

CURRENT KNOWLEDGE OF

PHANTOM LIMB PAIN

Phantom Limb Pain Defined

According to Culp & Abdi (2022), "Phantom limb pain (PLP) is defined as pain sensation to a limb, organ, or other tissue after amputation and/or removal" (pp.941). This indicates that anyone who has had any form of amputation can develop PLP. This can also occur at any point in the healing process but happens most often within the first year.

(Culp & Abdi, 2022; Flor, 2002)

Cortical Remapping

This theory attributes PLP to the brain's somatosensory and primary motor cortical areas being close in proximity within the brain. Since the two areas are so close to each other, signals can be interpreted as the amputated area being present even though it is no longer attached to the body. (Culp & Abdi, 2022)

Etiology of Phantom Limb Pain

Etiology: This remains unknown, but research indicates that both the central and peripheral nervous systems are involved. (Flor, 2002; Flor et al., 2006; Subedi, 2011)

Prevalence: Approximately 87% of all amputees will develop phantom limb pain (PLP) at some point in their lives with 65% will develop PLP within one month of amputation (Culp & Abdi, 2022).

Presentation: Phantom limb pain is most often described by patients as a feeling of burning, stinging, or aching. (Culp & Abdi, 2022; Flor, 2002; Flor et al., 2006; Subedi, 2011)

Proprioceptive Memory and Why it Matters

Proprioceptive Memory: This is a phenomenon that the central nervous system has a muscle-memory-like response to the amputated area due to completing repetitive tasks (Culp & Abdi, 2022).

Proprioceptive memory is important to understand because a patient could state that they want to move their amputated area of the body when doing everyday tasks. For example, it would not be uncommon for a patient to say that they tried to grab their toothbrush with their amputated hand. This is the brain trying to complete a task they have routinely done.

References

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