

Blood Circulation	Effects on body surface temperature; Effect on the vascular system	Blackcurrant juice containing Anthocyanins	In healthy women: Study 1: 21 females, age 53.6±3.6 Study 2: 40 females, age 47.4±8.8	Blackcurrant Juice induced limb peripheral vasodilatation, increase in blood flow, and decrease in blood pressure. Vascular endothelium plays a role in vasodilatation mediated by various gene expressions. Blackcurrant juice may improve the function of vascular endothelium.	Yonei Y et al
	Blood flow under-eye circles and facial blood flow	Blackcurrant polyphenols containing anthocyanins	4 women with daily subjective symptoms of sensitivity to cold (22-34 years of age)	The body temperature recovered with Blackcurrant polyphenol intake. The improvement of blood flow under-eye circles and the facial blood flow was observed after blackcurrant drink intake.	Ichihashi M
	Indicator on the skin's surface induced by Blackcurrant consumption. Improvement of dark circle	Blackcurrant polyphenols	33 women (age:30-45, Average age:35.4)	Blood flow improved 15 mins after Blackcurrant were ingested. Improvement was recognized in approximately 70% of total areas. Blackcurrant has an improvement effect on dark circles.	Ichihashi M
	Bioavailability and bioefficacy of polyphenols in humans	Blackcurrant juice containing Procyanidins, Anthocyanins, Quercetin	7 Subjects per group	Plasma malondialdehyde decreased, plasma 2-amino-adipic acid semialdehyde increased	Gary Williamson et al
	Peripheral Blood Circulation during typing work	Blackcurrant powder from liquid concentrate containing anthocyanin	10 Subjects	Improve Forearm blood circulation	www.catalystnz.co.nz

	Effect of Blackcurrant Polyphenols on Blood Flow	Blackcurrant Anthocyanin	4 healthy women with daily subjective symptoms of chill (age 22 to 34) After soaking the right hand in cold water of 10 degrees centigrade for 1minute.	Improve blood flow: Body temperature did not return to normal after 15 minutes without Blackcurrant consumption. In contrast, however, body temperature began to return to normal 10 minutes after Blackcurrant consumption.	www.catalystnz.co.nz
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