

## **The Sauerbruch–Van Nes total turn-up plasty**

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**Background:** Situations in which the femur is entirely compromised or rendered nonviable due to infection, tumor, or severe trauma present major surgical challenges and significantly affect patient morbidity. Most patients have already undergone multiple procedures to preserve the limb and suffered numerous complications. In these extreme cases, drastic measures such as hip disarticulation are often considered; however, alternatives like the Sauerbruch–van Nes total turn-up plasty have been described.

**Objective:** To describe the surgical technique and report outcomes of four patients treated with this procedure.

**Methods:** We reviewed the first four consecutive cases operated at our institution between 2012 and 2023. The series included two men (aged 34 and 65) and two women (aged 80 and 51). All had polymicrobial infections and multiple prior surgeries. The first patient had Ewing's sarcoma requiring resection and prosthetic reconstruction; the second had a total hip arthroplasty for femoral neck fracture; the third underwent total knee arthroplasty for osteoarthritis; and the fourth required fixation for pelvic and femoral fractures after a car accident.

**Results:** The first patient, with 13 years of follow-up, ambulates with a crutch. In the second and third patients, the plasty was performed emergently for septic shock; both died on postoperative days five and seven, respectively. The fourth patient has two years of follow-up and is undergoing rehabilitation with an orthosis.

**Conclusion:** The Sauerbruch–van Nes total turn-up plasty is a viable option when the femur is nonviable or in severe recurrent infections. It is less mutilating than hip disarticulation but requires a skilled multidisciplinary team.