

# Violation of the Rectus Complex Is Not a Contraindication to Component Separation for Abdominal Wall Reconstruction

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## Abstract

**Background:** Component Separation (CS) is an effective technique for reconstructing complex abdominal wall defects.(1-4) Surgeons often avoid CS when the rectus abdominis complex has been violated.(5) However, there is no credible evidence to support rectus violation as a contraindication to CS. We hypothesized that patients have similar outcomes whether or not the rectus complex has been violated.

**Methods:** We evaluated the surgical outcome of all consecutive patients who underwent CS for abdominal wall reconstruction over a 12-year period. Primary outcome measures included wound-healing complications and hernia recurrence between patients with and without rectus violation. Rectus violation patients were further classified into four groups (prior/current ostomy, prior/current gastrostomy/jejunostomy tube, surgical transection of rectus complex, and surgical resection of rectus complex), and the impact of the type of rectus complex violation was analyzed. Univariate and multivariate logistic regression analysis was used.

**Results:** One-hundred seventy patients were included in the study: 116 patients (68%) with and 54 patients (32%) without rectus violation. Mean follow-up was  $15.9 \pm 14.1$  months. The overall complication rate was similar between the violation (n=29, 25%) and the non-violation groups (n=13, 24%). There were also no differences in specific surgical outcomes between the violated vs. non-violated groups: recurrent hernia (8% vs. 9%, p=0.77), abdominal bulge (4% vs. 6%, p=0.68), skin necrosis (21% vs. 22%, p=0.84), skin dehiscence (7% vs. 4%, p=0.51), cellulitis (9% vs. 9%, p=1.0), abscess (13% vs. 9%, p=0.61), respectively. The ostomy group had the highest incidence of complications of the violation types (34%), but this was still statistically equivalent to the non-violated group (24%, p=0.42)

**Conclusions:** We found that surgical outcomes were similar for CS whether or not the rectus complex was violated or not. Contrary to what has been previously recommended, avoidance of CS in the face of rectus violation may be unwarranted.

## References

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## Financial Disclosure and Products

None of the authors has a financial interest in any of the products, devices, or drugs mentioned in this manuscript.