Recent research in antihypertensive properties of food protein derived hydrolysates and peptides.

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Abstract:

Year to year obesity prevalence, reduced physical activities, bad habits/or stressful lifestyle, and other environmental and physiological impacts leading to increase of diseases such as coronary heart disease, stroke, cancer, diabetes and hypertension worldwide. Hypertension is considered as one of the most common serious chronic diseases; however, discovery of medications with high efficacy and without side effects for treatment of patients remains a challenge to scientists. Recent trends in the functional foods have evidenced that food bioactive proteins play a major role in the concepts of illness and curing; therefore, nutritionists, biomedical scientists, and food scientists are working together to develop improved systems for discovery of peptides with increased potency and therapeutic benefits. This review presents the recent research carried out to date for purposes of isolation and identification of bioactive hydrolyzates and peptides with angiotensin I-converting enzyme (ACE) inhibitory activity and antihypertensive effect from animal, marine, microbial and plant food proteins. Effects of food processing and hydrolyzation conditions as well as some other impacts on formation, activity and stability of these hydrolyzates and peptides are also presented.

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