

Additional file 1: Results of scientific evidence about the most reported ingredients on nutritional supplements on diabetes.

Ingredient	Reference	Type	N° of patients	N° of studies	Pharmaceutical formulation	Patients	Outcome measures	Significant results	Adverse effects
Alpha Lipoic Acid	Bartlett et Eperjesi, 2008 [32]	SR	-	2	ALA	Type 2 DM	FBG Insulin resistance		Well tolerated
	Lee et Dugoua, 2011 [33]	SR	-	4	ALA	Type 2 DM	TSS NSC NIS	Improvement of neuropathic symptoms	Nausea, Vertigo and Vomiting for oral dose of ALA (1200/1800 mg)
	de Oliveira et al., 2011 [34]	RCT	102	-	ALA	Type 2 DM	Insulin resistance FBG		NC
	Ansar et al., 2011 [35]	RCT	57	-	ALA	Type 2 DM	FBG PPG FSI Insulin resistance	↓ ↓ ↓	NC
<i>Gymnema sylvestre</i>	Leach, 2007 [36]	SR	-	2	G. sylvestre leaf extract	Type 1 and type 2 DM	FBG PPG HbA1 _C	↓ ↓ ↓	NC
Magnesium*	Larsson et Wolk, 2007 [37]	MA	-	7	Mg intake	Nondiabetic individuals	Risk of type 2 diabetes	↓	NC
	Bartlett et Eperjesi, 2008 [32]	SR	-	3	Mg oxide Mg pindolate	Type 2 DM	Glycaemic control FBG HbA1 _C Fructosamine	↓	NC
	Mooren et al., 2011 [38]	RCT	52	-	Mg-aspartate-hydrochloride	Type 2 DM	FBG FSI Glucose after 120 min OGTT Insulin after 120 min OGTT	↓	NC
	Rodriguez-Moran et al, 2003 [39]	RCT	63	-	Mg solution	Type 2 DM	FBG HbA1 _C Insulin resistance	↓ ↓ ↓	NC

	Dong et al., 2011 [40]	MA	-	13	Mg intake	Nondiabetic individuals	Risk of type 2 DM	↓	NC
Chromium*	Althius et al, 2002 [41]	MA	-	20	Cr yeast Cr nicotinate Cr picolinate	Diabetic and Non diabetic individuals	FBG FSI HbA1 _C		NC
	Bartlett et Eperjesi, 2008 [32]	SR	-	16	Cr yeast Cr pindolate	Type 2 DM	FBG HbA1 _C PPG		NC
					Cr picolinate	Type 2 DM	HbA1 _C FBG FSI PPG	↓ ↓ ↓ ↓	NC
					Cr chloride	Type 2 DM	Fructosamine HbA1 _C FBG FSI	↓ ↓ ↓ ↓	NC
	Cefalu et al., 2010 [42]	RCT	137	-	Cr picolinate	Type 2 DM	Insulin resistance FBG HbA1 _C		NC
	Ali et al., 2011 [43]	RCT	59	-	Cr picolinate	High risk for type 2 DM	FBG HbA1 _C Glucose after 120 min OGTT Insulin after 120 min OGTT		NC
	Krøl et al., 2011 [44]	RCT	20	-	Cr brewer's yeast	Type 2 DM	FBG HbA1 _C FSI Insulin resistance	↓ ↓ ↓ ↓	NC
	Sharma et al., 2011 [45]	RCT	40	-	Cr yeast	Type 2 DM	FBG HbA1 _C	↓ ↓	NC
Zinc*	Hussain et al., 2006 [46]	RCT	46	-	Zn acetate and Melatonin	Type 2 DM	FBG PPG HbA1 _C	↓ ↓ ↓	NC
	Beletate et al., 2007 [47]	SR	-	1	Zn	Normal glucose tolerant obese	FBG FSI		NC

DM: diabetes mellitus; ALA: Alpha Lipoic Acid; RCT: Randomized Controlled Trial; SR: Systematic Review; MA: Meta-analysis; FBG: Fasting Blood Glucose; PPG: Postprandial Blood Glucose; FSI: Fasting Serum Insulin; OGTT: Oral Glucose Tolerance Test; HbA_{1c}: Haemoglobin A_{1c}; TSS: Total Symptom Score; NSC: Neuropathy Symptoms and Change score; NIS: Neuropathy Impairment Score; ↓: decreased statistically significant ($p < 0.05$); NC: Not Considered

* Included in dietary supplementary fact sheets of NIH-ODS.