as in an armchair. Client in an upright position as close to 90° as possible, feet on leg rests. Pillows or bolsters can be used to help obtain an upright position (Szpiech, 2014).



Figure 2. Recommended safe positioning in bed with head of bed anywhere between 75° and 90°. Use pillows and bolsters to prevent sliding in bed while maintaining an upright position (Szpiech, 2014).

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For clients with visual deficits, set up their tray within their line of vision or, based on their visual needs, explain where things are located and identify foods by name (Szpiech, 2014). Clients who may be easily distracted can participate in self-feeding in quieter areas, like their rooms or smaller dining rooms. It is important to state their names to redirect them to the task, along with encouraging them throughout the task (Szpiech, 2014). Depending on the individual client, it may be best to attempt verbal prompts prior to providing physical assistance.

Physical assistance may be required during self-feeding with the adult population. Assistance can be provided by using a hand-over-hand approach, in which a caregiver may assist with scooping food onto a utensil, or assisting with bringing the utensil or cup to the mouth. Increased physical assistance may be needed for opening containers, pouring drinks, opening small butter or jelly containers, or simply setting up the client's tray. Evaluate the individual to determine what level and type of assistance they may need. Occasionally, the person may be able to bring the utensil to their mouth but have difficulty scooping food onto the utensil. With hand-over-hand assistance, the therapist or caregiver can complete the task while supporting the client's hand to increase engagement. The same can be done with bringing utensils to the person's mouth or to prevent spilling, if that is an issue.

Hand-over-hand assistance is beneficial for task initiation as well. Clients with cognitive deficits may be unable to initiate self-feeding when presented with a food tray. "Hand-over-hand feeding is a method that may serve as a prompt for the resident to complete the task on his or her own" (Texas Health & Human Services, 2013). When using hand-over-hand assistance, it is beneficial to utilize the client's dominant hand to reinforce their typical routine (Amella & Batchelor-Murphy, 2019). Throughout all meals, if verbal or physical assistance is needed, it is important to allow clients ample time to complete the self-feeding tasks. Rushing during self-feeding tasks may lead to choking or aspiration, or it may cause self-feeding to be an unpleasant task.

Diet and Liquid Modifications

When an adult begins to develop signs of potential aspiration like coughing or multiple cases of pneumonia, liquid and/or diet modifications are put into place. When considering diet and liquid modifications, physicians may seek speech-language pathologists or nursing staff instead of occupational therapists, although OTs can address these modifications. The *Framework* defines swallowing as "keeping and manipulating food or liquid in the mouth and swallowing it; swallowing is moving food from the mouth to the stomach" (AOTA, 2014, p. S19). Facility and staffing policies determine the role of occupational therapy practitioners in making diet and liquid modifications for clients. Regardless, it is important for occupational therapy practitioners to understand these modifications for client safety during self-feeding as well as for alerting proper staff when concerns arise and preventing aspiration or choking.

Liquid and diet modifications occur for a variety of reasons. Some examples of conditions requiring these changes

Table 1. Examples of Verbal Cues & Physical Assistance Based on Behaviors

Client Behavior	Verbal Cues	Physical Assistance
Not eating meal Distracted	"Mr. Smith, it is time to eat"	Stand in front of client & visually redirect, place utensils in hand.
Stops eating or drinking	"Mrs. Smith, take another bite/drink."	Point to utensils/drink, use hand-over-hand assistance.
Stops chewing food	"Mr. Smith, you still have food in your mouth. Keep chewing."	Visually point to your mouth & make chewing motion.
Using wrong utensils (e.g., fork for soup)	"Mrs. Smith, you need to use your spoon for your soup."	Point to the correct utensil, place correct utensil in client's hand.

Modified from Comagine Health, 2019

are Parkinson's disease, cerebral vascular accidents, dementia, muscle atrophy, cancers of the throat or mouth, along with many others. Those with dysphagia are at additional risks of both aspiration and aspiration pneumonia, as well as choking. "Dysphagia is defined as problems involving the oral cavity, pharynx, esophagus, and gastroesophageal junction" (American Speech-Language-Hearing Association [ASHA], 2020). It is estimated that 1 in 25 adults in the United States will have a swallowing difficulty at some point, which leads to an increased chance of aspiration pneumonia (ASHA, 2020). Aspiration occurs when oropharyngeal or contents from the stomach enter the respiratory tract (Marik & Kaplan, 2003). Other clients may have gastrointestinal issues such as tumors, or esophageal motility disorders that affect swallowing. It is imperative for occupational therapy practitioners to understand liquid and diet modifications for the safety of the adults being treated.

Liquid Modifications

Liquid modifications are broken into four categories of thin, nectar thick, honey thick, and spoon/pudding thick. See Table 2 on page CE-4 for visual representations. "Measured in units of viscosity called centipoises (cP), these consistencies are classified as follows: thin (1 to 50 cP), nectar-like (51 to 350cP), honey-like (351-1750cP), and spoon thick (greater than 1,750 cP)" (Garcia & Chambers, 2010). Thin liquids have not been changed; these are the liquids that an individual without swallowing difficulties could drink. All beverages are allowed on a thin liquid diet. Nectar thick liquids are thickened to the consistency of nectar, until they easily glide off a

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Table 2. Liquid Modifications Quick Reference

Consistency	Description	Photo
Thin	Regular liquids with no changes	
Nectar	Easily glides off spoon, leaves a coating on spoon	
Honey	Drips slowly off spoon similar to honey	
Pudding	Thick like pudding, slow to drip off spoon	

spoon, like unset gelatin, and can be drunk through a straw (Bremner & Madden, 2014). Honey thick liquids drip slowly off a spoon and cannot be drunk through a straw (Bremner & Madden, 2014). Spoon thick, also known as pudding thick consistency, is exactly as it sounds. The liquid must be thickened to a consistency similar to pudding and requires a spoon to consume (Bremner & Madden, 2014). The thicker the liquid is, the slower it will move down the esophagus. This in turn will prevent liquids from entering the larynx and layer the lungs, which causes many pneumonias.

Liquids can be thickened with thickening powders, or some come pre-thickened to the desired level. Due to costs, most facilities use thickening powders, which come with instructions on how much to use based on fluid ounces and desired consistency. Most commonly, thickening powders are made with either xanthan gum or modified starch. Modified starch is made up of carbohydrate polymers that absorb water, and xanthan gum creates new networks of molecules that thicken the liquids (Vilaredell et al., 2016). Xanthan gum thickeners are newly developed and are said to taste better than other thickeners (Vilaredell et al., 2016). Prior to using thickening powders or solutions, ensure that the client does not have any allergies and that the product is within the guidelines for that client. Although an individual may have a diet modification, there may be no modifications to their liquids. Do not assume that if someone is on a modified diet they are also on a modified liquid, or vice versa.

Diet Modifications

Diet modifications can be more complicated than liquid modifications due to the variety of foods and the ways to prepare them. The preparation of meats, vegetables, desserts, fruit, potatoes, and breads varies based on client needs. There are five diet categories: Regular Diet, Mechanical Soft (Dental) Diet, Dysphagia Level 2/Mechanically Altered Diet, Dysphagia Level 1/Pureed Diet, and a Finger food Diet (Maryland Department of Health and Mental Hygiene). See Table 3 for visual representations. It is important to learn the specific names of diets in your area of practice as they can vary from facility to facility, although the consistencies will remain the same. In regular diets, there are no dietary restrictions. These are typical day-to-day meals that any individual would consume.

Mechanical Soft (Dental) Diet

A mechanical soft (dental) diet has “the consistency of the regular diet and is used when an individual has difficulty chewing regular food...most foods on a regular diet may be included with mechanical alterations based on individual’s tolerance” (Bremner & Madden, 2014, p. 8). The defining characteristic of this diet is that all items on an individual’s plate are soft, moist, and easy to chew. All meats must be ground or softened with gravy; fruits and vegetables must be soft, chopped, or diced; all breads except bagels are allowed; and boiled or baked potatoes and most dessert types are appropriate. Excluded foods include

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whole meats, raw or whole vegetables, dried fruits, granola, nuts, wild rice, and coconut (Bremner & Madden, 2014).

Dysphagia Level 2/Mechanically Altered Diet

If the client continues to have difficulties with the Mechanical Soft diet, the next level is the Dysphagia Level 2/Mechanically Altered Diet. “This diet consists of foods that are moist and

easily formed into a bolus...it is designed for clients who have difficulty swallowing regular foods and to be a transition from pureed to more solid textures” (Bremner & Madden, 2014, p. 15). This diet has stricter limitations than the Mechanical Soft diet: all foods need to be soft, cut into small pieces, and moist. All food should be soft enough to mash with a fork after cooking. All meats must be moist and ground, fruits and vegetables must

Table 3. Quick Reference Chart for Diet Modifications

Diet	Description	Picture
Regular Diet	No changes. Diet may include all foods and textures.	 <p>NataBene via Getty images</p>
Mechanical Soft (Dental) Diet	<ul style="list-style-type: none"> • Meats must be ground or softened with gravy. • Fruits and vegetables must be soft, chopped, or diced. • Breads are allowed, except bagels. • Potatoes should be boiled or baked. • Most desserts are allowed. 	 <p>ALLEKO via Getty Images</p>
Dysphagia Level 2/Mechanically Altered Diet	<ul style="list-style-type: none"> • Meats must be moist and ground. • Fruits and vegetables must be soft, no larger than ½ inch. • Pancakes and cooked cereals must be moistened with sauce or syrup. 	 <p>FotografiaBasica via Getty Images</p>
Dysphagia Level 1/Pureed Diet	<ul style="list-style-type: none"> • All food must be smooth with a pudding like texture. • Anything that can be pureed is available for this diet. 	 <p>Nitrub via Getty Images</p>
Finger Food Diet	<ul style="list-style-type: none"> • Food must be cut into small pieces. • Food must be easy to grab using fingers. 	 <p>ArxOnt via Getty Images</p>

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be soft and no larger than ½ inch, and pancakes or cooked cereals must all be soft and moistened with sauce or syrups (Bremner & Madden, 2014).

Dysphagia Level 1/Pureed Diet

The lowest level of diet is Dysphagia Level 1/Pureed Diet. Any food that can be pureed properly can be used in this diet. “The consistency should be smooth and thick enough to mound on the plate, and similar in consistency to that of pudding” (Bremner & Madden, 2014, p. 11).

Finger Food Diet

The Finger Food diet can be used for individuals who have difficulty managing utensils. It consists of any foods that can be eaten with one’s hands. This includes sandwiches, vegetables and fruits cut into easy-to-grasp pieces, or any other food that can be transformed into small pieces.

ADAPTIVE EQUIPMENT

The world of adaptive equipment can seem overwhelming with the variety and choices available today. This choice extends to self-feeding, where a wide variety of adaptive equipment can be provided for individuals to maximize independence. Adaptive equipment ranges from items as simple as built-up utensil handles to items as high-tech as mobile arm supports. As occupational therapy practitioners, we often modify adaptive equipment for a variety of uses to maximize an individual’s independence.

It is estimated that about 23% of older adults use some form of adaptive equipment on a day-to-day basis (McDonald et al., 2016). This includes any type of self-feeding adaptive equipment, including built-up-handle utensils, weighted utensils, two-handled cups, nosey cups, scoop/lip plates, foam tubing applied to utensils, rocker knives, and non-slip mats.

Mats

Non-slip mats can be beneficial for a wide variety of individuals. Most commonly, they are used for individuals following a CVA or injury to the upper extremity requiring a sling, or for those who are unable to use their dominant arm for any reason (Zwiefelhofer, 2012). Non-slip mats are placed under plates, cups, cutting boards, etc. to prevent these items from slipping. They are also commonly placed under wheelchair cushions to prevent the person from sliding forward, which could lead to abnormal posture affecting the ability to self-feed. Non-slip mats are a very simple piece of equipment that can be adapted and used in a variety of ways.

Utensils

Built-up-handle utensils and weighted utensils are often used interchangeably, although they are different types of equipment with different purposes. Be aware that kitchen and nursing staff may not differentiate between them. Built-up-handle utensils are slightly heavier than regular utensils, but they are not considered weighted. Built-up-handle utensils

are often used for individuals with arthritis that impacts their range of motion in the digits (McDonald et al., 2016). Their wider handle reduces needed flexion of the digits and grasp strength. “These grips are typically made from a foam-like material and are available in varying sizes such as 3.18 cm [1.25 inch] and 4.45 cm [1.75 inch] diameters” (McDonald et al., 2016, p. 3). With a built-up utensil, it is important to ensure that size and texture are correct. Similar to built-up-handle utensils, utensil tubing is a foam tubing that can be cut to the length of the utensil (Zwiefelhofer, 2012). The utensil tubing has more versatility because it can be used on other objects, and it comes in a variety of sizes and textures. The size of the tubing can vary based on hand size, which may be a consideration when considering materials for male and female clients.

Weighted utensils help stabilize the hand during self-feeding when an individual has tremors or a weak grip strength (Zwiefelhofer, 2012). The weight can vary from between 4 and 8 ounces and is determined by the individual’s needs.

It is important to remember that an adult may need both built-up utensils and weighted utensils, and not just one or the other.

Additional adaptive utensils include swivel or curved utensils, which can be used to compensate for lack of supination in the forearm (Pendelton & Schultz-Krohn, 2013). Difficulty with cutting food can occur following a CVA with upper extremity involvement because we usually use one hand to stabilize and the other to cut. Without the use of bilateral upper extremities this task becomes difficult. A rocker knife can be helpful because it “cuts with a rocking motion rather than a back-and-forth slicing action” (Pendelton & Schultz-Krohn, 2013, p. 214). Trial and error will lead to finding the equipment needed for each individual’s needs. Figure 3 on page CE-7 compares various types of utensils.

Adaptive Plates

Along with adaptive utensils, adaptive plates are also common and available. These include partitioned plates, scoop plates, lip plates, and high-sided plates. Partitioned plates have two or more separate sections that help make it easier to scoop the food and reduces the chance of mixing foods (Zwiefelhofer, 2012). The partitioned plate may also simply be a preference for individuals who do not like their food to mix.

Lip plates, scoop plates, or plate guards are valuable for clients who have recently experienced a CVA, any upper extremity injuries, decreased active range of motion in the wrist, or generalized weakness and are unable to scoop food. Scoop plates have a “high curved rim on one side to aid in getting food onto utensil...lowered edge reduces the need to lift utensils over the edge of a plate” (Zwiefelhofer, 2012). Lip plates, similar to scoop plates, have a high rim around the entire plate compared to on just one edge, which assists with scooping and preventing spillage (Zwiefelhofer, 2012). There are also plate guards (also called food bumpers or food guards) that are portable and can be placed on any plate. Plate guards work well for adults who

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Figure 3. Regular utensil, two foam tubing sizes, and a built-up-handle utensil. Photos courtesy of Patricia Swiech.



want to discreetly maintain their independence when they are away from their residence (Zwiefelhofer, 2012).

Adaptive Drinkware

Adaptive drinkware can maximize independence with fluid intake during self-feeding. Adaptive drinkware consists of handled cups, cups with lids, nosey cups, various shaped handles, weighted cups, and cups with a variety of straws or spouts. Adapted drinkware can be used for adults with pain in their upper extremities; reduced active range of motion in their hands, wrists, elbows, or shoulders from arthritis or other injury; tremors; visual deficits; difficulty controlling the amount of liquid intake; and neck stiffness (Disabled Living Foundation [DLF], 2015).

Adult clients who have difficulty maintaining a grip due to decreased active range of motion or strength would benefit from cups with larger handles, cups with two handles, or cups with molded custom handles (DLF, 2015). Cups with larger handles are similar to built-up-handle utensils because the large handles provide an easier surface to grip. Cups with two handles allow additional stability with a better grip by using both hands for those with weakness and difficulty grasping (DLF, 2015). Molded handles are more personalized and fit the individual's

exact needs. Weighted cups, cups with lids, spill-resistant cups, and anti-tremor device cups benefit individuals with decreased muscle control or tremors (DLF, 2015). Weighted cups provide additional stabilization and can help clients with tremors prevent spillage.

Spill-resistant cups have mechanisms within the lid that help prevent spills (DLF, 2015). The most common is the Spill-Proof Kennedy Cup. Even if the cup is turned completely upside-down, liquid will not spill out.

Cups with anti-tremor devices can have rotating handles or a device within the cup that helps prevent spilling while maximizing independence (DLF, 2015). The device helps prevent the cup from shaking when being used by someone experiencing tremors.

Cut-out cups (nosey cups) or insulated cups are a great adaptive piece for individuals with neck or shoulder issues. This can include neck stiffness as well as limited range of motion in the neck or the shoulders. Insulated cups help prevent transfer of heat or cold, allowing the individual to use their unaffected upper extremity to help tip the cup back by holding the bottom of it (DLF, 2015). Cut-out cups limit the need to extend the neck back while drinking (DLF, 2015). There are a multitude of adaptive drinkware options to choose from when considering an individual's specific needs.

With all adaptive equipment, it is important to learn what works for an individual and what does not. As occupational therapists, make recommendations, educate our clients as well as their caregivers, and ensure correct follow through. Adaptive equipment can help maximize people's independence with self-feeding only if it is being used properly and for the correct reasons. See Figure 4 for examples of adaptive utensils, plates, and drinkware.



Figure 4. Examples of: Built up utensils, lip plate, two handled cup, nosey cups, built up utensil, foam tubing utensils, & curved spoon. Photo courtesy of Patricia Swiech.

CAREGIVERS & SELF-FEEDING

For occupational therapy practitioners, providing caregiver education is just as important as educating those we are treating. Caregivers can play an important role during self-feeding tasks and maximizing independence. Caregivers can include family members, friends, or if an individual is in a long-term facility, the nursing staff. It is important to educate the caregivers on the purpose and correct use of adaptive equipment, how to assist their client or family member during self-feeding tasks (both physically and verbally), and the proper food/drink consistency.

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cies for their identified diet. By educating caregivers on adaptive equipment, we can ensure the client will have someone who can encourage them to maximize their independence. Studies show that a majority of caregivers feel decreased burden and depression after training because they feel more confident in knowing how to assist the individuals they are caring for (Hepburn et al., 2001). Caregivers can also help assure those they are caring for that they are using their equipment correctly. Helping clients maximize their independence with self-feeding and educating their caregivers on how to assist are both important aspects to consider when developing an intervention plan.

CONCLUSION

As occupational therapy practitioners, our role with self-feeding in the adult population is to maximize independence because feeding is an essential ADL. In the United States alone, more than 5,000 choking deaths were reported in 2018 (Statista, 2020). The odds of dying from choking are greater than dying from a gunshot wound or in a plane crash (Statista, 2020). When looking at these numbers, one wonders why occupational therapy practitioners do not advocate more strongly for their ability to help reduce these numbers. Could it be a lack of knowledge with types of interventions? Practitioners can offer significant, yet minor changes to keep individuals safe and independent with self-feeding.

REFERENCES

- Amella, E. J., & Batchelor-Murphy, M. (2019). *Eating and feeding issues in older adults with dementia: Part II: Interventions*. The Hartford Institute for Geriatric Nursing, New York University, College of Nursing, and the Alzheimer's Association, D11, 2.
- American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3rd ed.). *American Journal of Occupational Therapy*, 68(Suppl. 1), S1-S48. <https://doi.org/10.5014/ajot.2014.682006>
- American Speech-Language-Hearing Association. (2020). *Adult dysphagia*. https://www.asha.org/PRPSpecificTopic.aspx?folderid=8589942550§ion=Incidence_and_Prevalence
- Anderson, L. (2017). Assisting patients with eating and drinking to prevent malnutrition. *Nursing Times*, 113, 23-25
- Bremner, B., Madden, J. (2014). Maryland Department of Health and Mental Hygiene. *Diet Manual for Long-Term Care Residents*. https://health.maryland.gov/ohcq/docs/diet_manual_4-3-14.pdf
- Comagine Health. (2019). *Mobility learning guide: Tips for helping residents stay stronger, safer and more able*. <https://healthinsight.org/component/jdownloads/send/307-promising-practices-to-address-specific-concerns/1154-mobility-learning-guide>
- Disabled Living Foundation. (2015). *Choosing eating and drinking equipment*. https://www.dlf.org.uk/factsheets/eating_drinking.pdf
- Fulton, C. (2015). *Adaptive equipment*. AgeSmart Community Resources. <http://www.agesmart.org/adaptive-equipment/>
- Garcia, J. M., & Chambers IV, E. (2010). Managing dysphagia through diet modifications. *American Journal of Nursing*, 110(11), 26-33. <https://doi.org/10.1097/01.NAJ.0000390519.83887.02>
- Hepburn, K. W., Tornatore, J., Center, B., & Ostwald, S. W. (2001). Dementia family caregiver training: Affecting beliefs about caregiving and caregiver outcomes. *Journal of the American Geriatrics Society*, 49, 450-457.
- Kamegaya, T. (2016). Influence of sacral sitting in a wheelchair on the distribution of contact pressure on the buttocks and back and shear force on the ischial region. *Journal of physical Therapy Science*, 28, 2830-2833.

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- Marik, P. E., & Kaplan, D. (2003). Aspiration pneumonia and dysphagia in the elderly. *Chest*, 124, 328-336.
- Maryland Department of Health and Mental Hygiene. (2014). *Diet manual for long-term care residents*. https://health.maryland.gov/ohcq/docs/diet_manual_4-3-14.pdf
- McDonald, S. S., Levine, D., Richards, J., & Aguilar, L. (2016). Effectiveness of adaptive silverware on range of motion of the hand. *PeerJ*, 4, e1667.
- Pendleton, H. M., & Schultz-Krohn, W. (2013). *Pedretti's occupational therapy-e-book: Practice skills for physical dysfunction*. Elsevier Health Sciences.
- Statista. (2020). *Number of deaths due to choking in the United States from 1945 to 2018*. <https://www.statista.com/statistics/527321/deaths-due-to-choking-in-the-us/>
- Szpiech, D. (2014). *Mealtime assistance program handbook: Bridgepoint active healthcare*. <https://www.bridgepointhealth.ca/en/what-we-do/resources/BP-8.5x11-MAPHandbook-10-14FinalWeb.pdf>
- Texas Health & Human Services. (2013). *Feeding assistance training*. <https://hhs.texas.gov/sites/default/files/documents/doing-business-with-hhs/providers/long-term-care/nf/feedingassistant.pdf>
- Vilardell, N., Rofes, L., Arreola, V., Speyer, R., & Clavé, P. (2016). A comparative study between modified starch and xanthan gum thickeners in post-stroke oropharyngeal dysphagia. *Dysphagia*, 31(2), 169-179. <https://doi.org/10.1007/s00455-015-9672-8>
- Zwiefelhofer, D. (2012). Adaptive feeding: Field report. *Nutrition & Foodservice Edge Magazine*. https://www.dysphagia-diet.com/Images/Adaptive_Equipment_Article_May_2012_DD_WEB.pdf

ADDITIONAL RESOURCES

- Avery, W., (2011). *Occupational therapy: A vital role in dysphagia care* [Fact sheet]. American Occupational Therapy Association. <https://www.aota.org/~/media/Corporate/Files/AboutOT/Professionals/WhatIsOT/RDP/Facts/Dysphagia%20fact%20sheet.pdf>
- Fisher, S., Wallace, L., & Spear, D. (2015). BHN fact sheet: Eating assistance in adults with developmental disabilities. *Behavior Health Nutrition*. www.bhndpg.org/wp-content/uploads/2016/01/BHN_Eating-Assistance-Adults-correct-authors.pdf
- Maryland Department of Health and Mental Hygiene. (2014). *Diet manual for long-term care residents*. https://health.maryland.gov/ohcq/docs/diet_manual_4-3-14.pdf

Continuing Education Article

Earn .1 AOTA CEU (one contact hour and 1.25 NBCOT PDU). See page CE-8 for details.

Final Exam

Article Code CEA0820

Self-Feeding With the Adult Population: Back to Basics

To receive CE credit, exam must be completed by
August 31, 2022

Learning Level: Intermediate

Target Audience: Occupational Therapy Practitioners

Content Focus: Domain: Occupations; OT Process: Intervention

- You are finishing a self-feeding task with your client and they ask to return to bed. What is the recommended time frame to wait before returning to supine after a meal?**
 - The client can return to bed 15 minutes after meal completion.
 - The client can return to bed 1 hour after meal completion.
 - The client can return to bed right away; there is no time frame.
 - The client can return to bed 2 hours after meal completion.
- An adult client with a recent humeral fracture is completing a cooking task during an occupational therapy session. The client is observed having a difficult time keeping the cutting board in place as well as cutting vegetables with one hand. What two pieces of adaptive equipment would be beneficial for this client?**
 - A regular cutting board and a regular knife
 - A built-up-handle knife and non-slip mat
 - A regular cutting board and rocker knife
 - A non-slip mat under the cutting board and a rocker knife
- You are evaluating a client to upgrade from honey thick liquids. The client has no coughing with honey thick liquids or with nectar thick liquids; however, they do have a cough following thin liquids. Which liquid modification is best?**
 - Upgrade to nectar thick liquids
 - Upgrade to thin liquids
 - Remain on honey thick liquids
 - Downgrade to pudding/spoon liquids
- A client is eating ground meat, with gravy to help soften it. All the vegetables are soft and chopped. A baked potato with butter is also provided. There is a regular dessert on the plate; however, you notice that unlike the others, there are no chopped nuts in this client's dessert. The meal ticket on the plate does not provide information on the diet. What diet can we assume this is?**
 - Dysphagia Level 1/Pureed Diet
 - Regular Diet
 - Dysphagia Level 2/Mechanically Altered Diet
 - Mechanical Soft (Dental) Diet
- During a self-feeding occupational therapy session, the client is observed talking to other clients, staring around the room, and being very distracted. What type of assistance is necessary to self-feed?**
 - Verbal cue: "Your meal is here. It is time to eat."
 - Full assistance: the client is dependent for self-feeding
 - Hand-over-hand assistance
 - Verbal cue: "You need to hurry up and eat so the tray can be cleared."
- During lunch, a nurse is observed feeding an individual who is very distracted. What should the occupational therapy practitioner do?**
 - Educate the nurse on using verbal cues to prompt the client to eat.
 - Nothing—the nurse is doing the correct thing.
 - Educate the client on eating faster.
 - Educate the nurse on hand-over-hand assistance.
- A client with which difficulty would benefit from a cut-out cup/nosey cup?**
 - Limited AROM in the digits
 - Limited AROM in the neck or shoulders
 - Limited AROM in the wrist
 - Limited AROM in the elbows
- Weighted utensils and drinkware are beneficial for:**
 - Decreased grip strength
 - Tremors
 - Decreased AROM in digits
 - Pain
- How can caregivers benefit from education on self-feeding tasks?**
 - Maximized independence of the client
 - Decreased caregiver burden and depression
 - Decreased caregiver participation
 - There is no benefit to educating caregivers

Continuing Education Article

Earn .1 AOTA CEU (one contact hour and 1.25 NBCOT PDU). See page CE-8 for details.

CE Article, exam, and certificate
are also available ONLINE.

Register at <http://www.aota.org/cea> or
call toll-free 877-404-AOTA (2682).

10. In a Dysphagia Level 2/Mechanically Altered Diet, what size should the vegetables be?

- A. Whole
- B. 1/2 inch
- C. 1/3 inch
- D. 1/4 inch

11. Which consistency of liquid should slowly drip off a spoon?

- A. Regular
- B. Nectar
- C. Pudding
- D. Honey

12. When assisting with self-feeding tasks, it is important to:

- A. Stand next to the client
- B. Sit on the client's dominant side
- C. Sit in front of the client
- D. Sit on the client's nondominant side

Now that you have selected your answers, you are only one step away from earning your CE credit.



Click here to earn your CE