

Safer Simpler Sinus Lift



SINUSJET®

a product of Synaxial

SINUSJET®

SAFER, ACCESSIBLE AND PATIENT-FRIENDLY

A new approach towards a minimally invasive sinus lift by Synaxial has led to the development of the SinusJet™ Crestal Sinus Lift Kit. The result is a practitioner-and patient-friendly "all in one" solution that will make your sinus lift surgery more straightforward with a reduced chair time.



Safer

The crestal approach carries fewer risks than the classical lateral approach (less risk of infection, more post-operative comfort for the patient). The hydraulic lift with the SinusJet system avoids the use of osteotomes (risk of headache), and allows a better check of the integrity of the Schneiderian membrane. Together with the Osslift n-HA paste the crestal sinus lift is a smooth and predictable procedure.



Accessible

Performing a sinus lift with the SinusJet™ Crestal Sinus Lift Kit is quite easy and straightforward. You can use your trusted implant system and no additional investment is needed. The threshold reduces significantly, giving more patients access to a sinus lift.



Patient-friendly

As the sinus lift is minimally invasive and faster due to the single tool approach, the patient experiences the surgery as less traumatic. The procedure is more easily accepted and leads to a more satisfactory experience.



THE SINUSJET® CRESTAL SINUS LIFT KIT

The kit contains all you need for a crestal sinus lift and simplifies the surgical approach for bone augmentation of the sinus floor, either with or without simultaneous placement of dental implants. It consists of:

- 1) The **Sinusjet®**, a sterile, patented, specially designed single use drill.
- 2) **OssLift®** a sterile, ready to use bone augmentation paste in a 1cc or 2cc syringe.
- 3) A sterile syringe tip, the **OssLift®** applicator.

The combination of Sinusjet® and OssLift® together, forms the essential and inseparable key to the realisation of a successful and predictable crestal sinus lift.



Handpiece with mounted irrigation insert and Sinusjet®

Besides your implantology motor, handpiece with internal irrigation and the appropriate irrigation insert, no additional instrumentation is needed.

SINUSJET®

Sinusjet® is a patented single use drill, indicated for the edentulous posterior maxilla and will enable you to create an easy and safer access to the sinus floor.

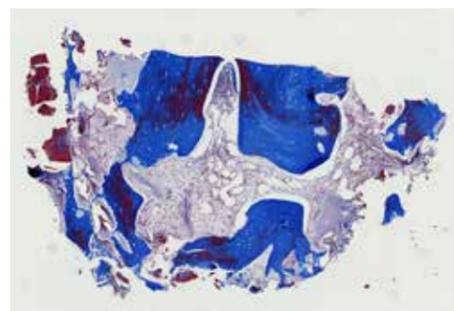
The instrument has two small openings at the drill head allowing continuous flow of physiological serum during the procedure and a safety system at the base of the drill. This backflow security mechanism prevents barotrauma during drilling and reduces the risk of tearing the Schneiderian membrane, once the sinus floor is breached. The serum will loosen and slightly lift the membrane throughout the procedure.



Sinusjet with physiological serum coming out of the openings at the drill head. Diameter: 3.3 mm Markings: 4 - 6 - 8 mm.

OssLift®

Nanotechnology at the service of Sinusjet®.



Histologic sample (500µ), Masson trichrome staining, taken after 9 months. Compact bone trabeculae are well visible in dark blue. Bone formation is still ongoing.

OssLift® is an aqueous paste with an optimised consistency, containing 100% synthetic nanocrystalline hydroxyapatite (n-HA). This is a proven and well documented bone substitute. Its chemical composition is identical to the human bone apatite: $[Ca_{10}(PO_4)_6(OH)_2]$

The three-dimensional architectural nano-structure (3D scaffold) is very similar to the human bone, making n-HA the most biomimetic bone substitute available. It is biocompatible, osteo-conductive and osteogenic, resulting in a fast transformation into qualitative de novo bone®.

® Effect of the Nanohydroxyapatite Formulation NanoXIM HAp102 on the proliferation and Osteogenic Differentiation of Human Bone Mesenchymal Stem Cells. Elisabete Marina Nunes Pires. FEUP available on the web.

The optimised consistency facilitates the unsticking of the Schneiderian membrane from the sinus floor and its smoothness protects the integrity of the membrane.

OssLift® is administered by slight pressure of the syringe piston and will further lift the sinus membrane. The paste creates the volume for immediate or delayed implant placement, thereby completing the sinus lift. It also fills the space between the threads of an immediately placed implant.

The OssLift® syringes are sterile, ready to use and the paste can be applied without any further preparation, thereby avoiding any source of contamination and generating a considerable time gain.

The average bone height gain found in the 130 crestal sinus lifts® was 8.5 +/-2.7mm, which corresponds well to the results reported in other studies.

Mean bone height gain using n-HA paste in sinus lifting (in mm):

Blase/Dricot ①	Pommer et al ②	Bassi et al ③	Shirmohammadi et al ④
8.5 +/-2.7	11.2 +/-0.85	6 +/-1.2	7.9 +/-0.85

Radiographic aspect (courtesy of Dr Didier Blase):



Post-operative After 1 year After 3 years

Placing an implant

The Sinusjet® Crestal Sinus Lift Kit is compatible with all implant brands.

- No need to change your habits; you can work with your preferred system.
- Depending on the height (min. 4mm) and the density of the residual bone, immediate placement of an implant is possible. In that scenario, any implant with a diameter of at least 3.4 mm can be placed. If immediate placement is not possible, the classical delay of 6-9 months should be respected.
- In the retrospective study® a mean implant length of 10.6 +/- 0.9mm was used.

① Blase D, Dricot R: Hydraulic device and nanohydroxyapatite paste for minimally invasive transcrestal sinus floor elevation: 3 years results. Poster Europerio 2018.
 ② Pommer B, Unger E, Busenlechner D, Haas R, Mailath-Pokorny G, Fürhauser R, Watzek G. Graft remodeling following Transcrestal Sinus Floor Elevation via the Gel-Pressure Technique (GPT) and Pasteous Nano-Crystalline Hydroxyapatite Bone Substitute. *Materials*, 2015, 8, 3210-3220.
 ③ Bassi MA, Lopez MA, Confalone L, Lauritano D, Candotto V. Clinical and Histomorphometric outcome in future site development performed with a nano-hydroxyapatite through hydraulic sinus lift technique. *Oral & Implantology* 2017, 4, 468-476.
 ④ Shirmohammadi A, Roshangar L, Taghi Chitsazi M, Pourrabas R, Faramarzi M, Rahmanpour N. Comparative Study on the Efficacy of Anorganic Bovine Bone (Bio-Oss) and Nanocrystalline Hydroxyapatite (Ostim) in Maxillary Sinus Floor Augmentation. *Hindawi International Scholarly Research Notes*, volume 2014.

6 steps for your crestal sinus lift with the Sinusjet® Crestal Sinus Lift Kit



1: Drilling the channel to the sinus floor

Flapped or flapless, and carefully progressing at a speed of 300 to 500rpm, the access to the sinus floor is created with the Sinusjet® drill, thereby forming a space between the sinus floor and the Schneiderian membrane. During the intervention physiological serum flows through the drill to the drill head and the backflow opening at the base of the drill. The continuity of the flow needs to be checked during the drilling procedure.

2: Checking the integrity of the membrane

This should be done by visual inspection or a cautious Valsalva manoeuvre: ask the patient to inhale, pinch his nose with a sterile pad and let him exhale with moderate force through the nose. If air passes through the osteotomy the membrane is not intact. The intervention must then be stopped and can be repeated three months later.



3: Primary injection of the bone substitute

OssLift® is injected through the created channel and lifts the Schneiderian membrane. A safe distance is created from the sinus floor, preventing the drill from touching the membrane in the next step.



4: Preparing the implant bed (in case of immediate implant placement)

Use the last drill of the drill sequence of your implant system to create an adequate channel diameter for the chosen implant.



5: Secondary injection of bone substitute

Add some OssLift® after the creation of the implant bed or after the first injection in order to gently lift the membrane further and fill the gap that was created by the drill.



6: Placing the implant

The Sinusjet® Crestal Sinus Lift Kit is compatible with every implant brand and an implant with a diameter superior to 3.4mm in the case of immediate implantation.



Bone formation takes place and the bone substitute is resorbed

For further information concerning the Sinusjet® please contact Synaxial at:

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Product references:

Sinusjet® Crestal Sinus Lift kit with 1CC OssLift® : SJK01

Sinusjet® Crestal Sinus Lift kit with 2CC OssLift® : SJK02

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