



DIFFICULTY IN SWALLOWING

Normal Swallowing

The purpose of swallowing is to move food from the mouth to the stomach. This process is complicated by the fact that there are two channels leading downwards in the neck, one for air and the other for food and drink. The channel for air (trachea) can be felt as a rigid structure in the front of the neck while the tube for food and fluid is behind the trachea, between it and the bones of the vertebral column. During swallowing, food and fluid have to cross the opening of the trachea without entering it. If food or fluid enter the air channel it causes coughing and is felt as “something having gone down the wrong way”. This may induce choking.

During chewing the muscles of the cheeks and tongue keep the food between the teeth so that it can be crushed. When swallowing occurs, the tongue moves the mouthful of fluid or food backwards to a funnel-shaped structure (the pharynx), which leads downwards to the upper end of the gullet (the oesophagus). Simultaneously, the entrance to the back of the nose is closed by the soft palate and the entrance to the windpipe is closed partly by a flap and partly by muscular action.

The gullet is a flexible tube that extends approximately from the level of the “Adam’s Apple” to the right-hand side of the stomach in the upper abdomen. It serves two functions, to transfer fluid and food downwards, and to prevent the contents of the stomach flowing upwards. To achieve this the smooth moist inner surface is surrounded by muscle. During swallowing waves of muscular contraction (peristalsis) pass down the gullet to push the contents along, so that it is possible to swallow successfully even when the head is at a lower level than the feet. In the upright position, food and fluid tend to pass downwards under the influence of gravity so the muscular contractions are less important. When the gullet is empty, the lower and upper ends are kept closed by rings of muscle (sphincters). These relax and open on swallowing to let food and fluid through into the stomach. If the lower sphincter does not close properly, stomach contents can well up into the gullet. This condition is known as reflux.

What can go wrong?

The cheek and tongue

If the muscles on one side of the face are paralysed, food can accumulate between the cheek and the gums and may dribble out of the corner of the mouth. Difficulty in moving the tongue can interfere with movement of fluid or food to the back of the mouth.



The pharynx

Inflammation of the pharynx, such as a “sore throat”, can cause pain on swallowing.

Disorders of the nerves or muscles which control the closure of the windpipe and back of the nose can lead to fluid or food entering the airway, and thus difficulty in swallowing. This may happen, for example, after a stroke or in the condition known as motor neurone disease.

The gullet

Inflammation of the gullet may cause pain in the chest on swallowing. Prolonged inflammation due to acid from the stomach entering the lower part of the gullet can lead to scarring and narrowing, known as a “benign” stricture. A cancer can also lead to narrowing and the tumour may bulge into the open channel of the gullet.

Occasionally, the gullet is blocked by a piece of bone or other solid object that has been swallowed by mistake.

Failure of the lower end of the gullet to relax and let the food through is an uncommon form of difficulty in swallowing known as achalasia.

What symptoms can be experienced?

Discomfort in the region of the “Adam’s Apple”

A sense of discomfort, described as a “lump” or tightness in the throat, in the region of the Adam’s Apple, is common. The person feels that repeated swallowing is necessary to clear the discomfort, but in fact this does not help and may even aggravate the sensation. The characteristic of this discomfort is that it occurs between meals and the mechanism of swallowing is unaffected. Usually, no abnormality is found on investigation. Sometimes acid reflux into the lower gullet may be shown, but the relation of this to the discomfort higher up is not clear.

“Food going down the wrong way”, coughing, spluttering, choking, or recurrent chest infections. These symptoms may occur if some food or fluid enters the windpipe rather than all passing into the gullet.

A sense of blockage during a meal

If there is narrowing of the gullet, a sense that the food is held up or of blockage may be experienced after swallowing solid food such as lumps of bread or meat. Should the narrowing become progressively worse, difficulty may then be experienced with liquids



How is difficulty in swallowing investigated?

The progress of a liquid (barium) which shows up on X-rays can be studied and/or the interior of the pharynx and gullet can be observed using a flexible tube (endoscope) passed through the mouth, or occasionally the nose.

These two methods give different types of information:

- X-rays enable muscular movements and the progress of the liquid to be examined. Endoscopy enables the structure of the gullet to be observed and small fragments (biopsy) to be removed for examination if appropriate.
- Other investigations less commonly used are to measure pressures within the gullet, the amount of acid reflux from the stomach, or the rate of passage of a liquid labelled with a radio-isotope.

What treatments are available?

A sense of a lump in the throat, when investigations show no abnormality, is usually a harmless nuisance. It may be helped by deliberately resisting the urge to swallow repeatedly, for example by holding a pencil or similar object between the teeth.

Malfunction of the nerves or muscle of the pharynx is usually one aspect of an illness also affecting other parts of the body, such as a stroke. Infections of the pharynx or gullet are treated by appropriate drugs.

Narrowing of the oesophagus due to acid reflux can be treated by stretching using an endoscope (dilatation), often supplemented by measures to reduce the amount of acid secreted by the stomach.

Achalasia can be treated by dilatation or by surgery.

Cancer of the gullet is treated when possible by surgery or radiotherapy.

Other measures such as laser treatment or passage of a special tube to keep the gullet open may be used

When should you see your doctor?

If difficulty in swallowing is a new and persistent symptom for which there is no obvious explanation it should be investigated as soon as possible to exclude a serious cause.

