**Surgical Technique**

1. A variable-length incision is made directly over the splint bone, extending from approximately 1 cm distal to the distal extremity of the splint bone to approximately 2 cm proximal to the proposed site of amputation.
2. The subcutaneous fascia is incised along the same line as the incision, through the periosteum.
3. The periosteum is elevated off the affected part of the splint bone.
4. The distal end of the splint bone is undermined with the aid of sharp dissection and is freed from surrounding fascia.
5. Then the end is grasped firmly with forceps, such as Ochsner forceps.
6. With further sharp dissection, the splint bone is separated from its attachments to the third metacarpal or metatarsal bone. Some of the attachments to the third metacarpal or metatarsal bone may need to be severed with the aid of a chisel.
7. A curved osteotome can also be used to sever these attachments. The splint bone should be amputated above the fracture site or the area of infection with the aid of a chisel or osteotome.
8. The splint bone should be removed (a large curette is sometimes necessary to remove diseased bone adequately).
9. The proximal end of the splint bone should be tapered to avoid leaving a sharp edge and any loose fragments removed or flushed out of the surgical site.
10. The periosteum should be sharply excised to reduce the chances of periosteal proliferation. If infection is present, unhealthy scar tissue must be excised with sharp dissection, and all sequestra removed.
11. Any bleeding should be controlled at this time.

When infection is present, generally the region is vascular because of acute and chronic inflammation. If the fracture is not infected and is very proximal, the fracture should be repaired by use of a small bone plate with screws only placed into the splint bone. If the fracture is infected and proximal, the distal end should be removed and the proximal segment anchored using a contoured bone plate fixed to the splint bone and cannon bone. Bone screws alone may be more likely to cycle and break.

If this is not performed, the proximal fragment may become displaced because of the inadequate amount of interosseous ligament holding it in place. When amputating a lateral splint bone in the pelvic limb, one must be careful to avoid incising the large, dorsal metatarsal artery III (great metatarsal artery), which lies above and between the third and fourth metatarsal bones in the interosseous space. If large amounts of fibrous tissue are present because of an infectious process, the artery may be difficult to dissect from the soft tissue component. If the artery is inadvertently severed, it can be ligated without causing problems associated with loss of blood supply to the distal limb. Following removal of the splint bone, the subcutaneous tissue should be closed with a synthetic absorbable suture. Considerable dead space may result from removal of the bone, especially if much bony and fibrous tissue reaction was present. Some patients with a severe infectious process or significant dead space may require a Penrose drain for a few days. However, a good pressure bandage is often adequate to reduce dead space. Only in rare instances is an ingress-egress system of flushing indicated. The skin should be closed with a monofilament nonabsorbable suture using a simple interrupted pattern. The incision is covered with an antimicrobial dressing and is placed under a pressure bandage.