The 4 phases of swallowing

Oral preparatory phase

In the first phase, the oral preparatory phase, food is brought into the mouth, if necessary masticated, mixed with saliva and shaped into a food bowl (a portion ready to be swallowed, colored blue in the presentation). The oral preparation phase is voluntary, i.e. we can keep the food bowl in the mouth or chew it for as long as we like.



Oral transport phase

During the second phase, known as the oral transport phase, the tongue transports the food bolus by pressing against the palate from front to back towards the throat (pharynx). As soon as the bolus reaches the back of the tongue (around the level of the pillars of the soft palate/over the years between the oral cavity and the epiglottis), the next phase is triggered.





Pharyngeal phase

The pharyngeal phase is mainly a reflex phase. Apart from a large number of motor activities, the swallowing process is modulated by permanent sensory reactions. In other words, the swallowing program adapts to external factors such as the size or texture of the food bolus (liquid or solid).

The soft palate is raised to close the nasal cavity, so that no part of the food bolus reaches the nose. The bolus progresses down the pharynx towards the esophagus. It is also important to prevent any food bolus from entering the airways. This results in elevation of the larynx, lowering of the epiglottis over the laryngeal inlet, and closure of the ventricular bands and vocal cords. As a result, breathing is interrupted for approximately one second. At the same time, the entrance to the esophagus opens.



Esophageal phase

In the fourth phase of swallowing, the esophageal phase, the food bolus progresses through the esophagus to the stomach via peristaltic waves. At both the upper and lower ends of the esophagus, the sphincter opens in time, allowing the bolus to pass through. The transport of the food bolus through the esophagus takes place by reflex and lasts, depending on the texture of the food bolus and the age of the person, between 2 and 20 seconds.



Signs of dysphagia

Swallowing disorders are not always easy to spot. They can occur slowly or very suddenly, depending on the underlying disease. Since unrecognized dysphagia can have serious consequences, early detection is very important. Experts distinguish between direct and indirect symptoms, which can be observed during swallowing or eating.

Direct symptoms:

frequent coughing and throat clearing

a change in voice towards a "wet" voice

more difficult or "gurgling" breathing

sensation of food stuck in the throat / sensation of swallowing something the wrong way, in the "wrong hole

reduced oxygen supply and consequent blue discoloration of lips or face

Indirect symptoms include:

increased congestion of the lower respiratory tract

confused rise in temperature or spikes in fever

bronchitis or pneumonia

involuntary weight loss

Causes of dysphagia

Dysphagia can result from a number of pathologies. Neurological disease is the most common cause. Dysphagia can occur as a result of apoplexy or craniocerebral trauma. Other neurological diseases such as Parkinson's disease, multiple sclerosis, amyotrophic lateral sclerosis (ALS) or brain tumours can lead to the insidious onset of swallowing disorders. Myasthenia gravis, meningitis or certain muscular diseases such as polymyositis or muscular dystrophies can also lead to dysphagia.

Aside from neurological causes, dysphagia can also be caused by surgery, especially on the neck and cervical vertebrae, or by tumours in the mouth, neck or head. Changes in the spine or esophagus can also trigger a swallowing disorder.

The consequences of dysphagia

Swallowing disorders often lead to frustration and social isolation. They suffer because they can no longer eat their favorite food, or their constant coughing makes it difficult for them to eat or drink socially.

Dysphagia can also have significant physical repercussions.

Possible consequences include:

undernutrition or malnutrition, if nutrition is no longer sufficient or unbalanced. Malnutrition, in turn, can have a negative impact on the immune system and wound healing.

Dehydration: if the body does not absorb enough fluids, for example because of the fear of swallowing wrongly or because drinking takes too much time.

Aspiration/False routes: when food, liquid or saliva enters the lower respiratory tract. This can lead to lung infection (aspiration pneumonia) and thus to serious health risks.

Simple gestures

TIPS TO MINIMIZE FALSE ROUTES

The ideal position for meals is: seated, feet flat on the floor, head slightly bent forward.

Take small bites, pausing between each mouthful.

Eat slowly and chew.

Avoid talking while you eat.

If any food remains in your mouth after swallowing, swallow empty several times.

Give your mouth a thorough cleaning after each meal.

After each meal, wait at least 20 minutes before going to bed (to avoid reflux). (to avoid reflux).

DRINKS

Drink as much as possible. A dry mouth doesn't help swallowing. What's more, drinking helps to hydrate the mouth and prevent bacterial proliferation.

Choose beverages that stimulate swallowing: hot or cold, carbonated, tasty or naturally thick (e.g. fruit juice). Plain water (tasteless, neutral) is the most conducive to false swallowing.

Swallow one sip at a time (small, spaced-apart sips). Pause between sips.

Bend your head slightly forward (tuck in your chin) as you swallow.

It's best to have a full glass (to avoid having to put your head back).