Box 2

Mechanisms of benefit

- Possible mechanisms include improved endothelial function[27,28] promotion and recruitment of collaterals,[17] reduced arterial stiffness,[29] improved systolic and diastolic function,[30] neurohumoral[31] and metabolic effects,[32] peripheral effects of lower body exercise [33] and non-specific effects e.g. psychological and supportive benefit during the course of treatment.
- Growing experimental evidence suggests that EECP may exert its clinical benefits via the effects of shear stress on endothelial function. EECP has been shown indirectly through measures of vascular reactivity to improve endothelial function in patients with angina.[34]
- EECP has also been shown to have anti-inflammatory effects in patients with symptomatic angina significantly decreasing pro-inflammatory biomarkers and a favourable effect on pro-inflammatory cytokine and adhesion molecule expression and signalling.[35]
- Endothelial dysfunction is increasingly recognised as the bridge between vascular risk factors and the atherosclerotic disease process. EECP may provide a means of preventing this pathological progression, especially in those who are unable or unwilling to exercise adequately.