

## **Life after Amputation Surgery**

Amputation surgery is often a very difficult time for the individual involved as well as for partners and families members. There are a series of challenges faced during the period following amputation surgery. This information sheet is intended to provide some guidance and answer some frequently asked questions.

### **Being an amputee - The emotional journey**

Amputation surgery affects function, mobility and appearance, which in turn will impact most areas of a person's life. Adjusting to life after amputation is a very challenging time. Often time and regaining of mobility and function with a prosthesis will assist with this emotional adjustment.

From having full mobility, to relying on support from others, within a short period of time, often leads to frustration. This is completely understandable. Even the most basic tasks can be very difficult to manage initially. This frustration, compounded with the mix of complex emotions that are likely to occur following serious injury, presents a very challenging time.

Family members, partners and friends will often notice a change in personality. It is common for the individual to become short tempered, compared to prior to their injuries.

During the early stages, following amputation surgery, it can also be difficult to find the motivation and determination required to continue with activities of daily living. There will be periods of 'bad days' where tasks seem even more difficult. In addition to time, fitting of a prosthesis is often an important element, where slowly the realisation that mobility, independence and function can all be regained.

Out in public, whether in a wheelchair prior to prosthetic use, or wearing shorts or a t-shirt, exposing the residual limb or prosthesis, there will be people who will stare. They do not mean to be rude and are looking as a result of curiosity, which is especially the case for children. Acceptance of this situation increases with time by the individual.

Friends may have difficulty accepting the situation and can feel uncomfortable, not knowing what to say. Again, time eases these tensions and awkwardness. This period of adjustment also extends to family and friends.

The first year or two, following amputation surgery, can be an emotional rollercoaster. Support from family and friends is often well received. Professional psychological support is available and can often be beneficial, even for those who suggest that this support is not required.

## **Phantom Pain and Phantom Sensation**

Following amputation, it is very common to experience the sensation that the limb is still present. The brain and the nervous system takes time to adjust to the new pathway. Often itchy sensations from absent limbs are experienced.

To some, these sensations are experienced as pain. The pain can be a tingling, burning, itching or cramping sensation. It is common that painful sharp shooting pains are experienced. These pains may be related to swelling, pressure from a prosthesis, muscle spasms, knocking or bumping the limb, temperature, the weather, stress or sometimes they come on for no apparent reason.

It is often that these episodes of pain reduce with time, or they can be ignored. Medication can be provided to help with phantom pain if necessary, and should be discussed with your doctor or therapist.

## **Swelling**

Amputation surgery is a physically traumatic experience. The body will react by generating a large amount of swelling around and amputated residual limb. This swelling takes considerable time to settle. At the appropriate time, compression garments may be provided by the rehabilitation team to reduce the swelling prior to prosthetic fitting. This will help prepare the limb for fitting of the prosthesis.

Once provided with a prosthesis, it is likely that the swelling will continue to reduce for many months. As the amputated residual limb continues to reduce in size the comfort within a prosthesis may be compromised and areas of discomfort may result. At this time it is important to communicate with the rehabilitation team in order for improvements to be made. Rapid reduction of the swelling is likely to occur following fitting of the initial prosthesis. The prosthetic team will provide clear instructions how to manage this over the short term.

Once the volume of the limb has stabilised, it is likely that function and long term comfort levels will increase.

This period, where the swelling reduces rapidly, is one of the most difficult challenges for the lower limb amputee. Therefore, patience, good communication with the rehabilitation team and learning how to manage the residual limb are all essential during this time.

## **Prosthesis**

Once the residual limb is well healed, an assessment for a prosthesis will be carried out. Any prosthesis provided will be designed to restore function as much as possible, according to individual needs.

There is no such thing as a standard prosthetic design, or the best foot, as each person's needs will vary. Although the rehabilitation team will make the decision as to the most

appropriate prescription, the individual is encouraged to carry out their own research, such as via the internet, and discuss all of the options available with them.

The prosthetic socket is the most crucial element of the prosthesis, which provides comfort and a method of suspending the prosthesis to the body. The socket is custom made for each individual and may involve a series of steps during the manufacturing process to ensure maximum comfort is achieved. Adjustments can be performed to maintain comfort before a new prosthetic socket will be required.

### **Prosthetic Components**

There are many different prosthetic devices available that can be sourced from around the world. Function from these devices varies greatly. A prosthetic user who has limited function, due to age or other medical conditions, will not be prescribed the same devices as a younger fitter individual where there are no physical restrictions. A prescription may be revised as the individual progresses through their rehabilitation and replacement items are provided where appropriate.

The function from the components, such as the knee and the foot for a lower limb prosthesis, will depend on the quality of the fit of the prosthetic socket. The most expensive and complex knee joint, for example, will not improve function unless the person using it is comfortable and in complete control of the prosthesis.

Upper extremity prosthetic devices can vary from more basic designs to complex systems, containing electronic control systems. Due to the movements achieved by the human arm and hand, it is extremely difficult to replicate these movements with the use of an upper extremity prosthesis. More passive designs also exist where the emphasis is placed on restoring the anatomical appearance of the arm and hand rather than function.

There are a number of options for covering the prosthesis. Some individuals decide to leave the structural elements of the prosthesis on show, where no cover is applied. Others are keen to restore the appearance of the arm or the leg as closely as possible. The choice of finish is completely individual and will vary from person to person.

For those individuals showing an interest in sports, a specialised prosthesis may be required to allow recreational or competitive participation. A wide range of sports components and designs exist, allowing a return to pre-amputation activities as closely as possible.

### **Prosthetic training**

A prosthesis is a mechanical device whether as a replacement for an arm or a leg. The prosthetist will provide a well fitting and correctly aligned prosthesis to the body. Support from the rehabilitation team's therapists is then important for the user to learn to maximise the control and function from the prosthesis. A physiotherapist will typically work with a lower limb amputee and an occupational therapist will provide training for use of a prosthetic arm or hand.

Without this appropriate training, it is easy for bad habits become established, where the prosthesis is not used as effectively as possible. Over the long term, these bad habits may lead to further injury of the body through over use. Support from an appropriate therapist during early rehabilitation and also over the long term is important to restore as natural function as possible.

When provided with a new prosthesis, it is typical that the duration spent wearing the prosthesis will increase over time. The residual limb will adjust to a new environment, allowing the prosthesis to be used for longer periods of time.

## **Health and Well-Being**

Often amputation, as a result of trauma, occurs to people who lead reasonably active lifestyles. Energy is often spent at work, during sport and during daily mobility. A reduction in mobility following an amputation results in less energy being used. This and the level of food and alcohol intake may have an affect on body weight. Body weight is a contributing factor to comfort within a prosthesis, therefore it is important that a healthy lifestyle and stable weight is maintained.

## **Transport**

Producing a comfortable prosthesis and maintaining comfort will require frequent visits to the prosthetic service provider. The number of visits within the first year or two will reduce as the size of the limb stabilises. Long term transport considerations and journey times should be taken into account when deciding on the most appropriate provider of the service (if outside of the NHS).

## **Summary**

This information has focussed on some more negative issues which are commonly faced. The purpose is not to paint a gloomy picture, but provide an honest overview of the challenges that may be faced. It is a difficult time, one which all amputees have to pass through. The majority of those who have suffered amputation as a result of trauma do continue to lead active and healthy lives. Returning to work, active family lives and sport are all realistic aims for many. Of course some adjustment may be required, but life does continue.

Finally, it is important to understand that there are fantastic support networks which do exist through professional channels or people met along the journey. Often the best support can be provided by those who have been through the worse and have emerged positive and continue to lead active lives.

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