

A Comprehensive Review of the 7 Step Guide to High Definition Liposuction

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Introduction

High-Definition (HD) Liposuction has emerged as an advanced body contouring technique, offering a sculpted and athletic appearance. The 7-step guide presented in this article aims to simplify the approach, providing plastic surgeons with a structured protocol for successful HD liposuction. In this review, we will delve into the key steps of the procedure, emphasizing the importance of patient selection, preoperative markings, and the surgical technique.

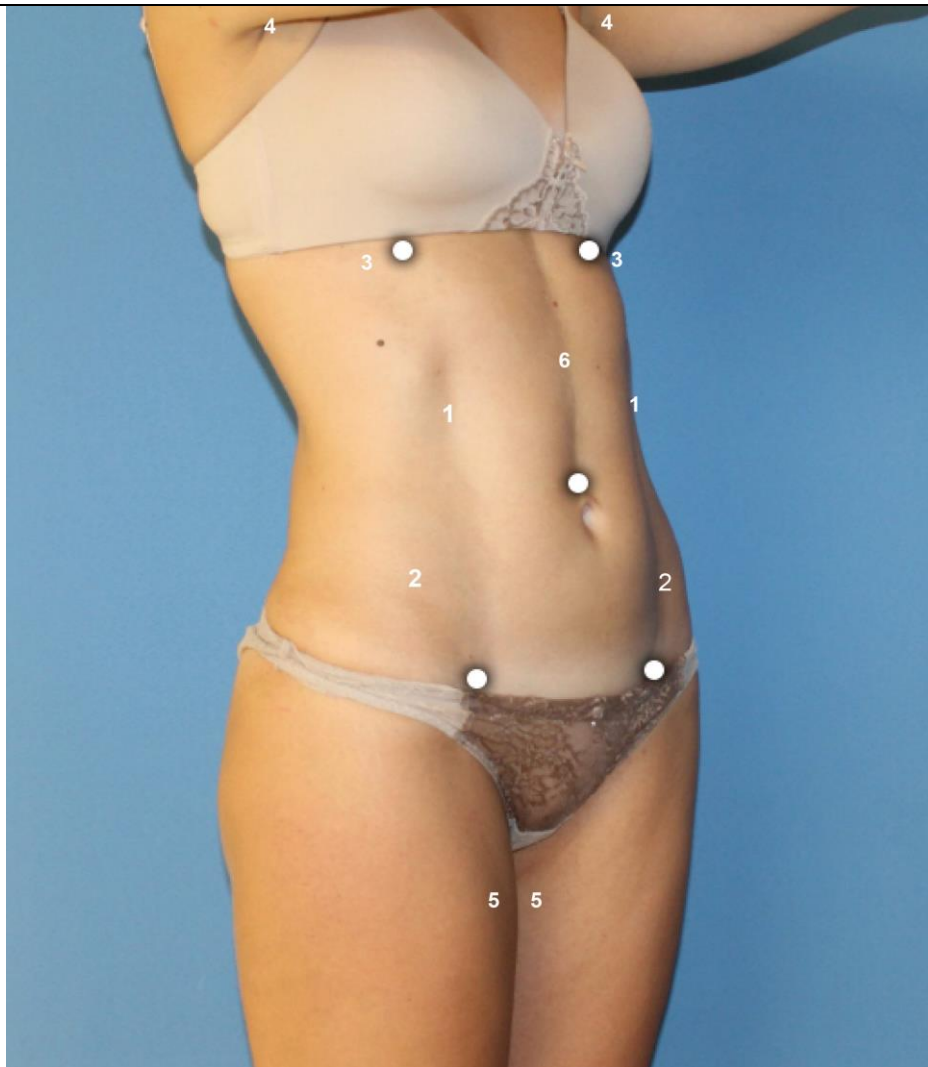
Patient Selection

The success of HD liposuction hinges on meticulous patient selection. The article underscores the significance of choosing candidates with a mesomorphic body type, a mean BMI of 25.6, and the absence of comorbidities. This emphasis on patient eligibility contributes to the overall safety and efficacy of the procedure. Markings enable the surgeon to tailor the procedure to each patient's unique anatomy, ensuring precision in fat extraction and sculpting.

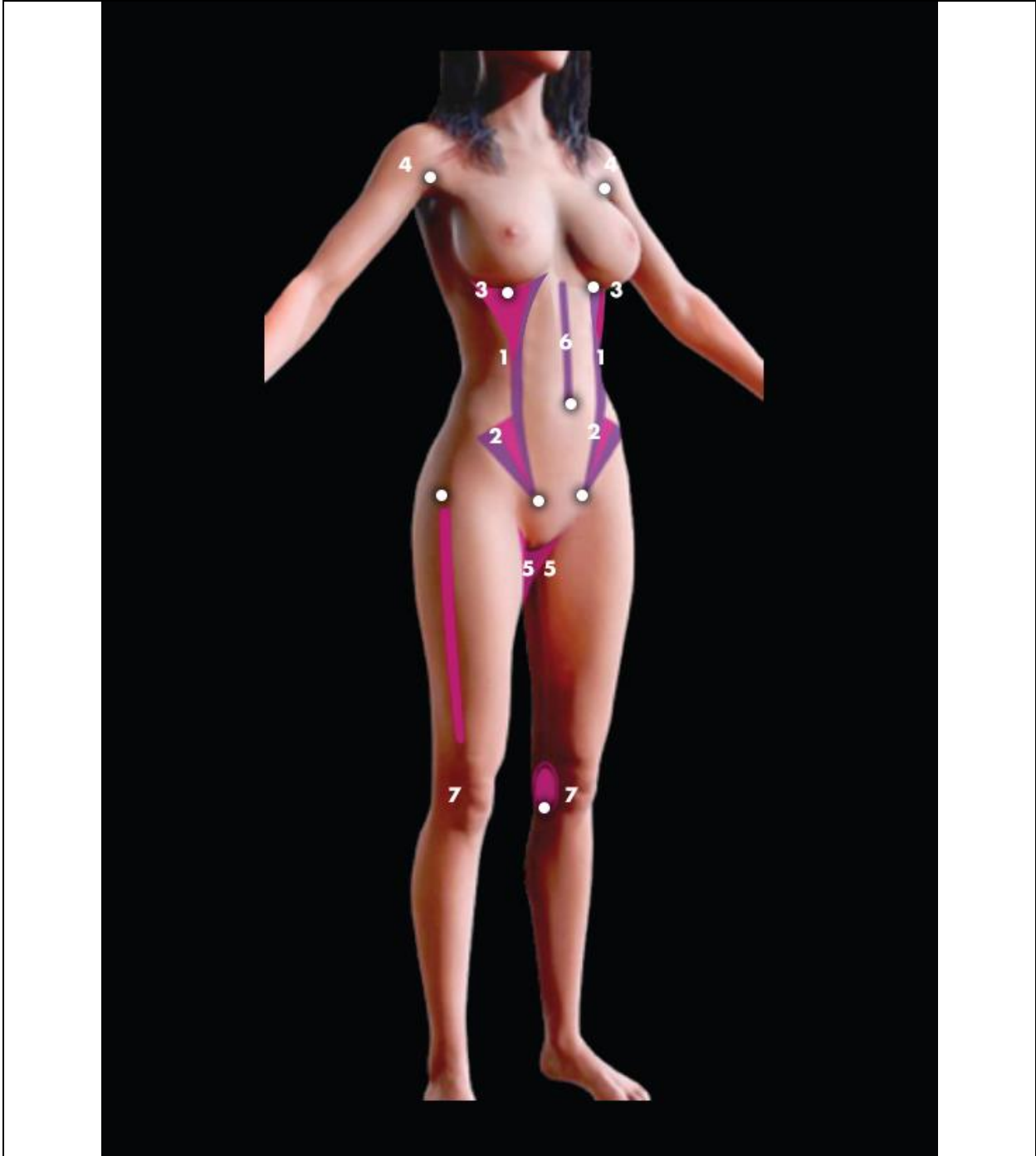
Preoperative Markings

A critical aspect of HD liposuction is the precise preoperative markings. The 7-step guide provides detailed instructions for both male and female patients, considering anatomical differences. The anterior markings for female patients include defining the semilunar lines, inguinal triangles, upper thoracic triangles, waist areas, midline

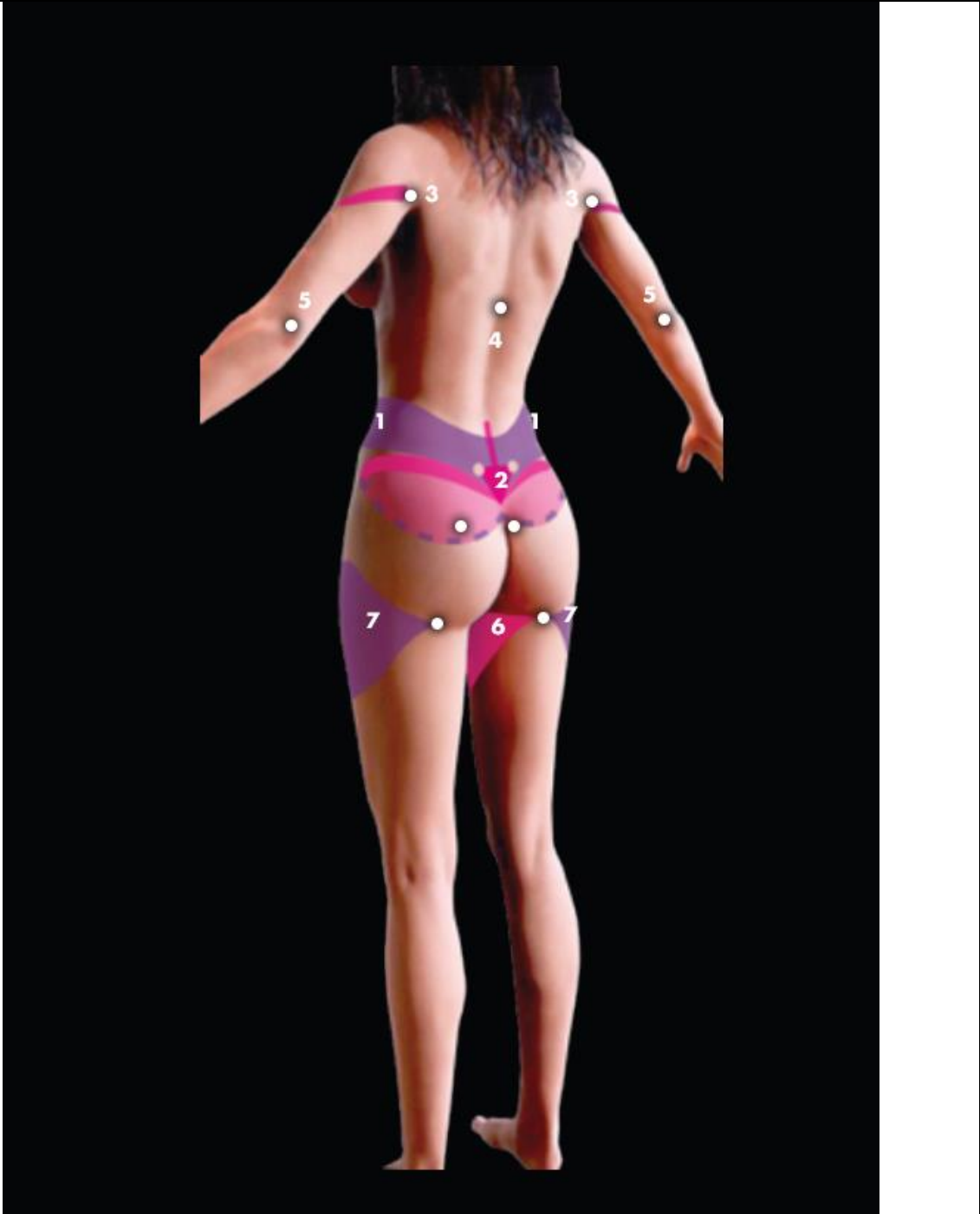
width, inner thighs, and knees. For male patients, the anterior markings encompass semilunar lines, inguinal triangles, midline, tendinous intersections, upper chest, lower chest, and inner thighs. Posterior markings for female patients involve the flanks, sacral area, upper and back, backrolls, arms, and the inferior gluteal crease. Male patients' posterior markings cover the flank area, sacral area, upper back, deltoids, arms, buttocks, and the infragluteal crease. These meticulous markings enable the surgeon to tailor the procedure to each patient's unique anatomy, ensuring precision in fat extraction and sculpting.



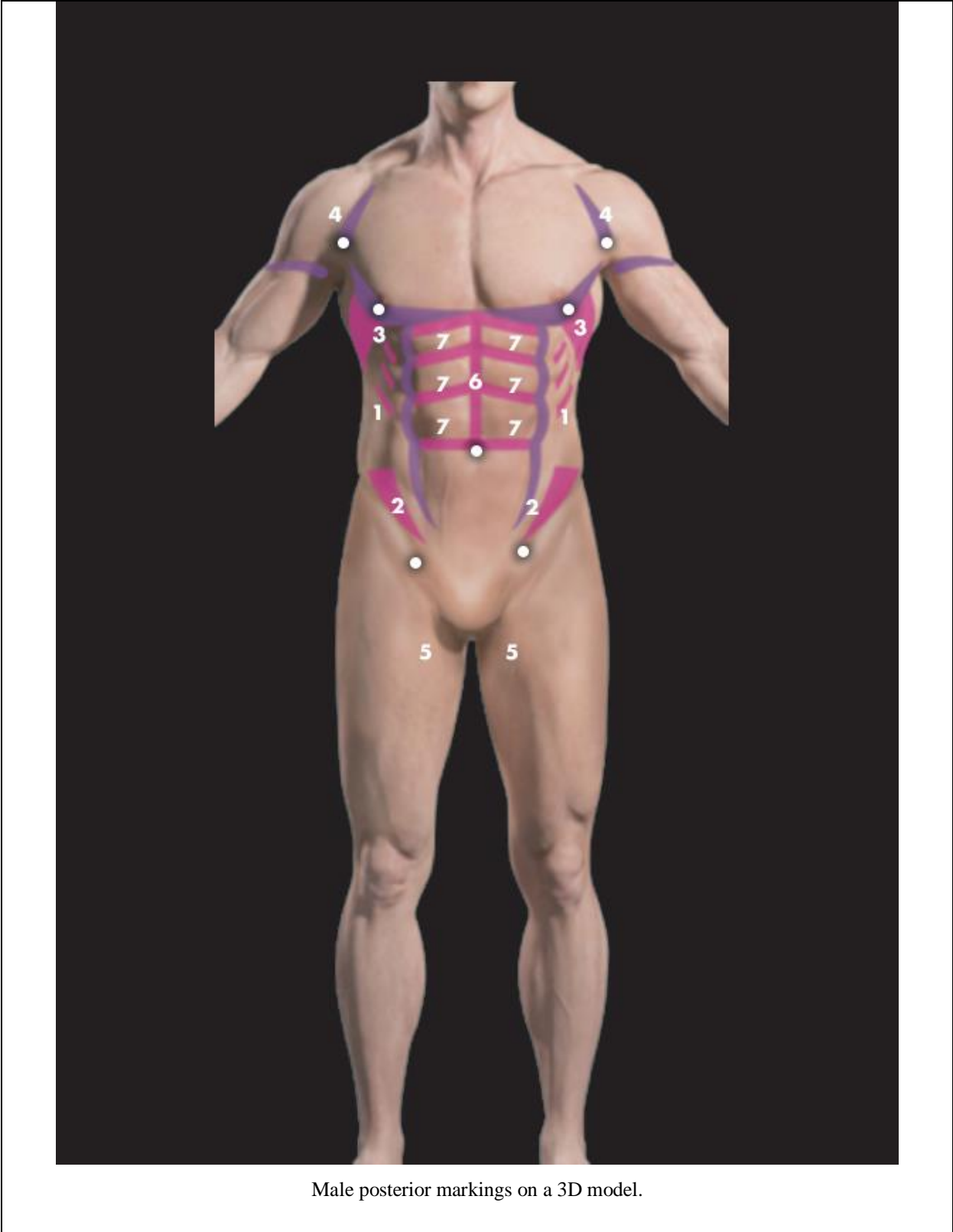
Female anterior markings on a patient.



Female anterior markings on a 3D model.

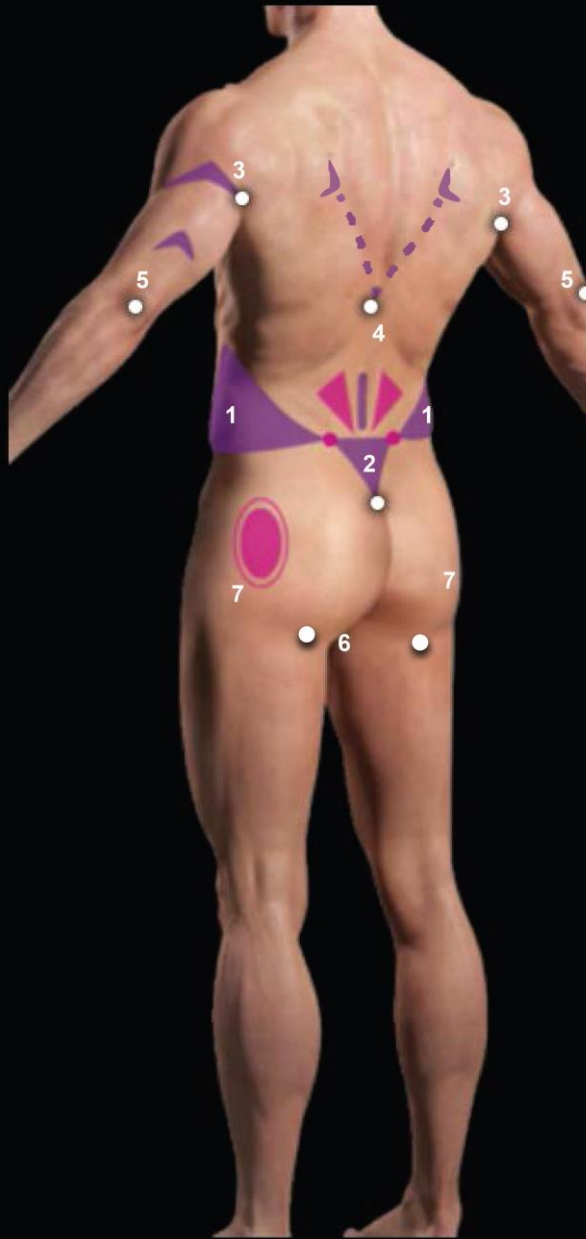


Female posterior markings on a 3D model.



Male posterior markings on a 3D model.

FIGURE 7



Male anterior markings on a 3D model.

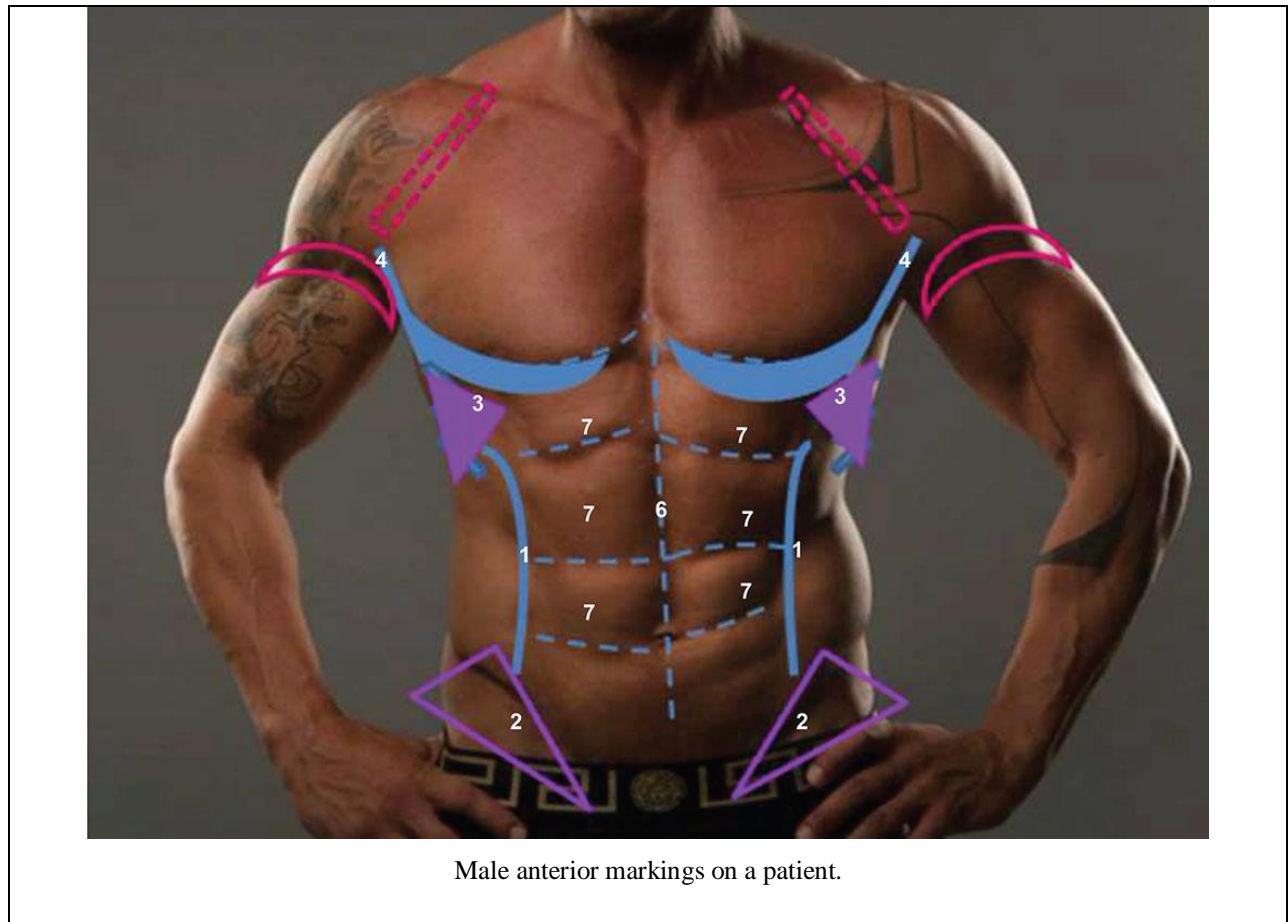
Anesthesia Choice

HD Liposuction is performed under either local anesthesia with sedation or general anesthesia. Local anesthesia alone can be used for patients with an athletic appearance aiming to enhance their abdominal wall definition.

Tumescent Fluid Composition

The treated areas are infiltrated with a solution containing:

- 1L of Ringer's lactated solution (preferred for its neutral pH).
- Epinephrine 1 amp/1ml (1:1000).
- Lidocaine 1% at a dose of 7 mg/kg (maximum toxicity dose is above 35 mg/kg).
- In general anesthesia, lidocaine at a dose of 7 mg/kg is used, while in local anesthesia, 15 mg/kg is used (with an estimated risk of lidocaine toxicity below 1 per 2000).
- Tranexamic acid (1 amp of 5 ml - 500 mg/5 ml) is added to each liter of tumescent fluid to significantly reduce bruising.



Male anterior markings on a patient.

Tranexamic Acid Inclusion

- Tranexamic acid, included in the tumescent fluid, is highlighted for its role in reducing bruising during the liposuction procedure.

Surgical Technique

HD liposuction involves a combination of energy-based devices, such as the VASER® system, and power-assisted liposuction devices. The use of ultrasound energy contributes to fat emulsification, facilitating the extraction of large quantities of lipoaspirate. Special attention is given to invisible "stealth" incision points and access, minimizing scarring while providing maximum access. The surgical technique is outlined in detail for both the anterior and posterior body. Anterior liposuction steps include fat extraction from the inguinal area, abdominal area, pectoral area, inner thighs, umbilical area, and emphasizing tendinous intersections. In female patients, knee areas are addressed, marking the "athletic femoral line." Posterior liposuction involves treating the flanks, sacral triangle, upper back, deltoids, arms, and buttocks.

Fat Transfer

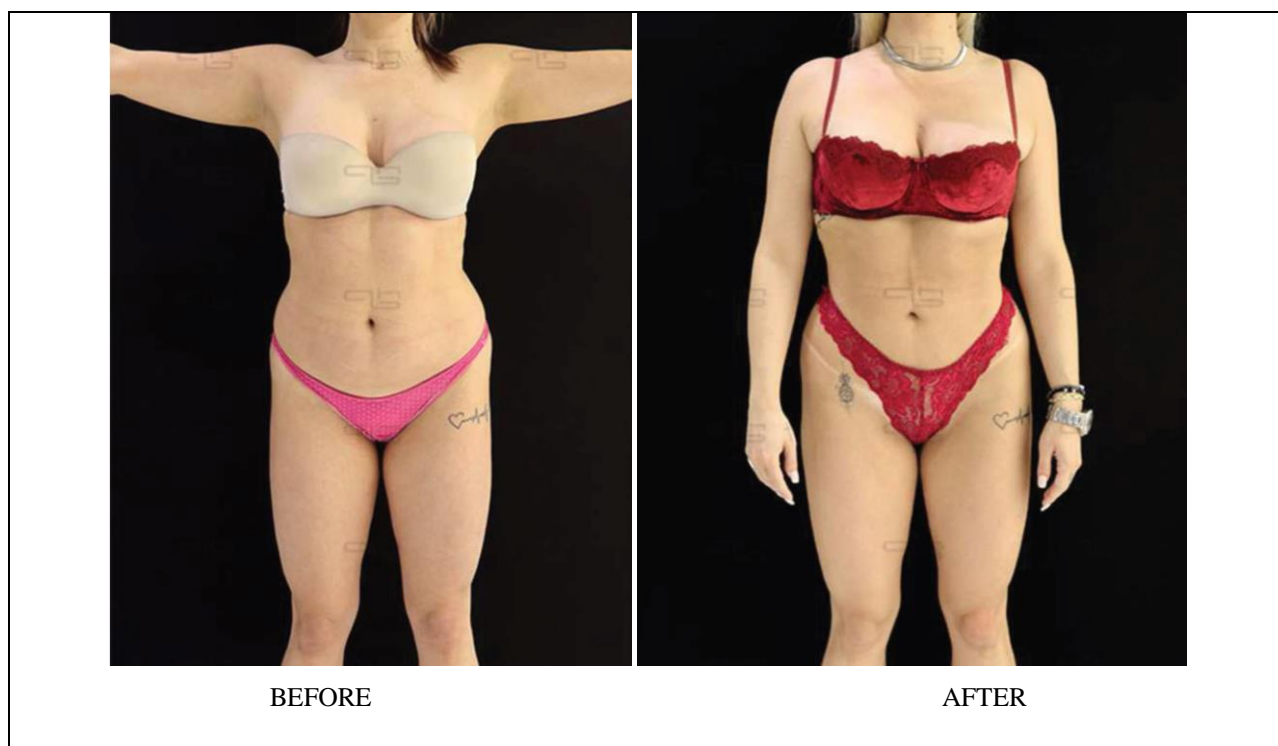
Fat grafting is an integral part of HD liposuction, enhancing muscular definition and addressing volume deficiencies. The article discusses the nuances of fat transfer to various areas, including deltoids, pectoralis major muscles, buttocks, and breasts. The use of smaller-sized cannulas and a combination of manual and power-assisted techniques is highlighted to achieve optimal results.

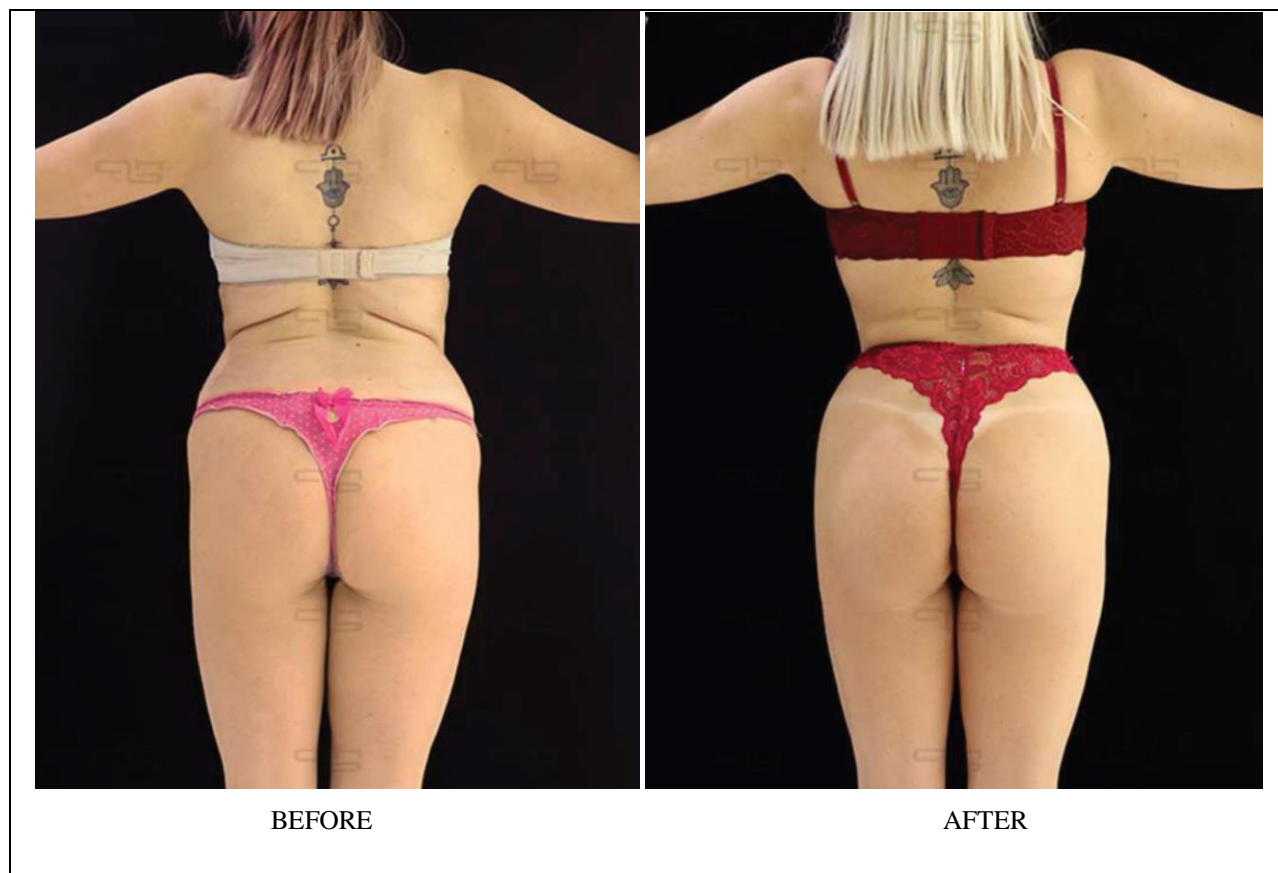
Patient - front view: Preoperative photograph of 37 year old male, fat removal of 3, 2lt, fat grafting to the deltoids of 100 ml on each side. Surgical time 220 min.





Patient - Posterior - Anterior view: Preoperative photograph of 27 year old female, fat removal of 3, 6lt, fat grafting to the buttocks of 250 ml on each side. Surgical time 200 min.





Results and Complications

The article presents the results of 568 ultrasound -assisted HD liposuction procedures performed from 2015 to 2020. Complications, including seromas, skin issues, and hematomas, were meticulously recorded. The authors note a reduction in the complication rate from 10% in the first year to 3% in the last year, highlighting the importance of experience and a learning curve.

Conclusion

In conclusion, the 7-step guide to HD liposuction offers a comprehensive and structured approach for plastic surgeons aiming to achieve consistent and satisfactory results. The emphasis on patient selection, precise preoperative markings, and a detailed surgical technique contributes to the safety and efficacy of the procedure. The article provides valuable insights for plastic surgeons seeking to navigate the challenges of HD liposuction, making it a valuable resource for the plastic surgery community.

Citation of this Article

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