

# MECTRON BONE EXPANDERS DR. SENTINERI'S TECHNIQUE

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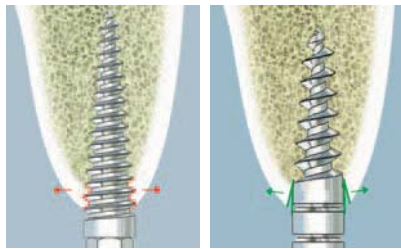
## mectron bone expanders

- Technique for expanding the atrophic alveolar ridge
- Lateral bone condensation technique – lateral compacting of the trabeculae in poor quality bone, greatly improving primary stability
- Technique is less traumatic for the patient than working with a hammer and chisel



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Conventional expander

Mectron expander

- The coronal part of the expander is smooth, only the initial part being threaded. When the smooth part comes into contact with the corticalis, instead of penetrating into it, it displaces it, facilitating lateral expansion.
- Uses an implantology micromotor for ridge expansion. Maximum control of the direction of insertion and of the torque (screwing power).
- Use of the ratchet in the last stage of insertion of the expanders. It is possible to make a half or quarter turn at a time.



## CLINICAL CASES

### EXPANSION OF AN ATROPHIC ALVEOLAR RIDGE



Initial stage



2-mm thick ridge



Initial osteoplasty (insert OP3) to increase the thickness of the ridge from 2 to 3 mm



Crestal osteotomy with 0.35 mm thick OT75-4 insert



Crestal osteotomy with 0.35 mm thick OT75-4 insert



Crestal osteotomy: maximum precision and minimum bone loss



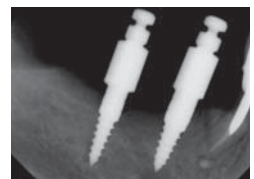
Introduction of 2.5 mm and 3.5 mm bone expanders in sequence



Introduction of 2.5 mm and 3.5 mm bone expanders in sequence



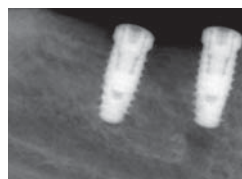
Introduction of 2.5 mm and 3.5 mm bone expanders in sequence



X-ray of bone expanders



End result



X-ray of end result



The surgical gap between the two cortical surfaces is filled with a particulate bone graft taken from neighbouring areas with the OP3 insert

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**LATERAL BONE CONDENSATION**



Thickness of the ridge: 3 mm – cancellous bone quality D4



Initial preparation of the site with IM1 insert



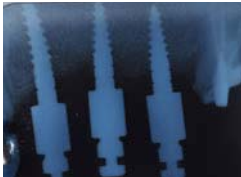
Preparation of the site with IM2P insert



Insertion of an 11.5 x 2.5 bone expander



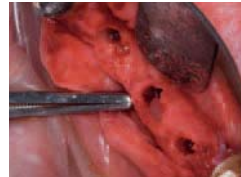
Bone expanders inserted – lateral bone compacting of the medullary bone, with transition from D4 to D3



X-ray view showing expanders in place



Coronal view showing expanders in place



Implant sites after removal of the 11.5 x 2.5 expanders



Insertion of 11.5 x 3.5 bone expanders



Palatal corticalis preparation (differential implant site preparation)



Implants in place (minor vestibular fracture in way of the central implant)



Particulate bone graft

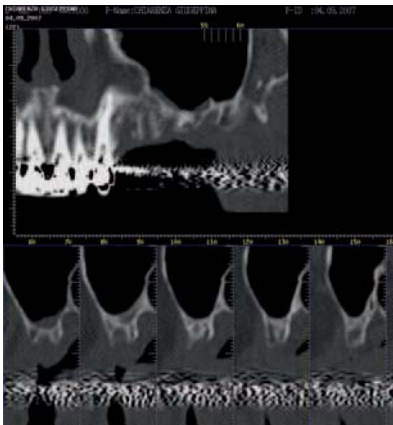


Covering with resorbable membrane

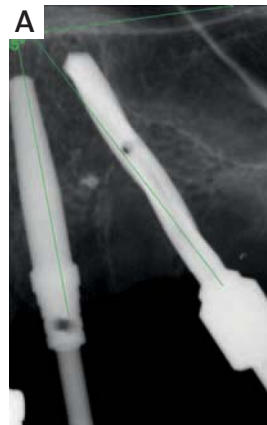


Final suture

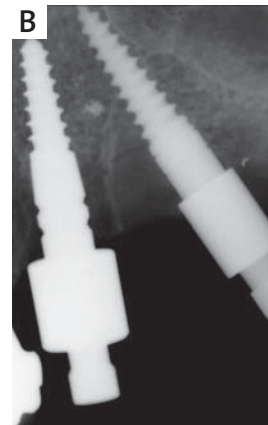
**ALTERNATIVE TECHNIQUE TO MAXILLARY SINUS ELEVATION**



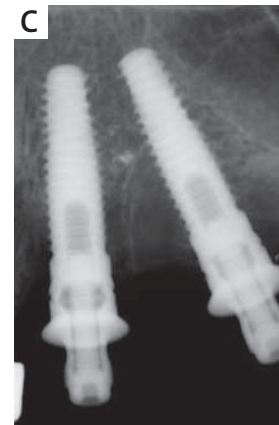
Initial CAT scan – if the implant is placed in an angled position with tooth 26, the maxillary sinus lift technique with lateral approach is not necessary



A) With X-ray guidance, pass anterior to the mesial wall of the sinus using insert IM1 (it is possible to correct the inclination) or a 1-mm bur



B) Insertion of the 2.5 and 3.5 mm bone expanders, in sequence, with simultaneous lateral bone condensing – lateral displacement of the mesial wall of the sinus



C) Placing the implants



End result

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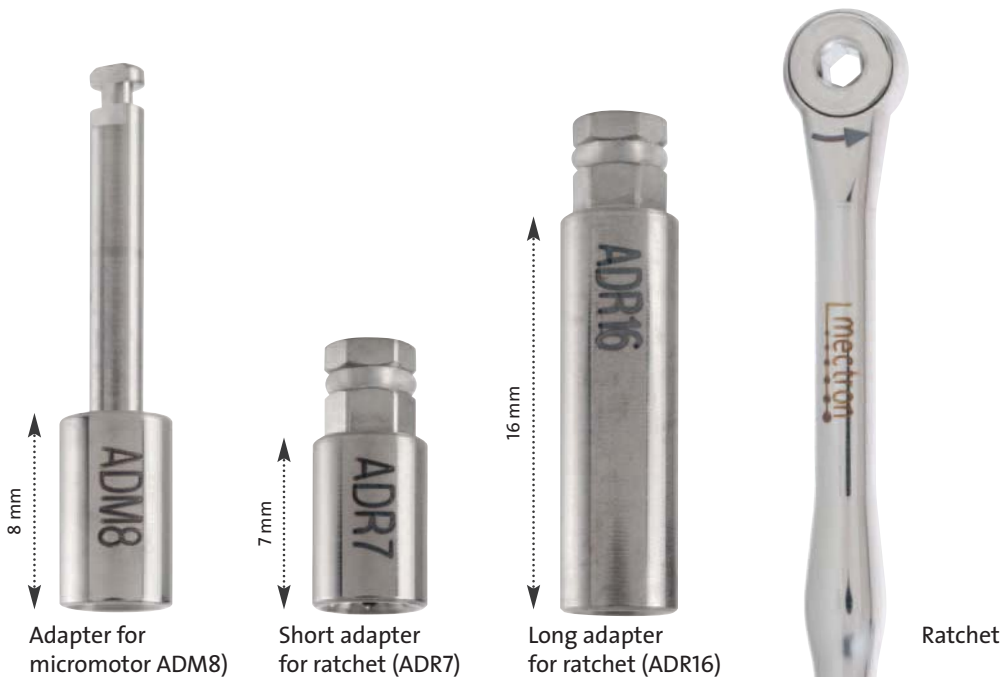
AVAILABLE EXPANDERS

Ø x length, in mm:

2.5 x 15      2.5 x 11.5

3.5 x 15      3.5 x 11.5

4.5 x 15      4.5 x 11.5



Adapter for micromotor ADM8

Short adapter for ratchet (ADR7)

Long adapter for ratchet (ADR16)

Ratchet

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