

## What is apraxia?

Apraxia is a cognitive disorder that can occur after stroke. Apraxia is the inability to make purposeful movement, but is not due to sensory or motor disturbances (e.g. loss of sensation, muscle weakness). Apraxia affects the ability to perform movements and gestures.

## Why do people get apraxia after stroke?

Approximately 30% of people who have had a stroke will display apraxia or partial signs of apraxia (i.e. dyspraxia). Apraxia is more common among people with damage to the left hemisphere of the brain. However, apraxia can also result from damage to other parts of the brain.

## Are there different types of apraxia?

There are many different types of apraxia. The most common type of apraxia is **buccofacial (or orofacial) apraxia**:

- **Buccofacial apraxia**: difficulty making movements of the mouth, eyes or face.

The most common forms of limb apraxia (i.e. affecting use of the arms/legs) are **ideational apraxia** and **ideomotor apraxia**:

- **Ideational apraxia**: difficulty organizing actions to achieve a goal.
- **Ideomotor apraxia**: difficulty selecting, sequencing and using objects.

Different forms of apraxia can also affect speech, touch, writing/drawing skills, eye movements, and body movements.

## How can I recognize limb apraxia?

Limb apraxia affects a person's ability to perform simple movements. This may be seen as difficulty imitating an action, performing an action in response to a spoken command, or understanding an action. Limb apraxia can affect the person's arm movements for communication (e.g. using gestures) and daily activities (e.g. using familiar objects for everyday tasks).

### **Who diagnoses and treats apraxia?**

Apraxia is difficult to diagnose because of the many different types of apraxia, the different definitions used to describe apraxia, and a lack of suitable assessments. Medical/health professionals can assess for apraxia in several different ways including using formal tests, and by observing the patient's movements when imitating gestures, following spoken commands (e.g. "pretend to drink from a cup"), or using common objects.

Treatment will depend on the type of apraxia.

- A Speech Language Pathologist can help the person who is experiencing difficulties with speech, language, communication/gestures, feeding, swallowing and mouth movements.
- A Physiotherapist can help the person who is experiencing difficulties moving their body and limbs to make intended movements.
- An Occupational Therapist can help the person who is having difficulty doing activities around the home and at work.

### **How does apraxia affect my recovery from stroke?**

Apraxia impacts on a person's ability to perform movements and gestures. Apraxia can impact on the person's ability to do rehab activities (e.g. walking), communicate with others (e.g. using gestures) and complete common tasks (e.g. self-care tasks). This can affect their ability to relearn movements or learn new skills after stroke, which can impact on the person's recovery, as well as their ability to perform daily activities and work tasks.

### **Will my apraxia get better?**

Apraxia typically spontaneously recovers in the first few months post-stroke and is responsive to rehabilitation. The recovery process and rate of recovery will be different for each individual.

### **What can I expect from apraxia therapies?**

Intervention can be customized to suit the person's difficulties. Interventions for apraxia include:

- Strategy training for daily activities (i.e. teaching specific strategies to overcome the difficulties to patient experiences)
- Gesture training (i.e. relearning gestures)
- Direct ADL training (i.e. relearning – or learning new ways to perform – daily tasks)
- Using assistive technology to compensate for difficulties.

### **Will apraxia therapies work?**

A small number of studies have investigated apraxia treatment. Results from these studies show benefits immediately after the treatment, but benefits may not last several months later. The lack of research regarding apraxia interventions impacts on the ability to draw strong conclusions regarding their effectiveness at this time.

### **Are there any side effects?**

There are no significant side-effects from apraxia treatments.

### **My family member has apraxia. How can I help?**

Stroke recovery requires patience and persistence from the person who had a stroke and their family/caregivers. If you or your loved one is experiencing apraxia after a stroke, the recovery process might be frustrating and stressful. It is important to continue with therapies, even if apraxia makes it challenging.

Follow this link to the Stroke Association (<https://www.stroke.org.uk>) for useful tips for communicating with a person who has had a stroke.

### **Where can I find more information about apraxia?**

- American Stroke Association (<https://www.stroke.org>)

*Information on this web site is provided for informational purposes only and is not a substitute for professional medical advice. If you have or suspect you have a medical problem, promptly contact your professional healthcare provider.*