

References

- Abdel-Lah MA., Rasheed SM., Hassan IA and EL-Sayed AR (2006):***
Iron chelated amino acid therapy versus oral iron therapy for the treatment of iron-deficiency anemia with pregnancy. J Egypt Obst Gynecol, 32(4,5): 419-425.
- Acda SP and Chae BJ (2002):*** A review on the applications of organic trace minerals in pig nutrition. Pakistan J. Nutr. 1(1):25-30.
- Admson JW ., Fauci AS ., Kasper DL ., et al . (2001) :*** Iron deficiency and other hypoproliferative anemias . In : Braunwald E., editor ; Harrison's principles of Internal Medicine . 15th edition .Mc Graw Hill .pp.pp 660 – 66 .
- Akesson A., Bjellerup P., Berglund M., Bremme K., Vahter M (1998):***
Serum transferrin receptor: a specific marker of iron deficiency in pregnancy. Am J Clin Nutr 68:1241–1246
- Allen L (1999):*** Food based strategies to improve iron status. INACG symposium, 12· March, International Convention Centre Durban, south Africa.
- Allen LH (2002):*** Advantages and limitations of iron amino acid chelates as iron fortificants. Nutr. Rev., 60, S18–S21.
- Alpers DH., Sisson WF and Pier DM (1995):*** Manual of nutritional therapeutics. Little, Brown, and company; Boston, New York, Toronto, London,3ed . Edition.
- Ammerman CB., Baker DH and Lewis AJ (1995):*** Bioavailability of nutrients for animals: Amino acids, minerals and vitamins. Academic Press, San Diego, Cal.

- Arab Republic of Egypt., Ministry of Health and Population MOHP (2002):*** Information Center in Gharbia District.
- Ashmead HD and Ashmead SD (2004):*** Effects of dietary molybdenum, sulfur and iron on absorption of three organic copper sources. *J. Appl. Res. Vet. Med.* 2:1-9.
- Ashmead SD (2001):*** The chemistry of ferrous bis-glycinate chelate. *Arch. Latinoam. Nutr.*, 51, 7–12.
- Ashmead SD (2003):*** FT-IR characterization of metal amino acid chelates: Zinc bisglycinate model. AOAC 117th International Meeting.
- Babitt JL Huang FW., Wrighting DM., Xia Y., Sidis Y., Samad TA., Campagna JA., Chung RT., Schneyer AL., Woolf CJ., Andrews NC., Lin HY (2006):*** Bone morphogenetic protein signaling by hemojuvelin regulates hepcidin expression. *Nat. Genet.* 38(5):531-9.
- Bachman PM (2003):*** Official Publication of American Feed Control Officials. ATCO. Oxford, Ind. p. 278-279.
- Bailley LB (2000):*** New standard for dietary folate intake in pregnant women. *Am J Clin Nutr*, 71(5) Suppl: 13045-13075.
- Barrett FR., Whittaker PG., Williams JG., Lind T (1994):*** Absorption of non-haem iron from food during normal pregnancy. *Br Med J* 309:79–82.
- Barton JC., Barton EH., Bertoli LF., Gothard CH, Sherrer JS (2000):*** Intravenous iron dextran therapy in patients with iron deficiency and normal renal function who failed to respond to or did not tolerate oral iron supplementation. *Am J Med*; 109:27-32.

- Baynes RD (1994):** Iron deficiency. In: Brock JH, Halliday JW, Pippard MJ, Powell LW (eds) Iron metabolism in health and disease. Saunders, London, pp 204–207
- Beard J (1990):** Iron deficiency, thyroid function and thermoregulation. In functional significance of iron deficiency .C.O. Enwonwe , Ed. Meharry Medical college., PP 71-80.
- Becker EM., Greer JM., Ponka P., Richardson DR (2002):** Erythroid differentiation and protoporphyrin IX down-regulate frataxin expression in Friend cells: characterization of frataxin expression compared to molecules involved in iron metabolism and hemoglobinization. Blood 99(10):3813-22.
- Bekri S., Kispal G., Lange H., Fitzsimons E., Tolmie J., Lill R., Bishop DF (2000):** Human ABC7 transporter: gene structure and mutation causing X-linked sideroblastic anemia with ataxia with disruption of cytosolic iron-sulfur protein maturation. Blood 96(9):3256-64.
- Bender DA and Bender AE (1997):** Iron. In, Nutrition a reference hand book. Chapter 24.P394-405.
- Berger T., Togawa A., Duncan GS., Elia AJ., You-Ten A., Wakeham A., Fong HE, Cheung CC., Mak TW (2006):** Lipocalin 2-deficient mice exhibit increased sensitivity to Escherichia coli infection but not to ischemia-reperfusion injury. Proc Natl Acad Sci U S A.; 103(6):1834-9..
- Berry RJ., Li Z., Erickson JD., Li S., Moore CA., Wang H., Mulinare J., Zhao P., Wong LY., Gindler J., Hong SX., Correa A. (1999):** Prevention of neural tube defects with folic acid in china. N Engl J Med; 341(20):1485-90.
- Blinder MA (2001):** The Washington In: Manual of Medical

therapeutics, chapter 20; Anemia and transfusion therapy. 30th Edition. Edited by shubhada N. Ahya et al, P. 413-415.

Bothwell TH (2000): Iron requirements in pregnancy and strategies to meet them. *Am J Clin Nutr* 72:257S–64S

Boushey CJ., Bereford SAA., Omenn GS & Motulsky AG (1995): A quantitative assessment of plasma homocysteine as a risk factor for vascular disease. *Journal of the American Medical Association* 274,

Bovell-Benjamin AC., Viteri FE & Allen LH (2000): Iron absorption from ferrous bisglycinate and ferric trisglycinate in whole maize is regulated by iron status. *Am. J. Clin. Nutr.*, 71, 1563–1569.

Bruner A., Joffe A., Duggan AK., Casella JF., Brandt J (1996): Randomised study of cognitive effects of iron supplementation in non-anemic iron-deficient adolescent girls. *Lancet* 348(9033): 992-6.

Burns D.(2002): Enhanced transport of anion acid chelated minerals. Research and development department, Seroyal Brands, inc., Concord, California.

Cazzola M., Invernizzi R., Bergamaschi G., Levi S., Corsi B., Travaglino E., Rolandi V., Biasiotto G., Drysdale J., Arosio P (2003): Mitochondrial ferritin expression in erythroid cells from patients with sideroblastic anemia. *Blood* 101, 1996-2000.

Celada A. (1982): Increased milk iron by dietary supplementation (Latter), *Am. J.Clin. Nutr*; 36:965.

Chen H., Attieh ZK., Su T., Syed BA., Gao H., Alaeddine RM., Fox TC., Usta J., Naylor CE., Evans RW., McKie AT., Anderson GJ., Vulpe CD (2004): Hephaestin is a ferroxidase that maintains partial activity in sex-linked anemia mice. *Blood* 103,

3933-3939

- Cplin M., Leichtmann G and Lashner B. (1991):*** Tolerability of iron: Comparison of bis-glycino iron II and ferrous sulfate. Clin Ther; 13, 606-612.
- Colthup NB., Daly LH and Wiberley SE (1990):*** Introduction to Infrared and Raman Spectroscopy, 3rd ed., Boston, MA: Academic Press.
- Cook JD., Flowers CH., Skikne BS (2003):*** The quantitative assessment of body iron. Blood 101:3359–3364.
- Corade ME (1991):*** Regulation of iron absorption in the small intestine. Blood ;78:153-60.
- Cotton FA., Wilkinson G., Manillo CA and Bochman M (1999):*** Advanced Organic Chemistry. John Wiley, New York, N.Y.
- Cunningham FG., Gant NF., Leveno KJ., Gilstrap LC, Hauth JC and Wenstrom KD (2001):*** Nutrition, Prenatal care in: Williams obstetrics, 21st Edition, Vol. I , chapter 10-,230-238.
- Dacie JV and Lewis SM (2001):*** Practical haematology, Edited by S Mitchell Lewis: Ninth edition, Basic haematological techniques chapter 20, P.20-24.
- Dallalio G., Law E., Means RT (2006):*** Heparin inhibits in vitro erythroid colony formation at reduced erythropoietin concentrations. Blood 107(7):2702-4.
- Dallman PR and Raeves JD (1984):*** Laboratory diagnosis of iron deficiency . iron nutrition in infancy and childhood. New Yourk, Nestle Vavey Raven press; 11-44.
- Dawson DN and Waters HM (1994):*** Malnutrition, folate and cobalamine deficiency. British journal of Biomedical Science 51, 221-227.

- De Benaze C., Galan P. Wainer., and Heroberg., S. (1989):** prevention de L' anemia ferroprive au cours de la grossesse par un supplementation mortials precoce: Unessi: controle. Rev. Epidem. et de sante publ, 37 : 109.
- De Maeyer EM., Dallman P., Gurney J. M, HallbergL., Sood SK., and Srikantias .G.(1989):** Preventing and controlling iron deficiency anemia through primary health care: a guide for health administrators and programme mangers:5-58 WHO Geneva, Switzerland.
- DeBree A., Dusseldorp MV., Brouwer LA., Hol vamhet KH & Theunissen RPM (1997):** Folate intake in Europe: recommended actual and desired intake. European Journal of Clinical Nutrition 51, 643-660.
- Depee S., Bloem MW., Sari M., Kiess L., Yip R., and Kosen S. (2002):** The high prevalence of low hemoglobin concentration among Indonesian infants aged 3-5 months is related to maternal anemia J Nutr Aug; 132 (8):215-21.
- Devireddy LR, Gazin C., Zhu X., Green MR. (2005):** A cell-surface receptor for lipocalin 24p3 selectively mediates apoptosis and iron uptake. Cell 123(7):1293-305.
- Donovan A. Lima CA., Pinkus JL., Pinkus GS., Zon LI, Robine S., Andrews NC. (2005):** The iron exporter ferroportin/Slc40a1 is essential for iron homeostasis. Cell Metab. 1(3):191-200.
- Dudek SG (2001):** Nutrient requirements during pregnancy, Healthy Eating for Healthy babies, Nutrition Essentials for Nursing practice, section II, Chapter II, 4th ed. P. 288-293.
- Dugdale M. (2001) :** Anemia . Obstet Gynecol Clin North Am ; 28:363-381 .
- Dunn LL., Rahmanto YS., Richardson DR. (2007):** Iron uptake and metabolism in the new millennium. Trends Cell Biol.; 17(2): 93-100.

- Dunn, L.L. Sekyere EO., Rahmanto YS., Richardson DR (2006):** The function of melanotransferrin: a role in melanoma cell proliferation and tumorigenesis. *Carcinogenesis* 7, 2157-2169
- EI-Shazley MI; Ibrahim AG and Masound GM. (1996):** Risk factors for anemia among women in the childbearing period and pre-school children in Alexandria . *The J of Egyptian public Health Association*. Vol. LXXI,. No.3,4, P 229-241.
- El Sahn F. (1996):** Micronutrient deficiencies in Egypt. A situation analysis. In proceedings of the workshop on micronutrient deficiencies in the Arab Middle East countries , Amman, Jordan , 27-29 Jun 1995. FAO, Egypt
- FAO (1990):** WHO expert consultation. Requirements of Vitamin A, iron, folate and vitamin B₁₂ FAO, Rome.
- Galloway R., Dusch E., Elder L., Achadi E., Grajeda R., Hurtado E., Favín M , (2002) :** Women's perceptions of iron deficiency and anemia prevention and control in eight developing countries . *Soc Sci Med*; 55(4) : 529- 44 .
- Ganz, T. (2006):** Molecular pathogenesis of anemia of chronic disease. *Pediatr. Blood Cancer* 46, 554-557
- García-Casal MN., Layrisse M., Solano L., Barón MA., Arguello F., Llovera D., Ramírez J., Leets I and Tropper E (1997):** Vitamin A and b-carotene can improve nonheme iron absorption from rice, wheat and corn by humans. *J. Nutr.*, 128, 646–650.
- Gillespie S and Johnston JL. (1998):** Expert consultation on Anaemia Determinants and Interventions.1-37 *Micronutrient Initiative* Ottawa, Canada .
- Giorgini E., Fisberg M., de Paula RA., Ferreira AM., Valle J & Braga JA. (2001):** The use of sweet rolls fortified with iron bis-

glycinate chelate in the prevention of iron deficiency anemia in preschool children. Arch. Latinoam. Nutr., 51, 48–53.

Gleerup A., Rossander-Hulten L., and Halberg L. (1993): Duration of the inhibitory effect of calcium on non-haem iron absorption in man. Eur J Clin Nutr.; 47(12):875-9.

Graham IM., Daly LE., Refsum HM., Robinson K., Brattström LE., Ueland PM., Palma-Reis RJ., Boers GH., Sheahan RG., Israelsson B., Uiterwaal CS., Meleady R., McMaster D., Verhoef P., Witteman J., Rubba P., Bellet H., Wautrecht JC., de Valk HW., Sales Luís AC., Parrot-Rouland FM., Tan KS., Higgins I., Garcon D., Andria G., et al. (1997): Plasma homocysteine as a risk factor for vascular disease. The European Concerted Action Project. JAMA; 277(22):1775-81.

Gregory JF (1997): Bioavailability of folate. European Journal of clinical nutrition 51, S54-S59.

Gunshin., H. Fujiwara Y., Custodio AO, Dizenzo C., Robine S., Andrews NC (2005): Slc11a2 is required for intestinal iron absorption and erythropoiesis but dispensable in placenta and liver. J. Clin. Invest. 115(5):1258-66.

Gunshin., H. Starr CN., Dizenzo C., Fleming MD., Jin J., Greer EL., Sellers VM., Galica SM., Andrews NC. (2005): Cybrd 1 (duodenal Cytochrome b) is not necessary for dietary iron absorption in mice. Blood 106(8):2879-83.

Hallberg L., Rossander T., Hulthen L., Brune M., and Gleerup A.(1993): Inhibition of haem-iron absorption in man by calcium. Br. J. Nutr., 69:533-40.

Hallberg L., and Hulthen L. (2000): Prediction of dietary Iron absorption: an algorithm for calculating absorption and bioavailability of dietary Iron. Am. J of Clin. Nutr. May; Vol71 N05,1013,1218.

- Hallberg L., Brune M., Erlandsson M., Sandberg AS., Rossander., and Hulten L. (1991):** Calcium: Effect of different amounts of non heme and heme iron absorption in humans. *Am. J Clin Nutr.*53 : 112-119.
- Hallberg L., David A, Lotfi M., and Viler F. (1998):** food fortification Guidelines for the control of iron deficiency in countries of the eastern mediterranean middle east and north Africa WHO.
- Hallberg L, Rossander-Hultén L. (1991):** Iron requirements in menstruating women. *Am J Clin Nutr*~54:1047-58.
- Hamstra RD., Block MH., Schocket AL. (1980):** Intravenous iron dextran in clinical medicine. *JAMA*; 243:1726-31.
- Hartle JW and Ashmead HD (2006):** Bonds important for amino acid chelates. *Feedstuffs*, 78(37): 1-3.
- Hartle JW and Ashmead SD. (2004):** Single laboratory validation of the quantification of chelation in metal glycinate chelates through the use of FT-IR analysis. AOAC 118th International Meeting.
- Hartle JW., Ericson CE and Ashmead SD. (2003a):** Quantification of chelation in metal bisglycinate chelates through the use of fast-fourier transforming analysis. AOAC 117th International Meeting.
- Hartle JW., Ericson CE and Ashmead SD. (2003b):** Process for determining the percent of chelation in a dry mixture. U.S. Patent Application #20030138963.
- Heinrich HC., Bartels H., Heinisch B., Hausmann K, Kuse R., Humke W., Mauss HJ. (1968):** Intestinale ⁵⁹Fe-Resorption und prälatenter Eisenmangel während der Gravidität des Menschen. *Klin Wschr* 46:199–202
- Hentze MW., Muckenthaler MU., Andrews NC (2004):** Balancing acts: molecular control of mammalian iron metabolism. *Cell* 30; 117(3):285-97.

- Hess SY., Zimmermann MB., Brogli S., and Hurrell RF.(2001):** A national survey of iron and folate status in pregnant women in Switzerland .. *Int J Vitam Nutr Res Sep*; 71(5): 268-73.
- Hillman RS. (1998):** Anemia. In *Harrison's principles of internal medicine 14th edition*, Edited by Anthony S Fauci et al. Vol. I; chapter 59; PP334-339.
- Hosny A., Abd Elrahman A., Ismael KA., Aboul Seod AR., El-Saadawy MS; and Ali AM. (1990):** Effect of parasitic infestation on some parametas of physical performance capacity of zagazig university student athletes. *The Egyptian J of community medicine*, Vol.6, No.1 Narch, P65-75.
- Huang FW., Pinkus JL., Pinkus GS., Fleming MD., Andrews NC. (2005):** A mouse model of juvenile hemochromatosis. *J. Clin. Invest.* 115,2187-2191
- Hussein., MA., Hassan., HA., Abdel-Ghaffar., AA. And Samem S. (1989):** Effects of iron supplements on the occurrence of diarrhea among children in rural Egypt. *Food and Nutr. Bull*, 10-35.
- Hynes MJ and Kelly MP. (1995):** Metal ions, chelates and proteينات. *Biotechnology in the Feed Industry*. p. 233-48.
- Hytten F. (1995):** Blood volume changes in pregnancy clinic, *J. Clin. Hematology*, 14(3): 601-12.
- IOM (2001):** Iron. In: *IOM (Institute of Medicine), Food and Nutrition Board, Dietary Reference Intakes For Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium and Zinc. A report of the Panel on Micronutrients, Subcommittees on Upper Reference Levels of Nutrients and of Interpretation and Use of Dietary Reference Intakes, and the Standing Committee on the Scientific*

Evaluation of Dietary Reference Intakes. Washington: National Academy Press, pp. 290–393.

Iost C., Name JJ., Jeppsen RB and Ashmead HD. (1998): Repleting hemoglobin in iron deficiency anemia in young children through liquid milk fortification with bioavailable iron amino acid chelate. *J. Am. Coll. Nutr.*, 17, 187–194.

Jeppsen RB and Borzelleca JF. (1999): Safety evaluation of ferrous bisglycinate chelate. *Food Chem. Toxicol.*, 37, 723–731.

Jeppsen RB. (2001): Toxicology and safety of ferrous bisglycinate chelate and other iron amino acid chelates. *Arch. Latinoam. Nutr.*, 51, 26–34.

Jonker JW., Buitelaar M., Wagenaar E., Van Der Valk MA., Scheffer GL., Scheper RJ., Plosch T., Kuipers F., Elferink RP., Rosing H., Beijnen JH., Schinkel AH. (2002): The breast cancer resistance protein protects against a major chlorophyll-derived dietary phototoxin and protoporphyria. *Proc. Natl. Acad. Sci. U. S. A.* 99(24):15649-54.

Khan MM. (2001): Effect of Maternal anaemia on fetal parameters . *J Ayub Med Coll Abbottabad* Apr-Jun;13(2):38-41.

Klausen P., Niemann CU., Cowland JB., Krabbe K., Borregaard N. (2005): On mouse and man: neutrophil gelatinase associated lipocalin is not involved in apoptosis or acute response. *Eur. J. Haematol.* 75(4):332-40.

Knutson MD., Oukka M., Koss LM., Aydemir F., Wessling-Resnick M. (2005): Iron release from macrophages after erythrophagocytosis is up-regulated by ferroportin 1 overexpression and down-regulated by hepcidin. *Proc. Natl. Acad. Sci. U. S. A.* 102(5):1324-8.

- Knutson MD., Vafa MR., Haile DJ., Wessling-Resnick M. (2003):** Iron loading and erythrophagocytosis increase ferroportin 1 (FPN1) expression in 1774 macrophages. *Blood* 102(12):4191-7.
- Krishnaswamy K., and Madhavan Nair K (2001):** Importance of folate in human nutrition. *Br J Nutr.* May; 85 suppl 2: S115-S124.
- Layrisse M., García-Casal MN., Solano L., Barón MA., Arguello F., Llovera D., Ramírez J., Leets I & Tropper E. (2000):** Iron bioavailability in humans from breakfasts enriched with iron bis-glycine chelate, phytates and polyphenols. *J. Nutr.*, 130 (9), 2195–2199 & Erratum, 12, 3106.
- Lebrecht A., Aberlin F., Eberhard J (1995):** Anemia in puerperium; parenteral iron substitution renders erythropoietin therapy dispensable. *Geburtshilfe Frauenheilkunde* 55:167–170
- Lemire RJ. (1988):** Neural tube defects. *Journal of American Medical Association* 259, 558-562.
- Lesbordes-Brion JC., Viatte L., Bennoun M., Lou DQ., Ramey G., Houbron C., Hamard G., Kahn A., Vaulont S. (2006):** Targeted disruption of the hepcidin1 gene results in severe hemochromatosis. *Blood* 108(4):1402-5.
- Lim, I.E. Jin O., Bennett C., Morgan K., Wang F0, Trenor CC 3rd., Fleming MD., Andrews NC. (2005):** A mutation in Sec1511 causes anemia in hemoglobin deficit (hbd) mice. *Nat. Genet.* 37, 1270-1273
- Lin L., Goldberg YP., Ganz T (2005):** Competitive regulation of hepcidin mRNA by soluble and cell-associated hemojuvelin. *Blood* 106(8):2884-9.
- Lodish H., Baltimore D., Berk A., Zipursky SL., Matsudaira P & Darnell J (1995):** *Molecular Cell Biology*, 3rd Ed. New York: Scientific American Books, pp. 54, 966–967, 1128.

- Lotfi M., Mannar MG, Merx RJ and Heuvel PN. (1996):** Micronutrient fortification of foods. The micronutrient initiative International Agricultural center.
- Lozoff B., Jimenez E and Wolf AW. (1991):** Long term developmental outcome of infants with iron deficiency .New England J. Med.325(1): P. 95-687.
- Luke B., Timothy Johnson RB and Petrie RH. (1993):** Iron metabolism. In :Clinical Maternal fetal Nutrition. chapter 7,PI73-89.
- Macphail AP. (1998):** Iron: In Essentials of human nutrition, chapter 9. Edited by Jim MANN, P.137-48.
- MacPhail AP. (2001):** Iron deficiency and the developing world. Arch. Latinoam. Nutr., 51, 2–6.
- Makrides M., Crowther CA., Gibson RA., Gibson RS, Skeaff CM. (2003):** Efficacy and tolerability of low-dose iron supplements during pregnancy: a randomised controlled trial. Am J Clin Nutr 78:145–153.
- Marchetti M., Ashmead D., Tossani N., Marchetti S and Ashmead SD. (2000):** Comparison of the rates of vitamin degradation when mixed with metal sulphates or metal amino acid chelates. J. Food Composition Anal., 13, 845–884.
- Martindale V. (1992):** Vitamins. Folic acid. The extra-pharmacopoeia. 30ed. Edited by James E.F .Reynolds. The pharmaceutical press, London. Vol2 P1641-1649.
- McMullin MF., White R., Lappin T., Reeves J., MacKenzie G. (2003):** Haemoglobin during pregnancy: relationship to erythropoietin and haematinic status. Eur J Haematol 71:44–50
- Mena., NP Esparza AL., Núñez MT. (2006):** Regulation of transepithelial transport of iron by hepcidin. Biol. Res. 39(1):191-3.

- Michael B., Coyne DW., Fishbane S., Folkert V., Lynn R., Nissenson AR., et al. (2002):** Sodium ferric gluconate complex in hemodialysis patients: adverse reactions compared to placebo and iron dextran. *Kidney Int*; 61:1830-9.
- Miladi SS. (1996):** Micronutrients deficiencies in the Arab countries. Proceedings of the workshop on micronutrient deficiencies in the Arab Middle East, Amman, Jordan 27-29 June 1995. Edited by Musaiger AO. And Miladi, SS.1996. FAO, regional office Egypt.
- Milman N., Agger OA., Nielsen OJ. (1991):** Iron supplementation during pregnancy. Effect on iron status markers, serum erythropoietin and human placental lactogen. A placebo controlled study in 207 Danish women. *Dan Med Bull* 38:471–476.
- Milman N., Bergholt T., Eriksen L., Byg K-E., Graudal N., Pedersen P., Hertz J. (2005):** Iron prophylaxis during pregnancy—how much iron is needed? A randomised, controlled study of 20 to 80 mg ferrous iron daily to pregnant women. *Acta Obstet Gynecol Scand* 84:238–247.
- Milman N, Byg K-E, Graudal N., Agger AO. (2000):** Reference values for hemoglobin and erythrocyte indices during normal pregnancy in 206 women with and without iron supplementation. *Acta Obstet Gynecol Scand* 78:89–98.
- Milman N., Byg, K-E, Ovesen L. (2000):** Iron status in Danes updated 1994. II: Prevalence of iron deficiency and iron overload in 1,319 Danish women aged 40–70 years. Influence of blood donation, alcohol intake, and iron supplementation. *Ann Hematol* 79: 612–621.

- Milman N., Graudal N., Galløe A., Agger AO. (1996):** Serum ferritin and selective iron prophylaxis in pregnancy? *J Intern Med* 240:47–50.
- Milman N., Strandberg NS., Visfeldt J. (1983):** Serum ferritin in healthy Danes: relation to marrow haemosiderin iron stores. *Dan Med Bull* 30:115–120.
- Milman N. (1996):** Serum ferritin in Danes: studies of iron status from infancy to old age, during blood donation and pregnancy. *Int J Hematol* 63:103–135.
- Milman N. (2006):** Iron and pregnancy – a delicate balance. *Ann Hematol*; 85: 559-565.
- Mimura EC., Breganó JW., Dichi JB., Gregório EP, Dichi I. (2008):** Comparison of ferrous sulfate and ferrous glycinate chelate for the treatment of iron deficiency anemia in gastrectomized patients. *Nutrition.*;24(7-8):663-8.
- Ministry of Health and Population Egypt March., (2001):** Impact of Iron supplementation on Anemia Among pregnant women in Giza Governorate. A pilot study during the period of February to August 2000.
- Mohan LK., and Arlin MT. (1992):** Krause's foods .In *Nutrition and Diet therapy* . 8, WB Saunders Co; 557-68.
- MOHP (1999):** The National Program for Control of Micronutrient Deficiencies.
- Morgan GT and Drew HDK. (1920):** Researches on residual affinity and coordination. Part II. Acetylacetonates of Selenium and Tellurium. *J. Chem. Soc., Transactions.* 117:1456.

- Muckenthaler., M.U. Rodrigues P., Macedo MG., Minana B., Brennan K., Cardoso EM., Hentze MW., de Sousa M. (2004):** Molecular analysis of iron overload in beta2-microglobulin-deficient mice. *Blood Cells Mol. Dis.* 33(2):125-31.
- Murphy JF., Newcombe RG., O’Riordan J., Coles EC., Pearson JF. (1986):** Relation of haemoglobin levels in the first and second trimesters to outcome of pregnancy. *Lancet* 1:992–994.
- Nassar H., Mousa W., Kamel A and Miniawi A. (1992):** Assessment (the nutritional Status in Egypt on the 1970 and 1980. Cited in: Review of trends, policies and programmes Affecting Nutrition and Health in Egypt. 1970-1990. UN, ACC/SCN Country case study for the XV Congress of the international revision on nutrition science.
- Nemeth E., Preza GC., Jung CL., Kaplan J., Waring AJ., Ganz T. (2006):** The N-terminus of hepcidin is essential for its interaction with ferroportin: structure-function study. *Blood* 107(1):328-33.
- Nemeth, E. Tuttle MS., Powelson J., Vaughn MB., Donovan A., Ward DM., Ganz T., Kaplan J. (2004):** Hepcidin regulates cellular iron efflux by binding to ferroportin and inducing its internalization. *Science* 306(5704):2090-3.
- Nicolas, G. Bennoun M., Devaux I., Beaumont C., Grandchamp B., Kahn A, Vaulont S. (2001):** Lack of hepcidin gene expression and severe tissue iron overload in upstream stimulatory factor 2 (USF2) knockout mice. *Proc. Natl. Acad. Sci. U. S. A.* 98(15):8780-5.
- Nicolas., G. Bennoun M., Porteu A., Mativet S., Beaumont C., Grandchamp B., Siritto M., Sawadogo M., Kahn A., Vaulont S. (2002):** Severe iron deficiency anemia in transgenic mice

expressing liver hepcidin. Proc. Natl. Acad. Sci. U. S. A. 99(7):4596-601.

Nordic Council of Ministers (2004): Nordic nutrition recommendations 2004. Copenhagen

Nurdia DS., Sumarni S., Suyoko., Hakim M., and Winkvist A. (2001): Impact of intestinal helminth infection on anemia and iron status during pregnancy: a community based study in Indonesia. Southeast Asian J Trop Moo public Health, Mar; 32(1) : 14-22.

Nutrition Institute., Cairo / UNICEF (1995): Report on: National survey for assessment of vitamin A status in Egypt. 1995.

O'Brien KO., Zavaleta N., Caulfield LE., Yang D-X., Abrams SA. (1999): Influence of prenatal iron and zinc supplements on supplemental iron absorption, red blood cell iron incorporation, and iron status in pregnant Peruvian women. Am J Clin Nutr 69:509–515.

Ohgami., R.S. Campagna DR., Greer EL., Antiochos B., McDonald A., Chen J., Sharp JJ., Fujiwara Y., Barker JE., Fleming MD. (2005): Identification of a ferrireductase required for efficient transferrin-dependent iron uptake in erythroid cells. Nat. Genet. 37(11):1264-9.

Olivares M and Pizarro F. (2001): Bioavailability of iron bis-glycinate chelate in water. Arch. Latinoam. Nutr., 51, 22–25.

Olivares M., Pizarro F., Pineda O., Name JJ., Hertrampf E & Walter T (1997): Milk inhibits and ascorbic acid favors ferrous bis-glycine chelate bioavailability in humans. J. Nutr., 127, 1407–1411.

Olivares M., Pizarro F, Pineda O., Name JJ., Hertrampf E., Walter T. (1997): Milk inhibits and ascorbic acid favors ferrous bis-glycine chelate bioavailability in humans. J Nutr.; 127(7):1407-11.

- Oppenheimer SL. (2001):** Iron and its relation to immunity and infections disease J Nutr;31 (suppl): 616S-635S.
- Pak M, Lopez MA., Gabayan V., Ganz T., Rivera S. (2006):** Suppression of hepcidin during anemia requires erythropoietic activity. Blood 108(12):3730-5.
- Pappagallo S and Bull DL. (1996):** Operational problem in iron supplementation in pregnancy. WHO Bulletin O.M.S. vol 74. 25-33.
- Park CH., Valore EV., Waring AJ., Ganz T. (2001):** Hepcidin, a urinary antimicrobial peptide synthesized in the liver. J. Biol. Chem. 276(11):7806-10.
- Passmore R and East Wood MA et al. (1986):** Human nutrition and dietetics 8th ed. UK, Hongkong. Longman Group (FE) Ltd, : 115469.
- Peyssonnaud C., Zinkernagel AS., Datta V., Lauth X., Johnson RS., Nizet V. (2006):** TLR4-dependent hepcidin expression by myeloid cells in response to bacterial pathogens. Blood 107(9):3727-32.
- Pietrangolo A. (2002):** Physiology of iron transport and the hemochromatosis gene. Am J Physiol Gastrointest Liver Physiol 282:G403–G414
- Pineda O., Ashmead HD., Perez JM., Lemus CP. (1994):** Effectiveness of iron amino acid chelate on the treatment of iron deficiency anemia in adolescents. J Appl Nutr;46:2–13.
- Pippard MJ. (1996):** Oxford textbook of Medicine 3ed Edition Edited by D.J. Weatherall, Vol.3, section 22, Iron Metabolism and disorders P. 3410-3477.
- Pollitt E., Watkins WE., and Watkins WE., and Husaini MA (1997):** Three month. supplementation in Indonesian infants and toddlers; benefits memory function 8y later. Am J Clin Nutr; 66:1357-1363.

- Power R and Horgan K. (2000):** Biological chemistry and absorption of inorganic and organic trace metals. *Biotechnology in the Feed Industry*. p. 277-91.
- Puccio H., Simon D., Cossée M., Criqui-Filipe P., Tiziano F., Melki J., Hindelang C., Matyas R., Rustin P., Koenig M. (2001):** Mouse models for Friedreich ataxia exhibit cardiomyopathy, sensory nerve defect and Fe-S enzyme deficiency followed by intramitochondrial iron deposits. *Nat. Genet.* 27(2):181-6.
- Quigley JG., Yang Z., Worthington MT., Phillips JD., Sabo KM., Sabath DE, Berg CL., Sassa S., Wood BL., Abkowitz JL. (2004):** Identification of a human heme exporter that is essential for erythropoiesis. *Cell* 118(6):757-66.
- Ransom DG., Haffter P., Odenthal J., Brownlie A., Vogelsang E., Kelsh RN., Brand M., van Eeden FJ., Furutani-Seiki M., Granato M., Hammerschmidt M., Heisenberg CP., Jiang YJ., Kane DA., Mullins MC., Nüsslein-Volhard C. (1996):** Characterization of zebrafish mutants with defects in embryonic hematopoiesis. *Development* 123,311-319.
- Richardson DR. (2005):** 24p3 and its receptor: dawn of a new iron age? *Cell* 123, 1175-1177.
- Richardson., DR Ponka P., Vyoral D. (1996):** Distribution of iron in reticulocytes after inhibition of heme synthesis with succinylacetone: examination of the intermediates involved in iron metabolism. *Blood* 87(8):3477-88.
- Saddi R., Shapira G. (1970):** Iron requirements during growth. In: Hallberg L, Harwerth HG, Vanotti A (eds) *Iron deficiency*. Academic, London, pp 183–198

- Saha L., Pandhi P., Gopalan S., Malhotra S., Saha PK. (2007):** Comparison of Efficacy, Tolerability, and Cost of Iron Polymaltose Complex With Ferrous Sulphate in the Treatment of Iron Deficiency Anemia in Pregnant Women. *Med Gen Med.*; 9(1):1.
- Schneede J., Dagnelie PC., Van Staveren WA., Vollset SE., Refsdun H & Ueland PM. (1994):** Methylmalonic acid and homocystene in plasma as indicators of functional cobalamin deficiency in infants on macrobiotic diets. *Pediatric Research* 36, 194-201.
- Scholl TO and Hediger ML. (1994):** Anemia and iron deficiency anemia: compilation of data on pregnancy outcome. *Am J clin Nutr.*; 59(suppl):492 S-501 S.
- Scholl TO., Hediger ML., Fischer RL., Shearer JW. (1992):** Anemia vs iron deficiency: increased risk of preterm delivery in a prospective study. *Am J Clin Nutr.*; 55(5):985-8.
- Selhub J and Rosenberg IH. (1996):** Folic acid. In present knowledge in nutrition, PP. 206-219 [EE Ziegler and filer, editors]. Washington DC: ILSI press.
- Serdar MA. (2000):** Original papers. The role of Eythrocyte protoporphyirin in the diagnosis of iron deficiency anemia of children. *J. of Tropical pediatrics*, 46(6) 320-326.
- Sharma JB . (2003) :** Nutritional anemia during pregnancy in non-industrialised countries .In: Studd J ., editor . progress in Obstetrics and Gynaecology . New Delhi: Churchill Livingston , pp.103-122 .
- Shaw GC., Cope JJ., Li L., Corson K., Hersey C., Ackermann GE., Gwynn B., Lambert AJ., Wingert RA., Traver D., Trede NS., Barut BA., Zhou Y., Minet E., Donovan A., Brownlie A.,**

- Balzan R., Weiss MJ., Peters LL., Kaplan J., Zon LI., Paw BH. (2006):** Mitoferrin is essential for erythroid iron assimilation. *Nature* 440, 96-100
- Shayeghi., M. Latunde-Dada GO., Oakhill JS., Laftah AH., Takeuchi K., Halliday N., Khan Y., Warley A., McCann FE., Hider RC., Frazer DM., Anderson GJ., Vulpe CD., Simpson RJ., McKie AT. (2005):** Identification of an intestinal heme transporter. *Cell* 122(5):789-801.
- Sherif AA., Mortada MM., Abdel-Kader E., and Mahfauz AM. (1988):** Anemia among pregnant women attending MCH units in Alexandria An epidemiological approach. *Bull High Inst. Publ. Hlth.*18.663-76.
- Sifakis S., Angelakis E., Papadopoulou E., Stratoudakis G., Fragouli Y., Koumantakis E. (2005):** The efficacy and tolerability of iron protein succinylate in the treatment of iron-deficiency anemia in pregnancy. *Clin Exp Obstet Gynecol.*;32(2):117-22.
- Silverthorn DU. (1998):** *Human Physiology: An Integrated Approach.* New Jersey: Prentice Hall, Inc., pp. 226, 250.
- Skikne B., Baynes RD. (1994):** Iron absorption. In: Brock JH, Halliday JW, Pippard MJ, Powell LW (eds) *Iron metabolism in health and disease.* Saunders, London, pp 151–187
- Smith SR Ghosh MC., Ollivierre-Wilson H., Hang Tong W., Rouault TA. (2006):** Complete loss of iron regulatory proteins 1 and 2 prevents viability of murine zygotes beyond the blastocyst stage of embryonic development. *Blood Cells Mol. Dis.* 36(2):283-7.
- Steer P., Alam MA., Wadsworth J., Welch A. (1995):** Relation between maternal haemoglobin concentration and birth weight in different ethnic groups. *Br Med J* 310:489–491

- Stoltzfus RJ. (2001):** Defining Iron deficiency anemia In public Health Terms. The Am. Society for Nutr. Sciences, J of Nutr; 131: 565S-567S.
- Sugita K. (2001):** Pica: pathogenesis and therapeutic approach. Nihon rinsho, 59(3): 561-565.
- Summary of the International Conference on Nutrition ICN country (1993):** Papers, for selected countries in the Near East Region, FAO Regional' office for the Near East RNEA, Cairo, Egypt.
- Szarfarc SC., de Cassana LMN., Fujimori E., Guerra-Shinohara EM and de Oliveira IMV. (2001):** Relative effectiveness of iron bis-glycinate chelate (Ferrochel) and ferrous sulfate in the control of iron deficiency in pregnant women. Arch. Latinoam. Nutr., 51, 42–47.
- Tolentino K and Friedman JF. (2007):** An update on anemia in less developed countries. Am J Trop Med Hyg. 2007 Jul;77(1):44-51.
- Tolentino K., Friedman JF. (2007):** An update on anemia in less developed countries. Am J Trop Med Hyg.; 77(1):44-51.
- Tova Navarra., B.A." R.N. and Lipkowitz MA. (1997):** Encyclopedia of vitamins, Minerals and supplements, Iron. 105-108.
- Truksa J., Peng H., Lee P., Beutler E. (2006):** Bone morphogenetic proteins 2, 4, and 9 stimulate murine hepcidin 1 expression independently of Hfe, transferrin receptor 2 (Tfr2), and IL-6. Proc. Natl. Acad. Sci. U. S. A. 103(27):10289-93.
- Trygg K., Lund-Larsen K., Sandstad B., Hoffman HJ., Jacobsen G., Bakketeig LS. (1995):** Do pregnant smokers eat differently from pregnant non-smokers? Pediatr Perinat Epidemiol 9:307–319
- Udipi SA., Ghugre P and Antony U. (2000):** Nutrition in pregnancy and Lactation J Indian Med. Assoc Sep; 98(9): 548-57.

- Van den Broek NR., Letsky EA., White SA., Shenkin A. (1998):** Iron status in pregnant women: which measurements are valid? *Br J Haematol* 103:817–824
- Verga Falzacappa MV., Vujic Spasic M., Kessler R., Stolte J., Hentze MW., Muckenthaler MU. (2007):** STAT3 mediates hepatic hepcidin expression and its inflammatory stimulation. *Blood* 109(1):353-8.
- Verster A and Pols JC. (1995):** Anemia in the eastern mediterranean region., *Eastern Mediterranean Health J.* Vol. 1 ,No 1, P 63-79.
- Verster A. (1995):** Anemia in the Region a call for action. Guide lines for the control of iron deficiency in countries of the eastern Mediterranean middle east & north Africa. WHO, 996, P. 16-19
- Verster A. (1998):** Iron deficiency and anemia in the region, report of A goint WHO/UNICEF/MI/ILSI workshop Beirut, lebnan 13-16 Jun. 1998 Fortification of flour to control micronutrient deficiencies. WHO Regional Office Alexandria, Egypt 1999.
- Vitri FE (1996) :** iron supplementation for the control of iron deficiency in population at risk. *Nutr Rev* ; 55 ..195 – 209 .
- Vokurka M., Krijt J., Sulc K., Necas E. (2006):** Hepcidin mRNA levels in mouse liver respond to inhibition of erythropoiesis. HepcidinmRNAlevels inmouseliver respondto inhibition of erythropoiesis. *Physiol. Res.* 55(6):667-74.
- Wald NJ., Watt He., Low MR., Weir DG., Mcpartinj and scott JM. (1998):** Homocysteine and ischemic heart disease. *Archives of Internal Medicine* 158, 862-867.
- Wallace DF., Summerville L., Lusby PE., Subramaniam VN. (2005):** First phenotypic description of transferrin receptor 2 knockout mouse, and the role of hepcidin. *Gut* 54(7):980-6.

- Walter T., Arredondo S., Arevalo M and Stekel A. (1986):** Effect of iron therapy on phagocytosis and bactericidal activity in neutrophils of iron-deficient infants. *American Journal of Clinical Nutrition* 44, 877-882.
- Wang RH., Li C., Xu X., Zheng Y., Xiao C., Zerfas P., Cooperman S., Eckhaus M., Rouault T., Mishra L., Deng CX. (2005):** A role of SMAD4 in iron metabolism through the positive regulation of hepcidin expression. *Cell Metab.* 2(6):399-409.
- Ward PP., Mendoza-Meneses M., Cunningham GA., Conneely OM. (2003):** Iron status in mice carrying a targeted disruption of lactoferrin. *Mol. Cell. Biol.* 23(1):178-85.
- Wardlaw GM. (1994):** Nutrition, minerals and vitamins. In; *Contemporary Nutrition* 2nd ed. P247-292.
- Weiss G., Wachter H and Fuchs D. (1995):** Linkage of cell-mediated immunity to iron metabolism, *Immunity Today*; 16: 495- 500.
- White RA. Boydston LA., Brookshier TR., McNulty SG., Nsumu NN., Brewer BP., Blackmore K. (2005):** Iron metabolism mutant hbd mice have a deletion in Sec1511, which has homology to a yeast gene for vesicle docking. *Genomics* 86, 668-673.
- Whittaker P. (1991):** Iron and zinc interactions in humans. *Am. J. Clin Nutr.*; 68 (suppl) :442S-446S.
- WHO., (1992):** National strategies for overcoming micronutrient malnutrition. Document A 1992; 45/17.
- WHO., (1991):** Regional office of the Eastern Mediterranean. Iron Deficiency and behavioral pattern in children. Alexandria Egypt.
- WHO., Member states' " July (2001):** Prevalence of Anemia In countries of the WHO/Eastern Mediterranean region. Internet access, WHO web site.

- WHO., (2001):** Nutrition for Health and Development. A Global Agenda for malnutrition progress report.
- WHO., (2001):** Nutrition, Micronutrient Deficiencies, "Battling iron deficiency anaemia" Internet access, WHO web site.
- WHO/ UNICEFIMI. (1999):** Fortification of flour to control micronutrient deficiencies in countries of the Eastern Mediterranean, Middle East and North Africa. Report of A Joint WHOIUNICEF/MIILST workshop. BEIRUT, LEBNAN 13-16 June 1998. WHO Regional Office Alexandria Egypt.
- WHO/UNICEF Consultation (1995):** Guide lines for the control of iron deficiency . In countries of the Eastern Mediterranean Middle' East and North Africa. Teheran, Islamic Republic of IRAN. Edited by Anna Verster, 1996.
- Wilkins SJ., Frazer DM., Millard KN., McLaren GD., Anderson GJ. (2006):** Iron metabolism in the hemoglobine-deficient mouse: correlation of diferric transferrin with hepcidin expression. *Blood* 107(4):1659-64.
- Williams G. (2003):** Ferrous Glycinate (Processed With Citric Acid). Food and Agriculture Organization of the United Nations, 461-485.
- World Health Organization (1972):** Nutritional anaemias. Technical report series no. 503, pp 1–29
- World Health Organization (1992):** The prevalence of anemia in women : a tabulation of available information. 2nd ed. Geneva:
- Zhang AS., Sheftel AD., Ponka P. (2006):** The anemia of "haemoglobin-deficient" (hbd/hbd) mice is caused by a defect in transferrin cycling. *Exp. Hematol.* 34(5):593-8.
- Zhang Y., Lyver ER., Knight SA., Pain D., Lesuisse E., Dancis A. (2006):** Mrs3p, Mrs4p, and frataxin provide iron for Fe-S cluster

synthesis in mitochondria. 1. Biol. Chern. 281(32):22493-502.

Zimmerman R., Breymann C., Richter C., Huch R., Huch A. (1995):

rhEPO treatment of postpartum anemia. J Perinat Med 23:111–117.