

Table S1. Search Strategy for Pubmed

Database	Search Strategy
PubMed	<p>"Fatty Acids, Omega-3"[Mesh] OR "n 3 polyunsaturated fatty acid"[Title/Abstract] OR "omega 3 fatty acid"[Title/Abstract] OR "acid omega 3 fatty"[Title/Abstract] OR "fatty acid omega 3"[Title/Abstract] OR "omega 3 fatty acids"[Title/Abstract] OR "oil n 3"[Title/Abstract] OR "n 3 oil"[Title/Abstract] OR "oil n3"[Title/Abstract] OR "n 3 fatty acids"[Title/Abstract] OR "omega 3 fatty acids"[Title/Abstract] OR "pufa n 3"[Title/Abstract] OR "n 3 pufa"[Title/Abstract] OR "n3 fatty acid"[Title/Abstract] OR "n3 pufa"[Title/Abstract] OR "pufa n3"[Title/Abstract] OR "n3 polyunsaturated fatty acid"[Title/Abstract] OR "n 3 oils"[Title/Abstract] OR "n 3 fatty acid"[Title/Abstract] OR "acid n 3 fatty"[Title/Abstract] OR "fatty acid n 3"[Title/Abstract] OR "n 3 fatty acid"[Title/Abstract] OR omega-3 [Title/Abstract] OR "n-3 Polyunsaturated fatty acids" [Title/Abstract] OR "omega-3 polyunsaturated fatty acid" [Title/Abstract]</p> <p>OR</p> <p>"fish oil" [Title/Abstract] OR "fish oils" [Title/Abstract] OR promega[Title/Abstract] OR "super epa" [Title/Abstract] OR superepa[Title/Abstract] OR "tuna oil" [Title/Abstract] OR "tuna oils" [Title/Abstract] OR icosapentaenoic[Title/Abstract] OR docosahexaenoic[Title/Abstract] OR linolenic[Title/Abstract] OR eicosapentaenoic[Title/Abstract] OR alpha-linolenic[Title/Abstract] OR EPA[Title/Abstract] OR DHA[Title/Abstract]</p> <p>AND</p> <p>"polycystic ovary syndrome"[MeSH Terms] OR "ovary syndrome polycystic"[Title/Abstract] OR "syndrome polycystic ovary"[Title/Abstract] OR "stein leventhal syndrome"[Title/Abstract] OR "stein leventhal syndrome"[Title/Abstract] OR "syndrome stein leventhal"[Title/Abstract] OR "sclerocystic ovarian degeneration"[Title/Abstract] OR "sclerocystic ovary syndrome"[Title/Abstract] OR "polycystic ovarian syndrome"[Title/Abstract] OR "ovarian syndrome polycystic"[Title/Abstract] OR "polycystic ovary syndrome"[Title/Abstract] OR "sclerocystic ovaries"[Title/Abstract] OR "sclerocystic ovary"[Title/Abstract]</p>

Table S2. Specific indicators and values involved in all included studies

Study	Adiponectin (ng/ml)		Apo-B(g/L)		Apo-A(g/L)		BW (kg)		BMI (kg/m ²)		WC(cm)	
	Intervention	Control	Intervention	Control	Intervention	Control	Intervention	Control	Intervention	Control	Intervention	Control
Amini 2018	-	-	-	-	-	-	66.9±12.7	67.9±12.9	25.6±4.7	25.8±4.4	-	-
Cussons 2009	-	-	-	-	-	-	-	-	34.8±6.6	35.1±7.0	-	-
Ebrahimi 2017	-	-	-	-	-	-	71.9±10.7	74.8±18.3	27.8±4.3	28.3±6.7	-	-
Jamilian 2018	-	-	-	-	-	-	72.5±10.0	72.2±17.2	27.1±3.8	27.0±7.1	-	-
Khani 2017	-	-	-	-	-	-	-	-	30.08±3.39	31.61±3.57	81.18±2.87	84.22±2.61
Mejia-Montilla 2018	5.3±1.4	3.8±1.2	94.5±12.6	86.2±12.9	118.0±17.0	119.1±15.6	-	-	25.7±3.1	26.2±2.8	-	-
Mirmasoumi 2017	-	-	-	-	-	-	70.1±11.9	69.9±16.2	26.9±5.0	26.6±5.4	-	-
Mohammadi 2012	13.5±2.41	12.0±3.10	-	-	-	-	73.4±8.88	75.1±9.88	28.6±3.30	28.8±2.94	90.9±6.14	91.3±6.48
Nadjarzadeh 2015	5.62±2.68	4.65±3.14	-	-	-	-	-	-	31.17±5.93	31.83±3.68	98.77±14.55	102.27±10.20
Rahmani 2016	-	-	-	-	-	-	73.8±10.8	77.4±18.3	28.2±4.6	29.0±6.5	-	-
Talari 2018	-	-	-	-	-	-	-	-	-	-	-	-

Table S2. Continued

Study	hs-CRP (mg/L)		QUICKI		FPG (mg/dL)		FINS (μIU/mL)		HOMA-IR		TG (mg/dL)	
	Intervention	Control	Intervention	Control	Intervention	Control	Intervention	Control	Intervention	Control	Intervention	Control
Amini 2018	3.7±1.9	4.8±1.5	0.34±0.01	0.33±0.02	87.1±6.8	89.6±4.4	10.2±2.9	12.3±4.2	2.2±0.7	2.7±0.9	113.4±57.2	105±47.9

Abbreviations: BW, body weight; BMI, body mass index; DHA, docosahexaenoic acid; EPA, eicosapentaenoic acid; FPG, fasting plasma glucose; FINS, fasting insulin; HDL-C, high-density lipoprotein cholesterol; HOMA-IR, homeostatic model of assessment for insulin resistance; hs-CRP, high sensitivity C-reactive protein; LDL-C, low-density lipoprotein cholesterol; n-3 PUFA, n-3 polyunsaturated fatty acid; QUICK, quantitative insulin sensitivity check index; TC, total cholesterol; TG, triglycerides; VLDL-C: very low density lipoprotein-cholesterol.