The outcome of pelvic reconstruction with non-vascularised fibular grafts after resection of bone tumours.

Abstract: We retrospectively evaluated 18 patients with a mean age of 37.3 years (14 to 72) who had undergone pelvic reconstruction stabilised with a non-vascularised fibular graft after resection of a primary bone tumour. The mean follow-up was 10.14 years (2.4 to 15.7). The mean Musculoskeletal Tumor Society Score was 76.5% (50% to 100%). Primary union was achieved in the majority of reconstructions within a mean of 22.9 weeks (7 to 60.6). The three patients with delayed or nonunion all received additional therapy (chemotherapy/radiation) (p = 0.0162). The complication rate was comparable to that of other techniques described in the literature. Non-vascularised fibular transfer to the pelvis is a simpler, cheaper and quicker procedure than other currently described techniques. It is a biological reconstruction with good results and a relatively low donor site complication rate. However, adjuvant therapy can negatively affect the outcome of such grafts.