Perchlorate

COMPARISON OF URINARY IODINE CONCENTRATIONS BETWEEN THE CHILEAN SCHOOL AGE CHILDREN AND 6 TO 11 YEAR OLD CHILDREN IN THE U.S.

	Children in U.S. 1971-1974 (NHANES I[1])	Children in U.S. 1988-1994 (NHANES III[1])	Children in Chile[2]		
			Antofagasta (control)	Chanaral (low perchlorate exposure)	Taltal (high perchlorate exposure)
Sample size	1826	3058	53	49	60
Urine iodine (ug/dL)	55.6±3.6 (48.5-62.7)[3]	30.5±1.9 (26.8-34.2)	75.6±5.5 (64.5-86.7)	61.4±5.1 (51.1-71.7)	76.6±6.1 (64.4-88.8)
Urine iodine/creatinine (ug/g)	619.3±46.0 (529.1~709.5)	339.6±26.5 (287.7~391.5)	1057.2±51.9 (952.9~1161.5)	827.2±51.3 (724.0~930.4)	947.4±49.6 (848.2~1046.6)

All data are expressed as mean ± standard error (SE).

1. The data for the children in U.S. are for the 6-11 years old age group reported from National Health and Nutrition Examination Surveys I (1971-1974) and III (1988-1994) (Hollowell et al., 1998)

2. The data for the children in Chile are for the 6-8 years old age group reported by Crump et al. (2000).

3. The values in the parentheses indicate 95% confidence interval.

References:

Hollowell, J.G., Staehling, N.W., Hannon, W.H., Flanders, D.W., Gunter, E.W., Maberly, G.F., Braverman, L.E., Pino, S., Miller, D.T., Garbe, P.L., DeLozier, D.M., Jackson, R.J.. et al. (1998). Iodine nutrition in the United States. Trends and public health implications: iodine excretion data from National Health and Nutrition Examination Surveys I and III (1971-1974 and 1988-1994). J Clin Endocrinol Metab. 83:3398-400.

Crump, C., Michaud, P., Tellez, R., Reyes, C., Gonzalez, G., Montgomery, E. L., Crump, K. S., Lobo, G., Becerra, C., and Gibbs, J. P. (2000). Does perchlorate in drinking water affect thyroid function in newborns or school-age children? J. Occ. Environ. Med. 42, 603-612.

For further information, contact Ms. Joan Strawson at 910-692-7752 or
Strawson@tera.org