

# A Randomized Prospective Study of Total Hip Wound Closure with Resorbable Subcuticular Staples

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Resorbable subcuticular staples provide comparable skin closure to metal staples following total hip replacement with lower incidence of wound erythema or discomfort.

This is a randomized controlled study comparing a resorbable subcuticular staple system with stainless steel wound stapling.

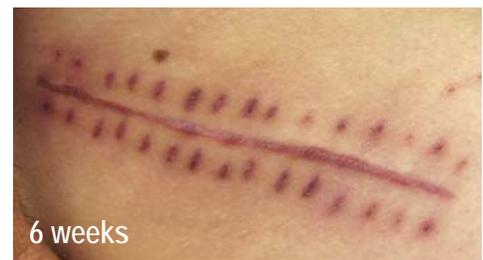
IRB approval and patient consent was obtained on all patients. Sixty patients (30 each group) were randomized to receive either resorbable subcuticular staples or stainless steel staples after primary total hip replacements. Incision length, number of staples used, and any staple insertion problems were recorded. Subjective reports of pain levels or incision complaints were solicited and wound photographs were obtained on day 1, day 14, and at 6 weeks post operatively. The presence of wound drainage, erythema, wound separation, or echymosis was recorded at each visit, and all postoperative complications were recorded.

The average BMI in the metal staple group was 34.7 with an average incision length of 14.2 cm, requiring 20 staples to close, compared with averages of 32 BMI, 13.1 cm incision length and 16 staples for the resorbable group. One patient in the metal group required an I&D for a hematoma with partial dehiscence. The incidence of drainage was higher at discharge for the metal group ( $p < .05$ ) as was the incidence of wound erythema at 2 weeks ( $p < .05$ ). Wound comfort was reportedly better at all times with the resorbable staples ( $p < .01$ ) compared with the metal staples.

A resorbable subcuticular staple system can provide comparable wound closure to stainless steel staples following total hip replacement and may do so with less local discomfort or erythematous reaction.



Resorbable Subcuticular Staples



Stainless Steel Staples