



# Living with Dysphagia

**Difficulty in swallowing**  
Identifying and managing the symptoms



**NestléHealthScience**

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## **Sponsored**

Nestlé Healthcare Nutrition

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## >> Forward

Swallowing is as necessary to your life as breathing.

Under normal circumstances, we depend on swallowing in order to get the nutrients we need to live. Indeed we swallow, on average, 1200 times each day without even thinking about it.

However, for some people this function is seriously impaired by a condition called Dysphagia.

Dysphagia is the medical term for any symptom of swallowing difficulty. It is estimated that more than 5% of the general population has some degree of swallowing impairment.

Greater recognition of this serious medical condition is needed for a variety of reasons – the condition can result in great distress for those affected; inadequate hydration and nutrition, as well as life-threatening infections in the lungs.

This booklet has therefore been developed to assist those adults living with and those caring for people with Dysphagia. It was felt to be important as many people with mild Dysphagia may be unaware that they have a problem, or may be putting up with quite severe symptoms and not realise that there is a lot that can be done to help them.

The booklet has had input from a range of expert Health Professionals involved in the daily management of Dysphagia, and we would welcome feedback on its usefulness.



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## >> Contents

### Definitions and symptoms

Swallowing process	2
What is Dysphagia?	3
Causes of Dysphagia?	4
Who does it affect?	4
How is Dysphagia diagnosed?	5

### Quality of life

Risk factors & problems associated with Dysphagia	8
How do you manage Dysphagia?	10

### Support

Managing life with Dysphagia	16
How can family and friends help?	16
Who can help?	16

Glossary	23
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## Definitions and Symptoms

## >> Swallowing process

Swallowing takes place in three stages, involving more than 25 different muscles and six different nerves. It is a quick and continuous process but is often described as occurring in a number of stages.

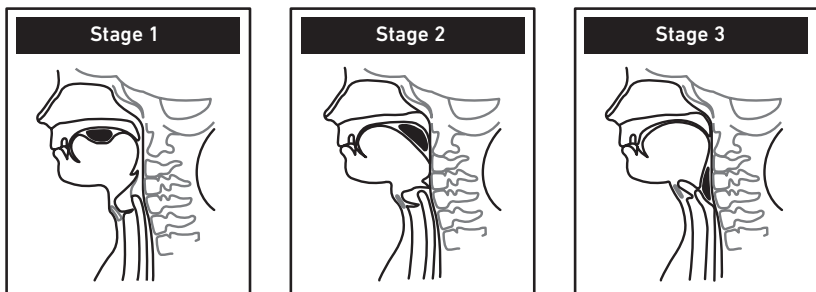
### > Normal swallowing

**Stage One:** Food is bitten, chewed, mixed with saliva and formed into a mass that can be easily swallowed. The tongue then moves the food to the back of the mouth.

**Stage Two:** The food mass passes from the back of the mouth into the throat (pharynx) and into the food passage (oesophagus/or gullet).

The muscles of the throat squeeze the food mass towards the upper part of the food passage. At the same time, the soft palate closes preventing food or fluid from entering the nose. The voice box (larynx) moves forward and upwards to prevent any food or liquid passing into the airway.

**Stage Three:** The food mass moves down the food passage, into the stomach. At the bottom of the food passage is a valve, which is normally closed to prevent acid from the stomach moving into the food passage. The valve has to relax briefly to allow food to pass into the stomach.



## >> What is Dysphagia?

Dysphagia is the medical term for any symptom of swallowing difficulty. It may be due to problems with the tongue, the roof of the mouth, muscles of the throat, the food passage or its valves.

Dysphagia varies in severity. Some people may be unable to swallow anything at all; others may have trouble swallowing liquids, foods, or saliva. For people with Dysphagia eating or drinking is difficult. They may not be able to take in enough food and fluids to nourish and hydrate their body. It may lead to malnutrition, dehydration, pneumonia and even death.

People with Dysphagia may be reluctant to admit they have a problem or may be unaware of it.

Symptoms of dysphagia include:

- Difficulty chewing
- Needing several attempts to swallow
- Feeling of food sticking in the throat or in the chest
- Frequent coughing and spluttering during or immediately after eating or drinking
- Persistent throat clearing
- Excessive saliva production or inability to swallow saliva when eating
- Food falling out of the mouth when eating or drinking
- Unplanned weight loss

## >> Causes of Dysphagia?

Dysphagia has many causes. It can be temporary or long term condition.

## >> Who does it affect?

Listed below are some causes of Dysphagia:

### > Neurological

- Cerebrovascular Disease (Stroke)
- Traumatic brain injury
- Brain tumour
- Dementia
- Parkinson's Disease
- Motor Neurone Disease
- Myositis (inflammation of muscle)
- Myasthenia Gravis
- Huntington's Disease
- Multiple Sclerosis
- Cerebral Palsy
- Developmental disability including chromosomal and congenital syndromes

### > Mechanical

- Cancer
- Tracheostomy
- Pharyngeal pouch, Zenker's diverticulum
- Dysfunction of the oesophageal sphincters
- Pharyngeal and oesophageal webs
- Oesophageal disorders including gastro-oesophageal reflux

### > Surgery or radiotherapy

- Head and neck surgery – including oral surgery, partial and total laryngectomy, radiotherapy to the head or neck

### > Medication

- Sedatives
- Antipsychotics
- Chemotherapy

## >> How is Dysphagia diagnosed?

A number of Health Practitioners are involved in diagnosing and managing Dysphagia. These may include but are not restricted to:

### > General Practitioners

When a person suspects that they have a swallowing problem they should discuss this with their GP. A GP will begin the assessment process to determine the cause of the swallowing problem. The GP will often co-ordinate management between all the specialists involved and has a key role in monitoring management.

The GP may arrange some tests to aid in diagnosis, depending on the symptoms presented (e.g. barium swallow, modified barium swallow), and may at this stage refer the person to a specialist for further investigations. The referral might be to a Speech Pathologist, Neurologist, Surgeon or Gastroenterologist depending upon the type of Dysphagia suspected.

### > Speech Pathologist

Speech Pathologists have a pivotal role to play in the assessment and management of oral-pharyngeal Dysphagia. The role of the speech pathologist is to diagnose and manage the swallowing difficulty. This includes taking a case history, examining the oral structures, conducting an assessment of the muscles of the mouth and throat and doing a mealtime assessment. Other assessments that may follow include a modified barium swallow (x-ray of the swallowing process while the person is eating or drinking).

Once the person has been fully assessed the speech pathologist will develop a management plan tailored to an individual's needs. Speech Pathologists liaise with other team members to ensure holistic management, and are involved in educating people with Dysphagia and their family on how to manage the condition.

### > Gastroenterologist

The Gastroenterologist predominantly assesses the oesophageal phase of the swallow. Following their assessment they will decide whether further assessment is required. This may include an x-ray test (barium swallow) or endoscopy/gastroscopy. In some cases a surgical procedure may be required to treat the condition causing the dysphagia.

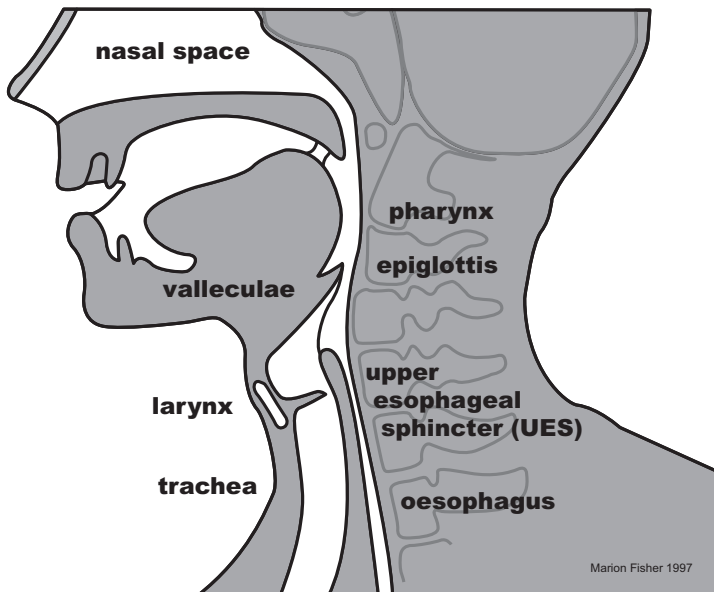
## > Dietitian

The Accredited Practising Dietitian (APD) provides nutritional assessment, monitoring and a management plan for people with swallowing difficulties, whilst working closely with other health professionals. This helps the person with Dysphagia to meet their nutrition and fluid needs while enjoying food variety and nutritionally balanced and safe meals.

The Dietitian advises on the most appropriate form of nutrition, and provides guidance on the need for vitamin and mineral supplements and commercial and non-commercial food supplements. The Dietitian may give advice on other diets such as high energy, high protein, diabetic, low lactose or high fibre as needed. The Dietitian can also assist with shopping tips, menu planning and food preparation to increase variety and help achieve a healthy diet.

## > Other Team Members

May include Nurses, Ear Nose and Throat Specialist and Surgeon, Neurologist, Respiratory Specialist, Dentist, Chemist/Pharmacist, Occupational Therapist and Physiotherapist.





**Quality of Life**

## **>> Risk factors & problems associated with Dysphagia**

If Dysphagia is not identified or managed properly it can affect a person's quality of life. Together with the patient, the Dysphagia health care team aims to minimise the health risks of Dysphagia whilst still providing essential nutrition. This includes maintaining adequate hydration and nourishment whilst encouraging food enjoyment and safe swallowing.

### **> Malnutrition**

People who have Dysphagia may not be able to eat a balanced and nutritionally adequate diet. This may be due to difficulty communicating their food preferences or dependence upon others for help with eating, cooking and/or shopping. The person may limit the variety in their diet, selecting only the foods that are easy to swallow. In addition slow eating and the extended time taken to complete meals may also contribute to malnutrition.

As a result, the person may not receive all the nutrition they need to maintain a desirable weight. It is recommended that a GP or other health care team member monitors weight and that a Dietitian is consulted to provide advice on maintaining or gaining weight and to ensure the person is receiving an adequate diet.

### **> Dehydration**

In some types of Dysphagia, liquids can be the hardest to swallow. This can lead to not enough fluids being consumed and may result in dehydration and/ or constipation. Sometimes, fluids may need to be thickened to make swallowing easier. This should only be done if recommended by a Speech Pathologist. Dehydration can also occur because of drooling, which may result from a coexisting or additional disease. Thus fluid needs may be much higher than usual.



## > Aspiration

Aspiration occurs when food, fluid, saliva or stomach contents enter into the airway. This can happen to anyone, regardless of whether they have Dysphagia or not. The body's natural response is to cough. Coughing clears the airway and prevents material from entering the lungs. Aspiration is a concern when a person cannot cough or can only cough weakly. "Silent Aspiration" where even though the food and fluid has gone down the wrong way, the person doesn't cough at all and the only indicator may be recurring chest infections. It is also a concern when a person aspirates frequently or in large amounts. In these instances, "aspiration pneumonia" may result.

If you think you or someone you care for may have any or all of the above problems, please discuss this with a Doctor as soon as possible.

## > Oral Hygiene

Oral hygiene is important for stimulating saliva flow and taste. It is essential that the mouth and teeth are cleaned after meals as food residue in the mouth can be inhaled posing a choking risk after the meal has finished.

Research shows that poor oral care can increase the harmful bacteria in the saliva, which if aspirated, can lead to pneumonia. Painful gums and teeth can also affect the ability to chew. Everyone should have ongoing oral care, regardless of whether they only eat small frequent meals, have only a few teeth or only dentures. Even if a person receives most of their nutrition through a tube, regular oral care is important. Regular visits to the dentist and an oral care plan will help to reduce complications.

## >> How do you manage Dysphagia?

The way in which Dysphagia is managed depends on the cause of the dysphagia; that is, whether the swallowing difficulties are related to the mouth and throat or to the oesophagus. There are many successful treatment and management alternatives available. In some cases, treatment may not cure the Dysphagia but will improve a person's ability to eat and drink safely.

Some issues can be dealt with easily. If chewing is difficult because of loose dentures, consultation with a Dentist may be all that is required.

Sometimes it is advisable to change the texture of the diet, alter seating and positioning during meals, or use special cutlery or crockery. A set of techniques or exercises may also be recommended.

If narrowing of the food passage is identified, this can nearly always be treated successfully by stretching the oesophagus with an instrument at the time of gastroscopy. In severe cases where these recommendations do not help and nutrition and hydration are compromised, a feeding tube may be inserted directly into the nose or the stomach to provide the fluids and/or nutrition.

It is always recommended that a person with swallowing difficulty have an individual plan developed. Listed below are some of the recommendations that may be made.

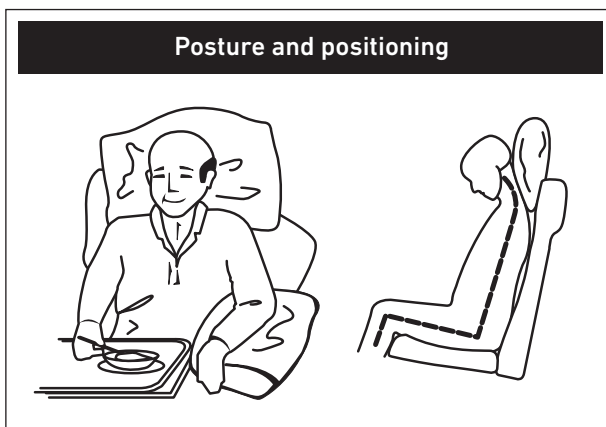
## 1. Posture and positioning

Correct positioning is one of the simplest yet most effective forms of management for people who have swallowing problems. Correct positioning helps to protect the airway from aspiration and helps improve swallowing and breathing efficiency. An Occupational Therapist or Physiotherapist may be involved in helping a person achieve good positioning.

Some general principles include:

- Ensure the person is sitting up as straight as possible with shoulders level.
- The person should be comfortable with their head tilted slightly forward when eating or drinking.
- If food feels like it is sticking in the food passage / chest area, for even a short time, getting up and stretching may help the food to slip down into the stomach.

Other changes to head position may be recommended as part of an individual management plan. For this reason it is important to follow any professional guidelines provided.



## 2. Eating environment

Creating a positive mealtime environment can be a simple but effective way to assist the person experiencing swallowing difficulty. Some of the following ideas are worth considering.

- Where possible allow the person to eat independently. A range of adaptive equipment is available. An Occupational Therapist can advise on what is most suitable.
  - Ensure that the person can reach food and fluids.
  - Ensure that a patient who is at risk of coughing and choking or aspirating is not left to eat on their own.
- Make sure there is plenty of time to eat so the person is not rushed.
- Provide a peaceful and quiet surrounding that enables the person to relax.
- If the person appears tired allow for short rests, they may be able to start again.
- If the person has dentures, make sure they fit properly.
- To reduce the risk of reflux, eat the main meal approximately two to three hours before going to bed.

## 3. Food and drink modification

Changes to food texture may assist in the management of Dysphagia. The appropriate consistency of food for each person will depend on the type and severity of Dysphagia. Food may need to be chopped or blended after specific recommendations are made by a speech pathologist. A dietitian can explain in greater detail how the different foods and meals can be modified.

Some general principles for texture modified foods include:

- Make sure the food looks as appetising as possible.
- Puree, and serve meat and vegetables separately, so they look appetising and can be appreciated for their own particular tastes.
- Use deep-coloured vegetables such as broccoli and sweet potato or carrot and pumpkin, to enhance appeal.
- Make sure the food is not too solid or sloppy. In some cases food may need to be chopped or cut up. Textures must be tailored to suit individual needs.
- Serve foods at the correct temperature as this maximises taste.

- Ensure a variety of foods are eaten from all food groups.
- Changing the size of the mouthful (reducing it or increasing it according to the person's needs) may help.
- Encourage intake of fluids (thickened or thin as recommended by the Speech Pathologist).

Thickening of fluids is an example of texture modification. Thickening of fluids may increase swallowing difficulty in some conditions. Altering the consistency of fluid or texture of food should only be done after a speech pathology evaluation.

For people on long term texture modified diets it is recommended that they are regularly monitored by their Doctor and a Dietitian, to ensure that they are eating a well balanced and nutritionally adequate diet.

For further details on texture modified drinks available please contact your local Nestlé Healthcare Nutrition representative or phone 1800 671 628 (toll free Australia).

## **4. Assisting someone to eat**

Some people may be unable to eat independently and will require assistance with eating. Recommendations should be tailored to suit the needs of the individual. Below are some general tips that will assist in feeding someone:

- Do not rush or hover over the person.
- Sit in front of the person so they can see you. This also promotes good positioning for the person you are assisting.
- Let the person see and smell the food before you start feeding and describe it to them if they cannot see it.
- Experiment with different amounts of food, some people do better with teaspoon amounts, other with larger quantities.
- Place food in the middle of the mouth on the front third of the tongue and push the tongue down to prevent the tongue getting in the way of swallowing. Others will find it easier to eat if food is placed into the side of the mouth.
- Encourage the person to close their lips when swallowing.
- Ensure the mouth is empty before offering next portion.
- Ensure the person is upright for at least 20 minutes after they have finished their meal.

## 5. Proper utensils for safe eating

There are a number of specialised utensils that have been developed to assist carers and people with Dysphagia at mealtime. Plate guards and scoop bowls may allow a person to remain independent and eat by themselves.

Built up handles for forks and spoons are useful for people eating independently who have a poor grip. Devices such as slings, arm and finger cuffs can all be useful to promote independence. Modified cups assist individuals so that they do not have to tip their head as far back to get the drink into their mouth. Referral to an Occupational Therapist will assist individuals to choose appropriate utensils and a Physiotherapist can assist in advising on correct positioning of the patient.

## 6. Rehabilitation and Compensatory techniques

In addition to some of the other strategies mentioned, the Speech Pathologist may recommend techniques to improve or assist with swallowing. These may include exercises to strengthen the muscles used in swallowing, changes to head position, use of biofeedback devices or techniques to assist with swallowing. Discuss these options with your speech pathologist.



**Support**

## >> Managing life with Dysphagia

Dysphagia management requires the expertise of a multi-disciplinary team. There are often a number of members in the team that work together to improve the quality of life of those who have Dysphagia.

Members may include Doctors, Speech Pathologists, Dietitians, Dentists, Pharmacists, Nurses and Specialist Doctors such as Ear, Nose and Throat Specialists and Surgeons, and Neurologists. Occupational Therapists and Physiotherapist may also be involved in the treatment process.

## >> How can family and friends help?

Carers are family members, friends or neighbours who support a person. You might provide care to your spouse or partner, son or daughter, parents, parents-in-law, grandparent, other family, neighbour or to a friend.

Regardless of how you became a carer, you are about to take on a new role for which you may not feel prepared.

It is normal for you to feel nervous or overwhelmed about what is expected of you.

You may experience a number of mixed emotions including anxiety, anger, and sadness. At the same time, you'll probably feel the desire to care for your loved one as best as you can. Carers should be reassured and acknowledged for their efforts in managing feeding and swallowing problems.

## >> Who can help?

### > Service Providers

There are a number of service providers that assist carers and those with Dysphagia to make living with Dysphagia easier.

#### **Eurest Food Services**

Eurest is an outsourcing food service made up of a specialised team that provides services to high-and low-care facilities, serviced apartments and residents with varying degrees of dementia.

Phone: (02) 9371 7766 (Head Office)

**[www.eurest.com.au](http://www.eurest.com.au)**



### **Australian Meals on Wheels Association**

Meals on Wheels services are operated by a combined staff and volunteer workforce delivering nutritional meals to frail, aged people; people with a disability; and their carers. The volunteers provide meals, social contact and monitor a client's general health and wellbeing.

The Australian Meals on Wheels Association promotes the concept of 'care in the community' and encourages and supports the involvement of volunteers in the provision of the Meals on Wheels service in Australia.

Phone: (07) 3221 9841

**[www.mealsonwheels.org.au](http://www.mealsonwheels.org.au)**

### **Nestlé Healthcare Nutrition**

Nestlé Healthcare Nutrition provides nutritional supplements including a range of thickened fluids and thickeners.

Phone: 1800 671 628 (toll free Australia)

**[www.nestlehealthscience.com.au](http://www.nestlehealthscience.com.au)**

### **Blue Care**

Blue Care is one of Australia's largest providers of community health and residential aged care. Services include allied health services, Blue Nursing, community care packages, disability services, palliative care, pastoral care and counselling, residential care services, respite care, volunteer services.

Blue Care services are available from 250 service centres throughout Queensland and northern New South Wales, from Mosman in far north Queensland to the Tweed Coast, from Longreach and Mt Isa in the west to the east coast.

Phone: 07 3377 3377

**[www.bluecare.org.au](http://www.bluecare.org.au)**

## > Support

There are a number of Associations, professional and volunteer groups throughout Australia who can support both carers and those with Dysphagia. Here is a list of just some of the groups that offer information, services and support.

### **Carers Australia**

There is a Carers Association in each State and Territory. They provide information, referral and support on all aspects of caring through the **Commonwealth Carer Resource Centre** 1800 242 636 (freecall) which is located in their offices.

The association is able to send you a free Carer Support Kit and can answer questions about:

- financial entitlements and legal matters;
- disability/illness specific information;
- where your local carer support group is;
- how to access community services and equipment;
- types of respite and where to get training courses for carers; and
- how we assist with getting or improving services if you are having problems.

Telephone staff provide a supportive ear so that you can talk about how caring is affecting you. Carers Australia lobby and represent carers' interests to government.

Phone: 1800 242 636

**[www.carersaustralia.com.au](http://www.carersaustralia.com.au)**

### **Cerebral Palsy Association**

The Australian Cerebral Palsy Association works towards enhancing the lives of people with cerebral palsy and other similar disabilities by providing a national focus and leadership in areas of identified needs, such as community education, advocacy, service provision and standards. Membership with the association will provide you with access to a network of people through regular meetings and conferences. In addition, you will receive a quarterly newsletter called "ACtion Packed" outlining a range of initiatives, issues and activities across Australia.

Phone: 1300 302 920 (CP support and information helpline)

**[www.cpaaustralia.com.au](http://www.cpaaustralia.com.au)**

### **Dietitians Association of Australia (DAA)**

DAA leads the way to better nutrition. Everyone needs good nutrition. What each of us eats for health and enjoyment varies with our needs and taste.

If you need an expert for food and nutrition advice, look for an Accredited Practising Dietitian (APD). APDs are committed to keeping up-to-date and providing quality service. To locate an APD near you, use "Find an Accredited Practising Dietitian (APD)" on the DAA website <http://www.daa.asn.au/>, check the Yellow Pages or call the APD Hotline on 1800 812 942.

Phone: 1800 812 942

**[www.daa.asn.au](http://www.daa.asn.au)**

### **Disability Service Commission (Western Australia only)**

The primary focus of the Disability Services Commission is to make a positive difference to the lives of people with disabilities, their families and carers.

The commission provides leadership in:

- supporting local communities in welcoming and assisting people with disabilities, their families and carers;
- achieving access to quality support and services for people with disabilities;
- protecting the rights of people with disabilities who are especially vulnerable; and
- supporting them to live a full and valued life.

Phone: (08) 9426 9200

**[www.disability.wa.gov.au](http://www.disability.wa.gov.au)**

### **Motor Neurone Disease Association of Australia**

This site provides treatment advice on the many symptoms associated with Dysphagia.

The association holds carers meetings and provides outreach workers that provide advice, and refers carer and patients to appropriate health professionals.

Phone: Toll free 1800 777 175

**[www.mndaust.asn.au](http://www.mndaust.asn.au)**

### **MS Society of Australia**

Multiple Sclerosis Australia provides specialist services for people with MS, their families, friends and carers around Australia. MS Australia is committed to enhancing the quality of life of people with Dysphagia and reducing the impact of Dysphagia on families and carers.

The society provides:

- a Toll free information line that answers questions regarding any aspect of living with MS
- Peer support groups
- an On-line library – includes latest research on MS and associated conditions.

Phone: Toll free 1800 042 138

**[www.msaustralia.org.au](http://www.msaustralia.org.au)**

### **National Stroke Foundation**

The National Stroke Foundation is a not-for-profit organisation that works with government, Health Professionals, patients, carers and consumers to minimize the impact of stroke on the Australian community.

There are a number of stroke support groups and carer groups, which you and your family may wish to contact. You can find out more about these by contacting your local state Stroke Foundation or calling the National Stroke Foundation.

Phone: Freecall 1800 stroke (1800 787 653)

**[www.strokefoundation.com.au](http://www.strokefoundation.com.au)**

### **Parkinson Association**

Parkinson Australia provides members with:

- information packages and other printed materials;
- telephone hotlines;
- counselling;
- national magazine and state newsletters;
- a comprehensive library of books, videos and audio tapes;
- support group activities; and
- in service training and education for Health Professionals.

Phone: Toll free 1800 644 189

**[www.parkinsons.org.au](http://www.parkinsons.org.au)**

**Speech Pathology Australia**

Speech Pathology Australia is able to provide a directory of speech pathology practitioners who can provide support and guidance to carers of people with Dysphagia. A Speech Pathologist will be able to provide specialised management and advice regarding the best way to help a person with a communication/swallowing disability, and tailor a treatment program to suit individual needs.

Phone: (03) 9642 4899 (Head Office)

**[www.speechpathologyaustralia.org.au](http://www.speechpathologyaustralia.org.au)**

**> International Resources**

The following resources provide people living in Australia with an extensive number of international resources to access and learn more about Dysphagia and possible treatments.

**American Speech-language-Hearing Association**

ASHA provides advice from children and adults living with Dysphagia. The website includes information on what is Dysphagia, the causes, symptoms, affect and treatments available.

**[www.asha.org/default.htm](http://www.asha.org/default.htm)**

**Dysphagia Online**

Designed especially for people who have Dysphagia, their carers and Physicians.

**[www.dysphagiaonline.com](http://www.dysphagiaonline.com)**

**Dysphagia Resource Centre**

Provides links to an abundance of web site that contains information regarding swallowing and swallowing disorders.

**[www.dysphagia.com](http://www.dysphagia.com)**

**National Institute on Deafness and other Communication Disorders (NIDCD)**

The institute website provides people with Dysphagia and their carers with information on Dysphagia, the problems associated with it and resources to assist in managing it.

**[www.nidcd.nih.gov](http://www.nidcd.nih.gov)**



## Glossary

## **Barium Swallow**

The organs of the digestive tract do not normally show up on x-ray, however, by swallowing a liquid mixture containing barium sulphate the organs of the digestive tract can be observed.

A barium swallow test is used to help diagnose swallowing and/or reflux problems. After swallowing the barium mixture, x-ray images are taken of the pharynx (throat) and the oesophagus (the passageway that connects your throat to your stomach; sometimes called the gullet).

## **Barium Meal Test**

In a barium meal test, x-ray images are taken of the stomach and the beginning of the duodenum (the beginning of the small intestine, the passageway that takes food away from the stomach).

A barium meal test is often performed straight after a barium swallow test.

## **Gastro-oesophageal Reflux**

Gastro-oesophageal reflux (GORD or GERD) refers to the return, or reflux, of the stomach's contents back up into the oesophagus. GORD will eventually damage the oesophagus by bathing it in stomach acid. It is a very common condition. Doctors estimate that at least 25 per cent of all Australians have symptoms of reflux at least occasionally.

## **Gastroscopy**

Gastroscopy is an examination of the upper digestive tract (the stomach and duodenum) using an endoscope – a long, thin, flexible tube containing a camera and a light to view the lining of these organs.

## **Laryngectomy**

Laryngectomy involves surgical removal of the whole (total laryngectomy) or part (partial laryngectomy) of the larynx.

## **Larynx**

Voice box

## Modified Barium Swallow (MBS)

A radiographic assessment similar to the Barium Swallow, however in this examination the mouth, throat and oesophagus are viewed. As in the Barium Swallow, barium sulphate is mixed with food and then the swallowing process is observed via x-ray. Also known as a MBS, this common assessment is conducted jointly by a speech pathologist and radiologist. It will assist in the diagnosis and the development of a plan to manage the Dysphagia.

## Myasthenia Gravis

Myasthenia Gravis is a chronic muscle disease that produces weakness and abnormally rapid fatigue of muscles.

## Oesophageal Sphincters

Where the throat joins the oesophagus there is a one-way valve which Doctors call a sphincter. Under normal circumstances this sphincter lets food from the throat down into the oesophagus but doesn't let it back up.

At the other end of the oesophagus, where it joins onto the stomach, there is another sphincter (the lower oesophageal sphincter). This allows food to pass into the stomach and, under normal circumstances, prevents it from returning to the oesophagus again.

## Oesophageal Stricture

An oesophageal stricture is a narrowing of the oesophagus, which can lead to swallowing difficulties. Strictures are caused by scar tissue that may build up when the lining of the oesophagus is damaged. Gastro-oesophageal reflux disease can lead to scar tissue formation. Repeated exposure of the oesophagus to stomach acid causes inflammation and damage and scarring to the sensitive lining of the oesophagus.

## Oesophagus

The oesophagus is the tube that connects the throat to the stomach. Food is pushed down the oesophagus by a series of muscle contractions.



## **Oral-pharyngeal Dysphagia**

Oral-pharyngeal Dysphagia is a difficulty swallowing food or liquid and is a common feature in a variety of acute and chronic illnesses, including stroke, traumatic brain injury, oral-pharyngeal cancer, developmental delay or disability and a myriad of degenerative neuromuscular diseases.

Swallowing impairment can result in a number of medical complications including malnutrition and dehydration, compromised immune system, pneumonia and potentially death.

Common underlying reasons for Oral-pharyngeal Dysphagia include weakness of the muscles of the lips, tongue, palate, pharynx and esophagus, in-coordination of muscle movements, surgical removal of tissue and decreased sensation of the mouth and throat.

## **Pharyngeal Pouch**

Pharyngeal pouch (or Zenker's diverticulum) describes a condition in which swelling causes the pharyngeal wall to protrude between two cartilage layers to form a small sac-like structure. Instead of food passing down from the pharynx into the oesophagus, it enters the pouch and is sometime later regurgitated, so that undigested food appears in the throat sometime after a meal. This condition requires corrective surgery.

## **Pharyngoscope**

An endoscope designed specifically for the examination of the pharynx.

## **Pharynx**

The pharynx is the space behind the mouth that serves as a passage for food from the mouth to the esophagus and for air from the nose and mouth to the larynx. It is lined with a mucous membrane and has three subdivisions: nasopharynx, oropharynx, and laryngopharynx.

## **Reflux**

See gastro-oesophageal reflux.

## Soft Palate

The soft palate is the soft part of the roof of the mouth and consists of a muscular flap that closes off the nose from the pharynx during swallowing or speaking.

## Trachea

The trachea or windpipe is the tube that connects the larynx with the lungs.

## Tracheostomy

A tracheotomy is a surgical procedure in which a cut or opening is made in the windpipe (trachea). The surgeon inserts a tube into the opening to bypass an obstruction, allow air to get to the lungs, or remove secretions. The term tracheostomy is sometimes used interchangeably with tracheotomy. Strictly speaking, however, tracheostomy usually refers to the opening itself while a tracheotomy is the actual operation.

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