

Author: [ADVANCED](#) | Volume Page
Keyword: |



[TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

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Effect of Frying with Edible Oil on Antihypertensive Properties of Hatakeshimeji (*Lyophyllum decastes* Sing.) Mushroom

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The effects of cooking methods on antihypertensive properties and inhibitory action on angiotensin converting enzyme (ACE) of Hatakeshimeji mushroom (*Lyophyllum decastes* Sing.) were investigated. The molecular mass of proteins in the fruit body of Hatakeshimeji was lowered by deep-frying with cooking oil, as the free amino groups of the hot-water extractable fraction of Hatakeshimeji were increased. However, there was no change in IC₅₀ for ACE activity. The effect on blood pressure for untreated and fried Hatakeshimeji was investigated by oral administration to spontaneously hypertensive rats (SHR). At 6 hours after administration, systolic blood pressure (SBP) of the fried Hatakeshimeji group was significantly lower than that before administration. At 5 hours after administration, ACE activity in the lungs of the fried Hatakeshimeji group was decreased as was that in the untreated Hatakeshimeji group, and the level was significantly decreased when compared to the control group. These results show that the antihypertension effect of Hatakeshimeji peptide was not lost by deep-frying.

Keywords: [Hakakeshimeji](#), [ACE](#), [SBP](#), [Lyophyllum decastes](#), [deep-frying](#)

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