Drains are Not Needed in Body Contouring Procedures

Karol A Gutowski, MD, FACS
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Karol A. Gutowski, MD, FACS
Disclosures

The Doctors Company - Advisory Board
Angiotech/Quill - Advisory Board
Suneva Medical - Instructor
Viora - Speaker

Will not discuss off-label uses
Objectives

Rethink the use of routine subcutaneous drains in body contouring procedures

Make a change in your practice

Improve your patient’s experience
Common Drain Sites

- Breast
  - Reduction
  - Mastopexy
  - Augmentation
- Trunk
  - Abdominoplasty
  - Body lift
- Extremity
  - Arm lift
  - Thigh lift
Drains

• “Standard of care” but no supporting evidence
  – Do not prevent hematomas
  – No evidence in reducing seromas (non-lymphatic cases)

• Risks
  – Entry point for pathogens
  – Patient discomfort & anxiety at removal
  – More home care & less patient mobility
  – Additional scarring
Drains. Although wound drains can minimize the amount of fluid at the surgical site, evidence indicates that the use of drains neither increases nor decreases postoperative complications, causes greater patient discomfort, and possibly increases the length of the hospital stay. 27-29

**Recommendation:** In standard reduction mammoplasty procedures, evidence indicates that the use of drains is not beneficial. However, if liposuction is used as an adjunctive technique, the decision to use drains should be left to the surgeon’s discretion.

**Level I, II Evidence: Grade A**
• No evidence to support drains in primary breast augmentation

• Drains may increase risk of capsular contracture 4x

• No guidelines for secondary cases with capsulectomy or with biological products
Patient’s Perception of Drains

Tummy Tuck Without Drainage Vs. with Drains?

Does it make a difference on swelling? I notice that people who have Tummy Tucks without drainage seem to be more swollen than tummy tucks done with. What is the difference?

Tummy Tucks and Drains

Thank you for your question. Tummy tucks create a large dead space above the belly button down to the incision. Fluid can accumulate in this space. In addition, incisions used to perform abdominoplasty divide small lymphatic vessels decreasing the body's ability to return fluid from the circulation. Drains are usually stay in from 4 days to two weeks. The drains are used to remove fluid that collects in the dead space created. When drain output is low enough (most surgeons...more)

Tummy Tuck drainage at surgeon’s discretion

To drain or not to drain is at the surgeon’s discretion as there is no consensus. The majority of surgery's drain, some for just a couple of days, some for weeks. Some is to tolerate the cavity closed thus obliterating the need for drainage. The main purpose is to prevent small hematomas or seromas from forming. It usually does not present large bleeds from occurring and the amount of swelling should be less as bruising (which contributes to swelling) should also be less. However, it may be that...more

Tummy Tuck Q&A

94% WORTH IT RATING 2,218 Reviews
Learn about Tummy Tuck

Is Drainless Tummy Tuck a Safe Procedure?

After consulting a board certified plastic surgeon, I was told that some physicians do not do the drainless procedure because it takes additional time in the OR (hence higher cost) or that the same risks exist when using drains. Is it safe? I have heard conflicting views and am a bit concerned/confused about this. I must admit, no drains sounds very appealing to me as a patient.

Tummy tuck can be done safely without a drain

According to answers posted on this site it seems that performing a tummy tuck without a drain is seldom recommended. There was a similar debate concerning drains after a facial lift 50 years ago, and again surgeons divided into those that did drain and those that did not. Today very few surgeons consider using a drain in a facelift procedure, and my feeling is that in tummy tuck too in the future few surgeons will continue placing a drain. In our practice for the past nine years we have...more

Drainless works in experienced hands

Drain less Tummy Tuck operations are performed by Plastic Surgeons who use a quilting technique. In this procedure, multiple sutures are placed between the muscle and fat layer to quilt the skin like a Down comforter. It requires a lot more time in the OR and needs an experienced physician. We perform more than 100 Tummy Tucks a year and still use drains. Our complication rate with drains is extremely low, so I see no reason to add the time to the procedure. While the idea of no drains...more
Thought I would start another thread for recovery questions and comments. Here goes the first one...

How long have you had your drains or how long did you have them? I am 10 days out and still have both. NOT happy about that. Think that I am doing too much, but LIFE goes on. Was supposed to get 1 out tomorrow but drainage jumped back up to 40 today. YUCK!! Hope everyone is recovering nicely and if you have any questions or comments POST THEM HERE!!
Progressive Tension Sutures: A Technique to Reduce Local Complications in Abdominoplasty

Harlan Pollock, M.D., and Todd Pollock, M.D.

Dallas, Texas
Drains in Abdominoplasty

Techniques in Cosmetic Surgery

Progressive Tension Sutures: A Technique to Reduce Local Complications in Abdominoplasty

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Dallas, Texas

IDEAS AND INNOVATIONS

Use of Absorbable Running Barbed Suture and Progressive Tension Technique in Abdominoplasty: A Novel Approach

Allen D. Rosen, M.D.
Mount Sinai, N.Y.

PRS 2010

Abdominoplasty With Progressive Tension Closure Using A Barbed Suture Technique

Jeremy P. Warner, MD; and Karol A. Gutowski, MD

ASJ 2009
Barbed Progressive Tension Sutures
Barbed Progressive Tension Sutures

Finish lower abdominal PTS
Address the umbilical transposition
Barbed Progressive Tension Sutures

Use Non-Dominant Hand for Traction Toward Incision

Traction

Abdominal fat

Rectus fascia
Body Lift

- Deep “3-point” interrupted sutures
  - Superficial fascia - deep tissue - superficial fascia
  
  or

- Running barbed suture in superficial fascia

- Either method closes the posterior dead space
- Abdominal binder or compression garment
Arm Lift

- Medial or posterior incision
- “3-point” interrupted suture
  
  or

- Running barbed suture in superficial fascia

- Moderate compression (ACE wrap or garment)
Thigh Lift

- Upper incision with or without medial incision
- Running barbed suture in superficial fascia
- Consider drain (remove next day if low output)
- Moderate compression (ACE wrap or garment)
Seroma Treatment

• Amount, location & timing
• Seroma treatment
  – Aspirate
  – Percutaneous drain (SeromaCath)
  – Sclerosing agent
    • Doxycycline 500 mg in 50 cc NS
    • Ethanol 95%
  – Seroma capsule excision
Breast Reduction (No Drains)

- Breast Reductions (481 patients, 910 breasts)
  - Tumescent infiltration (500 to 1000cc per breast)
  - 93% inferior pedicle with Wise pattern
  - 71% with lateral chest liposuction
- 4 hematomas (0.4%)
- 1 abscess (0.1%)
- 0 seroma
Abdominoplasty (No Drains)

- 177 Abdominoplasties + 34 Body lifts (211 patients)
  - Tumescent infiltration (1000 to 2000cc)
  - 78% with lateral truck liposuction
- Anterior barbed progressive tension sutures
- Posterior barbed running sutures
- Compression garments or binders
- Early ambulation
## Abdominoplasty (No Drains)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seroma</strong></td>
<td>6</td>
<td>(3%)</td>
</tr>
<tr>
<td>Drained by single needle aspiration</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Drained by two needle aspirations</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td><strong>Wound dehiscence (&gt; 1 cm)</strong></td>
<td>5</td>
<td>(2%)</td>
</tr>
<tr>
<td>Anterior &amp; superficial (skin only)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Posterior &amp; superficial (skin only)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Lateral &amp; deep (Scarpa’s fascia)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Hematoma</strong></td>
<td>0</td>
<td>(0%)</td>
</tr>
</tbody>
</table>
Arm & Thigh Lift (No Drains)

- **Arm lift** (51 patients, 102 arms)
  - Tumescent infiltration (100 to 300cc per arm)
  - 21% with posterior arm liposuction
  - 3 seromas (2 aspirated, 1 excised)

- **Thigh lift** (19 patients, 38 thighs)
  - Tumescent infiltration (400 to 800cc per thigh)
  - 44% with thigh liposuction
  - 7 no drain, 12 drain removed next day
  - 2 seromas (1 aspirated, 1 excised)
No Drain Body Contouring Patient

Arm lift

Mastopexy with lateral auto-augmentation

Body lift

Thigh lift
No Drain Body Contouring Patient

No undermining = no PTS

Undermining = PTS
No Drain Body Contouring Patient

After 2 weeks
No Drain Body Contouring Patient

After 4 weeks
No Drain Body Contouring Patient

After 3 months
Summary

• Little evidence for drains in body contouring
• Surgical technique can eliminate need for drains
• Low seroma incidence when drains not used

• Personal experience
  – No patient ever asked for a drain to be used
  – All patients were happy that drains weren’t used
Not Using Drains is an Uplifting Experience!
Drains are Not Needed in Body Contouring Procedures

Karol A Gutowski, MD, FACS
Karol@DrGutowski.com
BS-PTS Abdominoplasty (1 year)
BS-PTS Abdominoplasty (1 year)
BS-PTS Abdominoplasty (5 months)
BS-PTS Abdominoplasty (5 months)
BS-PTS Abdominoplasty (5 months)
BS-PTS Abdominoplasty (7 weeks)
BS-PTS Abdominoplasty (7 weeks)
MWL BS-PTS Abdominoplasty & liposuction (4 months)
MWL BS-PTS Abdominoplasty & liposuction (4 months)
MWL BS-PTS Abdominoplasty & liposuction (4 months)
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Video Presentation