

**Supplement Table 1 – Breast Milk Total Cysteine Concentrations after Oral L-Cystine Supplements**

<b>Time</b>	<b>No supplement (Mean±SD) mg/100ml</b>	<b>1.5 g (Mean±SD) mg/100ml</b>	<b>3 g (Mean±SD) mg/100ml</b>
Before supplement	24.87±4.39	28±15.6	27.25±16.33
30 minutes after supplement intake	26.12±7.62	26.87±11	32.87±23.76
2 hours after supplement intake	23.12±5.74	27.25±10.26	29.37±10.25
4 hours after supplement intake	24.87±5.71	28.12±9.92	28.12±13.63
6 hours after supplement intake	24.87±8.95	27.37±6.21	27.25±13.15
8 hours after supplement intake	24±9.16	24.37±7.8	26.25±13.4

**Supplement Table 2 – Breast Milk Free Cysteine Concentrations after Oral L-Cystine Supplements**

<b>Time</b>	<b>No supplement (Mean±SD) mg/100ml</b>	<b>1.5 g (Mean±SD) mg/100ml</b>	<b>3 g (Mean±SD) mg/100ml</b>
Before supplement	0.33±0.12	0.37±0.13	0.28±0.04
30 minutes after supplement intake	0.32±0.14	0.38±0.17	0.45±0.1
2 hours after supplement intake	0.34±0.12	0.66±0.34	0.72±0.29
4 hours after supplement intake	0.37±0.12	0.58±0.23	0.85±0.57
6 hours after supplement intake	0.34±0.15	0.52±0.17	0.6±0.18
8 hours after supplement intake	0.32±0.07	0.39±0.17	0.43±0.2

**Supplement Table 3 – Plasma Free Cysteine Concentrations after Oral L-Cystine Supplements**

<b>Time</b>	<b>No supplement (Mean±SD) mg/100ml</b>	<b>1.5 g (Mean±SD) mg/100ml</b>	<b>3 g (Mean±SD) mg/100ml</b>
15 minutes before supplement	1.28±0.57	1.08±0.36	1.51±0.61
5 minutes before supplement	1.43±0.48	1.25±0.38	1.27±0.57
30 minutes after supplement intake	1.14±0.3	1.11±0.76	1.68±0.85
1 hour after supplement intake	1.05±0.5	1.42±0.42	1.55±0.56
2 hours after supplement intake	1.12±0.27	1.46±0.72	1.6±0.76
3 hours after supplement intake	1.06±0.28	1.38±0.78	1.13±0.29
4 hours after supplement intake	1.07±0.34	1.23±0.59	1.17±0.23
6 hours after supplement intake	1.3±0.58	1.38±0.56	1.54±0.89

**Supplement Table 4 – Free Cysteine Levels in Breast Milk after Oral L-Cysteine and Common Infant Formula**

<b>Group</b>	<b>Free Cysteine (Mean±SD) mg/100ml</b>
No Supplement	0.33±0.08
1.5 g Cysteine	0.51±0.17
3 g Cysteine	0.61±0.21
Enfamil Liquid	0
Parents Choice	0
Enfamil A+ Gentlease	0
Good Start 2	<0.17
Alimentum	8.16±1.33
Nutramigen	34±10.27

Supplementary Figure 1. Flow Chart of Study Participant Recruitment

