

## عنوان مقاله:

Effects of physical activity and obesity on hypertension: A narrative mini-review of the main effective mechanisms

## محل انتشار:

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## خلاصه مقاله:

Physical activity (PA) and obesity are effective interventions for hypertension. The current study is a review to explain possible mechanisms related to the effects of PA and obesity on hypertension. To this end, several scientific databases were searched using the keyword "hypertension" and also some English articles related to obesity and PA were investigated. Then, the mechanisms of obesity and PA associated with hypertension were extracted from the collected articles. Overall, obesity causes an increase in renin-angiotensin-aldosterone (RAA) systems, harmful changes in lipid and lipoprotein profile, a decrease in insulin sensitivity, as well as harmful changes in adipokines, oxidative stress, and inflammatory factors. PA improves the above-mentioned changes caused by obesity. Overall, PA mainly via an effect on oxidative stress, inflammation, endothelial cells, the elasticity of arteries, body weight, the activity of the RAA system, activity of parasympathetic and renal function as well as improve the insulin sensitivity has positive effects on hypertension. It should be noted that the effects of PA against hypertension is highly variable and they are related to PA modes, environmental and genetic factors.

## کلمات کلیدی:

Adipokines, Insulin sensitivity, lipid and lipoprotein profile, Oxidative Stress Renin-Angiotensin-Aldosterone Systems

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