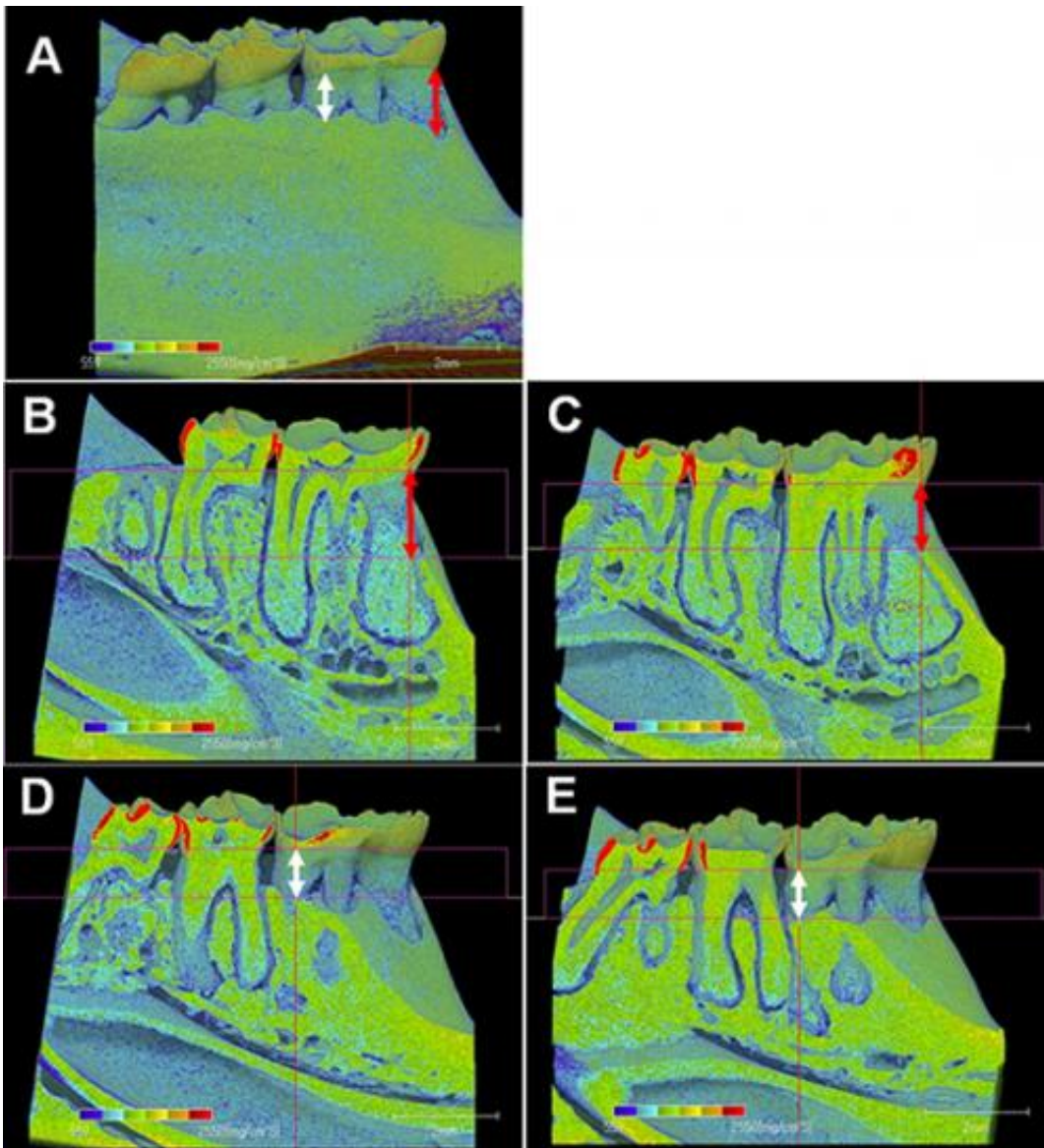


# Anti-aging properties of drinking hydrogen-rich water on periodontal tissues

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The 3D image model of the mandibular regions in rats (A). In the mesial root regions, the level of alveolar bone loss (white arrows) was greater in the control

group (B) than in the experimental group (C). In the distal root regions (red arrows), the level of alveolar bone loss in the control group (D) was similar with that in the experimental group (E).

Oxidative stress is involved in age-related inflammatory reactions. Molecular hydrogen is considered to be a novel antioxidant that can reduce oxidative stress. Therefore, drinking hydrogen-rich water may suppress age-related oxidative stress and inflammatory reactions in the periodontal tissues.

However, it remains unclear what the effects drinking hydrogen-rich water would be over the course of a lifetime.

Takaaki Tomofuji and colleagues at Okayama University have shown the anti-aging effects of drinking hydrogen-rich water on periodontal tissues.

Four-month-old male Fischer 344 rats (n=12) were divided into two groups: the experimental group (hydrogen-rich water intake) and the control group (distilled water intake). The rats consumed hydrogen-rich water or distilled water until they reached 16 months in age.

At 16 months, the periodontal levels of oxidative stress were higher in the control group compared with the baseline level (p

These findings indicate that drinking hydrogen-rich [water](#) could suppress [oxidative stress](#), but did not affect inflammatory reactions in aging periodontal tissues.

**More information:** Tomofuji T, Kawabata Y, Kasuyama K, Endo Y, Yoneda T, Yamane M, Azuma T, Ekuni D, and Morita M. *Effects of*

*hydrogen-rich water on aging periodontal tissues in rats. Scientific Reports* 4, 5534 (2014). (DOI): 10.1038/srep05534

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