active disability ireland

Factsheet

# Amputee

This factsheet has been developed in consultation with key national agencies with experience and knowledge in the specific areas. The information is provided for **guidance** only, allowing you to be more informed in your approach to being a more **inclusive** coach. No two people are the same, as such, please ensure your first step is to speak directly to the person – understand their abilities and goals and never assume.

## What is Amputation?

An amputation can be congenital or the surgical removal of part of the body, such as an arm or a leg, as a result of trauma, medical illness or surgery. Congenital amputation is birth without a limb or limbs, or without a part of a limb or limbs.

### It is important to understand the following points:

No two people with amputations are affected in the same way. Some amputees can function as well as any person without a disability, while others may be severely impaired. This depends on a number of factors, such as level of amputation, number of amputations, cause of amputation, pain, other medical conditions, type of prosthetic fit, length of residual limb and scar tissue. As an amputee cannot generate a muscular force to cause the prosthetic joint to rotate, other joints (most frequently the hips) will have to work harder to enable the movement. For instance, a lower-limb amputee will not be able to push the leg from the ankle; rather, they will pull the leg from the hip.

## Pain Threshold and Tolerance

As a coach, you need to discuss pain threshold and tolerance with the participant in order to have a better understanding of specific issues and concerns, such as their pain management routine (e.g. use of medication).

This information should be established and monitored regularly to prevent/reduce the risk of any aggravated or potential future injuries. Where needed, make appropriate adjustments.

**Phantom Limb Pain/Sensation** is very common in amputees. Phantom limb pain (PLP) refers to ongoing painful sensations that seem to be coming from the part of the limb that is no longer there. The limb is gone, but the pain is real. This pain can present itself in different forms where the participant may feel sensations such as burning, twisting, itching or pressure.

## What We May See When Coaching With People Who Have An Amputation

Prosthetic limbs mimic real limbs in a more simplistic way. The coaching techniques you normally use are a good place to start, but you might have to make adaptations.

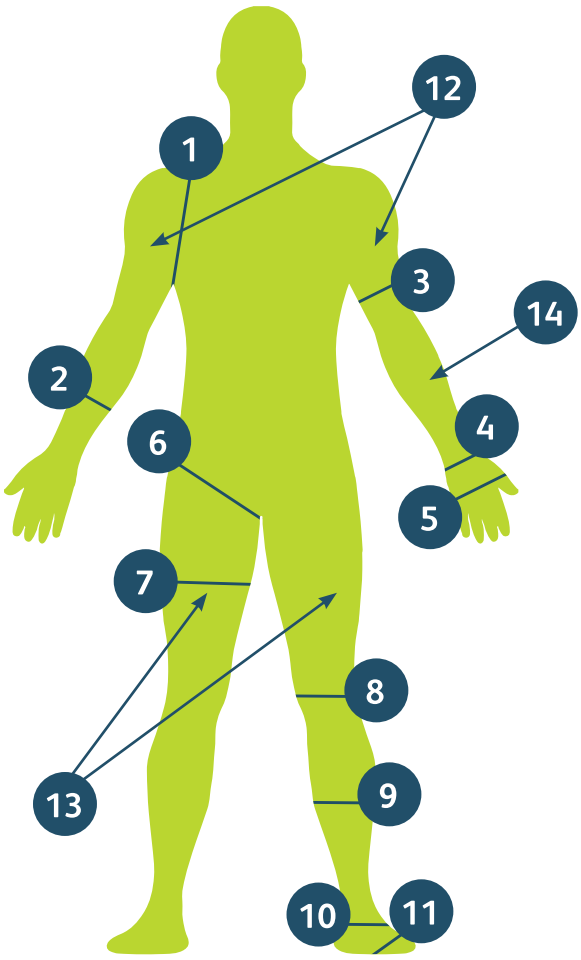
Let the participant guide you on what works best for them, as more often than not, they will be very familiar with what works for them, what causes discomfort, necessary adaptations etc.

- Consider their balance, coordination and strength as a starting point before introducing any sport-specific technical modelling
- A user should be aware that they can exercise on practically any type of prosthesis and do not necessarily need a blade. Some of the less active feet may restrict performance, feeling heavy and slow, but will allow them to do a degree of exercise. Encourage the individual to speak to their prosthetist
- If the participant is limited by their prosthesis, work with them on alternative exercises (sitting, lying etc.)
- Participants may use stump socks or liners to help with the fit of the residual limb into the socket (like wearing socks in shoes). Participants will sweat in the socket, which can become swollen and uncomfortable and may cause skin irritation or breakdown, so give them time out to change them or remove their prosthesis during the session if necessary
- Find out what the participant can do, or what may be preventing them from taking part (e.g. self-confidence, socket fit, pain, and technology)
- Consider the individual's physique, mobility and application. Speak to the participant to understand their personal abilities and desires
- Check the participant's range of movement as this can vary greatly.
- Constant and continual repetition and reinforcement can improve coordination and mastery, but it can cause skin breakdown. Talk to the participant about finding a good balance between repetitions and changing the nature of the loading
- Participants may have a slower response time when initiating movement on command, due to their prosthesis
- The participant may have limb movement restrictions. Therefore, they need to improve their basic movement skills, through drills
- Be aware of any balance and coordination problems, and take these into consideration with any relevant drills or game play
- Safety and comfort are paramount

# Levels of Amputation

Mobility, range of movement, coordination, balance and comfort vary greatly depending on the level of amputation. As a general rule, the more residual limb (stump length) an amputee has, the more mobile they will be.

1. Shoulder disarticulation or forequarter
2. Below elbow
3. Above elbow
4. Wrist disarticulation
5. Partial hand or finger(s)
6. Hip disarticulation or hemipelvectomy
7. Transfemoral amputation (above the knee)
8. Knee disarticulation (through the knee)
9. Transitibial amputation (below the knee)
10. Syme's (through the ankle)
11. Partial foot or toe(s)
12. Bilateral upper-limb loss
13. Bilateral lower-limb loss
14. Elbow disarticulation




**For further information and support:**

Please visit **www.amputee.ie**

or **www.nrh.ie**

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