

**Table S1.** Search strings and retrieved records. Numbers reported in bold characters are the final references included. Numbers reflect the records that were retrieved until June 22nd, 2018.

Search string	N of records
PubMed	
fruits[MeSH Terms] OR "fruit" OR "fruits"	146515
vegetables[MeSH Terms] OR "vegetable" OR "vegetables"	65817
"concentrate" OR "concentrates"	42962
((fruits[MeSH Terms] OR "fruit" OR "fruits") OR (vegetables[MeSH Terms] OR "vegetable" OR "vegetables")) AND ("concentrate" OR "concentrates")	1285
((fruits[MeSH Terms] OR "fruit" OR "fruits") OR (vegetables[MeSH Terms] OR "vegetable" OR "vegetables")) AND ("concentrate" OR "concentrates")	<b>310</b>
Scopus	
TITLE-ABS-KEY(fruit) OR TITLE-ABS-KEY(frui <u>t</u> s)	280395
TITLE-ABS-KEY(vegetable) OR TITLE-ABS-KEY(vegetables)	196186
ALL(concentrate) OR ALL(concentrates)	292282
((TITLE-ABS-KEY(fruit) OR TITLE-ABS-KEY(frui <u>t</u> s)) OR (TITLE-ABS-KEY(vegetable) OR TITLE-ABS-KEY(vegetables))) AND (ALL(concentrate) OR ALL(concentrates))	9970
((TITLE-ABS-KEY(fruit) OR TITLE-ABS-KEY(frui <u>t</u> s)) OR (TITLE-ABS-KEY(vegetable) OR TITLE-ABS-KEY(vegetables))) AND (ALL(concentrate) OR ALL(concentrates)) AND (LIMIT-TO(EXACTKEYWORD, "Human") AND LIMIT-TO(SUBJAREA, "MEDI"))	<b>1287</b>
Web of Science	
TOPIC: (fruit) OR TOPIC: (frui <u>t</u> s)	220306
TOPIC: (vegetable) OR TOPIC: (vegetables)	102998
TOPIC: (concentrate) OR TOPIC: (concentrates)	276583
((TOPIC: (fruit) OR TOPIC: (frui <u>t</u> s)) OR (TOPIC: (vegetable) OR TOPIC: (vegetables))) AND (TOPIC: (concentrate) OR TOPIC: (concentrates))	3959
((TOPIC: (fruit) OR TOPIC: (frui <u>t</u> s)) OR (TOPIC: (vegetable) OR TOPIC: (vegetables))) AND (TOPIC: (concentrate) OR TOPIC: (concentrates))	<b>232</b>
Embase	
'fruit'/exp OR 'fruit'	165,734
'vegetable'/exp OR 'vegetable'	204,332
'concentrate' OR 'concentrates'	67,055
(('fruit'/exp OR 'fruit') OR ('vegetable'/exp OR 'vegetable')) AND ('concentrate' OR 'concentrates')	2,372
(('fruit'/exp OR 'fruit') OR ('vegetable'/exp OR 'vegetable')) AND ('concentrate' OR 'concentrates')	<b>549</b>

**Table S2.** Articles used to estimate the effect size of a single concentrate product on a specific clinical surrogate.

Population	Healthy						Metabolic syndrome						Hypertension						
	Surrogate	TC	LDL	HCY	BMI	SBP	TNF- $\alpha$	TC	LDL	HCY	BMI	SBP	TNF- $\alpha$	TC	LDL	HCY	BMI	SBP	TNF- $\alpha$
Encapsulated FV concentrate	Novembrino 2011 [1]	Plotnick 2003 [2]	Panunzio 2003 [3]	-	-	-	Lamprecht 2007 [4]	Ali 2011 [5]	Ali 2011 [5]	-	Ali 2011 [5]	Williams 2017 [6]*	Lamprecht 2013 [7]	Williams 2017 [6]*	-	-	-	-	-
Artichoke	-	-	-	-	-	-	-	-	-	-	-	-	-	Roghani 2009 [8]	Roghani 2009 [8]	-	Roghani 2009 [8]	Roghani 2009 [8]	-
Jerusalem artichoke	-	-	-	-	-	-	Antal 2008 [9]	Antal 2008 [9]	-	-	-	-	-	-	-	-	-	-	-
Orange juice	Cesar 2010 [10]	Cesar 2010 [10]	-	Cesar 2010 [10]	-	-	-	Cesar 2010 [10]	Cesar 2010 [10]	-	Cesar 2010 [10]	-	-	-	-	-	-	-	-
Fruit and vegetable drink	George 2012 [11]	George 2012 [11]	George 2012 [11]	George 2012 [11]	George 2012 [11]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cherry Juice	Lynn 2014 [12]	-	-	-	Lynn 2014 [12]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fruit juice	Van Berg 2001 [13]	Den Berg 2001 [13]	-	-	Van Berg 2001 [13]	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*The pooled effect was used for the purpose of the simulation



Van Den Berg et al. 2001 [13]	330 mL	Fruit juice	1.2 g	33.3 g	<0.2 g		<0.03 mg	52.5 mg					580 KJ	
Williams et al. 2017 [6]	6 capsules	Encapsulated FV concentrate					3.05 mg/day	300 mg/day		350 mg/day				

## References

1. Novembrino, C.; Cighetti, G.; De Giuseppe, R.; Vigna, L.; de Liso, F.; Pellegatta, M.; Gregori, D.; Maiavacca, R.; Bamonti, F. Effects of encapsulated fruit and vegetable juice powder concentrates on oxidative status in heavy smokers. *J. Am. Coll. Nutr.* **2011**, *30*, 49–56.
2. Plotnick, G.D.; Corretti, M.C.; Vogel, R.A.; Hesslink Jr, R.; Wise, J.A. Effect of supplemental phytonutrients on impairment of the flow-mediated brachial artery vasoactivity after a single high-fat meal. *J. Am. Coll. Cardiol.* **2003**, *41*, 1744–1749.
3. Panunzio, M.F.; Pisano, A.; Antoniciello, A.; Di Martino, V.; Frisoli, L.; Cipriani, V.; Mongelli, M.A.; Bronzetti, G. Supplementation with fruit and vegetable concentrate decreases plasma homocysteine levels in a dietary controlled trial. *Nutr. Res.* **2003**, *23*, 1221–1228.
4. Lamprecht, M.; Oetl, K.; Schwabegger, G.; Hofmann, P.; Greilberger, J.F. Several indicators of oxidative stress, immunity, and illness improved in trained men consuming an encapsulated juice powder concentrate for 28 weeks. *J. Nutr.* **2007**, *137*, 2737–2741.
5. Ali, A.; Yazaki, Y.; Njike, V.Y.; Ma, Y.; Katz, D.L. Effect of fruit and vegetable concentrates on endothelial function in metabolic syndrome: A randomized controlled trial. *Nutr. J.* **2011**, *10*.
6. Williams, E.J.; Baines, K.J.; Berthon, B.S.; Wood, L.G. Effects of an encapsulated fruit and vegetable juice concentrate on obesity-induced systemic inflammation: A randomised controlled trial. *Nutrients* **2017**, *9*.
7. Lamprecht, M.; Obermayer, G.; Steinbauer, K.; Cvirn, G.; Hofmann, L.; Ledinski, G.; Greilberger, J.F.; Hallstroem, S. Supplementation with a juice powder concentrate and exercise decrease oxidation and inflammation, and improve the microcirculation in obese women: randomised controlled trial data. *Br. J. Nutr.* **2013**, *110*, 1685–1695.
8. Roghani-Dehkordi, F.; Kamkhah, A.F. Artichoke leaf juice contains antihypertensive effect in patients with mild hypertension. *J. Diet. Suppl.* **2009**, *6*, 328–341.
9. Antal, M.; Péter, S.; Regőly-Mérei, A.; Biró, L.; Arató, G.; Schmidt, J.; Nagy, K.; Greiner, E.; Lásztity, N.; Szabó, C. Effects of oligofructose containing diet in obese persons. *Clin. Exp. Med. J.* **2010**, *4*, 141–152.
10. Cesar, T.B.; A., N.P.; Araujo, M.P.; Vinagre, C.C.; Maranhao, R.C. Orange juice decreases low-density lipoprotein cholesterol in hypercholesterolemic subjects and improves lipid transfer to high-density lipoprotein in normal and hypercholesterolemic subjects. *Nutr Res* **2010**, *30*, 689–94.
11. George, T.W.; Paterson, E.; Waroonphan, S.; Gordon, M.H.; Lovegrove, J.A. Effects of chronic consumption of fruit and vegetable puree-based drinks on vasodilation, plasma oxidative stability and antioxidant status. *J. Hum. Nutr. Diet.* **2012**, *25*, 477–487.
12. Lynn, A.; Mathew, S.; Moore, C.T.; Russell, J.; Robinson, E.; Soumpasi, V.; Barker, M.E. Effect of a Tart Cherry Juice Supplement on Arterial Stiffness and Inflammation in Healthy Adults: A Randomised Controlled Trial. *Plant Foods Hum. Nutr.* **2014**, *69*, 122–127.
13. Van Den Berg, R.; Van V., T.; Broekmans, W.M.R.; Cnubben, N.H.P.; Vaes, W.H.J.; Roza, L.; Haenen, G.R.M.M.; Bast, A.; Van Den Berg, H. A vegetable/fruit concentrate with high antioxidant capacity has no effect on biomarkers of antioxidant status in male smokers. *J. Nutr.* **2001**, *131*, 1714–1722.