

The purpose of swallowing is to get food from the mouth, through the throat (pharynx), to the stomach, without allowing it to go down the nose or down the windpipe (trachea). Your throat is like a dual carriageway: food goes down to the stomach (and in some circumstances back up!) and air goes up and down it to the lungs.

The throat divides into two near the top: the tube at the front is the windpipe which goes to the lungs; and the tube at the back goes to the stomach (oesophagus). Before swallowing, food is chewed and held in the mouth, and there is nothing in the throat. The windpipe is open and breathing occurs. When you swallow, the food is pushed into the throat, and the windpipe closes off. Food then slips down the tube at the back leading to the stomach. Because the windpipe is closed, you momentarily stop breathing. Once the food has passed through the throat, the windpipe opens up again and breathing can resume.

If you have any food or drink in your throat when your windpipe is open and you are breathing, there is a chance it could fall into the windpipe. This is experienced as "going down the wrong way" and coughing and spluttering usually ensues.

Stages of swallowing

Difficulties in eating and/or swallowing can develop for a variety of reasons. The problem is best understood by looking at the three different stages involved in swallowing, and associated behaviours, separately:

1) Oral preparation stage

The lips, tongue, teeth and cheeks break up food, mix it with saliva and form a soft ball that can be swallowed. In the case of liquids, it is a question of control. The tongue forms a cupped shape around the liquid and holds it ready for swallowing.

2) Pharyngeal stage and the swallow reflex

The tongue squeezes the food or liquid to the back of the mouth and the swallow reflex is triggered: the windpipe is closed off and food/liquid is passed through the back of the throat, down to the stomach, and then the

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Swallowing problems – how to help

Food and eating are central to life, so swallowing problems have a major impact on the person affected and their carers. Clare Morris and Mitch Murray offer guidance.

windpipe opens again. Muscles in the wall of the throat assist movement of food/drink downwards by wave like movements called peristalsis.

If you touch the front of your throat and swallow you can feel the Adam's Apple (larynx) move up and down. This is the mechanism which closes the windpipe and is part of the swallowing reflex. You need to have something in your mouth to swallow. Try swallowing repeatedly; after three or four swallows it becomes difficult as your mouth becomes empty of saliva.

3) Oesophageal stage

This is the movement of food from the lower part of the throat, through the gullet (oesophagus) to the stomach, assisted by a muscular wave.

Cough

A cough is the body's response to "foreign bodies" entering the airway or windpipe. It is our way of protecting our lungs from getting clogged up and interfering with breathing. It is under neurological (nerve) control and can therefore be affected in dementia. The important thing to understand is that even if someone can cough when you ask them to, it doesn't necessarily mean they will cough to clear their windpipe. Likewise, if someone is unable to cough on request, they may still have an adequate "protective" cough if anything should enter the windpipe.

Aspiration

Aspiration is when liquids or food do go down the wrong way, into the windpipe and are not removed by coughing.

Gag reflex: Contrary to popular belief, the presence or absence of a gag reflex has no relationship to someone's ability or inability to swallow safely.

Swallowing problems

Problems with swallowing (dysphagia) in dementia can arise at any of the stages, either in isolation or in combination. Muscle movements may become slow or uncoordinated; the swallow reflex can become delayed or incomplete; or the coordination of all three stages can become unbalanced. While most problems can be diagnosed on examination, sometimes it is necessary to confirm this by videofluoroscopy. This is a video X-ray showing exactly what happens when food and drink of different consistencies is swallowed.

Below are listed some common problems and strategies used to facilitate swallowing. It is, however, recommended that the advice of a speech and language therapist is sought, as strategies recommended will vary according to the stages of the swallow affected and the client. You can obtain a referral through your GP, or if necessary contact your local hospital or the Royal College of Speech and Language Therapists for information on services locally. Other professionals, such as a dietician, occupational therapist, physiotherapist, or district nurse, may need to be involved.

These are some common problems you may notice:

- the person being unaware of food when it is put in the mouth

- failing to do anything with food in the mouth, just holding it there
- difficulty chewing and/or difficulty moving food to the back of the mouth
- spitting lumps of food out
- eating very fast or putting too much into the mouth
- eating insufficient amounts or refusing food and/or drink
- talking with food or drink in the mouth and forgetting to swallow, causing coughing
- coughing/choking on food and/or liquids
- complaints of food not going down or getting stuck in their throat
- a "wet" or "gurgly" voice after swallowing
- difficulty swallowing tablets
- dribbling
- chronic chestiness or recurring chest infections.

Promoting safe eating

Here are some ways a speech and language therapist may suggest to promote safe eating:

Strategies

- Sitting upright, keeping the chin down. If you put your head back to drink, you are opening up the airway more, therefore if the swallow reflex is slow, it is easier for food and drink to go down the wrong way.
- Take small sips of drink, perhaps from a teaspoon. Avoid the use of drinking vessels that encourage the head to tip back (eg feeder beakers)
- Take small mouthfuls of food.
- Alternate food and drink to help clear the mouth of food (this should be discussed with a speech and language therapist).
- Try encouraging the swallowing of

Information about dementia and speech and language therapy services is available from:

CANDID (Counselling and Diagnosis in Dementia)
National Hospital for Neurology and Neurosurgery, Queen Square, London WC1N 3BG.
Tel: 0171 837 3611 x3855
Fax: 0171 209 0182
E-mail: p.roques@ion.bpml.ac.uk

and
The Royal College of Speech and Language Therapists
7 Bath Place,
Rivington Street,
London EC2A 3DR
Tel: 0171 613 3855
Fax: 0171 613 3854

each mouthful twice to clear any food or drink that may remain in the mouth or in the throat after the first swallow.

- If the person has not swallowed what is in their mouth, sometimes it helps to present an empty teaspoon rather than more food. This can encourage the second swallow mentioned above.
- Encourage frequent swallows to counteract dribbling.
- Check mouth after finishing eating to ensure no food or fluid remains.
- You may have to sit with the person to remind them to use these strategies, and you may find that mealtimes take much longer than usual.

Changes to diet

- Special diets (soft or puree), merely avoiding certain foods, or preparing them differently can make a big difference. Foods that may present difficulty for someone with a swallowing problem include:
 - mixed textures, eg bits of food in a lot of fluid, like minestrone soup, or cornflakes and milk
 - stringy textures, eg bacon, cabbage, runner beans
 - floppy textures, eg lettuce, cucumber
 - small, hard textures eg peanuts, peas, sweet corn and broad beans (cooking food longer so it becomes softer, mashing food with the back of a fork or liquidising it in a blender can help)
- Thickening fluids to yoghurt or

sometimes porridge consistencies may help as they are easier to control. There are a number of thickening agents available through your GP or from a dietician. It is important to speak to a speech and language therapist about this, and it can also be helpful to have guidance in using thickeners as the fluids may become lumpy.

This does not look appealing and can influence whether thickened fluids are accepted.

- The use of nutritional supplements if necessary
- Crushing tablets or using a syrup form may be easier for someone with a swallowing problem but seek advice from your GP as some tablets need to be taken whole.

Equipment

Specially designed cups which allow drinking while keeping the chin down, cutlery, plates and non slip mats are available. An occupational therapist can advise you on this.

Tube feeding

Sometimes these strategies may not be enough to ensure an adequate dietary intake. After discussion with your doctor it may be decided to feed via a tube directly into the stomach. This is called a gastrostomy, and it can be used in conjunction with eating small amounts orally, or can be used alone.

Food and eating is central to living in terms of pleasure and socialising as well as survival, therefore eating and swallowing problems have a major impact on the person directly affected and those caring for them. It is possible to compensate for many difficulties, and support and guidance from a speech and language therapist can make the difference. **JDC**

The New Culture of Dementia Care

Edited by
TOM KITWOOD
and Sue Benson

In provision for persons with dementia we are coming to want and expect much more than was generally the case ten or twenty years ago. This book, which is based both on practitioners' experience and detailed research, sets out some of the key elements of a culture of care in which the person comes first. It has a powerful message for all who work in residential settings and day centres, as well as for the whole context of community care.

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