

# Management of Upper Abdominal Laxity After Massive Weight Loss: Reverse Abdominoplasty and Inframammary Fold Reconstruction

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## Abstract

**Background** Central to body contouring after weight loss surgery is treatment of the abdominal region, often through a circumferential abdominoplasty. This procedure, however, neglects the laxity of the lower thoracic/upper abdominal region. A reverse abdominoplasty with reconstruction of a new inframammary fold (IMF) corrects this deformity through removal of excess skin along the IMF. Since 2002, we have performed 88 reverse abdominoplasty procedures within the context of a single or staged total-body lift (TBL). **Methods** A retrospective chart review of 129 TBL cases indicated that 88 patients had a combined or staged reverse abdominoplasty and circumferential abdominoplasty. Complication rates were noted as localized or generalized. **Results** Fifty-three of our patients had combined reverse abdominoplasty and circumferential abdominoplasty and 35 had the reverse abdominoplasty during a second stage. The complication rates for both groups were about 5% per patient per procedure with differences that were not statistically significant. Also, the revision rates for reverse abdominoplasty and circumferential abdominoplasty were similar for both groups, indicating patient satisfaction with the procedures.

**Conclusion** In selected patients, effective treatment of the abdominal region demands correction of both the upper and lower abdominal laxity and contour. This can be performed safely, effectively, and reliably by a reverse abdominoplasty

with IMF reconstruction independently or simultaneously with circumferential abdominoplasty.

**Keywords** Body contouring · Circumferential abdominoplasty · Inframammary fold reconstruction · Massive weight loss · Reverse abdominoplasty

During weight gain, the anatomical changes that occur in soft tissues and the pattern of adipose deposition are determined by the patient's gender, age, caloric intake, level of activity, and genetic predisposition. After massive weight loss, a broad spectrum of deformities can result in an unusual body habitus. The extent of the deformities is similarly influenced by the patient's age, gender, original weight, the lost weight, and genetic predisposition. Thus, many patients experience significant changes in the form, shape, and contour of their arms, upper thorax, abdomen, waist, back, buttocks, thighs, and legs in a predictable manner.

The abdomen is the region of the trunk that extends from the costal margin to the pubic rim. Like other regions of the body, hypertrophy of the adipose tissue results in expansion of subcutaneous tissues of the abdomen in a three-dimensional manner. This results in stretching of Scarpa's fascia, the superficial fascial system, and dermal breakage of skin to a varying degree. Consequently, zones of adherence and demarcations become loose and the skin develops striae. With massive weight loss, the damaged tissue is deflated and the abdominal tissue becomes lax in both vertical and transverse directions. Most massive weight loss patients present with epigastric fullness and a larger suprapubic pannus that may be demarcated by a variable transverse fascial attachment between the abdominal dermis and superficial muscular fascia at the

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