Comparative evaluation of cerabone® and Bio-Oss® in bilateral sinus augmentation –
Both materials show similar radiographic and histomorphometric outcomes

In both groups uneventful healing with good soft tissue response
- Histologic appearance of all samples similar
- No evidence of inflammatory cell infiltration present in the samples

**Science Flash**

**Clinical Study**

Comparative evaluation of cerabone® and Bio-Oss® in bilateral sinus augmentation – Both materials show similar radiographic and histomorphometric outcomes

**Study Design:**
- Split-mouth study
- Sinuses: 16
- Residual alveolar bone height: < 5 mm
- 8 months

**Results:**

<table>
<thead>
<tr>
<th>Bio-Oss® + Bio-Gide®, mean ± SD (median)</th>
<th>cerabone® + collprotect® membrane, mean ± SD (median)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total area [mm²]</td>
<td>0.34 ± 0.10 (0.38)</td>
</tr>
<tr>
<td>New bone [mm²]</td>
<td>0.09 ± 0.06 (0.07)</td>
</tr>
<tr>
<td>Residual graft particles [mm²]</td>
<td>0.05 ± 0.08 (0.02)</td>
</tr>
<tr>
<td>Residual graft particles [%]</td>
<td>14.77 ± 21.01 (9.1)</td>
</tr>
<tr>
<td>New bone [%]</td>
<td>24.63 ± 19.76 (18.42)</td>
</tr>
</tbody>
</table>

**Intra-group comparison of histomorphometric parameters (in each group, n = 8).**

**Scientific Source:**

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Abstract

OBJECTIVE:
The aim of this study was to evaluate the radiographic and histomorphometric results of two different xenografts in bilateral sinus augmentation in patients with posterior maxillary atrophy.

METHOD AND MATERIALS:
Eight patients with less than 5 mm residual alveolar bone height were included in this study. One side was augmented with bovine bone graft-1 and the other side with bovine bone graft-2. Radiographic analyses were performed before and after augmentation, and before the implant placement. After 8 months of healing period, bone biopsies were obtained during implant placement.

RESULTS:
No statistically significant difference was found between the groups, based on post-augmentation and pre-implantation graft heights (P > .05). Histomorphometric evaluation demonstrated 24.63% and 29.13% newly formed bone in the graft-1 and graft-2 groups, respectively. Intergroup differences were not significant for the mean percentage of new bone formation (P > .05).

CONCLUSION:
Within the limitations of this study, it can be concluded that xenograft materials resulted in satisfactory bone height and trabecular new bone formation, and they could be used for the rehabilitation of atrophic maxillae.