



ESACROM RESEARCH AND DEVELOPMENT DEPARTMENT

PRESENTS

"ULTRASONIC RHINOPLASTY"



By Dr. Fabio Meneghini

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ULTRASONIC SURGERY AND THE NOSE

The first instrument capable of incising and shaping bones using ultrasonic oscillations was created in 1997 and, over the years, this procedure has evolved in many directions to become applicable to nasal surgery as well.

Depending on the type of insert used, it is possible to perform thin linear cuts, small holes, modeling of the bone surface and smoothing of irregular surfaces at the level of the nasal bones, the upper jaw and the bone septum.

Thanks to this technique it was possible not only to improve the precision of the surgery, but also to eliminate some bone alterations (damage from heating, comminuted or imprecise fractures) and to reduce the risk of damaging the soft tissues adjacent to the bone itself such as the periosteum, blood vessels and nerve trunks.









INNOVATION: what is it about?

Thanks to ultrasound surgery it is possible to completely eliminate the use of dangerous or coarse instruments such as rasps, chisels or hammers and therefore reduce the risk of damaging the soft tissues adjacent to the bone itself such as the periosteum, blood vessels and nerve trunks.

To perform an ultrasonic rhinoplasty it is necessary to modify the open technique (Open Rhinoplasty) by means of a large subperiosteal skeletonization of the nasal pyramid, in order to use all the steps of the operation under direct vision.

In this sense, it can be said that with the advent of ultrasonic rhinoplasty, the direct control of the operator is total and there are no longer uncontrolled maneuvers entrusted to chance.

Bone gibbotomy is performed respecting the underlying cartilages by accurately removing even the smallest deformities. The lowering can be gradual and conservative without the risk of excessive removal with compromise of the final result.

Osteotomies of the proper bones can also be performed under direct vision and with respect for the underlying soft tissues.

Maintaining the continuity of the nasal mucosa represents a step towards a less invasive surgery and a faster recovery.

With a pointed insert it is possible to drill holes in the nasal bones even after completing the osteotomies without the slightest risk of damage to the mobilized osteocartilaginous structures. Thanks to these small holes it is possible to "suture" the two nasal bones to the septum with absorbable intertwined threads to achieve a stability of the nasal framework not comparable to the usual techniques of external splinting and endonasal tamponade. With the use of slow resorption threads, the stability of the nasal spine is ensured over time up to an advanced degree of tissue healing.







CLINICAL CASES





The large subperiosteal detachment of the nasal pyramid allows all osteotomic cuts to be made in direct vision and without the risk of multiple fragmentation of the nasal bones, which is always possible with traditional osteotomes.

Any irregularities in the margins and bone profiles can be modeled even after performing the osteotomies.



Through small holes made near the dorsal margin

of the nasal bones, performed at any time during the procedure,

it is possible to suture the nasal bones to the septum thus closing the "open roof" secondary to the gibbotomy.





TARGETS

Reduce intra and postoperative bleeding thanks to reduced trauma to the subcutaneous blood vessels and internal nasal mucosa (which are extremely vascularized). The procedure is in fact performed directly on the bone structures and this avoids damage to the tissues located above or below them;

Reduce hematomas on the skin and postoperative swelling, again thanks to reduced tissue trauma;

Model the bones of the nose without having to resort to the use of rasps, chisels and hammers, instruments that are replaced by a slower, but more delicate and precise, action of the ultrasonic instrument;

Avoid, in most cases, the use of nasal swabs due to the greater preservation of the nasal structures and the reduced intraoperative bleeding;

Reduce the risk of postoperative irregularities of the back and walls of the nose thanks to the progressive and more precise correction;

Performing rhinoplasty with ultrasonic instruments extends the surgery by a few minutes and requires modern equipment (in addition to the knowledge of the method by the surgeon), but improves the accuracy and safety of the procedure and the patient's postoperative well-being.



One hundred years after its birth, open rhinoplasty is renewed again and becomes ultrasonic. Any bone structure of the nose, superficial or deep, it can be shaped, sectioned or moved under direct visual control e

without using the hammer and chisels anymore.

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DEDICATED TIPS



PARAMETERS

ES052XGT ES007WT ES007ST ES010T ES007T ES015T

U	35	45	40	40	45	40
V	80	80	80	80	80	80
Р	100	100	100	100	100	100
MAX POWER	40	70	60	70	70	50

U: Suggested power

V: Suggested vibra

P: Suggested water pump

MAX POWER: Maximum power which can be used with the tip

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DR. FABIO MENEGHINI

Dr. Fabio Meneghini, graduated in Medicine and Surgery, specialized in Maxillofacial Surgery with full marks and honors. He holds a Master's Degree in Aesthetic Plastic Surgery from the University of Padua, discussing a thesis on aesthetic, functional and reconstructive rhinoplasty with an open approach.

For eighteen years he has collaborated with GVM Care & Research at the Department of Head and Neck Surgery of Maria Cecilia Hospital, dedicating himself to the activity of Maxillofacial Surgery. Since 2018 he has also performed surgery at the Humanitas Castelli hospital in Bergamo, devoting himself exclusively to functional, reconstructive and aesthetic nasal surgery.

Dr. Meneghini was Adjunct Professor at the School of Specialization in Maxillofacial Surgery of the University of Padua (teaching of Facial Aesthetic Surgery) and since 2009 he has been teaching at the 2nd level Master in Perioral Aesthetic Medicine and Surgery of the University of Padua (teaching of clinical study of the face and facial cosmetic surgery). He also teaches Aesthetic Plastic Surgery of the face at the INTERNATIONAL ACADEMY of AESTHETIC MEDICINE in Parma.

Its areas of expertise are:

 aesthetic, reconstructive and functional nasal surgery (primary and secondary rhinoplasty, septoplasty, turbinoplasty);

- profiloplasty and cosmetic surgery of the chin (mentoplasty);

- corrective surgery of the deformities of the jaws (orthognathic);

He has designed and manufactured three specific surgical instruments for "open" rhinoplasty, two instruments for cervico-facial lifting and one instrument for eyebrow lifting.

Their final version is marketed in Europe and North America.





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