

**Results of an Early Wound Bathing Protocol (3 Days Postop) After Orthopaedic Trauma Surgery**

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**Purpose:** The time from surgery to the allowance of bathing surgical wounds is typically at surgeon discretion and is without a standard. Delayed bathing (i.e., after suture/staple removal) and early bathing (i.e., prior to suture/staple removal) of surgical wounds each have theoretical advantages and disadvantages. Due to little existing clinical evidence regarding the safety of early bathing in orthopaedic trauma patients, the outcomes of a protocol of early (3 days postoperatively) bathing of acute surgical wounds were evaluated.

**Methods:** After IRB approval, all patients operatively treated between September 2017 and September 2023 with a standard postoperative protocol that called for bandage removal and bathing over acute uncomplicated surgical wounds were retrospectively reviewed. Excluded were patients with complicated wounds defined as those associated with open fractures, revision surgery through recent (<6 weeks) surgical wounds, and acute traumatic local skin abrasions or lacerations, as these patients were not treated with the early bathing protocol. Also excluded were patients with immobilization (e.g., splints) precluded wound access at 3 days postop, with known prior infections and those without 3 months of follow-up. The primary outcome was reoperation within 3 months for wound or infectious complications.

**Results:** 922 patients were treated and reviewed in the included time frame. 486 patients were excluded based on eligibility criteria, leaving 436 studied patients (mean age 57 years [range, 18-95], 60% female). 0.9% (4/436) had a reoperation for a wound or infectious complication including 1.3% of patients treated for acute fractures and/or dislocation (4/302), and 0% each for those treated for nonunion or malunion (n = 111), acute soft-tissue injury (n = 10), or other reasons (n = 13).

**Conclusion:** A protocol of dressing removal and bathing over acute uncomplicated surgical wounds at 3 days was associated with reoperation for a deep infection or wound complication in 0.9% of patients. This complication rate is favorable relative to published norms after orthopaedic trauma surgery supporting the safety of an early bathing protocol.