

**Patient  
Information**

# Lower limb amputation

## Introduction

This leaflet is provided to give you information about what to expect when you need to have surgery to amputate a limb.

If you have any questions, please ask a member of the clinical staff or your surgeon.

## Why do I need an amputation?

There are several reasons why an amputation is required. The most common cause is as a result of insufficient blood flow through the leg because the blood vessels have become blocked or narrowed. Reduced blood flow may cause increasing pain, ulcers and in some cases eventually gangrene. If untreated this may cause severe infection which can increase the risk of you becoming dangerously unwell and you may require emergency surgery.

Other less common reasons include traumatic events (such as road traffic collision), certain cancers and birth deformity. Smoking and diabetes increases your risk of having a lower limb amputation.

## Where we will amputate (level of amputation)

The level of amputation will be discussed with you by your surgeon. There are several factors which will determine how much leg you will have remaining. These include why amputation is necessary, the condition of your leg and your general health.

If at all possible, your surgeon will try to keep your knee joint. This can make it easier to function after your operation.

The 3 most common levels of amputation are:

1. Above knee (sometimes referred to as trans-femoral)
2. Through knee
3. Below knee (sometimes referred to as trans-tibial).

Reference No.

**GHP11405\_10\_16**

Department

**Vascular**

Review due

**October 2019**

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## Benefits

The main benefit of this operation is to improve your quality of life. The other benefits are to reduce pain and prevent the spread of disease or infection.

## Risks or complications

All operations carry some risk; your current health will need to be very carefully considered before any operation as you may not be suitable for an anaesthetic. Amputation is a major operation and carries the risk of heart attack, kidney failure, blood clot (embolism), bleeding or death. An anaesthetist will assess your fitness for surgery. Following the operation you are at an increased risk of chest, urine and wound infections. Wound infections along with poor blood supply to the wound could lead to it failing to heal. This may require further surgery and/or a delay in your recovery. It is important to follow the advice given by the staff involved in your care as this can help prevent some of the risks associated with surgery. The risks will be explained in greater detail during the formal consent process.

## Alternative

If you decide against having the amputation then your decision will be respected. The alternative is to continue with regular dressings and pain relief to control any symptoms.

However, it is important to note that your symptoms are likely to worsen, which could become life threatening. If you change your mind about having surgery then please speak to a member of staff. If you have returned home contact your GP.

## After the operation

It is possible following surgery to feel disorientated or a bit tired from the anaesthetic. For the first few hours after surgery you will be closely monitored by the nursing staff.

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- You may also notice that you have tubes attached to you. These can include: A drip in your arm for fluids and medications
- An oxygen mask
- Pain relief via Patient Controlled Analgesia (PCA) or epidural
- A catheter into your bladder so that urine can be drained away. This will be removed as soon as possible when you are moving more freely in bed.
- A small wound drainage tube from your amputated limb. This is usually removed after 1 to 2 days
- Wound dressings.

## Emotions

Amputation is a life changing event and will take time to adjust both physically and emotionally. Your emotional recovery is very important and you should share any worries you may have so that we can help support you. You may feel relief that the source of your pain has gone, especially if you have had a long period of illness prior to the amputation. You may feel shocked or numb initially; especially if the decision to amputate has been sudden and you had little time to prepare.

Feelings of loss or grief are normal after the operation and can last for some time. Negative feeling may include fear, anxiety, anger, denial or depression. These are all very natural responses.

Over time these feelings should fade as you adjust to your new life and make positive plans for your future. If you have ongoing difficulties you may benefit from additional support. It is important to speak to a member of staff or your GP who can help you decide what help you need.

## Pain control

Pain or discomfort after the operation is to be expected especially around the wound site in the days following surgery. This should improve as the healing progresses. You will be given pain relief to help keep you comfortable but if you are in pain it is important that you let a member of the team know. Good pain control will help you move more freely and enable you to fully take part with your rehabilitation.

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## Phantom limb sensation

Following surgery you may feel your amputated limb is still there. These sensations can be in part of the leg, a toe, or the whole leg. It may feel as if the leg is in an odd position or still the same length and weight as your remaining leg.

This is extremely common and occurs because the brain is still sending signals to the part that is no longer there. The brain retains a 'memory' of the amputated limb. In time, this may begin to fade. In the first few months following surgery it is possible for you to forget that your limb is no longer there, especially at night when getting up to go to the toilet or if you have been sitting for long periods. Take care during this period as it is not uncommon for people to fall after trying to use the absent leg. Phantom sensations can be very strong and you can easily forget you have had an amputation.

## Phantom limb pain

Phantom limb sensations can be very painful for some people. They include burning, tingling, itching, cramping sensations or can be a sharp or shooting pain. If your pain is causing you difficulty, discuss this with a member of the team. There are specific medications that can help. You may be visited by a member of the Pain Team who will be able to offer you advice.

## Wound care

The wound will be covered with a clear plastic dressing. The dressing will stay in place for about 5 to 7 days and allows the wound to be inspected regularly without disturbing it. You will not see any stitches in the wound as they are under the skin and will dissolve. Once the stump has healed you will not need any dressings on the wound.

## How long will I be in hospital?

Recovery times vary, but most patients recover from this surgery within 7 to 10 days. However, there is no set recovery time and, it may be necessary to transfer you to a community hospital where your rehabilitation can continue.

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## Who will be involved in my care?

You will be seen by many health care professionals who will work together to provide care and support during your stay in hospital and following discharge.

### Doctors

You will be under the care of the consultant surgeon and their team who will visit you regularly whilst you are in hospital to manage any medical issues and monitor your recovery. Once you are discharged from hospital you will see your consultant as an outpatient and they will hand over your day to day care to your GP.

### Nurses

The nurses on your ward are trained vascular nurses who are very experienced in caring for patients following an amputation. They will be involved in all aspects of your care and will assess your need for a special mattress and cushion to help prevent pressure sores from forming. The nurses on the vascular ward will be there to assist and support you in your recovery and provide an important link to other staff involved in your care.

### Vascular Specialist Nurse

This nurse specialises in your care and can help provide support for you and ward staff about your treatment as they specialise in vascular conditions and treatments. They are there to assist you and answer any queries until you are discharged from hospital. You will have a named Vascular Nurse specialist.

### Therapy Team

The therapy team consists of Occupational Therapists and Physiotherapists.

The Occupational therapist (OT) will:

- assess your ability to safely manage daily activities , such as washing, dressing and meal preparation
- loan you a wheelchair to use on the ward and arrange for a permanent wheelchair for when you return home along with any other equipment you may require
- assess the need to carry out a visit to your home to help plan your discharge and make recommendations on any alterations to the property that may be required.

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The Physiotherapist will:

- help you to regain your strength and confidence following your operation
- give you exercises to help regain strength and general fitness and will practice tasks with you that are needed to ensure a safe discharge home
- help you decide which types of activities are most suitable for you in the long term to maximise your independence.

If you would like to be visited by a member of the Therapy Team prior to your operation to answer any questions you or your family may have please speak to a member of staff.

**Podiatrist**

A podiatrist can advise you on the care and treatment of your remaining foot. This is especially important if you are a diabetic.

If you have diabetes you will be referred to the community podiatrist following discharge from hospital. Non diabetic patients can be referred on a clinical need or you can ask your GP for a referral.

**Social Worker**

The social work team may be involved with you if it is decided you need ongoing care at home or to assist with housing issues and funding.

During your time you may also meet the pharmacist, dietician and other specialist teams who give advice on particular aspects of your care.

**Will I have an artificial limb?**

The therapists will discuss your individual circumstances with you and your family. Some people adapt well to using an artificial leg but this depends on previous level of fitness, level of amputation and any other medical conditions. If you are to be fitted with an artificial leg, you will attend the Disablement Services Centre Clinic based at Southmead Hospital (Bristol), or the clinic held at Gloucestershire Royal Hospital (GRH) every Wednesday. Swindon and Wiltshire patients will attend clinics at Oxford. You will be seen by a doctor, podiatrist/ chiropodist, prosthetist (who measures and fits artificial limbs) and a physiotherapist. Transport can be arranged for you by your therapist.

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You will receive your artificial limb after you have left the hospital as this is made to fit your individual limb. This will be arranged by the Disablement Services Centre Clinic.

### **Will I need a wheelchair?**

The therapy team will provide a wheelchair for you to use whilst in hospital. A referral will be made to your local Wheelchair Assessment Centre (WAC) and they will provide you with your own wheelchair for longer term use. A wheelchair is the safest means of getting around, especially during the early stages when you need to protect and support the remaining part of your leg whilst it heals.

We **do not** advise the use of crutches or frames to hop on your remaining leg. This can cause damage to the remaining leg and increases the risk of you falling.

### **How do I look after the residual limb (stump)**

Any swelling in the residual limb will cause a delay in the healing process and can increase pain and stiffness. You can help yourself by:

- Resting the leg fully supported on the bed or wheelchair
- Do not place pillows under the stump or use the knee bend facility on the hospital beds as this can cause long term stiffness in the joints and affect your suitability for an artificial leg
- Avoid hanging the stump over the edge of your bed or wheelchair. This will help reduce swelling and protect the stump from unexpected or accidental knocks.

You may be provided with a compression sock to help reduce swelling further in preparation for an artificial limb. This will be discussed with you. Nursing staff will be able to advise you on caring for the wound when you are at home. A district nurse may be involved if you need ongoing wound care or dressings on discharge.

### **Will I be able to drive?**

It is a legal requirement to inform the DVLA and your insurance company about your change in circumstances.

## Patient Information

There are many conditions and medications that can affect your ability to drive. Your ability to drive will depend on the type of vehicle you have and your functional ability. There are specialist vehicle centres nationwide who can offer individual advice and assessment following your surgery.

### Your safety

Falls are common after amputation as it is more difficult to maintain your balance whilst trying to move around. There are however some simple measures that can be taken to help reduce the risk of falls.

- Always take your time when moving. Rushing is likely to cause an accident
- When moving in and out of your wheelchair, make sure your brakes are on and you have positioned yourself close enough to complete a safe transfer
- Wear comfortable, well-fitting shoes with a non-slip sole
- Make sure your home environment has clear space for moving. You should check for good lighting and remove loose rugs, trailing cables or clutter. Keep floors dry and be careful on uneven or wet surfaces
- Place most frequently used items within easy reach
- Make sure your eyes are tested regularly and you wear your glasses as prescribed
- Keep active- being inactive can lead to weak muscles and poor balance
- Eat a healthy diet and keep hydrated (drink lots of liquids, preferably water)
- Limit alcohol intake.

### What should I do if I fall?

Before going home we will discuss an action plan with you in case you fall. If possible we will teach you how to get up from the floor safely.

If you do fall:

- **Recover from the initial shock** - Give yourself a moment to settle and decide if you are hurt before you make any attempt to get up
- Carers can summon help and keep you warm and comfortable. They should not attempt to lift a person who has fallen and is unable to get up themselves.

**Patient  
Information****Are you hurt?**

No – follow your action plan

Yes – try to stay calm

- **Shout for help** - Use your telephone or pendant alarm. Bang on the floor or walls to attract attention. Dial 999 to get the emergency help you need
- **Stay warm** - Use any clothing or rugs within reach to make yourself as comfortable as possible while you wait for help to arrive
- **Keep moving** - If possible, move regularly to prevent pressure sores while you wait for help to arrive.

Whether you sustain an injury or not, make sure you discuss the fall with your GP. They can check for what might have caused the fall.

They can also arrange for you to be seen by your local Physiotherapy Team or Falls Specialist Team if necessary.

**Staying healthy****Pressure care**

Avoiding pressure sores is very important as your skin can be very vulnerable. It can easily become red, blistered or can break to form an open sore. The areas which are most at risk are the buttocks, heels and toes. Staff will assess your need for a special mattress and cushion to help prevent sores from forming. You will be taught how to change position regularly to relieve any discomfort. Let staff know if you are uncomfortable.

**Skin care**

If you have problems with your circulation your skin can become very dry and can crack, increasing the risk of infection. Use a simple moisturising cream in gentle downward strokes in the same direction as your body hair. Avoid any broken skin and do not moisturise between your toes as this can cause problems with the skin being too 'wet'.

Soap is very drying to your skin. Consider washing with a soap substitute using warm water. Test the temperature of the water with your elbow before immersing your limbs. Dry thoroughly but gently, taking care between your remaining toes. Do not force your toes apart. Pat your skin dry rather than rubbing as this can be too rough on sensitive or dry skin.

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Inspect your remaining foot daily. You can use a long handled mirror or ask someone to help you. Seek advice from your GP, district nurse or podiatrist if you find any cuts, blisters or inflamed areas.

Check your footwear regularly for rough edges or sharp areas. When buying new footwear, check they fit well, with plenty of room for your toes. Check that socks or stockings are not too tight around your ankle/calf and do not leave a mark on your skin. If your amputation was due to vascular disease or you are diabetic seek advice from a podiatrist on how best to cut your toe nails. Never treat corns or calluses yourself.

Take care to avoid knocking your leg or residual limb. Always move your footplates/stump board out of the way when getting in/out of your wheelchair and be sure that you have enough clear space when you are moving around.

**Smoking**

It is very important that you stop smoking. This is a major cause of amputation as it damages your blood vessels. Continuing to smoke can delay healing to your wound and increases your risk of further surgery. Speak to a member of the team who can help direct you to specialist support.

**Below Knee Exercises****Exercise 1**

- Push your legs straight out in front of you
- Push the back of your knees into the bed and tighten the thigh muscles
- Hold for 5 seconds
- Repeat this \_\_\_ times



**Patient  
Information****Exercise 2**

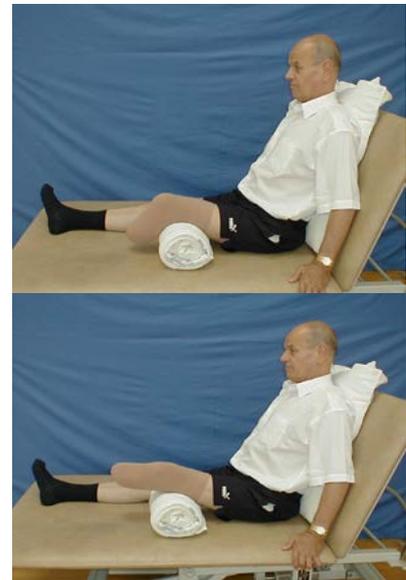
- Put your legs out in front of you
- Tighten your thigh
- Lift your leg off the bed
- Hold for \_\_\_ seconds
- Slowly lower
- Repeat \_\_\_ times

Repeat the above with the other leg.

**Exercise 3**

- Sit with both legs straight out in front of you
- Place a rolled up towel, blanket or pillow under your knee
- Straighten your knee
- Hold for 5 seconds
- Repeat \_\_\_ times

Repeat the above with the other leg.

**Exercise 4**

- Sit with both legs out in front of you
- Place a pillow or rolled up towel between your knees
- Squeeze your legs together
- Hold for 5 seconds
- Repeat \_\_\_ times

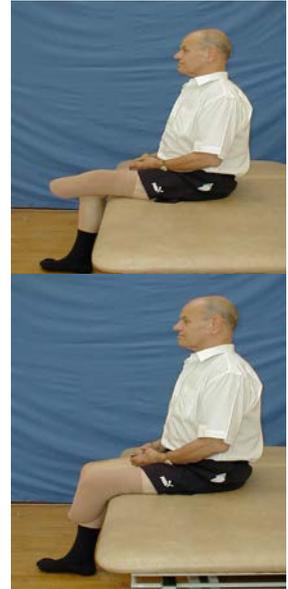
NB This exercise can also be performed when sitting in a wheelchair or at the edge of a bed.



**Patient  
Information****Exercise 5**

- Sit on a chair or edge of the bed. Place your hands on your lap
- Straighten one knee
- Hold for 5 seconds
- Now bend your knee
- Repeat \_\_\_ times

Repeat the above with the other leg.

**Exercise 6**

- Lie on your back
- Keep both legs straight and close together
- Squeeze your buttocks as tightly as possible
- Hold for 5 seconds
- Repeat \_\_\_ times

**Exercise 7**

- Lie on your back, preferably without a pillow
- Bend your knee towards your chest and hold with your hands
- Push your opposite leg down flat on to the bed
- Hold for 30 to 60 seconds, then relax
- Repeat \_\_\_ times



Repeat the above with the other leg

**Patient  
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- Lie on your back with your arms at the side
- Place a couple of firm pillows or rolled up blankets under your thighs
- Pull in your stomach, tighten your buttocks and lift your bottom up off the bed
- Hold for 5 seconds
- Repeat \_\_\_ times

**Exercise 9**

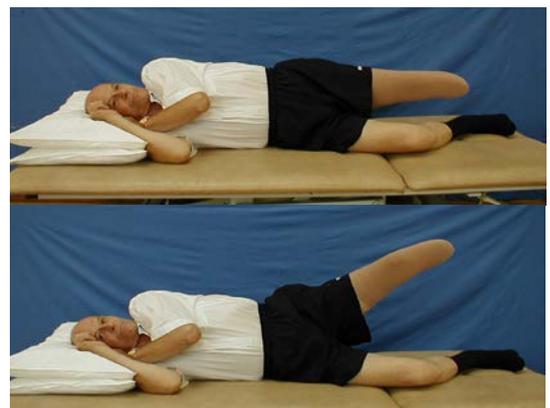
- Lie on your side
- Bend the bottom leg
- Lift your top leg slightly
- Bend your knee fully towards your chest
- Straighten your knee and push your leg backwards
- Repeat \_\_\_ times



NB Try not to let your hips roll forwards or backwards. Repeat the above with the other leg.

**Exercise 10**

- Lie on your side
- Bend the bottom leg
- Keep hips and top leg in line with your body
- Slowly lift your top leg up, keeping your knee straight
- Slowly lower
- Repeat \_\_\_ times



NB Try not to let your hips roll forwards or backwards. Repeat the above with the other leg.

**Patient  
Information****Exercise 11**

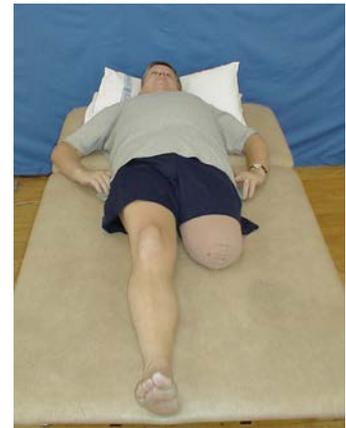
- Lie on your stomach
- Place your arms in a comfortable position
- Keeping your thigh on the bed, bend your knee as far as possible
- Hold for 5 seconds
- Straighten your knee
- Repeat \_\_\_ times



Repeat the above with the other leg.

**Above knee exercises****Exercise 1**

- Lie on your back
- Keep both legs straight and close together
- Squeeze your buttocks as tightly as possible
- Hold for 5 seconds
- Repeat \_\_\_ times

**Exercise 2**

- Lie on your back, preferably without a pillow
- Bring your thigh towards your chest and hold with your hands
- Push your opposite leg down flat on to the bed
- Hold for 30 to 60 seconds, then relax
- Repeat \_\_\_ times



Repeat the above with the other leg.

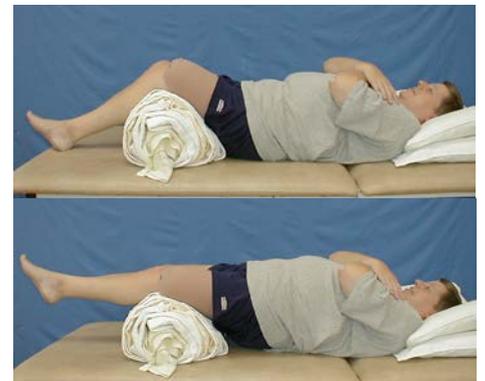
**Patient  
Information****Exercise 3**

- Lie on your back
- Keep both legs flat on the bed
- Hitch one hip up towards you on one side and push away on the other (shortening one side and stretching the other)
- Hold for 3 seconds
- Repeat \_\_\_ times

Repeat on the other side.

**Exercise 4**

- Lie on your back with your arms at the side
- Place a couple of firm pillows or rolled up blankets under your thighs
- Pull in your stomach, tighten your buttocks and lift your bottom up off the bed
- Hold for 5 seconds
- Repeat \_\_\_ times



To make this exercise more difficult, place your arms across your chest as shown in the picture.

**Exercise 5**

- Lie on your side
- Bend the bottom leg
- Lift your top leg slightly
- Bend your thigh fully towards your chest
- Push your leg backwards as far as you can
- Repeat \_\_\_ times



NB Try not to let your hips roll forwards or backwards.  
Repeat the above with the other leg.

**Patient  
Information****Exercise 6**

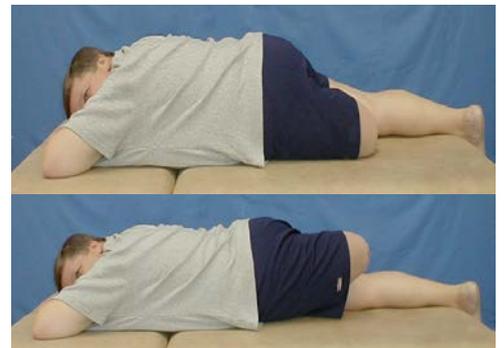
- Lie on your side
- Bend the bottom leg
- Keep hips and top leg in line with your body
- Slowly lift your top leg up
- Slowly lower
- Repeat \_\_\_ times



NB Try not to let your hips roll forwards or backwards.  
Repeat the above with the other leg.

**Exercise 7**

- Lie flat on your stomach
- Lift your leg off the bed as far as you can. Be sure to keep hips flat on the bed and do not roll your body
- Hold for 5 seconds, slowly lower
- Repeat \_\_\_ times



Repeat the above with the other leg.

**Exercise 8**

- Sit with both legs out in front of you
- Place a pillow or rolled up towel between your thighs
- Squeeze your legs together
- Hold for 5 seconds
- Repeat \_\_\_ times



Please note: This exercise can also be performed when sitting in a wheelchair or at the edge of a bed.

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This exercise sheet has been produced by representatives of the Physiotherapy Inter Regional Prosthetic Audit Group (PIRPAG).

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**Contact information**

Your named Vascular Nurse is \_\_\_\_\_ and can be contacted via the Vascular Helpline.

**Vascular Helpline**

Tel: 0300 422 2897

We have a group of patients who have been through the trauma of having an amputation and are happy to come and talk to you. If you think this would be helpful, please let us know and your vascular nurse will arrange for someone to visit you.

If you have any general questions or queries please do not hesitate to contact a member of the team looking after you on the ward.

**Further information**

This leaflet is a guide and not a complete list of all information with regard to amputation. More information can be found at the following addresses and websites:

**The Vascular Society**

Tel: 0207 2057150

Website: [www.vascularsociety.org.uk](http://www.vascularsociety.org.uk)

**Circulation Foundation**

Tel: 020 7205 7151

Website: [www.circulationfoundation.org.uk](http://www.circulationfoundation.org.uk)

**Limbless Association**

Tel: 01245 216670

Help line: 0800 644 0185

Limb Loss Legal Panel: 0800 644 0186

Website: [www.limbless-association.org](http://www.limbless-association.org)

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**Douglas Bader Foundation**

Tel: 020 8748 8884

Website: [www.douglasbaderfoundation.com](http://www.douglasbaderfoundation.com)

**BLESMA - (British Limbless Ex Service Men's Association)**,  
the national charity for limbless serving and ex service men and  
women and their dependants.

Tel: 020 8590 1124

Website: [www.blesma.org](http://www.blesma.org)

**Citizens Advise Bureau**

Tel: 03444 111 444

Website: [www.adviceguide.org](http://www.adviceguide.org)

**Disabled Living Foundation**

380-384 Harrow Road

London

W9 2HU

Tel: 020 7289 6111

Website: [www.dlf.org.uk](http://www.dlf.org.uk)

**Department of Social Security**

Tel: 0345 300 3900

Website: [www.gov.uk](http://www.gov.uk)

**DVLA**

Swansea SA6 7JL

Website: [www.dft.gov.uk/dvla](http://www.dft.gov.uk/dvla)

**Bristol Centre for Enablement**

Highwood Pavilions

Jupiter Road

Patchway

Bristol

BS34 5BW

Tel: 0300 3000 0110

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