Treating Lipedema with Liposuction

Karol A Gutowski, MD, FACS

Private Practice

University of Illinois & University of Chicago

Disclosures

Merz

Syneron/Candela

May use brand names due to lack of distinguishing generic names

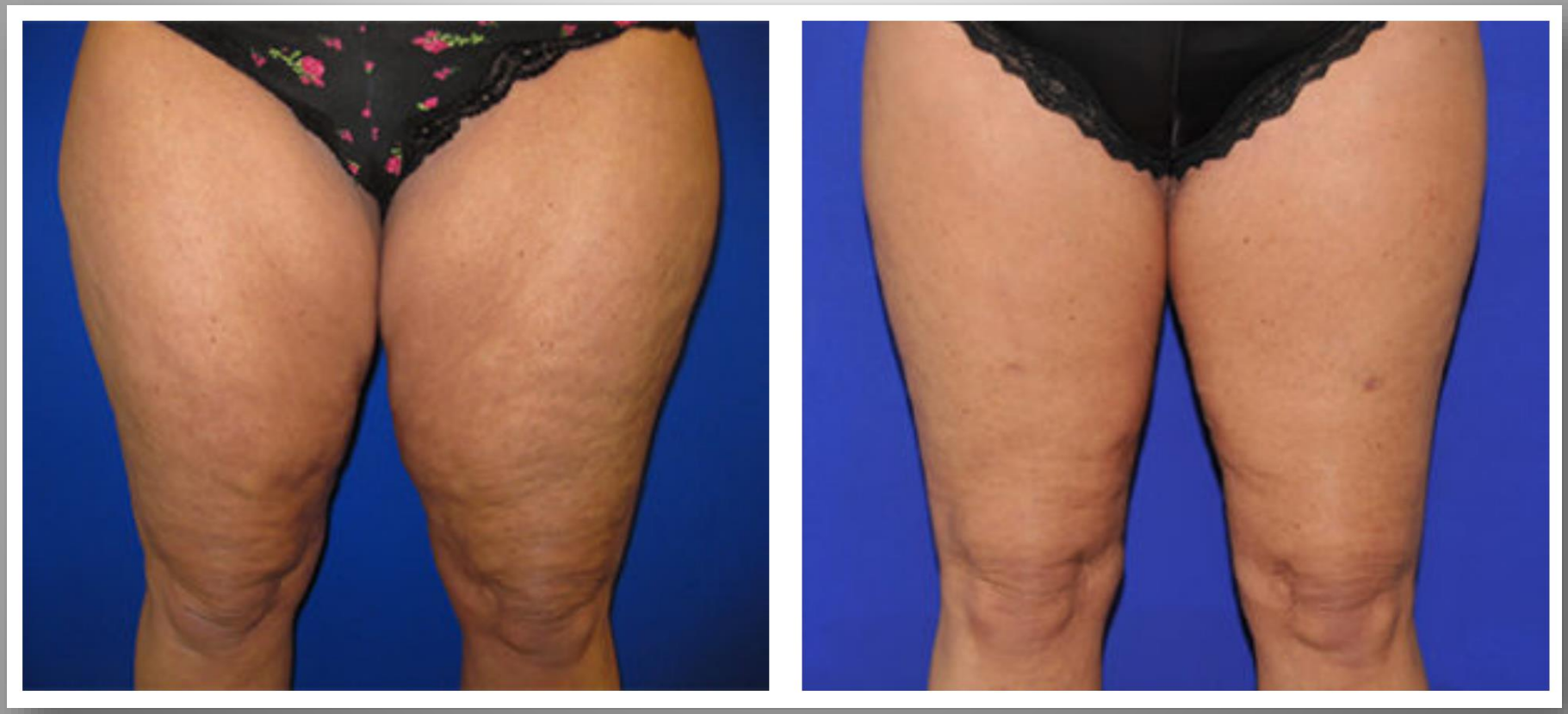
What is Lipedema?

- Fat overgrowth disorder
- Women's lower extremities

Why do we Need to be Aware

- It is common
- Significant quality of life issue
- Non-plastic surgeons treating it with liposuction
- Much misinformation about which liposuction technique is best
  - Water Lipo (BodyJet)

Deceptive Lipedema Treatment

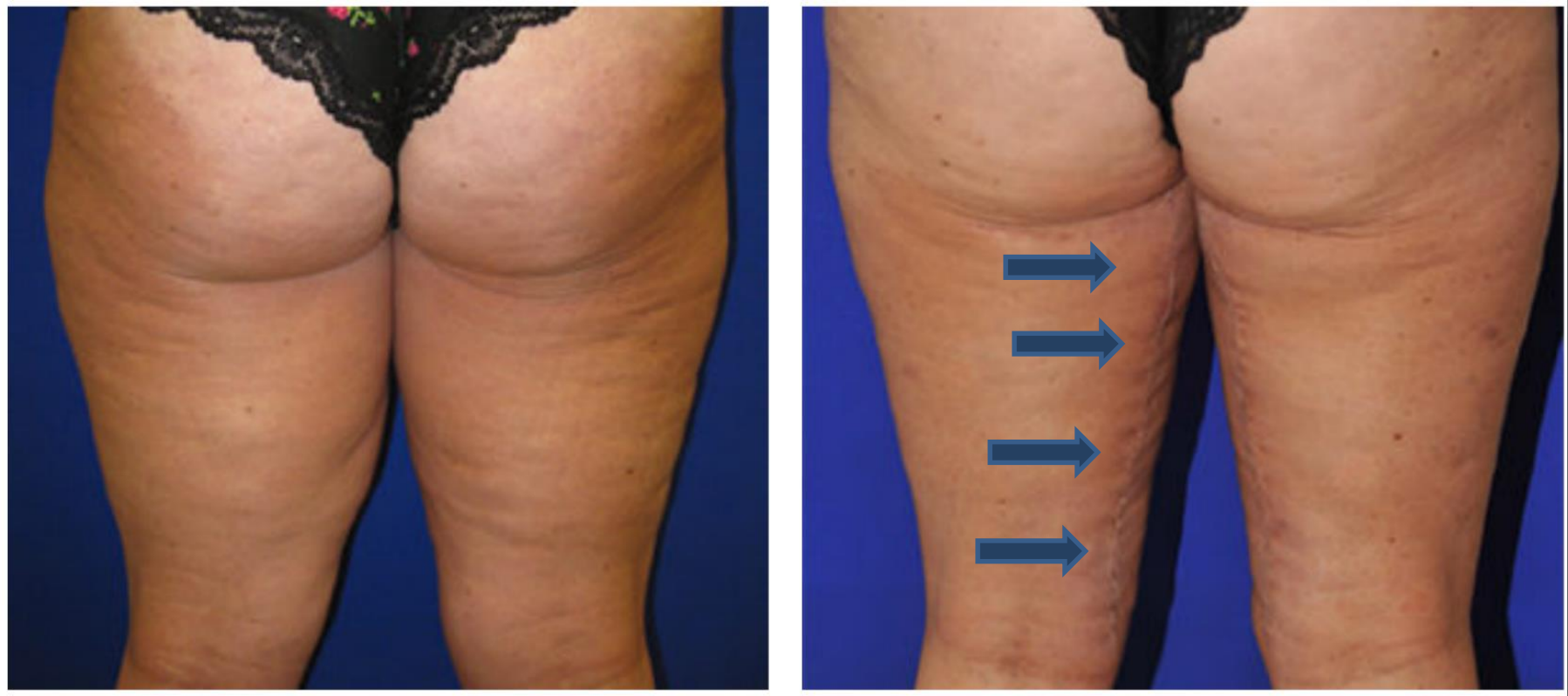


Before & after High Def Vaser liposuction, 3 sessions

Deceptive Lipedema Treatment

Before & after High Def Vaser liposuction, 3 sessions

Deceptive Lipedema Treatment



Fake News! This patient had a **thigh lift!**

It’s a Process…….

Before

After 2 rounds of liposuction

After liposuction & thigh lift

Published Papers in PubMed

- Lipedema 183 results
- Lipedema Treatment 114 results
- Lipedema Surgery 65 results
- Lipedema Liposuction 38 results
  - Primary studies on liposuction 9 publications
  - Reviews of literature 4 publications
- Comparative studies 0
- Randomized controlled studies 0
- Lymphatic Sparing Liposuction 3 results
  - 0 related to Lipedema

Liposuction Options

- Traditional (SAL)
- Power Assisted (PAL)
- Ultrasound Assisted (UAL)
- VASER Assisted (VAL)
- Laser Assisted (LAL)
- Water Assisted BodyJet (WAL)

Small Study: Power Assisted Lipo

JDDG Journal of the German Society of Dermatology

DOI: 10.1111/j.1610-0387.2010.07504.x

Original Article

Liposuction is an effective treatment for lipedema – results of a study with 25 patients

Stefan Rapprich, Anne Dingler, Maurizio Podda
Department of Dermatology, Darmstadt Hospital, Germany

2010

- Vibration liposuction (PAL)
- Good results with significant pain and leg volume reduction

Good Study: Power Assisted Lipo

THERAPEUTICS 2011 BJD British Journal of Dermatology

Tumescent liposuction in lipoedema yields good long-term results

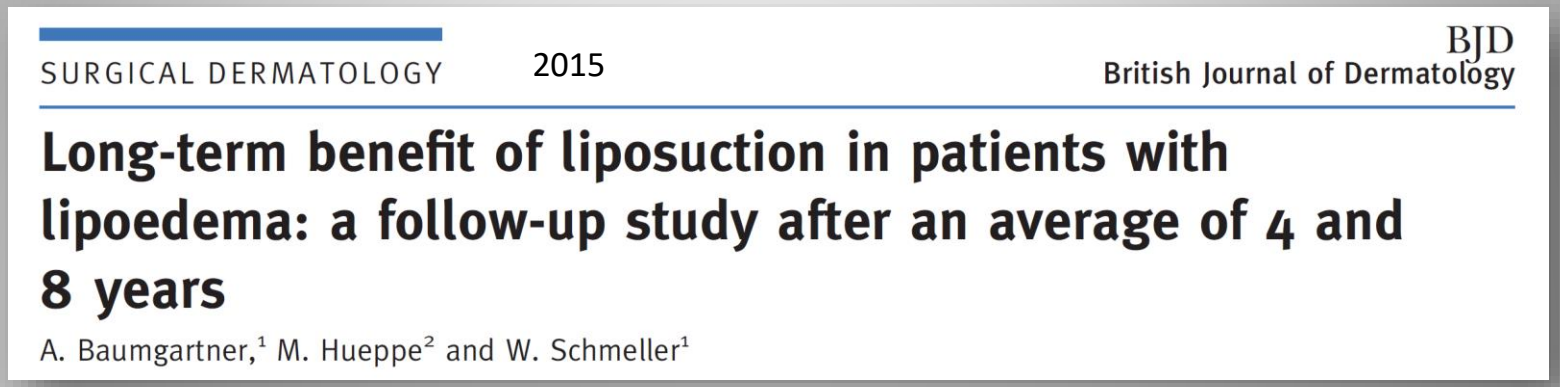
W. Schmeller, M. Hueppe* and I. Meier-Vollrath

Hanse-Klinik, St-Juergen-Ring 66, D-23564 Lübeck, Germany

*Department of Anaesthesiology, University of Lübeck, Ratzeburger Allee 160, D-23538 Lübeck, Germany

- 164 patients treated with PAL
- 112 evaluated at more than 1 year with standardized questionnaire
- Overall significant improvement in volume, QOL, etc

Best Study: Power Assisted Lipo



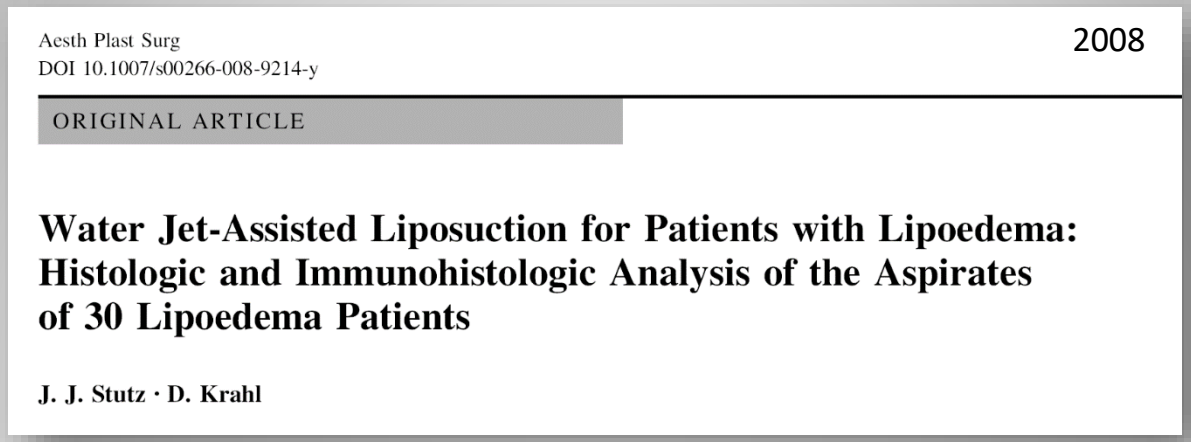
SURGICAL DERMATOLOGY 2015 BJD British Journal of Dermatology

Long-term benefit of liposuction in patients with lipoedema: a follow-up study after an average of 4 and 8 years

A. Baumgartner,[1] M. Hueppe[2] and W. Schmeller[1]

- Follow up of previous study
- Compared to 4 years, improvement in pain, sensitivity to pressure, edema, bruising, restricted movement, patient self-assessment cosmetic appearance, quality of life & overall impairment persisted
- At 8 years, reduction in amount of conservative treatment similar to 4 years
- Demonstrates long-lasting positive effects of **power assisted liposuction**

Does Water Liposuction Matter?



Aesth Plast Surg
DOI 10.1007/s00266-008-9214-y

2008

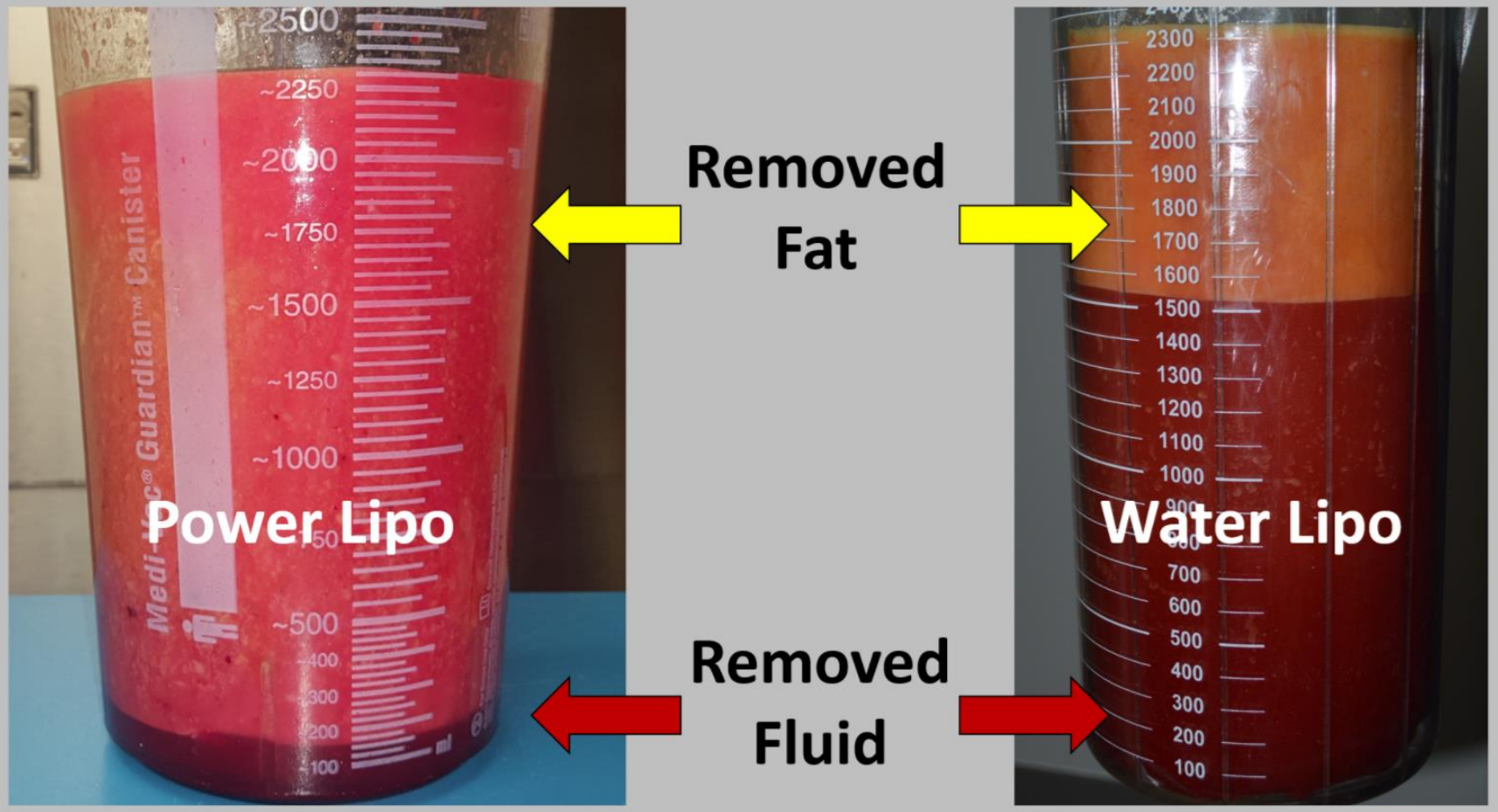
ORIGINAL ARTICLE

Water Jet-Assisted Liposuction for Patients with Lipoedema: Histologic and Immunohistologic Analysis of the Aspirates of 30 Lipoedema Patients

J. J. Stutz · D. Krahl

- False & unsupported claims about tumescent fluid & liposuction
- Analyzed the **removed fat tissue**, not what was left behind
- Did **not** compare to any other liposuction technique
- Very low fat removal volumes
- No clinical results measured

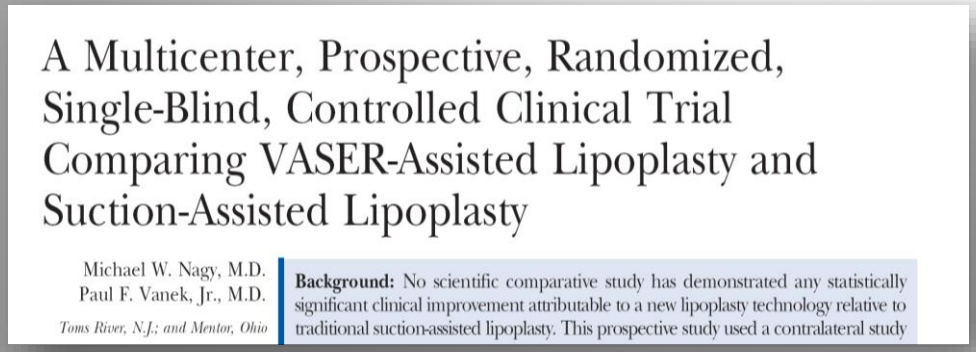
What is Removed Matters



Power-assisted liposuction (PAL) is more efficient and can remove more fat compared to water-assisted liposuction (WAL)

Liposuction & Skin Tightening

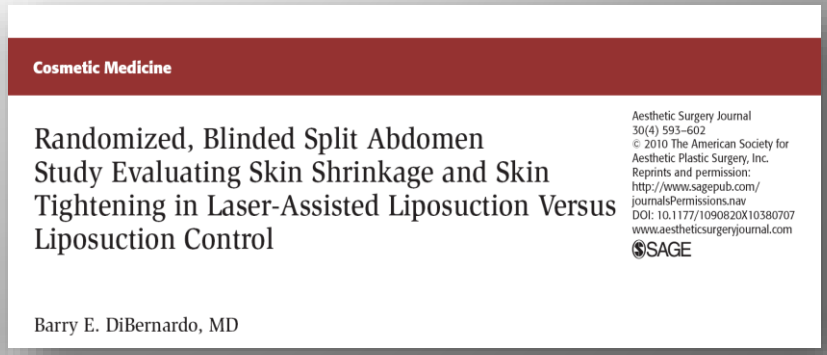
- Many claims to tighten the skin
- Mostly unproven
- Utrasound (UAL) - many claims in the 1990's but no evidence
  - Vaser (VAL) – Split study vs SAL, no patient reported difference at 6 months
  - Laser (LAL) – Split study vs SAL, LAL 17% tighter at 3 months



A Multicenter, Prospective, Randomized, Single-Blind, Controlled Clinical Trial Comparing VASER-Assisted Lipoplasty and Suction-Assisted Lipoplasty

Michael W. Nagy, M.D.
Paul F. Vanek, Jr., M.D.
Toms River, N.J.; and Mentor, Ohio

Background: No scientific comparative study has demonstrated any statistically significant clinical improvement attributable to a new lipoplasty technology relative to traditional suction-assisted lipoplasty. This prospective study used a contralateral study



Cosmetic Medicine

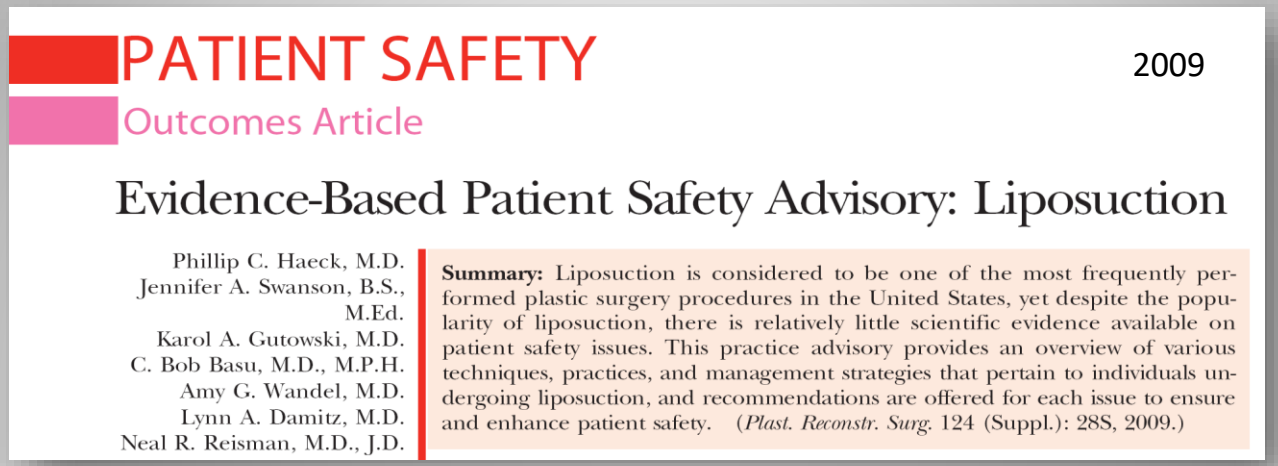
Randomized, Blinded Split Abdomen Study Evaluating Skin Shrinkage and Skin Tightening in Laser-Assisted Liposuction Versus Liposuction Control

Barry E. DiBernardo, MD

Aesthetic Surgery Journal
30(4) 593–602

DOI: 10.1177/1090820X10380707
www.aestheticsurgeryjournal.com
SAGE

How Much Fat Can be Removed?



PATIENT SAFETY

2009

Outcomes Article

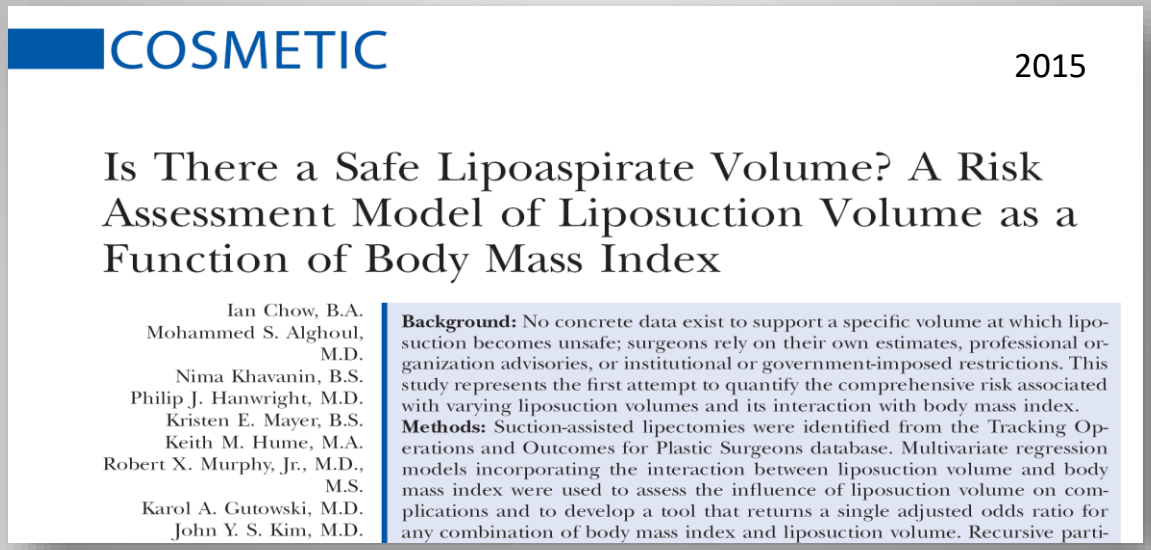
Evidence-Based Patient Safety Advisory: Liposuction

Phillip C. Haeck, M.D.
Jennifer A. Swanson, B.S., M.Ed.
Karol A. Gutowski, M.D.
C. Bob Basu, M.D., M.P.H.
Amy G. Wandel, M.D.
Lynn A. Damitz, M.D.
Neal R. Reisman, M.D., J.D.

Summary: Liposuction is considered to be one of the most frequently performed plastic surgery procedures in the United States, yet despite the popularity of liposuction, there is relatively little scientific evidence available on patient safety issues. This practice advisory provides an overview of various techniques, practices, and management strategies that pertain to individuals undergoing liposuction, and recommendations are offered for each issue to ensure and enhance patient safety. (*Plast. Reconstr. Surg.* 124 (Suppl.): 28S, 2009.)

- 5000 cc limit
  - Includes removed fat **and** fluid
- Otherwise should be
  - **Staged** – 2 or more outpatient procedures
  - **Monitored overnight** – 1 procedure but higher cost
- No evidence to support this limit
  - Accepted by most surgery facilities & law in some states

Is There a Liposuction Limit?



COSMETIC

2015

Is There a Safe Lipoaspirate Volume? A Risk Assessment Model of Liposuction Volume as a Function of Body Mass Index

Ian Chow, B.A.
Mohammed S. Alghoul, M.D.
Nima Khavanin, B.S.
Philip J. Hanwright, M.D.
Kristen E. Mayer, B.S.
Keith M. Hume, M.A.
Robert X. Murphy, Jr., M.D., M.S.
Karol A. Gutowski, M.D.
John Y. S. Kim, M.D.

Background: No concrete data exist to support a specific volume at which liposuction becomes unsafe; surgeons rely on their own estimates, professional organization advisories, or institutional or government-imposed restrictions. This study represents the first attempt to quantify the comprehensive risk associated with varying liposuction volumes and its interaction with body mass index.
Methods: Suction-assisted lipectomies were identified from the Tracking Operations and Outcomes for Plastic Surgeons database. Multivariate regression models incorporating the interaction between liposuction volume and body mass index were used to assess the influence of liposuction volume on complications and to develop a tool that returns a single adjusted odds ratio for any combination of body mass index and liposuction volume. Recursive parti-

- Liposuction limit should be based on BMI
- More than 100 cc per BMI increases complications
- Most common complication: Seroma
- Not yet accepted by most surgical facilities or laws

Lymphatic System

- Superficial Lymphatic System
  - Medial vessels follow the great saphenous vein
  - Lateral vessels follow the small saphenous vein
- Deep Lymphatic System
  - Follows the deep arteries

- Lymphatic vessels follow the blood vessels
  - If blood vessels are not injured, neither are the lymphatics

- Lymphatic problems do **not** happen after normal liposuction

“Lymphatic Sparing Liposuction”

Liposuction Technique and Lymphatic Lesions in Lower Legs: Anatomic Study to Reduce Risks

Frick, Andreas M.D.; Hoffmann, Johannes N. M.D.; Baumeister, Rüdiger G. H. M.D.; Putz, Reinhard M.D.

Plastic and Reconstructive Surgery: June 1999 - Volume 103 - Issue 7 - p 1868–1873

- Small **cadaver study** suggesting less damage to lymphatic system when liposuction is done longitudinally vs transversely
- Nearly all liposuction is done longitudinally (in the same direction as the lymphatic vessels) in the extremities
- Long-term lymphatic damage is not an issue after liposuction
- “Lymphatic Sparing Technique” is actually normal liposuction

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Karol A Gutowski, MD, FACS

Karol@DrGutowski.com

Presentation Available Next Week

DrGutowski.com -> Click [For Physicians]