

# Speech and language difficulties

**Living with a brain tumour**



**It's important to remember** that if you have speech and/or language difficulties, you:

- Are still an intelligent person
- Know what you want to say
- Can still make your own decisions.



**CARE CAN'T WAIT**

If you'd like to talk to someone about how you're feeling, or would like to find out where you can get further support (including details of support groups), you can contact The Brain Tumour Charity's Information and Support Team:

Phone: **0808 800 0004**

(free from landlines and most mobiles)

Email: **[support@thebraintumourcharity.org](mailto:support@thebraintumourcharity.org)**

Live chat: **[thebraintumourcharity.org/live-chat](https://thebraintumourcharity.org/live-chat)**

Website: **[thebraintumourcharity.org/getsupport](https://thebraintumourcharity.org/getsupport)**

Closed Facebook groups:

**[thebraintumourcharity.org/facebook-support](https://thebraintumourcharity.org/facebook-support)**

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# Introduction

Being able to speak and understand what is being said to us is essential to communication. It allows us to express ourselves, to understand others and plays a large part in being independent in our personal and professional lives.

Brain tumours and their treatment, if they affect the parts of the brain involved in speech and language, can interfere with this.

Not everyone who has a brain tumour will experience speech and language difficulties, but when they occur, they can make you feel frustrated, angry, embarrassed and isolated from the people around you.

Understanding what speech and language difficulties you may face and tips for dealing with them, can help people affected by a brain tumour (and those around them), to feel more in control and so reduce these feelings.



# What are speech and language difficulties?

Speech and language are different. An individual can have difficulties with either speech or language or both.

Sometimes these terms can get confused, and you may think you have a speech problem, when actually it's your language that has been affected.

**Speech** is the physical ability to produce individual sounds and words. Speech is how we use our tongue, lips, jaw muscles and vocal tract to produce sounds.

So speech difficulties mean you find it physically difficult to speak. This can be due to the brain tumour affecting the control or co-ordination of the muscles involved in speaking.

**Language** is the words we use and how we use them to communicate meaning, e.g. how we put words together or what words mean. Language can be written or spoken.

So language difficulties (known as aphasia) mean you find it cognitively (mentally) difficult to:

- produce language (speak)
- understand language (comprehension)
- read and/or write.

# Speech difficulties

There are a range of speech difficulties that can occur as a result of a brain tumour. The nature of the speech difficulty will depend upon the type, size and location of your tumour.

## Dysarthria

Dysarthria is a speech difficulty caused by weakness in the muscles needed for speaking and/or difficulty in controlling these muscles.

Acquired dysarthria can result from a range of neurological disorders, including brain tumours. This is due to the muscles needed for speech being controlled by the brain and nervous system.

Common symptoms of dysarthria include:

- Hesitant or slow sounding speech
- Slurred speech
- An increase or decrease in speech volume
- Strained voice
- Poor intonation, e.g. a monotone quality.
- Nasal-sounding speech.

# Apraxia of speech

When we speak, the brain sends signals to our mouth to tell the muscles how and when to move. A brain tumour can prevent the signals from getting through properly. This can mean that the particular movements needed to be able to speak don't always happen as you intend.

Common symptoms of apraxia of speech include:

- Slow sounding speech
- Effortful attempts at trying to move the lips, tongue or a jaw (sometimes called groping)
- Unable to pronounce the same word correctly each time
- Difficulty with longer words
- Difficulty saying individual sounds.  
This could include adding new sounds to words, omitting sounds or pronouncing the sounds incorrectly.





## Language difficulties (aphasia)

### What is aphasia?

Aphasia is an impairment of language due to damage to the brain. It affects the production or comprehension of speech and the ability to read or write.

Aphasia is sometimes called dysphasia. The two words are often used interchangeably, though aphasia is now more commonly used by healthcare professionals.

(Technically aphasia means the complete lack of language, whereas dysphasia means problems with language. However, aphasia is now used to mean any degree of language impairment.)

**It's important to know that aphasia, on its own, does NOT affect intellect.**

**Unfortunately, people often think it does.**





## **What type of language difficulties (aphasia) might I have?**

The type of aphasia you experience will depend upon which part of your brain and how much of it's affected.

Each section or lobe of the brain is responsible for different functions, some of which are involved in language. (See diagram on next page.)

For example, the frontal lobe, in particular the Broca's area, is involved in language production. This includes both speaking and writing.

And the temporal lobe, in particular Wernicke's area, is involved in understanding language. This involves both comprehension and reading.

As a result, if your tumour is in one of these lobes, the pressure the tumour is causing on that part of your brain, may affect your language skills.

(Producing language is sometimes called expressive communication. Understanding language is sometimes called receptive communication.)

## Parietal lobe

Co-ordinating sensory information  
(taste, smell, touch, sight, hearing, temperature, pain)  
Perception  
Spatial relationships  
(hand-eye co-ordination, recognising body position, judging distances, moving between objects)  
Recognising faces or objects  
Responding to internal sensations  
(hunger, pain, temperature, illness)

## Occipital lobe

Sight  
Understanding what you see

## Cerebellum

Co-ordinating voluntary movement

## Brain stem

Alertness  
Breathing  
Digestion  
Heart rate  
Blood pressure  
Circulation  
Swallowing

## Frontal lobe

Executive functions  
(planning, organising, problem solving, decision-making, reasoning)  
Attention and concentration  
Thinking speed  
Personality  
Memory and learning  
Emotional and impulse control  
Understanding social situations and behaving appropriately

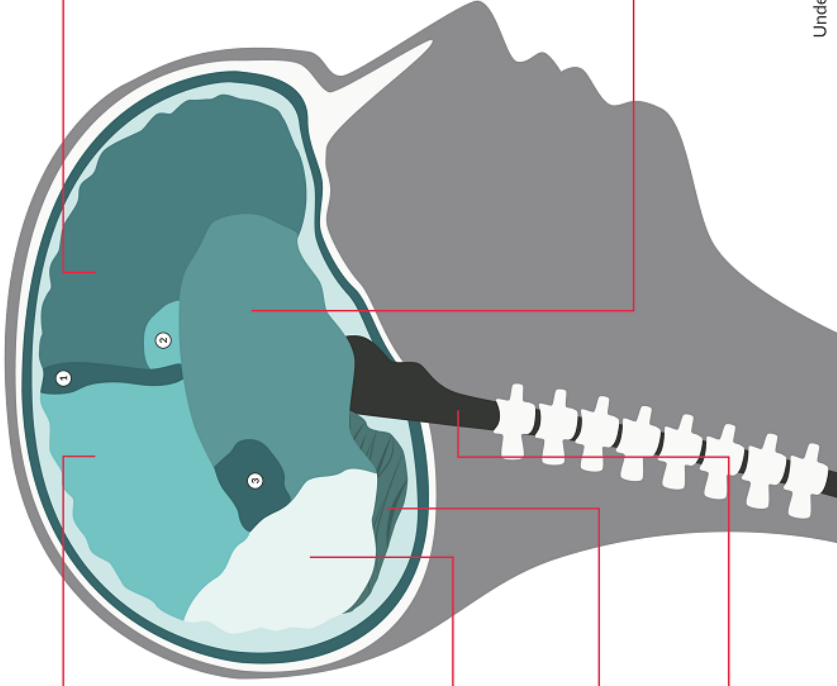
① **Primary motor cortex**  
Control and co-ordination of movement

② **Broca's area**  
Speaking fluently and with meaning

## Temporal lobe

Hearing  
Memory and learning new information  
Recognising objects or faces  
Identifying emotions in others

③ **Wernicke's area**  
Understanding language and speech



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Brain tumour symptoms by location. See:  
[thebraintumourcharity.org/brain-tumour-signs-symptoms/brain-tumour-location-symptoms/](https://thebraintumourcharity.org/brain-tumour-signs-symptoms/brain-tumour-location-symptoms/)

The brain is also divided into two hemispheres – left and right. The side on which your tumour is located, as well as the lobe, can affect the type and likelihood of language effects.

For example, if your tumour is located in the left hemisphere, you're more likely to experience speech and language difficulties, as this is where the language areas are generally found.

(It's important to note that this is particularly true for right-handed people. For some right-handed and more left-handed people, their speech and language control may be in the right hemisphere. In this case speech or language is less likely to be affected by a tumour in the left hemisphere.)



## Producing language (speaking and writing)

*Difficulties with producing language are also known as Broca's aphasia or expressive aphasia.*

Expressive communication includes verbal language (speech) and non-verbal language (gestures and facial expressions). It's used to put our thoughts into words, sentences and gestures, so they make sense to other people. It also includes writing.

Expressive/Broca's aphasia is separate from speech difficulties caused by damage to the parts of your body involved in producing speech, e.g. your mouth, tongue, larynx (voice box) etc. (See the **Speech difficulties** section of this fact sheet on page 6.)

If you have Broca's aphasia you may have difficulty finding words and speak using only a small number of words in halting sentences, for example "want ... tea ... sugar".

It's usually possible for other people to understand much of what you say, but it may take you some time to say what you want to say. This can be frustrating.

People with Broca's aphasia may:

- Not be able to speak at all
- Have difficulties speaking or writing in full sentences and may only use one or two words
- Make spelling or grammatical errors when writing
- Speak with pauses or not be able to say the word they would like to say
- Get words muddled up (for example saying "mother" instead of "daughter") and confuse "yes" and "no"
- Be able to describe an object, but not name it
- Only be able to say a few words, which may be linked to emotions and could be swear words.



**If you have Broca's aphasia, you may not always be aware that your speech isn't as you intend, but you'll be aware that you have a language difficulty.**

## Understanding language (comprehension and reading)

*Difficulties with understanding language are also known as Wernicke's aphasia or receptive aphasia.*

Receptive communication includes listening and understanding the words, gestures and meaning of what others say to us. It can be affected by how they say it, e.g. tone, speed, clarity, and can help or hinder our understanding. It also includes reading.

If you have receptive/Wernicke's aphasia, it can also affect your ability to produce meaningful language. You may have speech that sounds fluent and has a normal rhythm, but it is actually made up of 'non-words'. As a result, other people won't be able to understand what you're trying to say.

You may also be unable to understand what others are saying.

A person with Wernicke's aphasia may also:

- Not understand long sentences and forget the beginning of what has been said
- Have difficulty understanding if there's background noise or several people speaking at once
- Be able to read headlines, but not the main body of the text
- Be able to write, but not read back what they have written



**In general, someone with Wernicke's aphasia may not be aware that they're having difficulties, nor how badly it is affecting them.**

Difficulties with receptive communication are not always obvious to those around you, so can be a hidden difficulty and lead to misunderstandings.

Disability information cards can help here by giving information about your difficulties, so that you don't have to keep repeating it, for example to shop assistants, work colleagues or dentist's receptionists.

For more information, see the **Resources** section at the end of the **Coping with speech and language difficulties** webpage/fact sheet.

**[thebraintumourcharity.org/coping-with-speech-and-language-difficulties/](https://thebraintumourcharity.org/coping-with-speech-and-language-difficulties/)**



# Emotional effects of speech and language difficulties

## For the person with a brain tumour

Being able to think clearly, but unable to find or write words; or understand what people are saying; or read; or use numbers, money or tell the time, can be exceedingly frustrating.

You may feel angry, frustrated and in despair.

Being able to communicate effectively is important to many aspects of daily life. As a result, you may feel emotionally 'cut off' from those around you, and your relationships may suffer.

Many people feel embarrassed, lose confidence and may become anxious about being in social situations and so withdraw from them. It could also affect your employment.

As a result, having speech and language difficulties can be extremely isolating. For example, depression isn't uncommon in people affected by aphasia.

You may find the suggestions in the **Coping with speech and language difficulties** fact sheet helpful.

**[thebraintumourcharity.org/coping-with-speech-and-language-difficulties/](http://thebraintumourcharity.org/coping-with-speech-and-language-difficulties/)**

Please also see our fact sheet on **Depression and brain tumours**: **[thebraintumourcharity.org/depression](http://thebraintumourcharity.org/depression)**

## For family and friends

Family and friends, or anyone caring for someone with a brain tumour, can also find speech and language difficulties confusing and frustrating.

They often report feeling lonely and isolated too. They can feel emotions, such as helplessness or even guilt, watching their loved one struggle to communicate. Their relationship may have also changed. They may also now be the sole earner, which can lead to financial difficulties.

For this reason, if you're a carer, friend or family member, it's important that you look after yourself. It's well known, but often forgotten, that you can only care well if you care for yourself.

Please see our **Carers - looking after yourself** fact sheet for more help with this: [\*\*thebraintumourcharity.org/being-a-carer\*\*](https://thebraintumourcharity.org/being-a-carer)

You may also find useful the suggestions for helping your loved one cope with their speech and language difficulties in the fact sheet **Coping with speech and language difficulties**.

[\*\*thebraintumourcharity.org/coping-with-speech-and-language-difficulties/\*\*](https://thebraintumourcharity.org/coping-with-speech-and-language-difficulties/)

# About this information resource

The Brain Tumour Charity is proud to have been certified as a provider of high quality health and social care information by The Information Standard - an NHS standard that allows the public to identify reliable and trustworthy sources of information.

Written and edited by our Information and Support Team, the accuracy of medical information in this resource has been verified by leading health professionals specialising in neuro-oncology. Our information resources have been produced with the assistance of patient and carer representatives and up-to-date, reliable sources of evidence.

We hope that this information will complement the medical advice you've already been given. Please do continue to talk to your medical team if you're worried about any medical issues. If you'd like a list of references for any of our information resources, or would like more information about how we produce them, please contact us.

We welcome your comments on this information resource, so we can improve. Please give us your feedback via our Information and Support Team on 0808 800 0004 or **[support@thebraintumourcharity.org](mailto:support@thebraintumourcharity.org)**

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## About The Brain Tumour Charity

### Going further for a cure

As the UK's leading brain tumour charity, we're here to accelerate a positive change in how people affected by brain tumours are diagnosed, supported and cured.

Brain tumours strike fast. And they can strike anyone, at any age. But what if we could move faster? What if we could stop brain tumours right in their tracks? It's no easy task taking on something this complex, but that's exactly what we're here to achieve. And we won't stop until we have.

We know that if we put our heads together, we're more than up to the challenge. So we're building a movement of people from every walk of life – all coming together to accelerate a cure.

Find out more and get involved:  
**[thebraintumourcharity.org](http://thebraintumourcharity.org)**



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**WE'RE  
HERE FOR YOU  
AT EVERY STEP**

**[thebraintumourcharity.org](https://thebraintumourcharity.org)**

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