Major amputation

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Choice of operation The major choice is between an above- and below-knee operation. A below-knee amputation preserves the knee joint and gives the best chance of walking again with a prosthesis (Figure 61.37). However, an above-knee amputation is more likely to heal and may be appropriate if the patient has no prospect of walking again. If the femoral pulse is absent, the amputation should be above the knee. Unfortunately , the presence of a femoral pulse does not guarantee healing of a below-knee amputation and sometimes a failed below-knee amputation may require revision to an above-knee procedure. For above- or below-knee amputations with a good stump shape, it is possible to hold a prosthesis in place simply by suc tion, without any cumbersome and unsightly straps. The stump should be of su ffi cient length to give the required leverage, i.e. not less than 8 /uni00A0 cm below the knee (preferably 10–12 /uni00A0 cm) and not less than 20 /uni00A0 cm above the knee. Thr ough-knee or knee disarticulation has regained popularity as an alternative to above-knee amputation if soft-tissue viability permits. This amputation preserves the full length of the femur and patella and pr ovides a long mechanical lever that is controlled by stronger muscles as the line of muscle transection is distal and occurs through fascial tissue as opposed to thick muscular bellies, as is the case with an above-knee amputation. The bulbous nature of the amputation end, initially thought a hindrance for subsequent suspending prosthetic that is less likely to rotate than an above- knee amputation pr osthetic. For patients unlikely to mobilise with a prosthetic, e.g. elderly patients or patients with bilateral amputations, the increased length of the stump provides better counterweight to the torso, enabling better core stability . Postoperative care of an amputee Opiate pain relief should be given regularly . Care of the good limb must not be forgotten – a pressure ulcer on the remaining foot will delay mobilisation despite satisfactory healing of the stump. Exercise and mobilisation are of the greatest impor - tance. After surgery , flexion deformity must be prevented and exercises started to build up muscle power and coordination. Mobility is progressively increased with walking between bars and the use of an infla table artificial limb, which allows weight bearing to be started before a pylon or temporary artificial limb is ready (Figure 61.38). Early assessment of the home is part of the programme; this allows time for minor alterations, such as the addition of stair rails, movement of furniture to give support near doors and provision of clearance in confined passages. Complications Early complications include haemorrhage, which requires return to the operating room for haemostasis; haematoma, which requires evacuation; and infection, usually in associ - ation with a haematoma. Any abscess must be drained and appropriate antibiotics given. Gas gangrene can occur in a mid-thigh stump from faecal contamination. Wound dehis - cence and gangrene of the flaps are caused by ischaemia; a higher amputa tion may be necessary . Amputees are at risk of deep vein thrombosis and pulmonary embolism in the early postoperative period and prophylaxis with subcutaneous heparin is essential. Later complications include pain resulting from unresolved infection (sinus, osteitis, sequestrum), a bone spur, a scar adher - ent to bone and an amputation neuroma. Patients frequently remark that they can feel the amputated limb (phantom limb) and sometimes remark tha t it is painful (phantom pain). The sur geon’s attitude should be one of firm reassurance that this sensation will almost certainly disappear with

time; gabapentin or amitriptyline may help. Other late complications include ulceration of the stump because of pressure e ff ects of the pros - thesis or increased ischaemia. -

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