

No effect of nitrate-rich beetroot juice on microvascular function and blood pressure in younger and older individuals: A randomised, placebo-controlled double-blind pilot study

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SUPPLEMENTARY MATERIAL

	AGE (YEARS)		STATURE (CM)		BODY MASS (KG)		BMI		WC (CM)		BODY FAT (%)	
	Young (n = 17)	Old (n = 7)	Young (n = 17)	Old (n = 7)	Young (n = 17)	Old (n = 7)	Young (n = 17)	Old (n = 7)	Young (n = 17)	Old (n = 7)	Young (n = 17)	Old (n = 7)
95% CI	22.4	59.2	164.4	158.9	58.9	57.6	21.3	22.0	74.8	81.8	13.0	12.4
	25.9	78.2	172.2	177.7	70.8	95.8	24.1	31.4	82.9	111.1	18.8	33.5
90% CI	22.7	61.2	165.1	160.8	59.9	61.5	21.6	23.0	75.5	84.8	13.5	14.6
	25.6	76.3	171.6	175.8	69.8	91.9	23.4	30.4	82.2	108.1	18.3	31.3
85% CI	22.9	62.3	165.5	161.9	60.6	63.4	21.7	23.5	76.0	86.5	13.8	15.8
	25.4	75.13	171.1	174.6	69.1	89.6	23.7	29.9	81.8	106.3	18.0	30.0
80% CI	23.1	63.1	165.8	162.7	61.1	65.4	21.9	24.0	76.3	87.8	14.1	16.7
	25.3	74.3	170.8	173.8	68.6	87.9	23.6	29.5	81.4	105.1	17.7	29.1
75% CI	23.2	63.8	166.1	163.4	61.5	66.7	22.0	24.3	76.6	88.8	14.3	17.4
	25.2	73.7	170.5	173.2	68.2	86.6	23.5	29.2	81.2	104.1	17.5	28.4

WC = Waist circumference.

Supplemental Table 1a. Baseline 75% - 95% confidence intervals for anthropometric data in Young (n = 17) vs. Old (n = 7) participants prior to administration of NO₃ supplementation. Confidence intervals calculated to reflect descriptive statistic emphasis recommendations for pilot studies²⁰, and supplement means and SD of the main manuscript.

	SBP		DBP *		RHR*	
	Young (n = 17)	Old (n = 7)	Young (n = 17)	Old (n = 7)	Young (n = 17)	Old (n = 7)
95% CI	96.9	88.9	61.8	71.2	60.4	56.7
	116.8	141.4	71.7	91.4	75.3	135.3
90% CI	98.6	94.3	62.7	73.3	61.7	64.8
	115.0	136.0	70.9	89.3	74.0	127.2
85% CI	99.7	97.4	63.2	74.5	62.5	69.5
	113.9	132.9	70.3	88.1	73.2	122.5
80% CI	23.1	63.1	165.8	162.7	63.1	63.0
	25.3	74.3	170.8	173.8	72.5	72.5
75% CI	23.2	63.8	166.1	163.4	61.5	66.7
	25.2	73.7	170.5	173.2	68.2	86.6

SBP = Systolic blood pressure, **DBP** = Diastolic blood pressure, **RHR** = Resting heart rate.

Supplemental Table 1b. Baseline 75% - 95% confidence intervals for blood pressure in Young (n = 17) vs. Old (n = 7) participants prior to administration of NO₃ supplementation.

Confidence intervals calculated to reflect descriptive statistic emphasis recommendations for pilot studies²⁰, and supplement means and SD of the main manuscript.

Young (n = 17)				
		Δ SBP	Δ DBP	Δ HR
MIC		2.8	2.1	2.4
95% CI	Lower	-3.5	-0.7	-2.0
	Upper	2.0	3.5	2.8
90% CI	Lower	-3.0	-0.3	-1.6
	Upper	2.0	3.2	2.4
85% CI	Lower	-2.7	-0.1	-1.3
	Upper	1.3	2.9	2.1
80% CI	Lower	-2.5	0.1	-1.1
	Upper	1.0	2.8	1.9
75% CI	Lower	-2.3	0.2	-0.9
	Upper	0.8	2.6	1.8
Old (n = 7)				
		Δ SBP	Δ DBP	Δ HR
MIC		10.6	5.3	6.1
95% CI	Lower	10.7	6.3	-12.4
	Upper	50.0	25.7	10.1
90% CI	Lower	14.8	8.2	-10.1
	Upper	46.0	23.7	7.8
85% CI	Lower	17.1	9.4	-8.8
	Upper	43.6	22.5	6.4
80% CI	Lower	18.8	10.3	-7.8
	Upper	41.9	21.7	5.5
75% CI	Lower	20.2	10.9	-7.0
	Upper	40.6	21.1	4.7

Supplemental Table 2. 75% - 95% confidence intervals and minimally important change for difference between placebo vs. nitrate blood pressure and heart rate in Young (n = 17) vs. Old (n = 7) participants.

Minimally Important Change (MIC) calculated via SEM.

Confidence intervals and MIC data for Δ SBP and DBP could indicate a clinically important treatment difference warranting further investigation via a further confirmatory trial²⁰, supplementing the inferential analyses of the main manuscript.

Young (n = 17)							
		Baseline		Initial Peak		Plateau	
		Δ	Δ	Δ	Δ	Δ	Δ
		Nitrate	Placebo	Nitrate	Placebo	Nitrate	Placebo
MIC		1.8	1.1	11.3	7.9	2.9	3.0
95%	Lower	-1.2	1.6	-8.1	0.3	-8.2	-11.7
CI	Upper	6.4	6.2	40.5	34.7	4.5	1.4
90%	Lower	-0.5	2.0	-3.8	3.5	-7.1	-10.5
CI	Upper	5.7	5.8	36.2	31.5	3.3	0.2
85%	Lower	-0.1	2.3	-1.1	5.4	-6.4	-9.8
CI	Upper	5.3	5.6	33.5	29.6	2.6	-0.5
80%	Lower	0.2	2.5	1.0	6.8	-5.8	-9.3
CI	Upper	5.0	5.4	31.5	28.2	2.1	-1.1
75%	Lower	0.5	2.7	2.6	8.0	-5.4	-8.8
CI	Upper	4.7	5.2	29.8	27.0	1.7	-1.5
Old (n = 7)							
		Baseline		Initial Peak		Plateau	
		Δ	Δ	Δ	Δ	Δ	Δ
		Nitrate	Placebo	Nitrate	Placebo	Nitrate	Placebo
MIC		2.2	2.5	10.5	15.5	3.0	2.5
95%	Lower	0.3	-7.0	-17.4	-38.9	-10.2	-7.6
CI	Upper	11.8	5.0	36.8	36.8	5.4	4.6
90%	Lower	1.6	-5.8	-11.5	-31.1	-8.5	-6.3
CI	Upper	10.6	3.8	31.0	29.0	3.7	3.4
85%	Lower	2.3	-5.1	-8.2	-26.6	-7.6	-5.6
CI	Upper	9.9	3.0	27.6	24.5	2.7	2.6
80%	Lower	2.8	-4.6	-5.9	-23.3	-6.9	-5.1
CI	Upper	9.4	2.5	25.3	21.2	2.1	2.1
75%	Lower	3.2	-4.2	-4.0	-20.7	-6.3	-4.7
CI	Upper	9.0	2.1	23.4	18.7	1.5	1.7

Supplementary Table 3. 75% - 95% confidence intervals and minimally important change for skin blood flow in Young (n = 17) vs. Old (n = 7) participants.

Confidence intervals and MIC for Δ Nitrate and Δ Placebo could indicate a clinically important treatment difference for Baseline CVC in Old participants²⁰ and supplement the inferential analyses of the main manuscript.