

**Table S1.** Markers of oxidative stress in the 1<sup>st</sup> trimester of pregnancy, at delivery and umbilical cord blood in mothers whose children had been diagnosed in the 1<sup>st</sup> or the 2<sup>nd</sup> year of life with atopic dermatitis, food allergy or wheezing and healthy children (t test).

	Healthy Children 1 <sup>st</sup> Year	Healthy Children 2 <sup>nd</sup> Year	Atopic Dermatitis 1 <sup>st</sup> Year	Atopic Dermatitis 2 <sup>nd</sup> Year	Atopic Dermatitis 1 <sup>st</sup> and 2 <sup>nd</sup> Year	Healthy Children 1 <sup>st</sup> Year	Healthy Children 2 <sup>nd</sup> Year	Food Allergy 1 <sup>st</sup> Year	Food Allergy 2 <sup>nd</sup> Year	Food Allergy 1 <sup>st</sup> and 2 <sup>nd</sup> Year	Healthy Children 1 <sup>st</sup> Year	Healthy Children 2 <sup>nd</sup> Year	Wheezing 1 <sup>st</sup> Year	Wheezing 2 <sup>nd</sup> Year	Wheezing 1 <sup>st</sup> and 2 <sup>nd</sup> Year
B-carotene, µg/ml Mean ± SD															
1 <sup>st</sup> trimester	0.25 ± 0.18	0.25 ± 0.18	0.30 ± 0.20	0.27 ± 0.19	0.33 ± 0.23	0.26 ± 0.18	0.26 ± 0.18	0.29 ± 0.20	0.23 ± 0.19	0.29 ± 0.22	0.23 ± 0.18	0.26 ± 0.19	0.23 ± 0.15	0.21 ± 0.12	0.24 ± 0.10
Delivery	0.32 ± 0.22	0.33 ± 0.22	0.37 ± 0.23	0.35 ± 0.22	0.40 ± 0.26	0.36 ± 0.22	0.33 ± 0.22	0.33 ± 0.22	0.33 ± 0.22	0.37 ± 0.28	0.36 ± 0.23	0.33 ± 0.22	0.33 ± 0.19	0.35 ± 0.20	0.46 ± 0.15
Cord blood	0.05 ± 0.05	0.05 ± 0.05	0.05 ± 0.04	0.05 ± 0.04	0.06 ± 0.05	0.06 ± 0.05	0.05 ± 0.04	0.05 ± 0.04	0.05 ± 0.04	0.06 ± 0.05	0.05 ± 0.05	0.05 ± 0.04	0.06 ± 0.06	0.04 ± 0.02	0.06 ± 0.02
Vitamin A, ug/ml Mean ± SD															
1 <sup>st</sup> trimester	0.96 ± 0.28	0.98 ± 0.28	0.92 ± 0.27	0.81 ± 0.20 <i>p &lt; 0.001</i>	0.78 ± 0.23	0.94 ± 0.28	0.98 ± 0.27	0.96 ± 0.25	0.86 ± 0.22 <i>p &lt; 0.04</i>	0.84 ± 0.25	0.94 ± 0.27	0.95 ± 0.27	0.96 ± 0.28	0.97 ± 0.30	0.99 ± 0.30
Delivery	0.91 ± 0.34	0.92 ± 0.34	0.83 ± 0.31	0.73 ± 0.25 <i>p &lt; 0.004</i>	0.70 ± 0.27	0.86 ± 0.32	0.92 ± 0.35	0.83 ± 0.32	0.84 ± 0.28	0.73 ± 0.26	0.87 ± 0.33	0.90 ± 0.34	0.83 ± 0.25	0.885 ± 0.34	0.74 ± 0.17
Cord blood	0.58 ± 0.20	0.59 ± 0.20	0.52 ± 0.22	0.45 ± 0.20 <i>p &lt; 0.001</i>	0.42 ± 0.19	0.57 ± 0.20	0.57 ± 0.20	0.53 ± 0.22	0.52 ± 0.23	0.46 ± 0.24	0.57 ± 0.21	0.56 ± 0.21	0.54 ± 0.15	0.569 ± 0.19	0.49 ± 0.09
Vitamin E, ug/ml Mean ± SD															
1 <sup>st</sup> trimester	8.50 ± 3.63	8.73 ± 3.63	9.73 ± 3.56	8.23 ± 3.70	8.97 ± 4.00	8.67 ± 3.56	8.55 ± 3.53	9.42 ± 3.48	9.34 ± 4.63	9.87 ± 4.18	8.79 ± 3.64	8.50 ± 3.75	9.57 ± 3.59	9.09 ± 3.97	8.83 ± 3.60
Delivery	12.17 ± 6.57	12.51 ± 6.58	16.00 ± 5.85 <i>p &lt; 0.022</i>	12.92 ± 6.37	14.12 ± 6.42	13.58 ± 6.50	12.28 ± 6.65	11.80 ± 6.55	13.99 ± 6.04	13.56 ± 6.55	13.48 ± 6.44	12.01 ± 6.89	13.67 ± 6.47	14.43 ± 4.71	14.61 ± 3.15
Cord blood	3.40 ± 2.13	3.43 ± 2.12	3.96 ± 2.14	3.76 ± 2.28	4.35 ± 2.55	3.80 ± 2.20	3.24 ± 1.77	3.44 ± 1.99	3.83 ± 2.35	3.91 ± 2.50	3.69 ± 2.03	3.31 ± 1.99	4.65 ± 3.24	3.48 ± 1.32	4.42 ± 1.32

*p*—statistically significance as compared with healthy children.

**Table S2.** Markers of oxidative stress in the 1<sup>st</sup> trimester of pregnancy, at delivery and umbilical cord blood in smoking and non-smoking mothers whose children had been diagnosed in the 1<sup>st</sup> or the 2<sup>nd</sup> year of lifetime with atopic dermatitis, food allergy or wheezing and healthy children (t test).

	Healthy Children 1 <sup>st</sup> Year	Healthy Children 2 <sup>nd</sup> Year	Atopic Dermatitis 1 <sup>st</sup> Year	Atopic Dermatitis 2 <sup>nd</sup> Year	Healthy children 1 <sup>st</sup> Year	Healthy Children 2 <sup>nd</sup> Year	Food Allergy 1 <sup>st</sup> Year	Food Allergy 2 <sup>nd</sup> Year	Healthy Children 1 <sup>st</sup> Year	Healthy Children 2 <sup>nd</sup> Year	Wheezing 1 <sup>st</sup> Year	Wheezing 2 <sup>nd</sup> Year
B-carotene, µg/ml Mean ± SD												
<b>Non-smokers</b>												
<b>1<sup>st</sup> trimester</b>	0.25 ± 0.18	0.26 ± 0.19	0.39 ± 0.21	0.32 ± 0.17	0.23 ± 0.16	0.23 ± 0.16	0.36 ± 0.22	0.30 ± 0.19 <i>p &lt; 0.02</i>	0.27 ± 0.19	0.29 ± 0.20	0.27 ± 0.19	0.19 ± 0.07
<b>Delivery</b>	0.34 ± 0.25	0.34 ± 0.25	0.42 ± 0.26	0.42 ± 0.20	0.36 ± 0.25	0.34 ± 0.25	0.43 ± 0.25	0.43 ± 0.22	0.37 ± 0.26	0.36 ± 0.26	0.37 ± 0.26	0.35 ± 0.19
<b>Cord blood</b>	0.06 ± 0.05	0.06 ± 0.05	0.05 ± 0.03	0.05 ± 0.02	0.06 ± 0.06	0.05 ± 0.04	0.05 ± 0.03	0.06 ± 0.03	0.06 ± 0.05	0.06 ± 0.04	0.06 ± 0.05	0.05 ± 0.02
<b>Active or passive smokers during pregnancy</b>												
<b>1<sup>st</sup> trimester</b>	0.24 ± 0.18	0.24 ± 0.18	0.25 ± 0.17	0.23 ± 0.17	0.30 ± 0.20 <i>p &lt; 0.02 *</i>	0.24 ± 0.16	0.25 ± 0.20	0.15 ± 0.08 <i>p &lt; 0.014 *</i>	0.27 ± 0.18	0.24 ± 0.17	0.22 ± 0.11	0.22 ± 0.14
<b>Delivery</b>	0.31 ± 0.19	0.32 ± 0.20	0.36 ± 0.21	0.29 ± 0.19	0.40 ± 0.25	0.36 ± 0.27	0.25 ± 0.20 <i>p &lt; 0.03</i>	0.19 ± 0.14 <i>p &lt; 0.05</i> <i>p &lt; 0.02 *</i>	0.34 ± 0.20	0.30 ± 0.19	0.32 ± 0.18	0.36 ± 0.21
<b>Cord blood</b>	0.04 ± 0.04	0.05 ± 0.04	0.06 ± 0.05	0.05 ± 0.05	0.05 ± 0.04	0.05 ± 0.04	0.04 ± 0.04	0.05 ± 0.05	0.05 ± 0.04	0.05 ± 0.05	0.04 ± 0.02	0.04 ± 0.02
Vitamin A, ug/ml Mean ± SD												
<b>Non-smokers</b>												
<b>1<sup>st</sup> trimester</b>	1.01 ± 0.31	0.99 ± 0.30	0.83 ± 0.27	0.82 ± 0.21 <i>p &lt; 0.004</i>	0.99 ± 0.31	0.97 ± 0.29	0.96 ± 0.26	0.98 ± 0.23	0.95 ± 0.29	0.96 ± 0.29	1.08 ± 0.26	0.94 ± 0.38
<b>Delivery</b>	0.20 ± 0.37	0.94 ± 0.36	0.72 ± 0.35	0.76 ± 0.23 <i>p &lt; 0.02</i>	0.92 ± 0.35	0.98 ± 0.39	0.91 ± 0.36	0.83 ± 0.28	0.93 ± 0.35	0.95 ± 0.38	0.74 ± 0.28	0.83 ± 0.49
<b>Cord blood</b>	0.59 ± 0.20	0.59 ± 0.20	0.47 ± 0.28	0.47 ± 0.20 <i>p &lt; 0.008</i>	0.60 ± 0.22	0.58 ± 0.20	0.53 ± 0.23	0.49 ± 0.27	0.59 ± 0.23	0.57 ± 0.22	0.52 ± 0.14	0.48 ± 0.17
<b>Active or passive smokers during pregnancy</b>												
<b>1<sup>st</sup> trimester</b>	0.93 ± 0.25	0.96 ± 0.26	0.93 ± 0.28	0.79 ± 0.20	0.91 ± 0.25	0.83 ± 0.24	0.95 ± 0.25	0.92 ± 0.45	0.94 ± 0.24	0.94 ± 0.25	0.81 ± 0.25* <i>p &lt; 0.03</i>	0.98 ± 0.27

<b>Delivery</b>	0.87 ± 0.29	0.91 ± 0.30	0.84 ± 0.30	0.64 ± 0.29 <i>p &lt; 0.04</i>	0.82 ± 0.28	0.90 ± 0.30	0.79 ± 0.30	0.85 ± 0.29	0.81 ± 0.29	0.87 ± 0.31	0.88 ± 0.23	0.91 ± 0.26
<b>Cord blood</b>	0.58 ± 0.19	0.60 ± 0.39	0.51 ± 0.19	0.39 ± 0.20 <i>p &lt; 0.008</i>	0.55 ± 0.19	0.58 ± 0.19	0.53 ± 0.21	0.54 ± 0.21	0.55 ± 0.20	0.56 ± 0.20	0.56 ± 0.17	0.61 ± 0.19
<b>Vitamin E, ug/ml</b> <b>Mean ± SD</b>												
<b>Non-smokers</b>												
<b>1<sup>st</sup> trimester</b>	7.98 ± 3.67	8.22 ± 3.65	9.67 ± 3.75	8.16 ± 4.12	8.22 ± 3.58	8.09 ± 3.91	9.26 ± 3.77	10.07 ± 5.10	8.33 ± 3.63	8.39 ± 4.12	9.207 ± 3.91	7.93 ± 4.13
<b>Delivery</b>	11.68 ± 6.66	11.75 ± 6.63	15.65 ± 4.80 <i>p &lt; 0.006</i>	14.64 ± 4.51	13.03 ± 6.70	11.83 ± 6.83	13.89 ± 6.56	15.78 ± 5.01 <i>p &lt; 0.03</i>	11.77 ± 6.76	12.25 ± 7.07	16.18 ± 4.94 <i>p &lt; 0.006</i>	12.41 ± 3.81
<b>Cord blood</b>	3.61 ± 2.57	3.62 ± 2.59	4.03 ± 1.30	3.74 ± 1.28	3.93 ± 2.61	3.27 ± 1.73	3.70 ± 1.65	3.79 ± 1.46	3.65 ± 2.19	3.34 ± 1.71	6.58 ± 4.02	3.45 ± 1.57
<b>Active or passive smokers during pregnancy</b>												
<b>1<sup>st</sup> trimester</b>	9.30 ± 3.46	9.45 ± 3.51	9.84 ± 3.34 <i>p &lt; 0.04 **</i>	8.46 ± 2.18	9.37 ± 3.45	9.07 ± 3.32	9.72 ± 3.17	8.85 ± 4.38	9.55 ± 3.60	8.59 ± 3.46	10.02 ± 3.31	9.58 ± 3.91
<b>Delivery</b>	12.70 ± 6.48	13.26 ± 6.47	15.07 ± 6.50	11.71 ± 6.72	14.67 ± 6.05	12.99 ± 6.33	9.59 ± 6.36 <i>p &lt; 0.01</i>	11.39 ± 6.70	12.90 ± 6.27	11.29 ± 6.48	13.22 ± 7.01	16.45 ± 4.80 <i>p &lt; 0.02</i>
<b>Cord blood</b>	3.24 ± 1.73	3.30 ± 1.69	4.16 ± 2.53	3.77 ± 2.83	3.71 ± 1.80	3.33 ± 1.85	3.30 ± 2.17	3.85 ± 2.79	3.73 ± 1.92	3.27 ± 2.19	3.15 ± 1.35	3.50 ± 1.21

*p*—statistically significance as compared with healthy children; \* *p*— statistically significance as compared with non-smokers; \*\* *p*—statistically significant as compared with the non-tobacco smoke exposed women who had healthy children.