

# Limb Phenomena (Phantom Pain)

Over 80% of patients experience feeling in the limb that was removed. It can feel like tingling, numbness, warmth, cold, heaviness, burning or pain. The healing process can also add to the discomfort you feel.

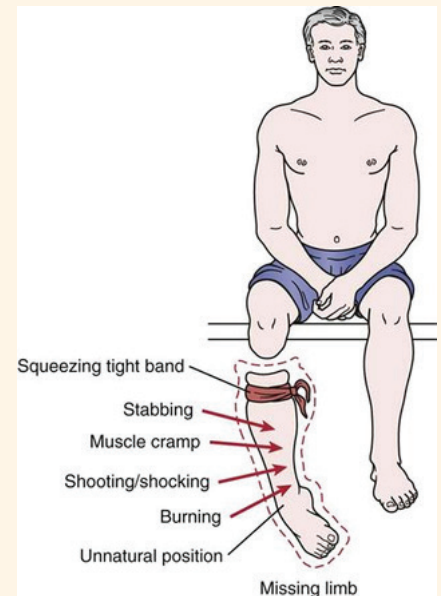
## What am I feeling?

Phantom Limb Pain is pain in the limb that is no longer there. The pain is real. This is common after an amputation.

Phantom Limb Sensation is feeling the limb that is no longer there. It is not painful.

Phantom limb pain and sensation can start a few days after amputation.

Residual Limb Pain is pain felt only in the remaining part of the limb. Residual limb pain is caused by; infection, diabetes, rubbing or sores from an ill-fitting prosthesis, nerve damage during surgery or the development of neuromas (clusters of nerve tissues).



## What causes my Phantom Limb Pain and Sensation?

There is no known cause, however there are 3 main theories:

### 1. Peripheral Nerves

These are nerves that send signals back and forth to the spinal cord, arms or legs, and organs. After the amputation, the end of the nerve in the residual limb can form little clusters called neuromas. These neuromas can get very sensitive and the brain may understand this as pain.

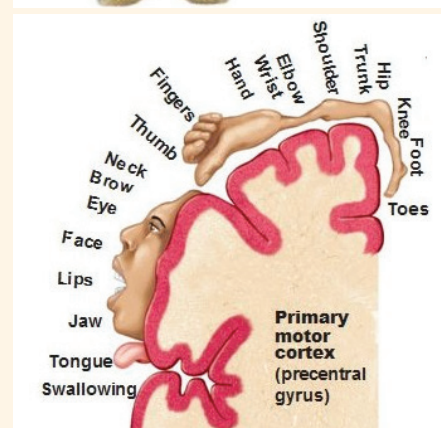
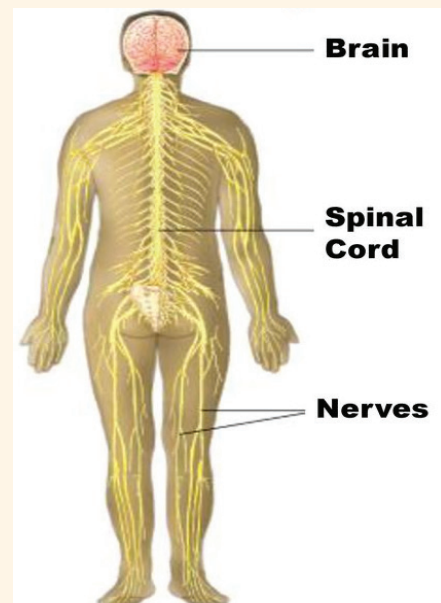
### 2. Spinal Cord

The spinal cord sends information between the brain and rest of body. Information coming into your spinal cord might change after an amputation and cause phantom pain and sensation.

### 3. Brain

The brain is the control centre for your body. The brain has a map for how all the parts of your body feel. When your limb is removed, the map of your limb is still in your brain.

After amputation the processing of information in your brain changes, possibly due to the lack of information coming from the missing limb. This is thought to cause the phantom pain and sensation.



# Limb Phenomena (Phantom Pain)

## What triggers my phantom pain or sensation?

- Urination (Passing water)
- Touch or pressure on residuum
- Weather (change in barometric pressure)
- Exposure to cold
- Anxiety and stress
- Pre-existing pain
- Inactivity (e.g. night-time)
- Fatigue
- Infection

## What are the symptoms?

Symptoms can come and go or be constant. It may last for seconds, minutes or hours.

In general, phantom limb pain decreases over time. However, some people feel some phantom pain or sensation for a long time.

1. Pain: Cramping, shooting, stabbing, twisting, throbbing or burning.
2. Feeling that the limb is still there.
3. Feeling an item of jewellery or clothing where the limb was.
4. The absent limb feels shorter (telescoping)
5. Feeling warmth, coldness, tingling and itchiness

## What helps?

- Manage stress, anxiety and depression: Support can be provided by your local services. Please talk to your medical team or GP about these services.
- Pre-amputation Pain: It is very important that pain in the pre-amputated limb (for example ulcer on foot) is managed well before surgery. There is a link between the phantom pain after operation and pain in the body part before the operation.
- Pain Diary: You must understand why you have phantom pain or sensation and work out strategies to manage your pain. Keep a pain diary to see what triggers your phantom pain or sensation. Your team can help you learn strategies to help your phantom pain or sensation.
- Mental imagery, for example: mirror box therapy
- Compression- shrinker socks.
- Cupping or tapping: Massaging the stump with the cupped palm of the hand or tapping with the tip of the fingers.
- Distraction
- A desensitisation programme helps decrease sensitivity in your residual limb. It involves gradually exposing the sensitive area to gentle pressure and textures. These textures can be silk, cotton, velvet, wool, rice, cous cous and beads.
- Electrical stimulation: A TENS (Transcutaneous Nerve Stimulation) machine is a small, battery-operated device that has electrodes on your skin. When it is switched on, you feel tingling sensation in the area of skin where the electrodes are put on. These can block or reduce the pain signals going to the spinal cord and brain, which can help reduce or relieve pain or muscle spasm.
- Exercise
- Medication (talk to your doctor)
- Massage
- Relaxation strategies

