



Thickeners and Other Ways to Help Older Adults with Swallowing Problems

By Diana Zuckerman, Ph.D., February 2013

Older adults face numerous health problems that younger adults never imagine. Since eating is an essential daily activity that most of us think of as pleasurable, one of the most upsetting problems of aging is difficulty swallowing, which can change meal time from an enjoyable pastime to a difficult challenge, and can eventually cause very serious health problems.

Anyone can have a swallowing disorder, but it is more likely in the elderly. Normal aging causes reduced muscle tone in the pharynx and esophagus and other changes that affect swallowing. Patients who are very elderly, especially those with dementia, sometimes forget how to perform activities of daily living, including normal chewing and swallowing. A common problem among the elderly is coughing or choking because the food or liquid is entering the windpipe. This is called

aspiration, and if it happens frequently the person could be at risk of developing pneumonia

Serious swallowing problems can also occur with Parkinson's disease and other neurological conditions, reflux disease, stroke, head or spinal cord injury, or cancer of the head, neck or esophagus.

Regardless of the cause, the NIH states that "changing a person's diet by adding thickeners helps many people." This article will answer 3 key questions:

1. Is there anything you can do to prevent swallowing difficulties before they develop in older adults?
2. Is the use of thickeners proven to be safe and effective for the elderly?
3. What thickeners are best for which patients?

Prevention

Swallowing difficulties caused by neurological diseases, stroke, or cancer are very difficult to prevent. Many swallowing difficulties can't be prevented, but some swallowing difficulties attributed to aging and dementia can be delayed or prevented by reducing tooth loss and sedation.

Tooth Loss. Having fewer teeth makes it more difficult to adequately chew food, and this makes it harder to swallow food. As people age, they may forget to brush their teeth as often or as carefully as they used to, and a common side effect of many prescription medications is dry mouth, which also leads to tooth loss. Reducing the use of unnecessary medications that cause dry mouth could be very effective. In addition, reminders by caregivers to brush teeth after every meal can increase the likelihood that

a person will brush his or her teeth at least once a day.

Sedation. Atypical antipsychotic medications such as Seroquel, Abilify, Zyprexa, and Geodon, are frequently prescribed to elderly patients who are depressed or agitated despite warnings about their risks. These drugs are often chosen because they tend to cause sedation, which may calm an elderly person but is a well-established cause of swallowing problems.¹

Reducing Swallowing Problems by Making Liquids Thicker

Thickened drinks are normal drinks that have a thickener added to make them thicker. They are often recommended for people who can no longer swallow normal fluids safely, because drinks go into their lungs, causing coughing, choking or more serious risks such as a chest infection and aspiration pneumonia.

The goal of “thickeners” is to make all liquids, including beverages and soups, a thicker consistency that is less likely to cause aspiration. Thicker liquids travel more slowly down the throat and that makes them easier to control. If

someone with swallowing problems drinks water, juice, or coffee, it can travel down the throat so quickly that the muscles and nerves used for swallowing don't act quickly enough, and some of the liquid can get into the lungs. Thickened drinks move more slowly, giving the body more time to control and direct the fluid toward the stomach.

The products sold as commercial thickeners come in different textures and flavors, so you can try different ones to see which one your family member or patients like best. Thickeners are intended to be used with beverages. You don't need to use commercial thickeners for foods, since soup and other foods can be easily thickened with powdered potatoes (used for instant mashed potatoes), rice cereal, tapioca, or Jell-O, for example.

If the person you're caring for is losing weight, feeling full too quickly, or choking on thickened foods, stop using them and talk to the doctor about other options.

It may surprise you that physicians are not usually the experts that determine thickeners are needed. In nursing homes and other facilities, it is usually a speech

pathologist who reviews the person's swallowing ability, and decides whether they need thickened liquids. The Speech Pathologist will recommend one of three different thickness levels: the worse the swallowing problem, the thicker the drink. The three thicknesses are:

- Mildly Thick, also called nectar thick or cream thick, which can be drunk out of a cup
- Moderately Thick, also called honey thick, is similar to a milk shake, and pours slowly. Unlike real milk shakes, these do not get thinner as they melt. They are often eaten with a spoon, rather than drunk from a cup
- Extremely Thick, also called Pudding Thick, Mousse, or extra thick, can't be poured and must be eaten with a spoon.

Are they safe?

There are no serious concerns about the safety of thickeners for adults. The only known risk is if the patient refuses thickened fluids, which could potentially cause dehydration. For that reason, it is important to balance the need for thickened fluids with the effort

to find a product that the patient likes.

Do thickeners reduce aspiration?

A study of speech pathologists found that most recommend thickeners for patients with swallowing disorders, even if they have never read a study indicating that their patients will benefit.² One-third used pre-thickened liquids, and those who mixed the drinks themselves often were not well trained to use it² and usually made the liquids too thick or too thin, especially when trying to achieve honey thickness.³ The choice of which thickener to use did not seem to be related to which the patients preferred, and many of the patients were not happy with the thickened liquids.³ Since patients had no say in which thickeners were used by those speech pathologists, it is impossible to know if the patients would have preferred other thickeners to Thicken Up, Thick It, and Thick & Easy, the three powdered products that were used by almost two-thirds of the providers.

Speech pathologists in those studies reported that patients were more neutral about nectar thickness fluids, and more

negative about the thicker fluids.

Researchers from Northwestern University hypothesized that dementia patients and Parkinson's patients might be better off with changing the way they swallowed rather than using a thickener. They studied 711 patients with swallowing problems who were between the ages of 50-95.⁴ All the patients were studied using 3 different strategies for reducing aspiration: putting their chin down while drinking thin liquid, nectar thick liquids with a spoon or cup, or honey thick liquids with a spoon or cup. The researchers were surprised to find that the thickened liquids reduced the chances of aspiration more than merely placing the chin down while swallowing, with the honey-thick fluids least likely to cause aspiration.

The Parkinson's patients in that study were asked what strategy they preferred; the dementia patients weren't asked because of concerns that they could not accurately recall the three strategies. Unfortunately, the patients preferred the least effective strategy (chin down posture) and their least favorite strategy was the most effective (honey thickness).⁴

In summary, the research shows that thickened drinks, particularly honey-thick fluids, can reduce the chances of aspiration, but that patients generally prefer fluids that are less thick. What these few studies don't evaluate is whether some thickeners are better tasting or more effective than others. That's the next question.

Choice of Thickeners for Your Patient

Whether you are working with elderly patients in a nursing home or other facility, or helping an elderly patient at home, you can buy pre-made thickened drinks or you can make your own thickened drinks with a powder or gel thickener. Pre-mixed thickened drinks are sold in single serve cups or in cartons or large bottles. They last about 6 months and don't need to be refrigerated until they are opened. This is convenient – especially for elderly persons who would otherwise have to mix the product themselves. However, in addition to being expensive and coming in a limited number of flavors, these pre-packaged products tend to be thicker than drinks you thicken yourself⁵ and may not taste as good. As a result, the

patient may just refuse to drink them, risking dehydration or malnutrition.

Instead, you can make the liquid the thickness that works best for each patient by buying powder or gel thickeners.

Most thickeners are either starch- or gum-based. Starch particles expand by capturing the fluid, which means they keep absorbing more liquid and get thicker after they are prepared. As a result, they may be too thick 20 or more minutes after they are prepared. They also get thicker when refrigerated. In addition, starches chemically interact differently depending on the fluid.⁵ For example, the acid in orange juice may thicken more quickly with starch but get thinner later, which is different than what happens if you use a starch thickener with water or apple juice.

Gum-based thickeners usually must be vigorously shaken or blended with the base fluid to appropriately thicken it. However, if mixed properly, gum-based thickeners will maintain relatively stable thickness over time for many fluids.⁵ This could be important, especially for drinks that a patient may want to drink over a long period of time. However,

be aware that some drinks, such as adult nutritional beverages, contain ingredients that may interact with the gum thickener and form clumps.

How do gum-based thickeners taste, compared to powdered or pre-made products? One small study⁶ found that elderly patients found thickened juice equally acceptable if thickened with a natural ingredient (raspberry apple sauce or chocolate pudding), powdered commercial product (Thick-It) or commercial gel product (SimplyThick), but patients much preferred hot chocolate thickened with chocolate pudding or SimplyThick. The authors stated that they selected Thick-It as the powdered brand because previous research and suggested it had better taste than other commercial powdered thickeners such as Quick Thick, Thicken Up, and Thick & Easy commercial brands.⁷ Since any of these products may improve over time, and different patients may have different preferences, it is worth trying different products to see what is preferred.

In summary, thickening ingredients are safe and can be effective for reducing aspiration. However, more information is

needed to determine which thickened fluids taste best and are more likely to be enjoyed by patients. In the absence of research on large number of patients, caregivers need to take the time to decide what products work best for their patients. The goal should be to make the fluids thick enough to be effective at reducing aspiration, and tasty enough to ensure that the patient drinks enough fluids every day.

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