



# DRIVING AFTER STROKE

## Introduction

This fact sheet is designed to tell you how to go about returning to driving; the sort of car you may need and how to get it modified if necessary. However, you will first need to know whether you have recovered sufficiently to consider driving again. This can only give general advice on that question, but your general practitioner or the staff of the rehabilitation or geriatric unit of your local hospital, who know about your stroke and medical history, will be able to give you the specific advice you need.

## What You Must and Must Not Do

You **must not** drive for at least one (1) month after a stroke or three months (3) after a subarachnoid haemorrhage, however, you may drive on advice from a physician following a Transient Ischaemic Attack (TIA). Persons having recurrent events should not drive until a neurological investigation leads to an effective preventative treatment against further attacks.

Before driving again, you **must** notify the Medical Clerk at Transport SA – 8374 5139.

You **must** also notify your insurance company.

You may only resume driving if you are free of any problems, which would make you a danger to yourself or other road users. So before driving again you **must** consult your general practitioner or hospital consultant and be guided by their advice. If they are uncertain whether you have recovered sufficiently to restart driving, advice from an Occupational Therapist with specialist training in driver assessment and rehabilitation may be sought.

For services contact

OT Australia SA Inc. Ph: 8239 142

## *Assessment*

- Off road - physical function, vision and cognition tests, as well as road law knowledge, conducted by the driver trained occupational therapist.
- On road - assessment is conducted by the occupational therapist and a driving instructor

## *Report and Recommendations*

- Following the assessments a report is written giving recommendations as to the person's fitness to drive and any modifications required and the rehabilitation plan for driving lessons.

- The report is discussed with the client and a copy sent to the referring agent and to transport SA Medical Clerk, licensing.

### *Rehabilitation*

- Advice about appropriate vehicle modifications can be given by the occupational therapist.
- A programme of lessons can be set up to enable the person to familiarise themselves with vehicle modifications, develop driving skills or gain confidence while driving. These lessons are run by a driving instructor with regular contact made to the occupational therapist and further assessments organised if required.
- Liaison with suppliers of modified equipment and the Department can also be provided.

You should only apply to Registration & Licensing Office for permission to restart driving after a successful assessment by the O.T. and Transport SA has advised you.

### **Insurance**

As soon as permission has been granted for you to drive again, you should inform your insurance company of your stroke and of any modifications being made to your car

### **How Does the Stroke Affect You?**

A stroke may damage any part of your brain. The effects may be permanent or temporary and depend on the extent and the area of your brain involved.

The most common consequence of a stroke is weakness of one side of the body, which may affect the arm, or leg or both. If your arm or leg is weak or paralysed there are many good practical solutions which can be resolved by a mechanical adaptation.

The following factors will be taken into consideration when they are assessing your fitness to drive: -

- Damage to your vision
- Problems with memory and concentration
- Slow reactions in an emergency
- Spasms in a paralysed limb which cannot be controlled
- Fits or convulsions
- Certain speech and reading difficulties
- Certain other consequences of a stroke

### **Difficulties with vision**

The law sets particular standards of vision, which must be met if you are driving a car. You should ask your GP or consultant to check your vision. In some cases a special eye assessment may be required.

Some conditions that do not resolve with recovery from the Stroke, such as hemiomopia (field loss) will prevent you from driving as guided by National Fitness To Drive Guidelines.

### **Problems with memory and concentration**

You may not be fit to return to driving until you are able to concentrate for a reasonable length of time and your memory for recent events is satisfactory.

### **Slow reactions in an emergency**

You may not drive until you can react promptly and correctly in an emergency. If there is any doubt, a medical examination and possibly a free driving test from Transport SA may be necessary.

### **Limb spasms**

If these are frequent and severe and cannot be controlled by treatment you may not be considered fit to drive a car.

### **Fits or convulsions**

If you have epilepsy you will not be allowed to drive until you have been free of seizures for two years. However, a fit or convulsion occurring only within the 24-hour period of onset of stroke or TIA may not be required to meet the epilepsy regulations with respect to resuming car driving. There are special epilepsy regulations - your GP or consultant will advise you.

### **Speech and reading difficulties**

Some people have language and communication difficulties after a stroke. This is usually associated with weakness of the right side of the body. If you understand what is said to you and can read, but have great difficulty in speaking, essential details can be written on the card, which can be kept in your car and presented to explain your language problem.

#### **I HAVE HAD A STROKE**

and find it difficult to

#### **SPEAK, READ, or WRITE**

I usually understand what is said,  
but please could you speak clearly.

#### **THANK YOU**

**Name:** .....

These cards are available from **Stroke SA** or the **Talkback Association**. Unfortunately some people have difficulty in understanding what is said to them and/or problems in reading. This may cause trouble when road signs to be followed, or questions from; for example, the police need to be arranged. These people may not be allowed to resume driving if such problems cannot be resolved.

### **Other difficulties**

There are other, more subtle, alterations of brain function, which sometimes prevent people from driving, for example, lapses of concentration. Your doctor or therapist will explain them to you if necessary.

### **Places offering advice and assessment**

You may obtain helpful advice from the rehabilitation department of your local hospital, or the Independent Living Centre. Specialist car adaptation firms may also be able to help but are likely to recommend their own products.

### **What Sort of Car?**

Recovery after a stroke may take some time, even up to two years or more. Do not make hasty decisions about a car, or adaptations, until your condition stabilises.

The choice of car is a matter of personal preference and finance, but here are some questions you should ask before choosing:

- How will I get into and out of the car?
- What controls will I use?
- Who will modify my car?
- Will I be able to fasten the seat belt?
- Can I get help with motoring costs?

### **Getting into and out of the car**

The first thing you must consider is how easy it is for you to get into or out of the car as driver or passenger. If you are intending to buy a car, which is different from your present one, choose one which has large front doors. This will usually be the two-door rather than the four-door version of popular cars. You may also find that an extended seat runner, which allows the seat to move further back than is usual, is helpful. It may be hard to get an 'awkward' leg over a deep door sill. Extra leg room can sometimes be gained by moving the pocket on the door. Some door checks (located near the door hinges) can be adjusted to help the door to open more widely.

Some people with a really 'heavy' leg may find a leg lifter helpful.

A sliding rotating car seat is helpful in some cases, particularly for disabled passengers.

Access to a vehicle may also be made easier by using a transfer board.

### **Controls**

Details of suitable modifications can be obtained from Driving Assessment Centres. Many of the modifications can be seen and tried at these Centres.

### **Who will modify my car?**

Names of suppliers of modified equipment can be obtained from the above also.

Modifications must be approved by Transport SA for compliance with Australian Standards.

### **Seat belts**

Most drivers with a right or left-sided weakness develop a technique for using a standard seat belt. You can hold the belt with your teeth while the clip is inserted. Another trick is to leave the belt looped around the reclining lever in the side of the driver's seat where it is easier to reach. A number of extensions to the grip are also available.

### **Controls for People with the Right Side Affected**

#### ***Automatic or manual transmission?***

Providing the right side of the body has made good recovery with adequate feeling, power and control, manual transmission can be used. However, automatic transmission may be safer even in these circumstances. You have less to do and think about at the same time in a car with automatic transmission and may therefore be able to drive more safely. When the right arm and leg have not recovered fully, a car with automatic transmission is almost always required. If necessary, a left-foot accelerator can easily be fitted to such a car.

### ***Steering and steering aids***

The left hand, using a steering aid (unless both hands can be used together in absolute safety) carries out steering. The steering aid should be placed in a comfortable position.

If you are steering one-handed you will find it feels heavier work than steering with both hands, so a car with light, or power-assisted, steering may be useful.

Most modification firms offer a variety of steering aids. These are usually ball or mushroom-shaped grips. The designs with narrow bars, which span across the steering wheel, must not be used if there is an air bag on the steering wheel. The latest designs are brackets which clip on to the wheel rim and incorporate a ball to be gripped by the hand which steers. It is possible to 'palm the wheel' with one hand without using a steering aid but the majority of drivers find a ball particularly helpful for tight corners and when manoeuvring.

### ***Secondary controls***

One-armed drivers need to be able to control indicators, lights, washers, wipers, horn and so on, while moving, without removing their hand from the steering wheel.

If you need to drive one-handed you may not be able to use the indicators or other electrical controls at all times. This problem may be solved in various ways. For example, extension levers can be made for the indicators or other electrically-operated controls.

Another solution, suitable for all secondary controls, is infrared remote controls. An infrared system can be fitted to any car and is operated by the thumb on a small panel of switches, which is part of the steering aid.

The ignition key and choke button may also require modification. Any modification firm can do this.

### ***Accelerator and brake pedals***

Unless the function of the right foot is good enough to allow standard pedals to be used in safety, a car with automatic transmission is absolutely essential. If you cannot control your right leg when you are sitting in the car seat, you should use your left foot to accelerate and brake. In order to achieve this the accelerator pedal should be moved to the left of the brake pedal. This may mean that you have to use a new driving technique and a period of tuition and practice will be essential to ensure that you are confident about the controls before getting back to the public highway.

Most modification firms will fit a left-foot accelerator to an automatic car in one of two ways: -

The original pedal is made detachable; a wing-nut fitting is added; the pedal is refitted to an additional lever on the left.

Two accelerator pedals are fitted on a hinged spring lever system. The left-foot

Accelerator can be flipped up and the right one brought down so that other drivers can drive the car in the conventional way.

Select a system, which makes it impossible to have both accelerators in position at the same time; someone with a partially paralysed right foot might press against the right-foot accelerator in error. Conversely, able-bodied drivers might mistake the left pedal for a clutch. If the right leg has recovered partially you may be able to drive a car with standard automatic transmission, providing the right foot can be lifted off the accelerator quickly when the left foot brakes.

## **Controls for People with the Left Side Affected**

### ***Automatic or manual transmission***

Providing the left side of the body has made good recovery with adequate feeling, power and control, manual transmission can be used. Automatic transmission is the obvious choice when the left leg and arm have not recovered fully.

### ***Steering***

This is carried out by the right hand using a steering aid (unless both hands can be used together in absolute safety). The steering aid should be placed in a comfortable position. The shape of the aid can vary; it is a matter of personal choice.

### **Note:**

All modifications should be fitted by an appropriately trained vehicle modifier and must pass the Transport SA compliance regulations.

### ***Secondary controls***

Ignition keys, chokes and wipers switches are rarely placed on the left side but if they are they can be modified. The indicator lever is frequently out of reach on the left but can be modified.

The gear selector lever may need modification but usually the right arm can be moved across because this control is only operated when the car is at rest and held on the service brake and/or the parking brake.

The right hand may be used to operate a standard parking brake providing the driver is able to do this safely. If not, the parking brake may need to be modified; for example; by using one of the button releases.

Alternatively, a more expensive knock-on-knock-off (cantilever) adaptation can be fitted.

*This Fact Sheet has been adapted from "Driving After Stroke" and Reproduced with the permission of "The Stroke Association" (U K).*

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