

Dealing with a lower-limb amputation - key points for amputation aftercare



Wound care: antibiotics should be prescribed to reduce the risk of infection. Dressings should be inspected and changed regularly and the area should be kept dry to prevent infection. If a prosthetic is fitted, the patient should also be advised to clean the prosthetic socket with soap and water on a daily basis to prevent infection.

Pain reduction: pain medication should be prescribed to treat pain at the site of amputation and patients should be educated about side effects for fall prevention. Phantom limb pain is also an issue for some patients. It is important to note that phantom pain is experienced as real pain by the patient and is not imagined. There are several theories as to the causes of phantom limb pain, from the formation of neuromas in remaining nerve endings, to mixed signals in the brain as a result of the missing limb. Medication will vary from patient to patient, with anticonvulsants, opioids and antidepressants being used. Massage and the application of hot and cold packs has been seen to be effective without resorting to medication and should be encouraged to promote circulation and relieve pain.

Physical therapy: exercise is important to maintain muscle strength and circulation in the amputated leg and overall strength is crucial if the patient hopes to make use of a prosthetic or orthotic. Walking with a prosthetic requires significantly more energy than walking with two functioning limbs and so cardiovascular fitness must be excellent to avoid other complications from over-exertion, for example in patients with pre-existing cardio problems.

Biomechanics: amputation of digits can affect gait and while most patients can expect to be back on their feet and mobile shortly after surgery, they should be closely monitored for any gait changes. Partial or whole foot amputations as well as above- and below-knee amputations will have a serious affect on gait in mobile patients and on the biomechanics of the remaining limb as the limb expends more effort and requires more strength than it does to walk with two fully functioning limbs. It is important that the remaining foot is monitored for altered pressure points. Well-fitted footwear and orthotics will help to reduce the strain on the remaining limb and to maintain a healthy gait without adding strain to the rest of the body.

Podiatric care for remaining limb: prosthetics are often fitted for patients with whole foot or partial leg amputations and orthotics are fitted for partial foot amputations or for healthy feet to compensate for a lost limb. Both devices are designed around a patients specific biomechanics along with the shape and structure of the stump site and give patients a good chance of regaining mobility after an amputation. General foot care will also need extra attention, as patients will find it more difficult to carry out the necessary foot care for the remaining limb. Podiatric appointments should be made to monitor nail care and infection, and to maintain the health of the remaining limb and thus avoid multiple amputations that lead to an increased risk of death.

Postoperative care following lower-limb amputations is crucial to lower the incidence of amputation-related death in Australia. All amputations, from above-knee, to foot and digital amputations require a multidisciplinary postop team to avoid infections and other postoperative complications. One of the highest risk factors for amputation is a previous amputation, so aftercare should involve wound check, physical therapy, social and psychological support and podiatric care to ensure the health of the remaining limb or digits and to avoid the risk of further amputation.

Patients should remain inactive for the first 3–5 days following digital amputation and longer for more-severe procedures to reduce the risk of haematoma. Following the recommended rest period, patients should start an exercise and rehabilitation programme to encourage mobility. Patients who are able to maintain mobility have a decreased risk of further amputation.

Wound care should include advice on stump care, swelling reduction through the use of pressure socks, and education on signs of infection. Immediate care while the patient is in hospital will not only benefit patient outcomes, but will promote healthy habits on patient discharge.

Ongoing podiatric care is crucial for all patients with lower-limb amputations to reduce the risk of further amputation. An amputation will make ongoing foot care more difficult than it was prior to amputation and regular podiatric consultations for nail care, infection and mechanical checks are important to maintain the health of the remaining limb and the overall health of the patient.



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