

**Pomegranate juice reduces oxidized low-density lipoprotein downregulation of endothelial nitric oxide synthase in human coronary endothelial cells.**

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ABSTRACT

We examined the hypothesis that pomegranate juice (PJ) can revert the potent downregulation of the expression of endothelial nitric-oxide synthase (NOSIII) induced by oxidized low-density lipoprotein (oxLDL) in human coronary endothelial cells. Western blot and Northern blot analyses showed a significant decrease of NOSIII expression after a 24-h treatment with oxLDL. Accordingly, we observed a significant dose-dependent reduction in nitric oxide bioactivity represented by both basal and bradykinin-stimulated cellular cGMP accumulation. These phenomena were corrected significantly by the concomitant treatment with PJ. Our data suggest that PJ can exert beneficial effects on the evolution of clinical vascular complications, coronary heart disease, and atherogenesis in humans by enhancing the NOSIII bioactivity.