

“Maternal-fetal distribution and transfer of dioxin in pregnant women in Japan, and attempts to reduce maternal transfer with *Chlorella* (*Chlorella pyrenoidosa*) supplements”

【STUDY RESULTS】

Sun Chlorella “A” can reduce the transfer of dioxin from mother to nursing infant through breastfeeding.

【DETAILS】

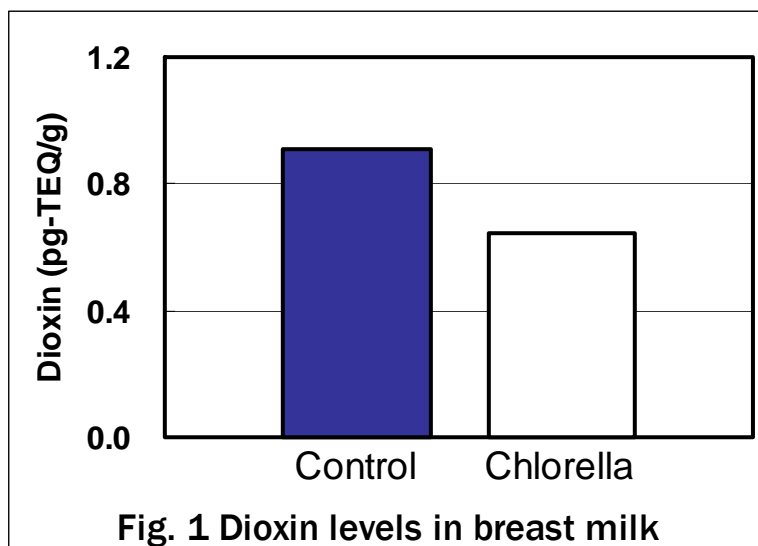
Title : “Maternal-fetal distribution and transfer of dioxin in pregnant women in Japan, and attempts to reduce maternal transfer with *Chlorella* (*Chlorella pyrenoidosa*) supplements”

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28 dioxin congener from the blood, adipose tissue, breast milk, cord blood and placenta were measured on 44 pregnant women who were receiving prenatal care. This is to investigate whether chlorella can reduce maternal transfer of dioxins via the placenta, or to nursing infants via breast milk, potentially causing developmental health problems in children.

23 subjects among 44 from gestational week 12 - 16 up until day of delivery, took 30 tablets of Sun Chlorella “A” daily for 6 months.

1. After investigating between dioxin level in maternal blood, and dioxin level in adipose tissue, breast milk, and cord blood, significant correlations were observed respectively.
2. Therefore, dioxin level in blood reflects one’s level in adipose tissue, which is significantly effected to dioxin level transferred to fetuses. Furthermore, it significantly effects nursing infants through breastfeeding.
3. Dioxin level in breast milk in the Chlorella group decreased by approximately 30% compared to the Control group. This finding suggests that maternal transfer of dioxins can be reduced taking Sun Chlorella “A” (Fig. 1).



This study was conducted in accordance with the general principles of the Helsinki Declaration, and all study protocols were reviewed and approved by the Institutional Review Board of Saiseikai Nara Hospital. The safety of Sun Chlorella A used in the test is also evaluated.

Notes

Dioxins may affect following conditions:

Carcinogenicity	Liver cancer, Lung cancer, Thyroid cancer
Teratogenicity	Uranoschisis, Hydronephrosis, Hypoplasia of Thymus
Reproductive dysfunction	Lowering pregnancy rate, Depression of spermatogenesis, Endometriosis
Thyroid dysfunction	Depression of thyroid hormone
Immune dysfunction	Depression of biodefence function, Depression of antibody production

Influence on Children:

Developmental retardation
Retardation of intellectual development
Reduction of resistance against infection
Atopic dermatitis of newborn baby
Attention-Deficit Hyperactivity Disorder (ADHD)
Learning Disorder (LD)