

参考文献

- 1) 厚生労働省. 平成 17 年国民健康・栄養調査報告. 東京, 2007.
- 2) 厚生労働省. 平成 18 年国民健康・栄養調査報告. 東京, 2009.
- 3) World Health Organization. The prevalence of anaemia in women. In: A tabulation of available information. WHO, Geneva, 1992.
- 4) Maeda M, Yamamoto M, Yamauchi K. Prevalence of anemia in Japanese adolescents: 30 years' experience in screening for anemia. *Int J Hematol* 1999; 69: 75-80.
- 5) Takimoto H, Yoshiike N, Katagiri A, et al. Nutritional status of pregnant and lactating women in Japan: A comparison with non-pregnant/non-lactating controls in the National Nutrition Survey. *J Obstet Gynaecol Res* 2003; 29: 96-103.
- 6) Food and Nutrition Board, Institute of Medicine. Iron. In: Institute of Medicine, ed. Dietary reference intakes for vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc. National Academy Press. Washington D.C., 2001: 290-393.
- 7) Green R, Charlton R, Seftel H, et al. Body iron excretion in man: a collaborative study. *Am J Med* 1968; 45: 336-53.
- 8) Hawkins WW. Iron, copper and cobalt. In: Beaton GH, McHenry EW, eds. Nutrition: a comprehensive treatise. Academic Press, New York, 1964: 309-72.
- 9) Beaton GH, Corey PN, Steele C. Conceptual and methodological issues regarding the epidemiology of iron deficiency and their implications for studies of the functional consequences of iron deficiency. *Am J Clin Nutr* 1989; 50: 575-88.
- 10) Smith NJ, Rios E. Iron metabolism and iron deficiency in infancy and childhood. *Adv Pediatr* 1974; 21: 239-80.
- 11) Dallman PR. Iron deficiency in the weanling: a nutritional problem on the way to resolution. *Acta Paediatr Scand* 1986; 323 (Suppl): 59-67.
- 12) Asakura K, Sasaki S, Murakami K, et al. Iron intake does not significantly correlate with iron deficiency among young Japanese women: a cross-sectional study. *Public Health Nutr* (in press).
- 13) Yokoi K. Numerical methods for estimating iron requirements from population data. *Biol Trace Elem Res* 2003; 95: 155-72.
- 14) 矢野知佐子, 富安俊子, 穴井孝信. 正常月経周期日数とその変動範囲に関する調査. *母性衛生* 2005; 45: 496-502.
- 15) 野上保治. 経血量に関する研究. *日本不妊学会雑誌* 1966; 11: 189-203.
- 16) Hallberg L, Rossander-Hulten L. Iron requirements in menstruating women. *Am J Clin Nutr* 1991; 54: 1047-58.
- 17) FAO/WHO. Requirements of vitamin A, iron, folate and vitamin B₁₂ (FAO Food and Nutrition Series No. 23). FAO/WHO, Rome, 1988: 33-50.
- 18) Hokama T. A study of the iron requirement in infants, using changes in total body iron determined by hemoglobin, serum ferritin and bodyweight. *Acta Paediatr Jpn* 1994; 36: 153-5.

- 19) Dewey KG, Cohen RJ, Rivera LL, et al. Effects of age of introduction of complementary foods on iron status of breast-fed infants in Honduras. *Am J Clin Nutr* 1998; 67: 878-84.
- 20) Hirai Y, Kawakata N, Satoh K, et al. Concentrations of lactoferrin and iron in human milk at different stages of lactation. *J Nutr Sci Vitaminol* 1990; 36: 531-44.
- 21) WHO/IAEA. Minor and trace elements in breast milk. Report of a Joint WHO/IAEA Collaborative Study. WHO, Geneva, 1989: 49-52.
- 22) 鈴木久美子, 佐々木晶子, 新澤佳代, 他. 離乳前乳児の哺乳量に関する研究. *栄養学雑誌* 2004; 62: 369-72.
- 23) 廣瀬潤子, 遠藤美佳, 柴田克己, 他. 日本人母乳栄養児 (0~5カ月) の哺乳量. *日本母乳哺育学会雑誌* 2008; 2: 23-8.
- 24) Saarinen UM, Siimes MA, Dallman PR. Iron absorption in infants: high bioavailability of breast milk iron as indicated by the extrinsic tag method of iron absorption and by the concentration of serum ferritin. *J Pediatr* 1977; 91: 36-9.
- 25) Davidsson L, Kastenmayer P, Yuen M, et al. Influence of lactoferrin on iron absorption from human milk in infants. *Pediatr Res* 1994; 35: 117-24.
- 26) Abrams SA, Wen J, Stuff JE. Absorption of calcium, zinc, and iron from breast milk by five - to seven-month-old infants. *Pediatr Res* 1997; 41: 384-90.
- 27) Lonnerdal B, Keen CL, Hurley LS. Iron, copper, zinc, and manganese in milk. *Ann Rev Nutr* 1981; 1: 149-74.
- 28) Fomon SJ, Ziegler EE, Nelson SE. Erythrocyte incorporation of ingested ⁵⁸Fe by 56-day-old breast-fed and formula-fed infants. *Pediatr Res* 1993; 33: 573-6.
- 29) Bothwell TH, Charlton RW. Iron deficiency in women. The Nutrition Foundation, Washington D.C., 1981: 7-9.
- 30) Barrett JF, Whittaker PG, Williams JG, et al. Absorption of non-haem iron from food during normal pregnancy. *BMJ* 1994; 309: 79-82.
- 31) Kamei A, Uenishi K, Ishida H, et al. Iron intake and absorption in pregnant and lactating women. *Ann Nutr Metab* 2001; 45(Suppl): 44-5.
- 32) 森川肇, 望月真人, 佐藤和雄, 他. 前方視的な手法による妊娠末期の子宮頸管熟化と分娩経過に関する研究 (第1報) 妊娠・分娩・産褥における母親の臨床統計. *日産婦会誌* 2000; 52: 613-22.
- 33) Frykman E, Bystrom M, Jansson U, et al. Side effects of iron supplements in blood donors: superior tolerance of heme iron. *J Lab Clin Med* 1994; 123: 561-4.
- 34) 白倉卓夫, 田村遵一, 倉林均. 鉄欠乏者に対する鉄強化ゼリー投与の試み. *医学と生物学* 1987; 115: 29-31.
- 35) 川越裕也. 鉄欠乏性貧血に対するマスチゲン S 錠の臨床効果. *医学と薬学* 1990; 23: 815-23.
- 36) 斉藤宏. 栄養補助としてのヘム鉄の効果. *新薬と臨床* 1991; 40: 1901-7.
- 37) Fairbanks VF. Iron in medicine and nutrition. In: Shils ME, Olson JA, Shine M, et al., eds. *Modern nutrition in health and disease*, 9th edition. Williams & Wilkins, Baltimore, 1999: 193-221.
- 38) FAO/WHO. Evaluation of certain food additives and contaminants. Twenty-seventh report

- of the Joint FAO/WHO Committee on Food Additives (WHO Technical Report Series, No. 696). FAO/WHO, Rome, 1983(and corrigenda).
- 39) Idjradinata P, Watkins WE, Pollitt E. Adverse effect of iron supplementation on weight gain of iron-replete young children. *Lancet* 1994; 343: 1252-4.
 - 40) Food and Drug Administration. Federal Register 62. 2217-50, January 15, 1997. Iron-containing supplements and drugs: label warning statements and unit-dose packaging requirements. Final rule downloaded from <http://vm.cfsan.fda.gov/~lrd/fr970115.html>. 1997.
 - 41) Dewey KG, Domellof M, Cohen RJ, et al. Iron supplementation affects growth and morbidity of breast-fed infants: results of a randomized trial in Sweden and Honduras. *J Nutr* 2002; 132: 3249-55.
 - 42) Farquhar JD. Iron supplementation during first year of life. *Am J Dis Child* 1963; 106: 201-6.
 - 43) Burman D. Haemoglobin levels in normal infants aged 3 to 24 months, and the effect of iron. *Arch Dis Child* 1972; 47: 261-71.
 - 44) Reeves JD, Yip R. Lack of adverse side effects of oral ferrous sulfate therapy in 1-year-old infants. *Pediatrics* 1985; 75: 352-5.
 - 45) Chung CS, Nagey DA, Veillon C, et al. A single 60-mg iron dose decreases zinc absorption in lactating women. *J Nutr* 2002; 132: 1903-5.
 - 46) Fung EB, Ritchie LD, Woodhouse LR, et al. Zinc absorption in women during pregnancy and lactation: a longitudinal study. *Am J Clin Nutr* 1997; 66: 80-8.
 - 47) Dawson EB, Albers J, McGanity WJ. Serum zinc changes due to iron supplementation in teen-age pregnancy. *Am J Clin Nutr* 1989; 50: 848-52.
 - 48) Okada A, Takagi Y, Itakura T, et al. Skin lesions during intravenous hyperalimentation: zinc deficiency. *Surgery* 1976; 80: 629-35.
 - 49) 手塚匡哉, 丸山友裕, 樋口昇, 他. ニコチン酸および亜鉛低下を来し, 多彩な皮膚症状を伴った吸収不良症候群の1例. *臨床皮膚科* 2000; 54: 805-8.
 - 50) 岩田久夫, 藤沢重樹, 竹内美奈子. 低亜鉛母乳による獲得性腸性肢端皮膚炎の兄弟例. *皮膚科の臨床* 1990; 32: 951-5.
 - 51) 青山文代, 石田久哉, 上田恵一. 経管栄養中にみられた続発性亜鉛欠乏症. *皮膚科紀要* 1989; 84: 159-64.
 - 52) 酒井文隆, 吉田晋也, 遠藤壮平. 味覚障害に対するピコリン酸亜鉛の効果: 二重盲検法による有効性の検討. *日本耳鼻咽喉科学会会報* 1995; 98: 1135-9.
 - 53) Inoue K, Kito M, Kato S, et al. A case of acquired zinc deficiency in a mature breast-fed infant. *J Perinat Med* 1998; 26: 495-7.
 - 54) Prasad AS, Halsted JA, Nadimi M. Syndrome of iron deficiency anemia, hepatosplenomegaly, hypogonadism, dwarfism and geophagia. *Am J Med* 1961; 31: 532-46.
 - 55) Ronaghy HA, Halsted JA. Zinc deficiency occurring in females. Report of two cases. *Am J Clin Nutr* 1975; 28: 831-6.
 - 56) Cousins RJ. Zinc. In: Filer LJ, Ziegler EE, eds. *Present knowledge in nutrition*, 7th edition. International Life Sciences Institute, Washington D.C., 1996: 293-306.
 - 57) Jackson MJ. Physiology of zinc: general aspects. In: Mills CF, ed. *Zinc in human biology*.

Springer-Verlag, London, 1989: 1-14.

- 58) Jackson MJ, Jones DA, Edwards RH, et al. Zinc homeostasis in man: Studies using a new stable-dilution technique. *Br J Nutr* 1984; 51: 199-208.
- 59) Hunt JR, Mullen LK, Lykken GI. Zinc retention from an experimental diet based on the U.S. F.D.A. total diet study. *Nutr Res* 1992; 12: 1335-44.
- 60) Lee DY, Prasad AS, Hydrick-Adair C, et al. Homeostasis of zinc in marginal human zinc deficiency: Role of absorption and endogenous excretion of zinc. *J Lab Clin Med* 1993; 122: 549-56.
- 61) Taylor CM, Bacon JR, Aggett PJ, et al. Homeostatic regulation of zinc absorption and endogenous losses in zinc-deprived men. *Am J Clin Nutr* 1991; 53: 755-63.
- 62) Turnlund JR, King JC, Keyes WR, et al. A stable isotope study of zinc absorption in young men: Effects of phytate and alpha-cellulose. *Am J Clin Nutr* 1984; 40: 1071-7.
- 63) Wada L, Turnlund JR, King JC. Zinc utilization in young men fed adequate and low zinc intakes. *J Nutr* 1985; 115: 1345-54.
- 64) Turnlund JR, Durkin N, Costa F, et al. Stable isotope studies of zinc absorption and retention in young and elderly men. *J Nutr* 1986; 116: 1239-47.
- 65) Gunshin H, Mackenzie B, Berger UV, et al. Cloning and characterization of a mammalian proton-coupled metal-ion transporter. *Nature* 1997; 388: 482-8.
- 66) Dufner-Beattie J, Wang F, Kuo Y-M, et al. The acrodermatitis enteropathica gene ZIP4 encodes a tissue-specific, zinc-regulated zinc transporter in mice. *J Biol Chem* 2003; 278: 33474-81.
- 67) King JC, Shames DM, Woodhouse LR. Zinc Homeostasis in Humans. *J Nutr* 2000; 130: S1360-6.
- 68) Food and Nutrition Board, Institute of Medicine. Zinc. In: Institute of Medicine, ed. Dietary reference intakes for vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc. National Academies Press, Washington D.C., 2001: 442-501.
- 69) Food and Nutrition Board, Institute of Medicine. Introduction to dietary reference intakes. In: Institute of Medicine, ed. Dietary reference intakes for vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc. National Academies Press, Washington D.C., 2001: 29-43.
- 70) 鈴木和春, 五島孜郎, 菅家祐輔. 小児期における亜鉛および銅出納について. *日本栄養・食糧学会誌* 1983; 36: 231-7.
- 71) Johnson PE, Hunt CD, Milne DB, et al. Homeostatic control of zinc metabolism in men: zinc excretion and balance in men fed diets low in zinc. *Am J Clin Nutr* 1993; 57: 557-65.
- 72) Higashi A, Ikeda T, Iribe K, et al. Zinc balance in premature infants given the minimal dietary zinc requirement. *J Pediatr* 1988; 112: 262-6.
- 73) 西野昌光. 新生児・未熟児における栄養代謝と微量元素, とくに亜鉛, 銅に関する研究. *日本小児科学会雑誌* 1983; 87: 1474-84.
- 74) Higashi A, Ikeda T, Uehara I, et al. Zinc and copper contents in breast milk of Japanese women. *Tohoku J Exp Med* 1982; 137: 41-7.

- 75) Ohtake M, Tamura T. Changes in zinc and copper concentrations in breast milk and blood of Japanese women during lactation. *J Nutr Sci Vitaminol* 1993; 39: 189-200.
- 76) Yamawaki N, Yamada M, Kan-no T, et al. Macronutrient, mineral and trace element composition of breast milk from Japanese women. *J Trace Elem Med Biol* 2005; 19: 171-81.
- 77) Krebs NF, Hambridge KM, Jacobs MA, et al. The effects of a dietary zinc supplement during lactation on longitudinal changes in maternal zinc status and milk zinc concentrations. *Am J Clin Nutr* 1985; 41: 560-70.
- 78) Krebs NF, Reidinger CJ, Robertson AD, et al. Growth and intakes of energy and zinc in infants fed human milk. *J Pediatr* 1994; 124: 32-9.
- 79) Krebs NF, Reidinger CJ, Hartley S, et al. Zinc supplementation during lactation: Effects on maternal status and milk zinc concentrations. *Am J Clin Nutr* 1995; 61: 1030-6.
- 80) Moser PB, Reynolds RD. Dietary zinc intake and zinc concentrations of plasma, erythrocytes, and breast milk in antepartum and postpartum lactating and nonlactating women: A longitudinal study. *Am J Clin Nutr* 1983; 38: 101-8.
- 81) 中埜拓, 加藤健, 小林直道, 他. 乳幼児の食生活に関する全国実態調査—離乳食および乳汁からの栄養素等の摂取状況について—. *小児保健研究* 2003; 62: 630-39.
- 82) Higashi A, Tajiri A, Matsukura M, et al. A prospective survey of serial maternal serum zinc levels and pregnancy outcome. *J Pediatr Gastroenterol Nutr* 1988; 7: 430-3.
- 83) Swanson CA, King JC. Zinc and pregnancy outcome. *Am J Clin Nutr* 1987; 46: 763-71.
- 84) 加治正行. 当院における妊婦・新生児の血清及び母乳中の亜鉛・銅濃度に関する検討. *Biomed Res Trace Elem* 1996; 7: 187-8.
- 85) Sian L, Krebs NF, Westcott JE, et al. Zinc homeostasis during lactation in a population with a low zinc intake. *Am J Clin Nutr* 2002; 75: 99-103.
- 86) Yadrick MK, Kenney MA, Winterfeldt EA. Iron, copper, and zinc status: Response to supplementation with zinc or zinc and iron in adult females. *Am J Clin Nutr* 1989; 49: 145-50.
- 87) Prasad AS, Brewer GJ, Schoemaker EB, et al. Hypocupremia induced by zinc therapy in adults. *JAMA* 1978; 240: 2166-8.
- 88) Fosmire G. Zinc toxicity. *Am J Clin Nutr* 1990; 51: 225-7.
- 89) Black MR, Medeiros DM, Brunett E, et al. Zinc supplements and serum lipids in young adult white males. *Am J Clin Nutr* 1988; 47: 970-5.
- 90) Food and Nutrition Board, Institute of Medicine. Appendix C: Dietary intake data from the Third National Health and Nutrition Examination Survey (NHANES III), 1988-1994. In: Institute of Medicine, ed. *Dietary reference intakes for vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc*. National Academies Press, Washington D.C., 2001: 594-643.
- 91) Desai V, Kaler SG. Role of copper in human neurological disorders. *Am J Clin Nutr* 2008; 88(Suppl): S855-8.
- 92) Prohaska JR. Role of copper transporters in copper homeostasis. *Am J Clin Nutr* 2008; 88(Suppl): S826-9.

- 93) Luza SC, Speisky HC. Liver copper storage and transport during development: implications for cytotoxicity. *Am J Clin Nutr* 1996; 63: S812-20.
- 94) Roberts EA, Sarkar B. Liver as a key organ in the supply, storage, and excretion of copper. *Am J Clin Nutr* 2008; 88(Suppl): S851-4.
- 95) Arredondo M, Munoz P, Mura CV, et al. DMT1, a physiologically relevant apical CuI⁺ transporter of intestinal cells. *Am J Physiol Cell Physiol* 2003; 284: C1525-30.
- 96) da Silva FJ, Williams RJ. Copper: Extracytoplasmic oxidases and matrix formation. In: da Silva FJ, Williams RJ, eds. *The biological chemistry of the elements: The inorganic chemistry of life*. Clarendon Press, Oxford, 1991: 388-99.
- 97) Harris ED. Copper. In: O'Dell BL, Sude RA, eds. *Handbook of nutritionally essential mineral elements*. Marcel Dekker, New York, 1997; 231-73.
- 98) Vonk WIM, Wijmenga C, Sluis B. Relevance of animal models for understanding mammalian copper homeostasis. *Am J Clin Nutr* 2008; 88(Suppl): S840-5.
- 99) Uauy R, Olivares M, Gonzalez M. Essentiality of copper in humans. *Am J Clin Nutr* 1998; 67(Suppl): S952-9.
- 100) Fujita M, Itakura T, Takagi Y, et al. Copper deficiency during total parenteral nutrition: Clinical analysis of three cases. *J Parent Enter Nutr* 1989; 13: 421-5.
- 101) González M, Reyes-Jara A, Suazo M, et al. Expression of copper-related genes in response to copper load. *Am J Clin Nutr* 2008; 88(Suppl): S830-4.
- 102) Lönnerdal B. Intestinal regulation of copper homeostasis: a developmental perspective. *Am J Clin Nutr* 2008; 88(Suppl): S846-50.
- 103) Food and Nutrition Board, Institute of Medicine. Copper. In: Institute of Medicine, ed. *Dietary reference intakes for vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc*. National Academies Press, Washington D.C., 2001: 224-57.
- 104) Olivares M, Méndez MA, Astudillo PA, et al. Present situation of biomarkers for copper status. *Am J Clin Nutr* 2008; 88(Suppl): S859-62.
- 105) Harvey LJ, McArdle HJ. Biomarkers of copper status: a brief update. *Br J Nutr* 2008; 99 (Suppl 3): S10-3.
- 106) Danzeisen R, Araya M, Harrison B, et al. How reliable and robust are current biomarkers for copper status? *Br J Nutr* 2007; 98: 676-83.
- 107) Hunt JR, Vanderpool RA. Apparent copper absorption from a vegetarian diet. *Am J Clin Nutr* 2001; 74: 803-7.
- 108) Harvey LJ, Majsak-Newman G, Dainty JR, et al. Adaptive responses in men fed low- and high-copper diets. *Br J Nutr* 2003; 90: 161-8.
- 109) Araya M, Olivares M, Pizarro F, et al. Gastrointestinal symptoms and blood indicators of copper load in apparently healthy adults undergoing controlled copper exposure. *Am J Clin Nutr* 2003; 77: 646-50.
- 110) Turnlund JR, Keen CL, Smith RG. Copper status and urinary and salivary copper in young men at three levels of dietary copper. *Am J Clin Nutr* 1990; 51: 658-64.
- 111) Turnlund JR, Scott KC, Peiffer GL, et al. Copper status of young men consuming a low-

- copper diet. *Am J Clin Nutr* 1997; 65: 72-8.
- 112) Turnlund JR, Keyes WR, Peiffer GL, et al. Copper absorption, excretion, and retention by young men consuming low dietary copper determined by using the stable isotope ⁶⁵Cu. *Am J Clin Nutr* 1998; 67: 1219-25.
- 113) Turnlund JR. Human whole-body copper metabolism. *Am J Clin Nutr* 1998; 67(Suppl): S960-4.
- 114) 湧上聖, 湧上民雄, 仲田聡子. 微量元素強化流動食の問題点と経腸栄養管理における褥瘡予防の為の, 亜鉛補充効果の工夫. *日本臨床栄養学会雑誌* 2003; 24: 255-60.
- 115) 米山京子. 母乳栄養児の発育と母乳からの栄養素摂取量. *小児保健研究* 1998; 57: 49-57.
- 116) 米山京子, 後藤いずみ, 永田久紀. 母乳の栄養成分の授乳月数に伴う変動. *日本公衆衛生雑誌* 1995; 42: 472-81.
- 117) Widdowson EM, Dickerson JWT. Chemical composition of the body. In: Comar CL, Bronner F, eds. *Mineral metabolism: An advanced treatise, Vol II, Part A*. Academic Press, New York, 1964: 1-248.
- 118) Turnlund JR, Swanson CA, King JC. Copper absorption and retention in pregnant women fed diets based on animal and plant proteins. *J Nutr* 1983; 113: 2346-52.
- 119) Pratt WB, Omdahl JL, Sorenson JR. Lack of effects of copper gluconate supplementation. *Am J Clin Nutr* 1985; 42: 681-2.
- 120) Cockell KA, Bertinato J, L'Abbé MR. Regulatory frameworks for copper considering chronic exposures of the population. *Am J Clin Nutr* 2008; 88(Suppl): S863-6.
- 121) Friedman BJ, Freeland-Graves JH, Bares CW, et al. Manganese balance and clinical observation in young men fed manganese-deficient diet. *J Nutr* 1987; 117: 133-43.
- 122) Keen CL, Zidenberg-Cherv S. Manganese. In: Ziegler EE, Filer LJ Jr, eds. *Present knowledge in nutrition*. ILSI Press, Washington, D. C., 1996: 334-43.
- 123) Subcommittee on the Tenth Edition of the RDAs. *Recommended dietary allowances*. National Academy Press, Washington, D. C., 1989: 230-5.
- 124) Hurley LS, Keen CL. Manganese. In: Mertz W, ed. *Trace elements in human and animal nutrition*. 5th ed. Vol 1. Academic Press, San Diego, 1986: 185-223.
- 125) Rossander-Hulten L, Brune M, Sanstrom B, et al. Competitive inhibition of iron absorption by manganese and zinc in humans. *Am J Clin Nutr* 1991; 54: 152-6.
- 126) Davis CD, Greger JL. Longitudinal changes of manganese-dependent superoxide dismutase and other indexes of manganese and iron status in women. *Am J Clin Nutr* 1992; 55: 747-52.
- 127) 松田晃彦, 武田隆久, 木村美恵子. 栄養素としてのマンガンとその安全性. *ビタミン* 2008; 82: 395-404.
- 128) Freeland-Graves JH, Behmardi F, Bales CW, et al. Metabolic balance of manganese in young men consuming diets containing five levels of dietary manganese. *J Nutr* 1988; 118: 764-73.
- 129) Nishimuta M, Inoue N, Kodama N, et al. Moisture and mineral content of human feces-high fecal moisture is associated with increased sodium and decreased potassium content. *J Nutr Sci Vitaminol* 2006; 52: 121-6.

- 130) Food and Nutrition Board, Institute of Medicine. Manganese. In: Institute of Medicine, ed. Dietary reference intake for vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc. National Academies Press, Washington D. C., 2006: 350-5.
- 131) 白石久二雄. 微量元素の摂取量. 臨床栄養 1994; 84: 381-9.
- 132) Shiraishi K, Yamagami Y, Kameoka K, et al. Mineral contents in model diet samples for different age groups. J Nutr Sci Vitaminol 1988; 34: 55-65.
- 133) Aung NN, Yoshinaga J, Takahashi JI. Dietary intake of toxic and essential trace elements by the children and parents living in Tokyo Metropolitan Area, Japan. Food Addit Contam 2006; 23: 883-94.
- 134) Casey CE, Hambidge KM, Neville MC. Studies in human lactation: zinc, copper, manganese and chromium in human milk in the first month of lactation. Am J Clin Nutr 1985; 41: 1193-200.
- 135) Casey CE, Neville MC, Hambidge KM. Studies in human lactation: secretion of zinc, copper, and manganese in human milk. Am J Clin Nutr 1989; 49: 773-85.
- 136) Al-Awadi FM, Srikumar TS. Trace-element status in milk and plasma of Kuwaiti and non-Kuwaiti lactating mothers. Nutrition 2000; 16: 1069-73.
- 137) Gibson RS. Content and bioavailability of trace elements in vegetarian diets. Am J Clin Nutr 1994; 59: S1223-32.
- 138) Schroeder HA, Balassa JJ, Tripton IH. Essential trace metals in man: Manganese. A studying homeostasis. J Chron Dis 1966; 19: 545-71.
- 139) Ejima A, Imamura T, Nakamura S, et al. Manganese intoxication during total parental nutrition. Lancet 1992; 339: 426.
- 140) Zimmermann MB (端田寛子, 志村二三夫, 訳). ヨウ素とその欠乏による障害. 最新栄養学第9版 (Bowman BA, Russel RM eds.(木村修一, 小林修平, 翻訳監修)). 建帛社, 東京, 2007: 469-77.
- 141) Nath SK, Moinier B, Thuillier F, et al. Urinary excretion of iodine and fluoride from supplemented food grade salt. Int J Vitam Nutr Res 1992; 62: 66-72.
- 142) Hetzel BS, Maberly GF. Iodine. In: Mertz W, ed. Trace elements in human and animal nutrition, 5th ed. Vol 2. Academic Press, Orland, 1986: 139-208.
- 143) 木村修一. ヨウ素. ミネラルの事典 (糸川嘉則, 編). 朝倉書店, 東京, 2003: 279-96.
- 144) Food and Nutrition Board, Institute of Medicine. Iodine. In: Institute of Medicine, ed. Dietary reference intakes for vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc. National Academies Press, Washington D. C., 2001: 258-89.
- 145) Fuse Y, Saito N, Tsuchiya T, et al. Smaller thyroid gland volume with high urinary iodine excretion in Japanese schoolchildren: Normative reference values in an iodine-sufficient area and comparison with the WHO/ICCIDD reference. Thyroid 2007; 17: 145-55.
- 146) Zimmermann MB, Hess SY, Molinari L, et al. New reference values for thyroid volume by ultrasound in iodine-sufficient schoolchildren: a World Health Organization/Nutrition for Health and Development Iodine Deficiency Study Group Report. Am J Clin Nutr 2004; 79:

- 231-7.
- 147) Nagataki S. The average of dietary iodine intake due to the ingestion of seaweed is 1.2 mg/day in Japan. *Thyroid* 2008; 18: 667-8.
 - 148) Suzuki M, Tamura T. Iodine intake of Japanese male university students: Urinary iodine excretion of sedentary and physically active students and sweat iodine excretion during exercise. *J Nutr Sci Vitaminol* 1985; 31: 409-15.
 - 149) Katamine S, Mamiya Y, Sekimoto K, et al. Iodine content of various meals currently consumed by urban Japanese. *J Nutr Sci Vitaminol* 1986; 32: 487-95.
 - 150) Fisher DA, Oddie TH. Thyroidal radioiodine clearance and thyroid iodine accumulation: contrast between random daily variation and population data. *J Clin Endocrinol Metab* 1969; 29: 111-5.
 - 151) Fisher DA, Oddie TH. Thyroid iodine content and turnover in euthyroid subjects: validity of estimation of thyroid iodine accumulation from short-term clearance studies. *J Clin Endocrinol Metab* 1969; 29: 721-7.
 - 152) 村松康行, 湯川雅枝, 西牟田守, 他. 母乳中のヨウ素および臭素濃度. 日本人の無機質必要量に関する基礎的研究. 厚生労働科学研究費補助金平成14年度総括・分担研究報告書. 2003: 16-21.
 - 153) Muramatsu Y, Sumiya M, Ohmomo Y. Stable iodine contents in human milk related to dietary algae consumption. *Hoken Butsuri* 1983; 18: 113-7.
 - 154) Nishiyama S, Mikeda T, Okada T, et al. Transient hypothyroidism or persistent hyperthyrotropinemia in neonates born to mothers with excessive iodine intake. *Thyroid* 2004; 14: 1077-83.
 - 155) Delange F. Iodine requirements during pregnancy, lactation and the neonatal period and indicators of optimal iodine nutrition. *Public Health Nutr* 2007; 10: 1571-80.
 - 156) Delange F. Iodine nutrition and congenital hypothyroidism. In: Delange F, Fisher DA, Glinoe D, eds. *Research in congenital hypothyroidism*. Plenum press, New York, 1989: 173-85.
 - 157) Dworkin HJ, Jacquez JA, Beierwaltes WH. Relationship of iodine ingestion to iodine excretion in pregnancy. *J Clin Endocrinol Metab* 1966; 26: 1329-42.
 - 158) Zhao J, Wang P, Shang L, et al. Endemic goiter associated with high iodine intake. *Am J Public Health* 2000; 90: 1633-5.
 - 159) Seal AJ, Creeke PI, Gnat D, et al. Excess dietary iodine intake in long-term African refugees. *Public Health Nutr* 2006; 9: 35-9.
 - 160) 石突吉持, 山内一征, 三浦義孝. 昆布による甲状腺中毒症. *日内分泌会誌* 1989; 65: 91-8.
 - 161) Konno N, Makita H, Yuri K, et al. Association between dietary iodine intake and prevalence of subclinical hypothyroidism in the coastal regions of Japan. *J Clin Endocrinol Metab* 1994; 78: 393-7.
 - 162) 今野則道, 飯塚徳男, 川崎君王, 他. 北海道在住成人における甲状腺疾患の疫学的調査—ヨード摂取量と甲状腺機能との関係—. *北海道医誌* 1994; 69: 614-26.
 - 163) Zimmermann MB, Ito Y, Hess SY, et al. High thyroid volume in children with excess dietary iodine intake. *Am J Clin Nutr* 2005; 81: 840-4.

- 164) 木村修一. 食品成分の毒性発現と栄養条件の研究. 栄養と食糧 1982; 35: 241-52.
- 165) 吉田宗弘. ミネラルの生理有効性. ミネラルの事典 (糸川嘉則, 編). 朝倉書店, 東京, 2003: 117-35.
- 166) Kryukov GV, Castellano S, Novoselov SV, et al. Characterization of mammalian selenoproteomes. *Science* 2003; 300: 1439-43.
- 167) Sunde RA (吉田宗弘, 訳). セレン. 最新栄養学 第9版 (Bowman BA, Russel RM, eds. (木村修一, 小林修平, 翻訳監修)). 建帛社, 東京, 2007: 478-96.
- 168) 吉田宗弘. 日本人のセレン摂取と血中セレン濃度. 日本栄養・食糧雑誌 1992; 45: 485-94.
- 169) Chen X, Yang G, Chen J, et al. Studies on the relations of selenium and Keshan disease. *Biol Trace Elem Res* 1980; 2: 91-107.
- 170) Yang G-Q, Zhu L-Z, Liu S-J, et al. Human selenium requirements in China. In: Combs GF Jr., Levander OA, Spallholz JE, et al., eds. *Selenium in biology and medicine*. Avi, New York, 1987: 589-607.
- 171) Beck MA, Levander OA, Handy J. Selenium deficiency and viral infection. *J Nutr* 2003; 133: 1463S-7S.
- 172) Peng A, Wang WH, Wang CX, et al. The role of humic substances in drinking water in Kashin-Beck disease in China. *Environ Health Perspect* 1999; 107: 293-6.
- 173) van Rij AM, Thomson CD, McKenzie JM, et al. Selenium deficiency in total parenteral nutrition. *Am J Clin Nutr* 1979; 32: 2076-85.
- 174) 松末智. 長期高カロリー輸液中に心筋症を来したセレン欠乏症の1例. 日外会誌 1987; 88: 483-8.
- 175) Hawkes WC, Alkan FZ, Oehler L. Absorption, distribution and excretion of selenium from beef and rice in healthy North American men. *J Nutr* 2003; 133: 3434-42.
- 176) Sanz Alaejos M, Díaz Romero C. Urinary selenium concentrations. *Clin Chem* 1993; 39: 2040-52.
- 177) Navarro M, López H, Ruiz ML, et al. Determination of selenium in serum by hydride generation atomic absorption spectrometry for calculation of daily dietary intake. *Sci Total Environ* 1995; 175: 245-52.
- 178) Yang G-Q, Ge K, Chen J, et al. Selenium-related endemic diseases and the daily selenium requirement of humans. *World Rev Nutr Diet* 1988; 55: 98-152.
- 179) Duffield AJ, Thomson CD, Hill KE, et al. An estimation of selenium requirements for New Zealanders. *Am J Clin Nutr* 1999; 70: 896-903.
- 180) Food and Nutrition Board, Institute of Medicine. Selenium. In: Institute of Medicine, ed. *Dietary reference intakes for vitamin C, vitamin E, selenium, and carotenoids*. National Academy Press, Washington D. C., 2000: 284-324.
- 181) WHO/FAO/IAEA. Selenium. In: *Trace elements in human nutrition and health*. WHO, Geneva, 1996: 105-22.
- 182) McKenzie RL, Rea HM, Thomson CD, et al. Selenium concentration and glutathione peroxidase activity in blood of New Zealand infants and children. *Am J Clin Nutr* 1978; 31: 1413-8.
- 183) Pyykkö K, Tuimala R, Kroneld R, et al. Effect of selenium supplementation to fertilizers on

- the selenium status of the population in different parts of Finland. *Eur J Clin Nutr* 1988; 42: 571-9.
- 184) Klapac T, Mandić ML, Grgić J, et al. Daily dietary intake of selenium in eastern Croatia. *Sci Total Environ* 1998; 217: 127-36.
- 185) Yoshida M, Iwami K, Yasumoto K. Determination of nutritional efficiency of selenium contained in processed skipjack meat by comparison with selenite. *J Nutr Sci Vitaminol* 1984; 30: 395-400.
- 186) Higashi A, Tamari H, Kuroki Y, et al. Longitudinal changes in selenium content of breast milk. *Acta Paediatr Scand* 1983; 72: 433-6.
- 187) Hojo Y. Selenium in Japanese baby foods. *Sci Total Environ* 1986; 57: 151-9.
- 188) Yoshinaga J, Li J, Suzuki T, et al. Trace elements in human transitory milk. Variation caused by biological attributes of mother and infant. *Biol Trace Element Res* 1991; 31: 159-70.
- 189) 佐藤郁雄, 小林美智子, 新関嗣郎, 他. 乳児の発育過程における母乳中微量栄養素について. *微量栄養素研究* 1998; 5: 85-94.
- 190) 河本裕子, 前田隆子, 田中俊行. 蛍光法による母乳中セレン測定: 湿式灰化における酸濃度の検討. *臨床病理* 1994; 42: 83-8.
- 191) Kumpulainen J, Salmenpera L, Siimes MA, et al. Formula feeding results in lower selenium status than breast feeding or selenium supplemented formula feeding: A longitudinal study. *Am J Clin Nutr* 1987; 45: 49-53.
- 192) Schroeder HA, Frost DV, Balassa JJ. Essential trace metals in man: selenium. *J Chronic Dis* 1970; 23: 227-43.
- 193) 姫野誠一郎. セレン. *日本臨牀* 2004; 62 (増刊号 12): 315-8.
- 194) Yang G-Q, Wang S-Z, Zhou R-H, et al. Endemic selenium intoxication of humans in China. *Am J Clin Nutr* 1983; 37: 872-81.
- 195) Yang G-Q, Yin S, Zhou R-H, et al. Studies of safe maximal daily dietary Se-intake in a seleniferous area in China. Part II: relation between Se-intake and the manifestation of clinical signs and certain biochemical alterations in blood and urine. *J Trace Elem Electrolytes Health Dis* 1989; 3: 123-30.
- 196) Jensen R, Closson W, Rothenberg R. Selenium intoxication? *New York. Morbid Mortal Wkly Rep* 1984; 33: 157-8.
- 197) Carter RF. Acute selenium poisoning. *Med J Aust* 1966; 1: 525-8.
- 198) Lombeck I, Menzel H, Frosch D. Acute selenium poisoning of a 2-year old child. *Eur J Pediatr* 1987; 146: 308-12.
- 199) Matoba R, Kimura H, Uchima E, et al. An autopsy case of acute selenium (selenious acid) poisoning and selenium levels in human tissues. *Forensic Sci Int* 1986; 31: 87-92.
- 200) Nantel AJ, Brown M, Dery P, et al. Acute poisoning by selenious acid. *Vet Hum Toxicol* 1985; 27: 531-3.
- 201) Yang G-Q, Zhou R-H. Further observations on the human maximum safe dietary selenium intake in a seleniferous area of China. *J Trace Elem Electrolytes Health Dis* 1994; 8: 159-65.

- 202) Longnecker MP, Taylor PR, Levander OA, et al. Selenium in diet, blood, and toenails in relation to human health in a seleniferous area. *Am J Clin Nutr* 1991; 53: 1288-94.
- 203) Clark LC, Combs GF Jr, Turnbull BW, et al. Effects of selenium supplementation for cancer prevention in patients with carcinoma of the skin. A randomized controlled trial. Nutritional Prevention of Cancer Study Group. *JAMA* 1996; 276: 1957-63.
- 204) Duffield-Lillico AJ, Reid ME, Turnbull BW, et al. Baseline characteristics and the effect of selenium supplementation on cancer incidence in a randomized clinical trial: a summary report of the Nutritional Prevention of Cancer Trial. *Cancer Epidemiol Biomarkers Prev* 2002; 11: 630-9.
- 205) Stranges S, Marshall JR, Natarajan R, et al. Effects of long-term selenium supplementation on the incidence of type 2 diabetes: a randomized trial. *Ann Intern Med* 2007; 147: 217-23.
- 206) Shearer RR, Hadjimarkos DM. Geographic distribution of selenium in human milk. *Arch Environ Health* 1975; 30: 230-3.
- 207) Bratter P, Negretti de Bratter VE, Jaffe WG, et al. Selenium status of children living in seleniferous areas of Venezuela. *J Trace Elem Electrolytes Health Dis* 1991; 5: 269-70.
- 208) Knekt P, Aromaa A, Maatela J, et al. Serum selenium and subsequent risk of cancer among Finnish men and women. *J Natl Cancer Inst* 1990; 82: 864-8.
- 209) Li H, Stampfer MJ, Giovannucci EL, et al. A prospective study of plasma selenium levels and prostate cancer risk. *J Natl Cancer Inst* 2004; 96: 696-703.
- 210) Zhuo H, Smith AH, Steinmaus C. Selenium and lung cancer: A quantitative analysis of heterogeneity in the current epidemiological literature. *Cancer Epidemiol Biomarkers Prev* 2004; 13: 771-8.
- 211) Etminan M, FitzGerald JM, Gleave M, et al. Intake of selenium in the prevention of prostate cancer: a systematic review and meta-analysis. *Cancer Causes Control* 2005; 16: 1125-31.
- 212) Kabuto M, Imai H, Yonezawa C, et al. Prediagnostic serum selenium and zinc levels and subsequent risk of lung and stomach cancer in Japan. *Cancer Epidemiol Biomarkers Prev* 1994; 3: 465-9.
- 213) Sayato Y, Nakamuro K, Matsui S, et al. Metabolic fate of chromium compounds. I. Comparative behavior of chromium in rat administered with $\text{Na}_2^{51}\text{CrO}_4$ and $^{51}\text{CrCl}_3$. *J Pharmacobiodyn* 1980; 3: 17-23.
- 214) Yamamoto A, Ono T, Wada O. Isolation of a biologically active low-molecular-mass chromium compound from rabbit liver. *Eur J Biochem* 1987; 165: 627-31.
- 215) Vincent JB. Recent advances in the nutritional biochemistry of trivalent chromium. *Proc Nutr Soc* 2004; 63: 41-7.
- 216) Jeejeebhoy KN, Chu RC, Marliss EB, et al. Chromium deficiency, glucose intolerance, and neuropathy reversed by chromium supplementation, in a patient receiving long-term total parenteral nutrition. *Am J Clin Nutr* 1977; 30: 531-8.
- 217) Fleming CR. Trace element metabolism in adult patients requiring total parenteral nutrition. *Am J Clin Nutr* 1989; 49: 573-9.
- 218) Bunker VW, Lawson MS, Delves HT, et al. The uptake and excretion of chromium by the

- elderly. *Am J Clin Nutr* 1984; 39: 797-802.
- 219) Offenbacher EG, Spencer H, Dowling HJ, et al. Metabolic chromium balances in men. *Am J Clin Nutr* 1986; 44: 77-82.
- 220) Kumpulainen J, Lehto J, Koivistoinen P, et al. Determination of chromium in human milk, serum and urine by electrothermal atomic absorption spectrometry without preliminary ashing. *Sci Total Environ* 1983; 31: 71-80.
- 221) Anderson RA, Kozlovsky AS. Chromium intake, absorption and excretion of subjects consuming self-selected diets. *Am J Clin Nutr* 1985; 41: 1177-83.
- 222) Food and Nutrition Board, Institute of Medicine. Chromium. In: Institute of Medicine, ed. Dietary reference intakes for vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganese, molybdenum, nickel, silicon, vanadium and zinc. National Academy Press, Washington D. C., 2001: 197-223.
- 223) Kazi TG, Afridi HI, Kazi N, et al. Copper, chromium, manganese, iron, nickel, and zinc levels in biological samples of diabetes mellitus patients. *Biol Trace Elem Res* 2008; 122: 1-18.
- 224) Mita Y, Ishihara K, Ishiguro M, et al. Elevated urinary Cr loss induces a reduction in renal Cr concentration and the negative Cr balance in streptozotocin-induced diabetic mice. *J Nutr Sci Vitaminol* 2008; 54: 303-8.
- 225) Anderson RA, Cheng N, Bryden NA, et al. Elevated intakes of supplemental chromium improve glucose and insulin variables in individuals with type 2 diabetes. *Diabetes* 1997; 46: 1786-91.
- 226) Rabinovitz H, Friedensohn A, Leibovitz A, et al. Effect of chromium supplementation on blood glucose and lipid levels in type 2 diabetes mellitus elderly patients. *Int J Vitam Nutr Res* 2004; 74: 178-82.
- 227) Pei D, Hsieh C-H, Hung Y-J, et al. The influence of chromium chloride-containing milk to glycemic control of patients with type 2 diabetes mellitus: a randomized, double-blind, placebo-controlled trial. *Metabolism* 2006; 55: 923-7.
- 228) Roussel A-M, Andriollo-Sanchez A, Ferry M, et al. Food chromium content, dietary chromium intake and related biological variables in French free-living elderly. *Brit J Nutr* 2007; 98: 326-31.
- 229) WHO/FAO/IAEA. Chromium. In: Trace elements in human nutrition and health. WHO, Geneva, 1996; 155-60.
- 230) Expert group on vitamins and minerals. Risk assessment, chromium. In: Safe upper levels for vitamins and minerals. Food Standards Agency, London, 2003: 172-9.
- 231) Yoshida M, Takada A, Hirose J, et al. Molybdenum and chromium concentrations in breast milk from Japanese women. *Biosci Biotechnol Biochem* 2008; 72: 2247-50.
- 232) WHO/IAEA. Minor and trace elements in breast milk. WHO, Geneva, 1989; 32-5.
- 233) Outridge PM, Scheuhammer AM. Bioaccumulation and toxicology of chromium: Implications for wildlife. *Rev Environ Contam Toxicol* 1993; 130: 31-77.
- 234) Wasser WG, Feldman NS, D'Agati VD. Chronic renal failure after ingestion of over-the-counter chromium picolinate. *Ann Intern Med* 1997; 32: 410.

- 235) Lamson DW, Plaza SM. The safety and efficacy of high-dose chromium. *Altern Med Rev* 2002; 7: 218-35.
- 236) Balk EM, Lau J, Tatsioni A, et al. Effect of chromium supplementation on glucose metabolism and lipids: A systematic review of randomized controlled trials. *Diabetes Care* 2007; 30: 2134-63.
- 237) Kirpnick-Sobol A, Reliene R, Schiestl H. Carcinogenic Cr (VI) and the nutritional supplement Cr (III) induce DNA deletions in yeast and mice. *Cancer Res* 2006; 66: 3480-4.
- 238) Al-Hamood MH, Elbetieha A, Bataineh H. Sexual maturation and fertility of male and female mice exposed prenatally and postnatally to trivalent and hexavalent chromium compounds. *Reprod Fertil Dev* 1998; 10: 179-83.
- 239) Bataineh H, Al-Hamood MH, Elbetieha A, et al. Effect of long term ingestion of chromium compounds on aggression, sex behavior and fertility in adult male rat. *Drug Chem Toxicol* 1997; 20: 133-49.
- 240) Rajagopalan KV. Molybdenum: an essential trace element in human nutrition. *Ann Rev Nutr* 1988; 8: 401-27.
- 241) Johnson JL, Waud WR, Rajagopalan KV, et al. Inborn errors of molybdenum metabolism: combined deficiencies of sulfite oxidase and xanthine dehydrogenase in a patient lacking the molybdenum cofactor. *Proc Natl Acad Sci USA* 1980; 77: 3715-9.
- 242) Abumrad NN, Schneider WR, Steel D, et al. Amino acid intolerance prolonged total parenteral nutrition reversed by molybdate therapy. *Am J Clin Nutr* 1981; 34: 2551-9.
- 243) Turnlund JR, Keyes WR, Peiffer GL. Molybdenum absorption, excretion, and retention studied with stable isotopes in young men at five intakes of dietary molybdenum. *Am J Clin Nutr* 1995; 62: 790-6.
- 244) Turnlund JR, Weaver CM, Kim KK, et al. Molybdenum absorption and utilization in humans from soy and kale intrinsically labeled with stable isotopes of molybdenum. *Am J Clin Nutr* 1999; 69: 1217-23.
- 245) Yoshida M, Hattori H, Ôta S, et al. Molybdenum balance in healthy young Japanese women. *J Trace Elem Med Biol* 2006; 20: 245-52.
- 246) Yoshida M, Ôta S, Fukunaga K, et al. Serum molybdenum concentration in healthy Japanese adults determined by inductively coupled plasma-mass spectrometry. *J Trace Elem Med Biol* 2006; 20: 19-23.
- 247) Turnlund JR, Keyes WR. Plasma molybdenum reflects dietary molybdenum intake. *J Nutr Biochem* 2004; 15: 90-5.
- 248) Iyengar V, Woittiez J. Trace elements in human clinical specimens: evaluation of literature data to identify reference values. *Clin Chem* 1988; 34: 474-81.
- 249) Turnlund JR, Keyes WR, Peiffer GL, et al. Molybdenum absorption, excretion, and retention studied with stable isotopes in young men during depletion and repletion. *Am J Clin Nutr* 1995; 61: 1102-9.
- 250) Food and Nutrition Board, Institute of Medicine. Molybdenum. In: Institute of Medicine, ed. Dietary reference intakes for vitamin A, vitamin K, arsenic, boron, chromium, copper,

- iodine, iron, manganese, molybdenum, nickel, silicon, vanadium, and zinc. National Academies Press, Washington D. C., 2001: 420-41.
- 251) WHO/FAO/IAEA. Trace Elements in Human Nutrition and Health. WHO, Geneva, 1996; 144-54.
- 252) 吉田宗弘, 伊藤智恵, 服部浩之, 他. 日本における母乳および調整粉乳中のモリブデン濃度と乳児のモリブデン摂取量. 微量栄養素研究 2004; 21: 59-64.
- 253) Kovalsky VV, Yarovaya GA, Shmavonyan DM. The change in purine metabolism of humans and animals under the conditions of molybdenum biogeochemical provinces. Zh Obshch Biol 1961; 22: 179-91.
- 254) US Environmental Protection Agency: Integrated Risk Information System. Molybdenum (CASRN 7439-98-7). <http://www.epa.gov/iris/subst/0425.htm> (last updated on January 11th, 2008).
- 255) Vyskocil A, Viau C. Assessment of molybdenum toxicity in humans. J Appl Toxicol 1999; 19: 185-92.
- 256) Hattori H, Ashida A, Itô C. et al. Determination of molybdenum in foods and human milk, and an estimation of average molybdenum intake in the Japanese population. J Nutr Sci Vitaminol 2004; 50: 404-9.
- 257) Fungwe TV, Buddingh F, Demick DS, et al. The role of dietary molybdenum on estrous activity, fertility, reproduction and molybdenum and copper enzyme activities of female rats. Nutr Res 1990; 10: 515-24.
- 258) Scientific Committee on Food: opinion of the Scientific Committee on Food on the Tolerable Upper Intake Level of Molybdenum, European Commission, SCF/CS/NUT/UPPLEV/22 Final, Brussels, download from [http://ec.europa.eu/food/fs/sc/scf/out80h_en.pdf#search='SCF% 20molybdenum% 20european% 20commission'](http://ec.europa.eu/food/fs/sc/scf/out80h_en.pdf#search='SCF%20molybdenum%20european%20commission') (expressed on October 19, 2000).