Hypertension

High blood pressure, or hypertension, afflicts an estimated one in four American adults. This condition puts a strain on the heart and blood vessels and greatly increases the risk of stroke and heart disease.

Emerging research indicates that the endogenous cannabinoid system plays a role in regulating blood pressure, though its mechanism of action is not well understood.\(^1\) Animal studies demonstrate that anandamide and other endocannabinoids profoundly suppress cardiac contractility in hypertension and can normalize blood pressure,\(^2,3\) leading some experts to speculate that the manipulation of the endocannabinoid system "may offer novel therapeutic approaches in a variety of cardiovascular disorders."\(^4\)

The administration of exogenous cannabinoids has yielded conflicting cardiovascular effects on humans and laboratory animals.\(^5-9\) The vascular response in humans administered cannabis in experimental conditions is typically characterized by a mild increase in heart rate and blood pressure. However, complete tolerance to these effects develops quickly and potential health risks appear minimal.\(^10,11\)

Cannabinoid administration in animals has been associated with vasodilation, transient bradycardia and hypotension,\(^12\) as well as an inhibition of atherosclerosis (hardening of the arteries) progression.\(^13,15\) The administration of synthetic cannabinoids have also been shown to lower blood pressure in animals and have not been associated with cardiotoxicity in humans.\(^16\)

At this time, research assessing the clinical use of cannabinoids for hypertension is in its infancy\(^17\) and potentially higher-risk populations are largely cautioned by experts to refrain from cannabis smoking.\(^18\)

REFERENCES


4 Ibid.


10 Ibid.


16 Steven Karch. 2006. op. cit.
