




**Supplementary information to:**

**Original article:**

**ASTAXANTHIN IMPROVES FATTY ACID DYSREGULATION IN  
DIABETES BY CONTROLLING THE AMPK-SIRT1 PATHWAY**

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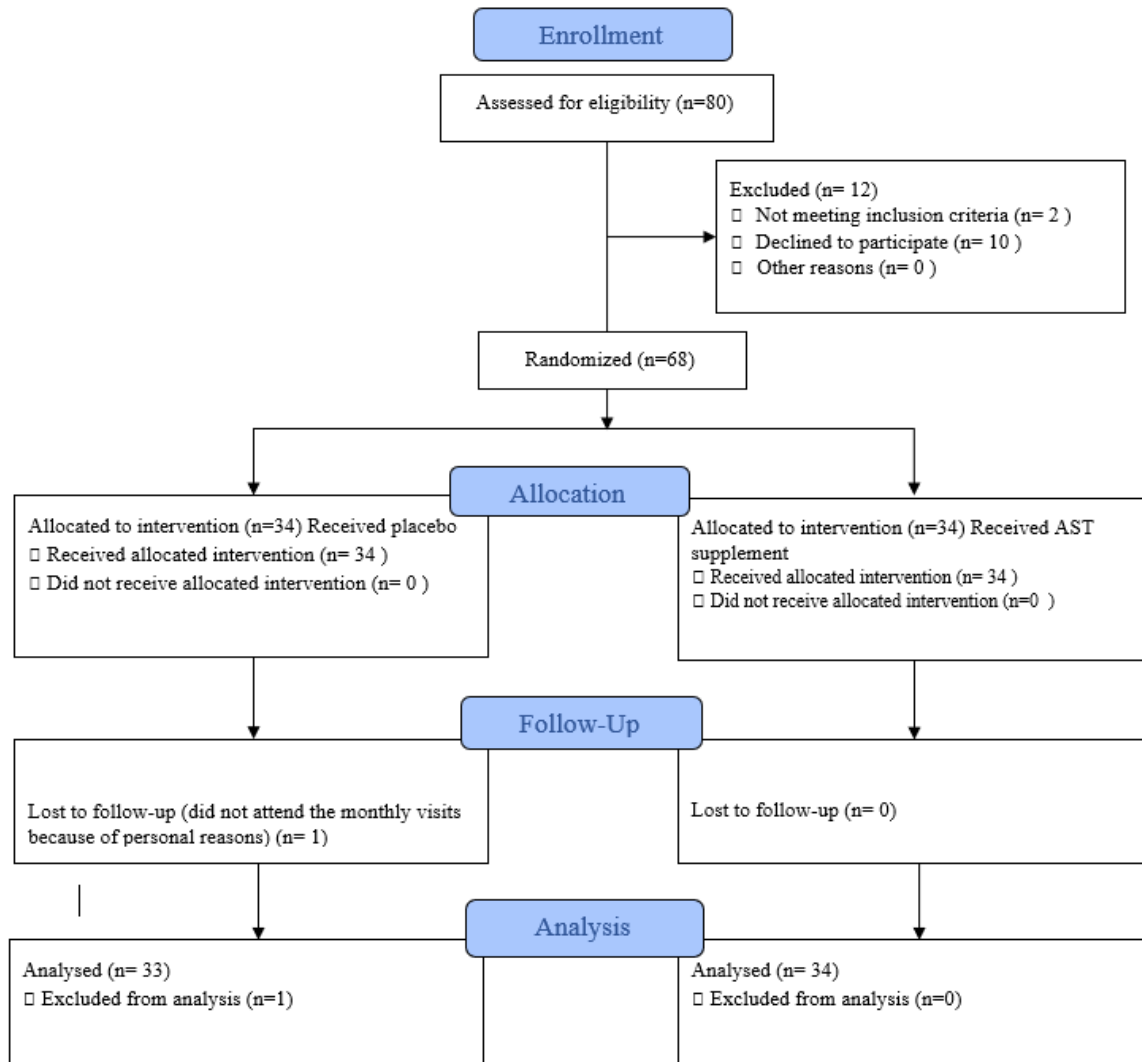
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<https://dx.doi.org/10.17179/excli2023-6132>

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**Supplementary Figure 1:** Diagram depicting all people evaluated for eligibility, participated in the astaxanthin trial, randomized to various treatments, and included in analysis

**Supplementary Table 1:** The anthropometric statistics of the type 2 diabetes study population

Parameters	Placebo group n=33	Astaxanthin group n=34	P-value
Age (years)	50.48 ± 7.35	52.88 ± 7.23	0.266
Sex (M/F)	13 (56.5%)	9 (37.5%)	0.191
<b>Body mass index</b>			
Before treatment	27.70 ± 3.65	29.64 ± 4.28	0.1638
After 12 weeks treatment	27.73 ± 3.55	29.54 ± 4.30	
P-value	0.9802	0.9334	

Values are means ± SD of patients. \*P < 0.05 for within- and between-group change from baseline to 12 weeks. Paired t-tests were used to compare values before and after treatment in each group, whereas differences between the two groups were analyzed by one-way ANOVA. Any P-value < 0.05 was considered statistically significant.

**Supplementary Table 2:** Analysis of relative gene expression of SIRT1 in the placebo and astaxanthin groups before and after intervention

	Placebo group (n = 33)	Astaxanthin group (n = 34)	P-value
<b>Fold change (FC) of SIRT1 (2<sup>-ΔΔCT</sup>)</b>	0.9797	10/6918	0/034*

Note: \* P-value < 0.05