Often physical problems are easily identified but a person's awareness of problems with their cognition and communication can be more difficult to identify.

A person may not be able to think clearly and therefore may have difficulties accepting the changes to their ability to communicate.

Reduced awareness often affects how a person uses strategies to monitor his or her own performance.

# **Initiation of activity**

Initiation is the ability to begin an activity without suggestion or help. Often a person may not be able to start tasks independently.

Difficulties with initiation are not laziness but a result of a neurological event or injury.

When a person has difficulty initiating an activity, they may also have difficulty initiating conversation or interacting with others.

#### Planning and problem solving

Planning and problem solving describe a person's ability to order, organise and structure events or ideas into a correct sequence.

The person may not:

- know where to start and what information to get first
- consider all areas or alternatives
- think of the most obvious answer
- be able to reason or work through a problem to completion.

# **Impulsivity**

People with a neurological or brain injury may have difficulties with stopping and thinking before they act.

They may:

- begin saying something before thinking of the consequences
- do something to hurt themselves or others, such as standing up or walking, when it is not safe to do so.

# Changes to cognition and communication

Changes to cognition and communication after a neurological condition or brain injury may occur for short or long periods of time. A person with a neurological condition or brain injury may have changes to only some areas of their cognition and communication. The severity of cognitive changes may also vary.

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# **Communication** and Cognition





Epworth Richmond

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This information is for people who are interested in cognition and how it relates to communication.

If you have difficulty reading or understanding this information, please ask your Speech Pathologist for assistance.

# What is cognition?

Cognition describes a person's thinking skills. It is the way people concentrate, remember, plan and work though ideas.

Cognition is different from intelligence and is not a reflection on how clever a person is.

Conditions that can cause cognitive impairments include:

- Stroke; blockage of blood supply or bleeding in the brain
- Trauma to the brain; usually as a result of an accident, infection or toxic substance
- Degenerative diseases; e.g. dementia
- · Brain tumours.

# How does cognition impact communication?

When a person experiences changes in their thinking skills, their ability to communicate may also be affected. This is because when we communicate, we need to be able to plan, organise, concentrate and remember information.

The following are some of the difficulties commonly associated with cognitive impairments, and how they affect communication.

# Effects of cognitive impairment

#### Irritability

Following an injury to the brain, some people can have reduced tolerance.

This may cause the person to:

- become upset or angry more easily
- · overreact to a situation
- have difficulty controlling their responses to situations.

When a person is irritable, their communication can be affected because they are not able to focus on what they are saying. The person may also become louder or angry when communicating.

# **Flexibility**

Flexibility is the ability to change thoughts or cope with other people's actions, thoughts or opinions. The person may find it difficult to understand:

- sudden changes in routine
- other people's view points
- why it is important to consider ways to change their thinking.

This can impact on a person's ability to communicate with other people, as they find it hard to see their point of view in conversation, and respond to a change in topic.

# Memory

# Long Term Memory

The ability to recall events, items and routines that happened before the injury to the brain.

# **Short Term Memory**

The ability to store new information and learn unfamiliar details such as new people, timetables, strategies etc.

# **Working Memory**

The ability to hold information for a few seconds and transfer the details into short term memory.

Following an injury to the brain, a person is often able to access long term memory but may have greater difficulties with short term and working memory. This affects a person's ability to learn new information and strategies in therapy.

When someone has difficulty with their memory, they may also have difficulty remembering conversations or information said to them during a conversation. They may also have difficulty remembering strategies suggested to them to assist with their communication difficulties.

# **Information Processing**

Information Processing is the ability to take in and understand information at an appropriate speed.

Difficulties with information processing can occur jointly with language difficulties. A person's ability to respond or understand may be slower than before.

It may be difficult for the person to cope with more than one person talking at a time or to focus on activities for as long as they could previously.

#### Concentration

Concentration is the ability to focus on a task. Concentration is necessary to be able to understand, extract and recall information.

Distractability reduces a person's ability to concentrate on a specific topic. Distracting noises and activities, such as the television, can make concentrating difficult.

Concentration may last for short bursts, decreasing the focus time. It may be difficult for the person to cope with more than one person talking at a time or to focus on activities for as long as they could previously. Tiredness and fatigue can make concentrating more difficult.