Digit Amputation/Disarticulation Procedure

For amputation of one digit at the proximal interphalangeal joint or just above, the distal limb is scrubbed and disinfected as for any surgery but usually not shaven as the hair is typically very short or absent. The claw and interdigital space are cleared of debris using the scrub brush and/ hoof knife. These surgical procedures are commonly done in the field and are considered "clean" procedures but not sterile.

After preparation, a skin incision is made in the interdigital space and then beginning about 2 cm proximal to the interdigital cleft angling upward to a point on the lateral or medial side of the leg even with the distal margin of the accessory digit or dewclaw. All soft tissues can be sharply incised along the line of the skin incision. The skin is undermined about 2-3 cm away from incision to create a skin flap which will be used to close the surgical area after amputation. Obstetrical/Gigli wire is then placed between the digits and the distal end of the first phalanx cut. If the cut misses this landmark and a portion of the second phalanx remains proximal to the cut it should be removed. If the articular surface of the first phalanx is intact it should be roughened with a knife to promote fibrosis and quicker wound healing. The skin flap is then sutured to cover as much of the surgical area as possible; it can be trimmed to size to allow drainage and granulation of the wound (there has been some debate over the benefits of closing the skin wound or leaving it open to allow drainage; the decision on which method is usually left up to the surgeon performing the procedure). It is then bandaged to protect the surgical site from contamination as well as to apply pressure to reduce haemorrhage.

Digit Disarticulation

Alternatively, the digit may be amputated by sharp dissection to disarticulate the proximal interphalangeal joint. The narrow joint space is traced with the scalpel to make the incision. To prevent excess bleeding, one or two arteries can be ligated or a very tight bandage could be used. The cut surface of the removed portion should be carefully examined for evidence of sepsis or necrosis. If damaged tissue extends above the amputation and it is not debrided the outcome will be poor. After determining that all diseased tissue is removed, the surface of the wound is covered with an antiseptic or antibiotic dressing and a bandage applied to control hemorrhage.