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Vibrasat® Pro: A Liposuction Device Designed for Surgeons and Clients

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Abstract

Vibrasat® Pro, a new power-assisted liposuction device, addresses several rising issues for cosmetic surgeons and their patients. Surgeons are spending more time on their patient during liposuction procedures to sculpt their patient's body. Meanwhile, patient's want a symmetrical body with little downtime, pain, and risks. Vibrasat® Pro implements a new design for the surgeon's comfort, special features to customize their approach, and rapid vibration to aid the surgeon as well as reduce trauma to the patient's surrounding tissue. As a result, Vibrasat® Pro may be one of the leading liposuction devices in the plastic surgery industry.

Introduction

Liposuction is the second most popular cosmetic surgery procedure with a 5% rise between 2017 to 2018 [1]. The areas in which liposuction and lipofilling are performed are also evolving to include the face and neck or as part of breast and buttock augmentation. Several factors are contributing to increased liposuction procedures; clients prefer their own fat as fillers instead of synthetic fillers, lipofilling creates a more natural aesthetic when combined with implants, and fat can be relocated to shape and contour the body.

As a result, surgeons are spending more time on their patient during surgery to sculpt and contour the body. Unfortunately, few liposuction devices are designed to accommodate both the surgeon and patient's comfort and needs. Surgeons may require lightweight instruments that fit comfortably in the hand while minimizing fatigue. In addition, liposuction devices should reduce pain and trauma to the patient while simultaneously delivering the aesthetic results they desire.

Vibrasat® Pro, a newly engineered vibration liposuction device by Moeller Medical, has been designed in an effort to meet the growing needs of cosmetic surgeons and their clients.

Power-Assisted Liposuction

Power assisted liposuction is one of the leading liposuction surgical methods for removing subcutaneous fat. A special vibrating cannula disrupts fat cells allowing the surgeon to quickly extract small and large volumes of fat with minimal effort. As a result, the surgeon exerts less force, allowing them to be more precise and cause less trauma to the surrounding tissue.

Vibrasat® pro gently disrupts fat at a rate of 5.000 strokes per minute with a stroke of 2.8 mm or up to 6.000 strokes per minute with the power boost function. While competing devices such as Micro Aire's Lipo Sculptor break up fat cells at similar rates, none offer the boost function which gives surgeon's the option to remove fat in quick strokes.

Engineering

Vibrasat® Pro is engineered with a strong but quiet motor that has been optimized to reduce the risk of overheating during surgery. Despite its powerful engine, very little vibration is transferred to the surgeon's hand.

The model has an ergonomic and anatomical design; cushioned handle; reduced diameter; and is lightweight for balance and comfort during prolonged surgeries. The vibration button is located on the handle to make surgery more convenient for the surgeon. "The button on the new Vibrasat® Pro is great and the new boost function is very beneficial for certain surgical cases" [2].

Vibrasat® Pro does not need to be disassembled to autoclave, unlike many of its competitors. A quick lock system has been integrated into the new design to allow quick cannula-replacement without changing the tube. "Vibrasat® Pro is the optimal device for expansion vibration lipofilling.

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Another advantage is the quick and comfortable possibility of changing the cannulas".

Precision Cannulas

Focus on body contouring has resulted in higher demands for lipostructuring; it is believed that utilizing the patient's own fat as filler for the hips, buttock, breasts, and face reduce the risks of allergic reactions and complications. Moreover, surgeons are performing lipofilling procedures to balance and shape their patient's bodies.

Surgeons have several factors to consider during lipostructuring, such as preserving harvested fat cells, manipulating the placement of fat cells to ensure aesthetic results, and performing these surgeries utilizing their specific techniques. As a result, they may require specialty cannulas that are specifically designed for extracting, harvesting, and transferring fat.

Vibrasat® Pro features over 11 cannulas that allow the surgeon to choose their approach to extraction, harvesting, contouring, and lipofilling. Each cannula is available in several sizes ranging from 4.00 mm in diameter to 2.50 mm in diameter and features special designs such as the number, size, and location of holes.

Reduced Trauma to the Patient

Fatemi [2] conducted a case study on several liposuction methods and the preservation of septal fibers. During his study he utilized *in vivo* endoscopy to evaluate and compare the trauma of laser-assisted, power-assisted, suction-assisted, ultrasound-assisted, and power water-assisted liposuction on septal fibers which are considered essential to healing and skin retraction.

Fatemi [2] used Vibrasat® Pro as the power-assisted liposuction device and found "power-assisted and laser-assisted liposuction persevered the highest number of intact septal fibers, suggesting these methods are the least traumatic". Fatemi further reports, "Reduced trauma with [power-assisted liposuction] may stem from the fact that it uses a cannula that vibrates and reciprocates through the tissue as opposed to the blunt mechanical damage that occurs with SAL".

Reducing damage to the septal fibers should be particularly important to surgeons and clients due to minimal bleeding and swelling and improved recovery. Liposuction patients in particularly want quality cosmetic outcomes with minimal risks and downtime. While surgical liposuction is traumatic no matter which method is used, Dr. Fatemi's findings suggest that power-assisted and laser-assisted liposuction may meet the patient's demands.

Conclusion

Vibrasat® Pro has the potential to become one of the leading power-assisted liposuction devices in the cosmetic surgery industry. The high frequency vibration allows for relatively safe disruption of fat while allowing the surgeon to work quickly.

Several leading surgeons in the industry attest to its convenient and comfortable design and its ability to improve the surgical process. Vibrasat® Pro includes extraction cannulas for removing large volumes of fat; harvesting cannulas for producing small, consistent lobules for lipostructuring; and specialty cannulas for the surgeon's unique approach.

Finally, power-assisted liposuction may be one of the safest methods of fat removal and grafting by minimizing trauma to septal fibers and surrounding tissue. Reduced trauma means higher quality aesthetic outcomes with less recovery time than comparable liposuction methods.

References

1. 2018 National plastic surgery statistics. (2018).
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