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[\[PDF \(481K\)\]](#) [\[References\]](#)**Effects of Dose of Recombinant Human BMP-2 on Bone Formation at Palatal Sites in Young and Old Rats**

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**Abstract:**

This study was designed to examine the effects of dose of recombinant human BMP-2 (rhBMP-2) on bone formation at palatal sites in 10-week-old (10w) and 70-week-old (70w) rats, when combined with a polylactate-polyglycolate copolymer/gelatin sponge (PGS).

New bone formation was observed at six weeks after implantation. In the 10w rats, thickness of new bone (TNB) increased as the dosage increased from 0  $\mu\text{g}$  to 4  $\mu\text{g}$ , and decreased significantly as the dosage increased from 8  $\mu\text{g}$  to 24  $\mu\text{g}$ . In contrast, in the 70w rats, TNB increased as the dosage increased from 0  $\mu\text{g}$  to 16  $\mu\text{g}$ , and did not significantly change as the dosage increased from 16  $\mu\text{g}$  to 24  $\mu\text{g}$ .

These results suggest that the most effective dosage of rhBMP-2 for induction of bone formation varies according to age.

**Key words:**

[Dose of rhBMP-2](#), [Bone formation](#), [Aging](#)



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