

## منابع و مأخذ

- Lissner L ,Sohlström A ,Sundblom E ,Sjöberg A .Trends in overweight and obesity in Swedish schoolchildren :2005–1999has the epidemic reached a plateau ?*Obesity reviews*.553-9:(8)11;2010 .
- Flegal KM ,Carroll MD ,Ogden CL ,Curtin LR .Prevalence and trends in obesity among US adults1999- , .2008*Jama*.235-41:(3)303;2010 .
- Major G ,Chaput JP ,Ledoux M ,St-Pierre S ,Anderson G ,Zemel M ,et al .Recent developments in calcium-related obesity research .*Obesity reviews*.428-45:(5)9;2008 .
- Paddon-Jones D ,Westman E ,Mattes RD ,Wolfe RR ,Astrup A ,Westerterp-Plantenga M .Protein ,weight management ,and satiety .*The American journal of clinical nutrition*1558:(5)87;2008 .S61-S.
- García OP ,Long KZ ,Rosado JL .Impact of micronutrient deficiencies on obesity .*Nutrition reviews*. .559-72:(10)67;2009
- Astrup A ,Bügel S .Micronutrient deficiency in the aetiology of obesity .*International Journal of Obesity*. .947-8:(6)34;2010
- Tang W ,Zhan W ,Chen Q .Associations between different dietary vitamins and the risk of obesity in children and adolescents :a machine learning approach .*Frontiers in endocrinology*.12:816975;2022 .
- Heyn GS ,Corrêa LH ,Magalhães KG .The impact of adipose tissue–derived miRNAs in metabolic syndrome, obesity ,and cancer .*Frontiers in endocrinology*.11:563816;2020 .
- Amengual J ,Zhang N ,Kemerer M ,Maeda T ,Palczewski K ,Von Lintig J .STRA6 is critical for cellular vitamin A uptake and homeostasis .*Human molecular genetics*.5402-17:(20)23;2014 .
- Bermudez OI ,Tucker KL .Trends in dietary patterns of Latin American populations .*Cadernos de saude publica*:19;2003 .S87-S99.
- Wei X ,Peng R ,Cao J ,Kang Y ,Qu P ,Liu Y ,et al .Serum vitamin A status is associated with obesity and the metabolic syndrome among school-age children in Chongqing ,China .*Asia Pacific Journal of Clinical Nutrition*.563-70:(3)25;2016 .
- Bento C ,de Matos AC ,Cordeiro A ,Ramalho A .Serum concentration of vitamin A and its relationship with body adiposity ,oxidative stress ,and cardiovascular risk in women with recommended dietary intake of vitamin A .*Nutrición hospitalaria :Organo oficial de la Sociedad española de nutrición parenteral y enteral*.1135-42:(6)37;2020 .
- Botella-Carretero JI ,Balsa JA ,Vázquez C ,Peromingo R ,Díaz-Enriquez M ,Escobar-Morreale HF .Retinol and  $\alpha$ -tocopherol in morbid obesity and nonalcoholic fatty liver disease .*Obesity surgery*.20:69-76;2010 .
- da Silva LdSV ,da Veiga GV ,Ramalho RA .Association of serum concentrations of retinol and carotenoids with overweight in children and adolescents .*Nutrition*.392-7:(5)23;2007 .
- Holick MF .Vitamin D status :measurement ,interpretation ,and clinical application .*Annals of epidemiology*. .73-8:(2)19;2009
- Aarts E ,van Groningen L ,Horst R ,Telting D ,van Sorge A ,Janssen I ,et al .Vitamin D absorption :consequences of gastric bypass surgery .*European journal of endocrinology*.827-32:(5)164;2011 .
- Li Y ,Wang C ,Zhu K ,Feng R ,Sun C .Effects of multivitamin and mineral supplementation on adiposity ,energy expenditure and lipid profiles in obese Chinese women .*International Journal of Obesity*. .1070-7:(6)34;2010
- Müller MJ ,Wang Z ,Heymsfield SB ,Schautz B ,Bosy-Westphal A .Advances in the understanding of specific metabolic rates of major organs and tissues in humans .*Current Opinion in Clinical Nutrition & Metabolic Care*.501-8:(5)16;2013 .
- Zampino M ,Semba RD ,Adelnia F ,Spencer RG ,Fishbein KW ,Schrack JA ,et al .Greater skeletal muscle oxidative capacity is associated with higher resting metabolic rate :Results from the baltimore longitudinal study of aging .*The Journals of Gerontology :Series A*.2262-8:(12)75;2020 .
- Lonsdale D ,Marrs C .Thiamine deficiency disease ,dysautonomia ,and high calorie malnutrition :Academic Press.2017 ;
- Zhan L ,Wang W ,Zhang Y ,Song E ,Fan Y ,Wei B .Hypoxia-inducible factor1-alpha :A promising therapeutic target in endometriosis .*Biochimie*.123:130-7;2016 .
- Deng W ,Feng X ,Li X ,Wang D ,Sun L .Hypoxia-inducible factor 1 in autoimmune diseases .*Cellular immunology*.303:7-15;2016 .
- Raymond JL ,Morrow K .Krause and Mahan’s Food and the Nutrition Care Process16 ,e ,E-Book :Elsevier

- Health Sciences.2022 ;
- Ross AC ,Caballero B ,Cousins RJ ,Tucker KL .Modern nutrition in health and disease :Jones & Bartlett Learning.2020 ;
- Whitney EN ,Rolfes SR ,Crowe T ,Walsh A .Understanding nutrition :Cengage AU.2019 ;
- Horta BL ,Rollins N ,Dias MS ,Garcez V ,Pérez-Escamilla R .Systematic review and meta-analysis of breast-feeding and later overweight or obesity expands on previous study for World Health Organization .Acta Paediatrica.34-41:(1)112;2023 .
- Landrier J-F ,Marcotorchino J ,Tourniaire F .Lipophilic micronutrients and adipose tissue biology .Nutrients. .1622-49:(11)4;2012
- Thomas-Valdés S ,Tostes MdGV ,Anuniação PC ,da Silva BP ,Sant'Ana HMP .Association between vitamin deficiency and metabolic disorders related to obesity .Critical Reviews in Food Science and Nutrition. .3332-43:(15)57;2017
- Lin H ,Bermudez OI ,Tucker KL .Dietary patterns of Hispanic elders are associated with acculturation and obesity .The Journal of nutrition.3651-7:(11)133;2003 .
- Vioque J ,Weinbrenner T ,Asensio L ,Castelló A ,Young IS ,Fletcher A .Plasma concentrations of carotenoids and vitamin C are better correlated with dietary intake in normal weight than overweight and obese elderly subjects .British journal of nutrition.977-86:(5)97;2007 .
- Wallström P ,Wirfält E ,Lahmann PH ,Gullberg B ,Janzon L ,Berglund G .Serum concentrations of  $\beta$ -carotene and  $\alpha$ -tocopherol are associated with diet ,smoking ,and general and central adiposity .The American journal of clinical nutrition.777-85:(4)73;2001 .
- Switzer BR ,Atwood JR ,Stark AH ,Hatch JW ,Travis R ,Ullrich F ,et al .Plasma carotenoid and vitamins A and E concentrations in older African American women after wheat bran supplementation :effects of age ,body mass and smoking history .Journal of the American College of Nutrition.217-26:(3)24;2005 .
- Gunanti IR ,Marks GC ,Al-Mamun A ,Long KZ .Low serum concentrations of carotenoids and vitamin E are associated with high adiposity in Mexican-American children .The Journal of nutrition489-:(4)144;2014 .95
- Jeyakumar SM ,Sheril A ,Vajreswari A .Chronic vitamin A-enriched diet feeding induces body weight gain and adiposity in lean and glucose-intolerant obese rats of WNIN/GR-Ob strain .Experimental Physiology. .1352-61:(11)100;2015
- Jeyakumar SM ,Vajreswari A .Vitamin A as a key regulator of obesity & its associated disorders :Evidences from an obese rat model .The Indian journal of medical research.275:(3)141;2015 .
- Berry DC ,Noy N .All-trans-retinoic acid represses obesity and insulin resistance by activating both peroxisome proliferation-activated receptor  $\beta/\delta$  and retinoic acid receptor .Molecular and cellular biology. .3286-96:(12)29;2009
- Mercader J ,Ribot J ,Murano I ,Felipe F ,Cinti S ,Bonet ML ,et al .Remodeling of white adipose tissue after retinoic acid administration in mice .Endocrinology.5325-32:(11)147;2006 .
- Amengual J ,Ribot J ,Bonet ML ,Palou A .Retinoic acid treatment increases lipid oxidation capacity in skeletal muscle of mice .Obesity.585-91:(3)16;2008 .
- Lobo V ,Patil A ,Phatak A ,Chandra N .Free radicals ,antioxidants and functional foods :Impact on human health .Pharmacognosy reviews.118:(8)4;2010 .
- Khokhar A ,Castells S ,Perez-Colon S .Genetic disorders of vitamin D metabolism :case series and literature review .Clinical Pediatrics.404-14:(5)55;2016 .
- Peng J-B ,Suzuki Y ,Gyimesi G ,Hediger MA .TRPV5 and TRPV6 calcium-selective channels .Calcium entry channels in non-excitabile cells.2017:241-74 .
- Vranić L ,Mikolašević I ,Milić S .Vitamin D deficiency :consequence or cause of obesity ?Medicina. .541:(9)55;2019
- Jovanova O ,Aarts N ,Noordam R ,Carola-Zillikens M ,Hofman A ,Tiemeier H .Vitamin D serum levels are cross-sectionally but not prospectively associated with late-life depression .Acta Psychiatrica Scandinavica. .185-94:(3)135;2017
- Brock K ,Huang W-Y ,Fraser D ,Ke L ,Tseng M ,Stolzenberg-Solomon R ,et al .Low vitamin D status is associated with physical inactivity ,obesity and low vitamin D intake in a large US sample of healthy middle-aged men and women .The Journal of steroid biochemistry and molecular biology462-:(1-2)121;2010 .

- Macdonald HM ,Mavroeidi A ,Barr RJ ,Black AJ ,Fraser WD ,Reid DM .Vitamin D status in postmenopausal women living at higher latitudes in the UK in relation to bone health ,overweight ,sunlight exposure and dietary vitamin D .*Bone*.996-1003:(5)42;2008 .
- Moan J ,Lagunova Z ,Lindberg FA ,Porojnicu AC .Seasonal variation of-25 ,1 dihydroxyvitamin D and its association with body mass index and age .*The Journal of steroid biochemistry and molecular biology* .217-21:(3-5)113;2009
- Lapik IA ,Galchenko AV ,Gapparova KM .Micronutrient status in obese patients :A narrative review .*Obesity Medicine*.18:100224;2020 .
- Al-Suhaimi EA ,Al-Jafary MA .Endocrine roles of vitamin K-dependent-osteocalcin in the relation between bone metabolism and metabolic disorders .*Reviews in Endocrine and Metabolic Disorders*21:117-;2020 .25
- Gemmel K ,Santry HP ,Prachand VN ,Alverdy JC .Vitamin D deficiency in preoperative bariatric surgery patients .*Surgery for Obesity and Related Diseases*.54-9:(1)5;2009 .
- González L ,Ramos-Trautmann G ,Díaz-Luquis GM ,Pérez CM ,Palacios C .Vitamin D status is inversely associated with obesity in a clinic-based sample in Puerto Rico .*Nutrition research*.287-93:(4)35;2015 .
- Salehpour A ,Hosseinpanah F ,Shidfar F ,Vafa M ,Razaghi M ,Dehghani S ,et al .A-12 week double-blind randomized clinical trial of vitamin D3supplementation on body fat mass in healthy overweight and obese women .*Nutrition journal*.1-8:(1)11;2012 .
- Jorde R ,Sneve M ,Figenschau Y ,Svartberg J ,Waterloo K .Effects of vitamin D supplementation on symptoms of depression in overweight and obese subjects :randomized double blind trial .*Journal of internal medicine*.599-609:(6)264;2008 .
- Gallagher JC ,Yalamanchili V ,Smith LM .The effect of vitamin D supplementation on serum25 OHD in thin and obese women .*The Journal of steroid biochemistry and molecular biology*.136:195-200;2013 .
- Saliba W ,Barnett-Griness O ,Rennert G .The relationship between obesity and the increase in serum25 )OH (D levels in response to vitamin D supplementation .*Osteoporosis international*.24:1447-54;2013 .
- Dong Y ,Pollock N ,Stallmann-Jorgensen IS ,Gutin B ,Lan L ,Chen TC ,et al .Low-25 hydroxyvitamin D levels in adolescents :race ,season ,adiposity ,physical activity ,and fitness .*Pediatrics*.1104-11:(6)125;2010 .
- Vimaleswaran KS ,Berry DJ ,Lu C ,Tikkanen E ,Pilz S ,Hiraki LT ,et al .Causal relationship between obesity and vitamin D status :bi-directional Mendelian randomization analysis of multiple cohorts .*PLoS medicine*:(2)10;2013 .e1001383.
- Walsh JS ,Bowles S ,Evans AL .Vitamin D in obesity .*Current Opinion in Endocrinology ,Diabetes and Obesity*.389-94:(6)24;2017 .
- Mason C ,Xiao L ,Imayama I ,Duggan CR ,Bain C ,Foster-Schubert KE ,et al .Effects of weight loss on serum vitamin D in postmenopausal women .*The American journal of clinical nutrition*.95-103:(1)94;2011 .
- Wortsman J ,Matsuoka LY ,Chen TC ,Lu Z ,Holick MF .Decreased bioavailability of vitamin D in obesity .*The American journal of clinical nutrition*.690-3:(3)72;2000 .
- Targher G ,Bertolini L ,Scala L ,Cigolini M ,Zenari L ,Falezza G ,et al .Associations between serum-25 hydroxyvitamin D3 concentrations and liver histology in patients with non-alcoholic fatty liver disease .*Nutrition ,Metabolism and Cardiovascular Diseases*.517-24:(7)17;2007 .
- Pereira-Santos M ,Costa PdF ,Assis Ad ,Santos CdS ,Santos Dd .Obesity and vitamin D deficiency :a systematic review and meta-analysis .*Obesity reviews*.341-9:(4)16;2015 .
- Wood RJ .Vitamin D and adipogenesis :new molecular insights .*Nutrition reviews*.40-6:(1)6;2008 .
- Martini LA ,Wood RJ .Vitamin D status and the metabolic syndrome .*Nutrition reviews*.479-86:(11)64;2006 .
- Drincic AT ,Armas LA ,Van Diest EE ,Heaney RP .Volumetric dilution ,rather than sequestration best explains the low vitamin D status of obesity .*Obesity*.1444-8:(7)20;2012 .
- Gangloff A ,Bergeron J ,Lemieux I ,Després J-P .Changes in circulating vitamin D levels with loss of adipose tissue .*Current Opinion in Clinical Nutrition & Metabolic Care*.464-70:(6)19;2016 .
- Neuhouser ML ,Rock CL ,Eldridge AL ,Kristal AR ,Patterson RE ,Cooper DA ,et al .Serum concentrations of retinol , $\alpha$ -tocopherol and the carotenoids are influenced by diet ,race and obesity in a sample of healthy adolescents .*The Journal of nutrition*.2184-91:(8)131;2001 .
- Molnár D ,Decsi T ,Koletzko B .Reduced antioxidant status in obese children with multimetabolic syndrome .*International Journal of Obesity*.1197-202:(10)28;2004 .
- Thane CW ,Wang LY ,Coward WA .Plasma phyloquinone) vitamin K1 (concentration and its relationship to

- intake in British adults aged 64–19 years .British journal of nutrition.1116-24:(6)96;2006 .
- Shea MK ,Booth SL ,Gundberg CM ,Peterson JW ,Waddell C ,Dawson-Hughes B ,et al .Adulthood obesity is positively associated with adipose tissue concentrations of vitamin K and inversely associated with circulating indicators of vitamin K status in men and women .The Journal of nutrition.1029-34:(5)140;2010 .
- Levin SM ,Ferdowsian HR ,Hoover VJ ,Green AA ,Barnard ND .A worksite programme significantly alters nutrient intakes .Public health nutrition.1629-35:(10)13;2010 .
- Carrodeguas L ,Kaidar-Person O ,Szomstein S ,Antozzi P ,Rosenthal R .Preoperative thiamine deficiency in obese population undergoing laparoscopic bariatric surgery .Surgery for Obesity and Related Diseases. .517-22:(6)1;2005
- Lira FS ,Rosa JC ,Cunha CA ,Ribeiro EB ,Oller do Nascimento C ,Oyama LM ,et al .Supplementing alpha-tocopherol vitamin E (and vitamin D3 in high fat diet decrease IL 6-production in murine epididymal adipose tissue and T3-L1 adipocytes following LPS stimulation .Lipids in health and disease.10:1-5;2011 .
- Flancbaum L ,Belsley S ,Drake V ,Colarusso T ,Tayler E .Preoperative nutritional status of patients undergoing Roux-en-Y gastric bypass for morbid obesity .Journal of gastrointestinal surgery.1033-7:(7)10;2006 .
- Adeva-Andany M ,López-Ojén M ,Funcasta-Calderón R ,Ameneiros-Rodríguez E ,Donapetry-García C ,Vila-Altesor M ,et al .Comprehensive review on lactate metabolism in human health .Mitochondrion. .17:76-100;2014
- Nachtigal M ,Patterson RE ,Stratton KL ,Adams LA ,Shattuck AL ,White E .Dietary supplements and weight control in a middle-age population .Journal of Alternative & Complementary Medicine909-:(5)11;2005 . .15
- Sakakeeny L ,Roubenoff R ,Obin M ,Fontes JD ,Benjamin EJ ,Bujanover Y ,et al .Plasma pyridoxal-5-phosphate is inversely associated with systemic markers of inflammation in a population of US adults .The Journal of nutrition.1280-5:(7)142;2012 .
- Aasheim ET ,Hofsø D ,Hjeltnes J ,Birkeland KI ,Bøhmer T .Vitamin status in morbidly obese patients :a cross-sectional study .The American journal of clinical nutrition.362-9:(2)87;2008 .
- Tungtrongchitr R ,Changbumrung S ,Tungtrongchitr A ,Schelp FP .The relationships between anthropometric measurements ,serum vitamin A and E concentrations and lipid profiles in overweight and obese subjects .Asia Pacific J Clin Nutr.73-9:(1)12;2003 .
- Martín Giménez VM ,de Las Heras N ,Ferder L ,Lahera V ,Reiter RJ ,Manucha W .Potential effects of melatonin and micronutrients on mitochondrial dysfunction during a cytokine storm typical of oxidative/ inflammatory diseases .Diseases.30:(2)9;2021 .
- Moat SJ ,Lang D ,McDowell IF ,Clarke ZL ,Madhavan AK ,Lewis MJ ,et al .Folate ,homocysteine ,endothelial function and cardiovascular disease .The Journal of nutritional biochemistry.64-79:(2)15;2004 .
- Mahabir S ,Ettinger S ,Johnson L ,Baer DJ ,Clevidence BA ,Hartman TJ ,et al .Measures of adiposity and body fat distribution in relation to serum folate levels in postmenopausal women in a feeding study .European journal of clinical nutrition.644-50:(5)62;2008 .
- Ortega RM ,Lopez-Sobaler AM ,Andres P ,Rodríguez-Rodríguez E ,Aparicio A ,Perea JM .Folate status in young overweight and obese women :changes associated with weight reduction and increased folate intake .Journal of nutritional science and vitaminology.149-55:(2)55;2009 .
- Schweiger C ,Weiss R ,Berry E ,Keidar A .Nutritional deficiencies in bariatric surgery candidates .Obesity surgery.20:193-7;2010 .
- Bird JK ,Ronnenberg AG ,Choi S-W ,Du F ,Mason JB ,Liu Z .Obesity is associated with increased red blood cell folate despite lower dietary intakes and serum concentrations .The Journal of nutrition. .79-86:(1)145;2015
- Pravenec M ,Kožich V ,Krijt J ,Sokolová J ,Zídek V ,Landa V ,et al .Folate deficiency is associated with oxidative stress ,increased blood pressure ,and insulin resistance in spontaneously hypertensive rats .American journal of hypertension.135-40:(1)26;2013 .
- Gao L ,Siu KL ,Chalupsky K ,Nguyen A ,Chen P ,Weintraub NL ,et al .Role of uncoupled endothelial nitric oxide synthase in abdominal aortic aneurysm formation :treatment with folic acid .Hypertension. .158-66:(1)59;2012
- Pinhas-Hamiel O ,Doron-Panush N ,Reichman B ,Nitzan-Kaluski D ,Shalitin S ,Geva-Lerner L .Obese children and adolescents :a risk group for low vitamin B12 concentration .Archives of pediatrics & adolescent medicine.933-6:(9)160;2006 .

- Madan AK ,Orth WS ,Tichansky DS ,Ternovits CA .Vitamin and trace mineral levels after laparoscopic gastric bypass .Obesity surgery.603-6:(5)16;2006 .
- Gunanti IR ,Marks GC ,Al-Mamun A ,Long KZ .Low serum vitamin B 12-and folate concentrations and low thiamin and riboflavin intakes are inversely associated with greater adiposity in Mexican American children .The Journal of nutrition.2027-33:(12)144;2014 .
- Kypreos KE ,Birk D ,Trinkaus-Randall V ,Hartmann DJ ,Sonenshein GE .Type V collagen regulates the assembly of collagen fibrils in cultures of bovine vascular smooth muscle cells .Journal of cellular biochemistry.146-55:(1)80;2001 .
- Reda E ,D'iddio S ,Nicolai R ,Benatti P ,Calvani M .The carnitine system and body composition .Acta diabetologica:40;2003 .s106-s13.
- Johnston CS .Strategies for healthy weight loss :from vitamin C to the glycemic response .Journal of the American College of Nutrition.158-65:(3)24;2005 .
- Riess KP ,Farnen JP ,Lambert PJ ,Mathiason MA ,Kothari SN .Ascorbic acid deficiency in bariatric surgical population .Surgery for Obesity and Related Diseases.81-6:(1)5;2009 .
- Azadbakht L ,Esmailzadeh A .Dietary and non-dietary determinants of central adiposity among Tehrani women .Public health nutrition.528-34:(5)11;2008 .
- Apelt N ,da Silva AP ,Ferreira J ,Alho I ,Monteiro C ,Marinho C ,et al .ACP1 genotype ,glutathione reductase activity ,and riboflavin uptake affect cardiovascular risk in the obese .Metabolism.1415-23:(10)58;2009 .
- Langin D .Adipose tissue lipolysis as a metabolic pathway to define pharmacological strategies against obesity and the metabolic syndrome .Pharmacological Research.482-91:(6)53;2006 .
- Westphal S ,Borucki K ,Taneva E ,Makarova R ,Luley C .Adipokines and treatment with niacin .Metabolism.1283-5:(10)55;2006 .
- Wang-Fisher Y ,Han J ,Guo W .Acipimox stimulates leptin production from isolated rat adipocytes .Journal of endocrinology.267-72:(2)174;2002 .
- Li D ,Sun W-P ,Zhou Y-M ,Liu Q-G ,Zhou S-S ,Luo N ,et al .Chronic niacin overload may be involved in the increased prevalence of obesity in US children .World Journal of Gastroenterology :WJG.2378:(19)16;2010 .
- Naruta E ,Egorov A ,Omel'ianchik C ,Buko V .The influence of panthotenic acid mitochondrial oxidation and oxidative phosphorylation in liver of rats with alimentary obesity .Voprosy pitaniia.3-7:(4)73;2004 .
- Lu L ,Yu Z ,Pan A ,Hu FB ,Franco OH ,Li H ,et al .Plasma-25 hydroxyvitamin D concentration and metabolic syndrome among middle-aged and elderly Chinese individuals .Diabetes care.1278-83:(7)32;2009 .
- Larrieta E ,Velasco F ,Vital P ,López-Aceves T ,Lazo-de-la-Vega ML ,Rojas A ,et al .Pharmacological concentrations of biotin reduce serum triglycerides and the expression of lipogenic genes .European journal of pharmacology.263-8:(1-3)644;2010 .
- Zemel MB .Regulation of adiposity and obesity risk by dietary calcium :mechanisms and implications .Journal of the American College of Nutrition146:(2)21;2002 .S51-S.
- Getchell WS ,Svetkey LP ,Appel LJ ,Moore TJ ,Bray GA ,Obarzanek E .Summary of the Dietary Approaches to Stop Hypertension) DASH (randomized clinical trial .Current treatment options in cardiovascular medicine.1:295-8;1999 .
- McCarron DA ,Morris CD ,Henry HJ ,Stanton JL .Blood pressure and nutrient intake in the United States. Science.1392-8:(4656)224;1984 .
- Fleming KH ,Heimbach JT .Consumption of calcium in the US :food sources and intake levels .The Journal of nutrition:124;1994 .S1426-S30.
- Ye W-Z ,Reis AF ,Dubois-Laforgue D ,Bellanne-Chantelot C ,Timsit J ,Velho G .Vitamin D receptor gene polymorphisms are associated with obesity in type 2 diabetic subjects with early age of onset .European Journal of Endocrinology.181-6:(2)145;2001 .
- Zemel MB ,Shi H ,Greer B ,Dirienzo D ,Zemel PC .Regulation of adiposity by dietary calcium .The FASEB Journal.1132-8:(9)14;2000 .
- Shi H ,DiRienzo D ,Zemel MB .Effects of dietary calcium on adipocyte lipid metabolism and body weight regulation in energy-restricted aP2-agouti transgenic mice .The FASEB journal.291-3:(2)15;2001 .
- Zemel M ,Sun X ,Geng X ,editors .Effects of calcium-fortified breakfast cereal on adiposity in a transgenic mouse model of obesity .Faseb Journal :2001 ;FEDERATION AMER SOC EXP BIOL 9650 ROCKVILLE PIKE ,BETHESDA ,MD 20814-3998 USA.

Zemel M ,Geng X ,editors .Dietary calcium and yogurt accelerate body fat loss secondary to caloric restriction in aP2-Agouti transgenic mice .Obesity Research :2001 ;NORTH AMER ASSOC STUDY OBESITY C/O DR MICHAEL JENSEN ,MAYO MEDICAL CENTER....

Shah NP .Effects of milk-derived bioactives :an overview .British Journal of Nutrition)84;2000 .S1.3-10:(Morris K ,Wang Y ,Kim S ,Moustaid-Moussa N .Dietary and hormonal regulation of the mammalian fatty acid synthase gene .Nutrient-gene interactions in health and disease :CRC Press .2001 ;p.1-23 .

Shahkhalili Y ,Murset C ,Meirim I ,Duruz E ,Guinchard S ,Cavadini C ,et al .Calcium supplementation of chocolate :effect on cocoa butter digestibility and blood lipids in humans .The American journal of clinical nutrition.246-52:(2)73;2001 .

Lin Y-C ,Lyle RM ,McCabe LD ,McCabe GP ,Weaver CM ,Teegarden D .Dairy calcium is related to changes in body composition during a two-year exercise intervention in young women .Journal of the American College of Nutrition.754-60:(6)19;2000 .

Carruth B ,Skinner J .The role of dietary calcium and other nutrients in moderating body fat in preschool children .International journal of obesity.559-66:(4)25;2001 .

Davies KM ,Heaney RP ,Recker RR ,Lappe JM ,Barger-Lux MJ ,Rafferty K ,et al .Calcium intake and body weight .The Journal of Clinical Endocrinology & Metabolism.4635-8:(12)85;2000 .

Zemel MB .Role of calcium and dairy products in energy partitioning and weight management .The American journal of clinical nutrition907:(5)79;2004 .S12-S.

Bursey R ,Sharkey T ,Miller G .High calcium intake lowers weight in lean and fatty Zucker rats .FASEB J. :3137;1989A265.

Shi H ,Norman AW ,Okamura WH ,Sen A ,Zemel MB1 . $\alpha$ -25 ,Dihydroxyvitamin D3 modulates human adipocyte metabolism via nongenomic action .The FASEB journal.1-15:(14)15;2001 .

Shi H ,Norman AW ,Okamura WH ,Sen A ,Zemel MB1 . $\alpha$ -25 ,dihydroxyvitamin D3 inhibits uncoupling protein 2 expression in human adipocytes .The FASEB Journal.1-20:(13)16;2002 .

Sun X ,Zemel MB .Role of uncoupling protein) 2 UCP2 (expression and1  $\alpha$ -25 ,dihydroxyvitamin D3 in modulating adipocyte apoptosis .The FASEB journal.1430-2:(12)18;2004 .

Causey K ,Zemel M ,editors .Dairy augmentation of the anti-obesity effect of Ca in aP2-agouti transgenic mice .Faseb Journal :2003 ;FEDERATION AMER SOC EXP BIOL 9650 ROCKVILLE PIKE ,BETHESDA, MD 20814-3998 USA.

Sun X ,Zemel M ,editors .Calcium and dairy inhibition of weight and fat regain during ad libitum feeding following energy restriction in aP2-agouti transgenic mice .FASEB JOURNAL :2003 ;FEDERATION AMER SOC EXP BIOL 9650 ROCKVILLE PIKE ,BETHESDA ,MD 20814-3998 USA.

Buchowski MS ,Semenya J ,Johnson AO .Dietary calcium intake in lactose maldigesting intolerant and tolerant African-American women .Journal of the American College of Nutrition.47-54:(1)21;2002 .

Melanson E ,Sharp T ,Schneider J ,Donahoo W ,Grunwald G ,Hill J .Relation between calcium intake and fat oxidation in adult humans .International Journal of Obesity.196-203:(2)27;2003 .

Tanasescu M ,Ferris AM ,Himmelgreen DA ,Rodriguez N ,Perez-Escamilla R .Biobehavioral factors are associated with obesity in Puerto Rican children .The Journal of nutrition.1734-42:(7)130;2000 .

Skinner JD ,Bounds W ,Carruth BR ,Ziegler P .Longitudinal calcium intake is negatively related to children's body fat indexes .Journal of the American Dietetic Association.1626-31:(12)103;2003 .

Phillips S ,Bandini L ,Cyr H ,Colclough-Douglas S ,Naumova E ,Must A .Dairy food consumption and body weight and fatness studied longitudinally over the adolescent period .International journal of obesity. .1106-13:(9)27;2003

Pereira MA ,Jacobs Jr DR ,Van Horn L ,Slattery ML ,Kartashov AI ,Ludwig DS .Dairy consumption ,obesity, and the insulin resistance syndrome in young adults :the CARDIA Study .Jama.2081-9:(16)287;2002 .

Heaney RP ,Davies KM ,Barger-Lux MJ .Calcium and weight :clinical studies .Journal of the American College of Nutrition152:(2)21;2002 .S5-S.

Heaney RP .Normalizing calcium intake :projected population effects for body weight .The Journal of nutrition268:(1)133;2003 .S70-S.

Zemel MB ,Thompson W ,Zemel P ,Nocton A ,Milstead A ,Morris K ,et al ,.editors .Dietary calcium and dairy products accelerate weight and fat loss during energy restriction in obese adults .American Journal of Clinical Nutrition :2002 ;AMER SOC CLINICAL NUTRITION 9650 ROCKVILLE PIKE ,SUBSCRIPTIONS ,RM L.3300-

- Zemel M ,Nocton A ,Richards J ,Russell S ,Milstead A ,Gebhardt L ,editors .Dairy) yogurt (augments fat loss and reduces central adiposity during energy restriction in obese subjects .FASEB JOURNAL :2003 ;FEDERATION AMER SOC EXP BIOL 9650 ROCKVILLE PIKE ,BETHESDA ,MD 20814-3998 USA.
- Zemel M ,Nocton A ,Richards J ,Milstead A ,Gebhardt L ,Campbell P ,editors .Increasing dairy calcium intake reduces adiposity in obese African American adults .Circulation :2002 ;LIPPINCOTT WILLIAMS& WILKINS 530 WALNUT ST ,PHILADELPHIA ,PA 19106-3621 USA.
- Layman DK .The role of leucine in weight loss diets and glucose homeostasis .The Journal of nutrition. 261:(1)133;2003S7-S.
- Anthony JC ,Anthony TG ,Kimball SR ,Jefferson LS .Signaling pathways involved in translational control of protein synthesis in skeletal muscle by leucine .The Journal of nutrition856:(3)131;2001 .S60-S.
- Ha E ,Zemel MB .Functional properties of whey ,whey components ,and essential amino acids :mechanisms underlying health benefits for active people .The Journal of nutritional biochemistry.251-8:(5)14;2003 .
- Fouillet H ,Mariotti F ,Gaudichon C ,Bos C ,Tome D .Peripheral and splanchnic metabolism of dietary nitrogen are differently affected by the protein source in humans as assessed by compartmental modeling .The Journal of nutrition.125-33:(1)132;2002 .
- Shamnani G ,Rukadikar CA ,Gupta V ,Singh S ,Tiwari S ,Bhartiy SS ,et al .Serum magnesium in relation with obesity .National Journal of Physiology ,Pharmacy and Pharmacology.1074-7:(7)8;2018 .
- Lau DC ,Dhillon B ,Yan H ,Szmitko PE ,Verma S .Adipokines :molecular links between obesity and atherosclerosis .American Journal of Physiology-Heart and Circulatory Physiology:(5)288;2005 .H2031-H41.
- Blumenthal R ,Foody J ,Wong ND .Preventive Cardiology :A Companion to Braunwald's Heart Disease E-Book :Expert Consult–Online and Print :Elsevier Health Sciences.2011 ;
- Razeena K ,Maliakkal J ,Nair G .Serum magnesium levels in Type 2 diabetes with metabolic syndrome .National Journal of Physiology ,Pharmacy and Pharmacology.520:(6)6;2016.
- Shamnani G ,Gupta V ,Singh S ,Tiwari S ,Bhartiy S ,Singh K .Co-relation of circulating magnesium with atherogenic dyslipidemia in North Indian adult population .Int J Biomed Res.7:4-6;2016 .
- Rosanoff A ,Weaver CM ,Rude RK .Suboptimal magnesium status in the United States :are the health consequences underestimated ?Nutrition reviews.153-64:(3)70;2012 .
- Guerrero-Romero F ,Rodriguez-Moran M .Serum magnesium in the metabolically-obese normal-weight and healthy-obese subjects .European journal of internal medicine.639-43:(7)24;2013 .
- Jose B ,Jain V ,Vikram NK ,Agarwala A ,Saini S .Serum magnesium in overweight children .Indian pediatrics. .49:109-12;2012
- He K ,Liu K ,Daviglius ML ,Morris SJ ,Loria CM ,Van Horn L ,et al .Magnesium intake and incidence of metabolic syndrome among young adults .Circulation.1675-82:(13)113;2006 .
- Masuo K ,W Lambert G .Epinephrine and its role in the development of obesity and hypertension .Current Hypertension Reviews.144-52:(3)7;2011 .
- Voma C ,Romani A .Role of magnesium in regulation of glucose homeostasis .Glucose Homeostasis In Tech. .2014:101-4
- Cinti S ,Mitchell G ,Barbatelli G ,Murano I ,Ceresi E ,Faloia E ,et al .Adipocyte death defines macrophage localization and function in adipose tissue of obese mice and humans .Journal of lipid research. .2347-55:(11)46;2005
- Kim DJ ,Xun P ,Liu K ,Loria C ,Yokota K ,Jacobs Jr DR ,et al .Magnesium intake in relation to systemic inflammation ,insulin resistance ,and the incidence of diabetes .Diabetes care.2604-10:(12)33;2010 .
- Nielsen FH ,Johnson LK ,Zeng H .Magnesium supplementation improves indicators of low magnesium status and inflammatory stress in adults older than 51 years with poor quality sleep .Magnesium Research. .158-68:(4)23;2010
- Huang J-H ,Lu Y-F ,Cheng F-C ,Lee JN-Y ,Tsai L-C .Correlation of magnesium intake with metabolic parameters ,depression and physical activity in elderly type 2 diabetes patients :a cross-sectional study .Nutrition journal.1-10:(1)11;2012 .
- Randell EW ,Mathews M ,Gadag V ,Zhang H ,Sun G .Relationship between serum magnesium values ,lipids and anthropometric risk factors .Atherosclerosis.413-9:(1)196;2008 .
- Huerta MG ,Roemmich JN ,Kington ML ,Bovbjerg VE ,Weltman AL ,Holmes VF ,et al .Magnesium deficiency is associated with insulin resistance in obese children .Diabetes care.1175-81:(5)28;2005 .
- Nielsen FH .Magnesium ,inflammation ,and obesity in chronic disease .Nutrition reviews.333-40:(6)68;2010 .

- Kramer JH, Mak IT, Phillips TM, Weglicki WB. Dietary magnesium intake influences circulating pro-inflammatory neuropeptide levels and loss of myocardial tolerance to postischemic stress. *Experimental Biology and Medicine*. 665-73:(6)228;2003 .
- Chaudhary DP, Boparai RK, Bansal DD. Implications of oxidative stress in high sucrose low magnesium diet fed rats. *European journal of nutrition*. 46:383-90;2007 .
- Busserolles J, Rock E, Gueux E, Mazur A, Grolier P, Rayssiguier Y. Short-term consumption of a high-sucrose diet has a pro-oxidant effect in rats. *British Journal of Nutrition*. 337-42:(4)87;2002 .
- Busserolles J, Gueux E, Rock E, Mazur A, Rayssiguier Y. High fructose feeding of magnesium deficient rats is associated with increased plasma triglyceride concentration and increased oxidative stress. *Magnesium research*. 7-12:(1)16;2003 .
- Rayssiguier Y, Gueux E, Nowacki W, Rock E, Mazur A. High fructose consumption combined with low dietary magnesium intake may increase the incidence of the metabolic syndrome by inducing inflammation. *Magnesium research*. 2006;19(4):237-43.
- Adrian M, Chanut E, Laurant P, Gaume V, Berthelot A. A long-term moderate magnesium-deficient diet aggravates cardiovascular risks associated with aging and increases mortality in rats. *Journal of hypertension*. 2008;26(1):44-52.
- Mak IT, Kramer JH, Weglicki WB. Suppression of neutrophil and endothelial activation by substance P receptor blockade in the Mg-deficient rat. *Magnesium research*. 2003;16(2):91-7.
- Rude RK, Wei L, James Norton H, Lu SS, Dempster DW, Gruber HE. TNF $\alpha$  receptor knockout in mice reduces adverse effects of magnesium deficiency on bone. *Growth Factors*. 2009;27(6):370-6.
- King DE, Mainous III AG, Geesey ME, Egan BM, Rehman S. Magnesium supplement intake and C-reactive protein levels in adults. *Nutrition research*. 2006;26(5):193-6.
- Bo S, Durazzo M, Guidi S, Carello M, Sacerdote C, Silli B, et al. Dietary magnesium and fiber intakes and inflammatory and metabolic indicators in middle-aged subjects from a population-based cohort. *The American journal of clinical nutrition*. 2006;84(5):1062-9.
- Song Y, Li TY, van Dam RM, Manson JE, Hu FB. Magnesium intake and plasma concentrations of markers of systemic inflammation and endothelial dysfunction in women. *The American journal of clinical nutrition*. 2007;85(4):1068-74.
- Chacko SA, Song Y, Nathan L, Tinker L, De Boer IH, Tyllavsky F, et al. Relations of dietary magnesium intake to biomarkers of inflammation and endothelial dysfunction in an ethnically diverse cohort of postmenopausal women. *Diabetes care*. 2010;33(2):304-10.
- Rodríguez-Morán M, Guerrero-Romero F. Serum magnesium and C-reactive protein levels. *Archives of disease in childhood*. 2007.
- Almoznino-Sarafian D, Berman S, Mor A, Shteinshnaider M, Gorelik O, Tzur I, et al. Magnesium and C-reactive protein in heart failure: an anti-inflammatory effect of magnesium administration? *European journal of nutrition*. 2007;46:230-7.
- Arita Y, Kihara S, Ouchi N, Takahashi M, Maeda K, Miyagawa J-i, et al. Paradoxical decrease of an adipose-specific protein, adiponectin, in obesity. *Biochemical and biophysical research communications*. 1999;257(1):79-83.
- Corica F, Allegra A, Ientile R, Buemi M. Magnesium concentrations in plasma, erythrocytes, and platelets in hypertensive and normotensive obese patients. *American journal of hypertension*. 1997;10(11):1311-3.
- Lukaski HC, Nielsen FH. Dietary magnesium depletion affects metabolic responses during submaximal exercise in postmenopausal women. *The Journal of nutrition*. 2002;132(5):930-5.
- Nielsen FH, Milne DB, Gallagher S, Johnson L, Hoverson B. Moderate magnesium deprivation results in calcium retention and altered potassium and phosphorus excretion by postmenopausal women. 2007.
- Planells E, Aranda P, Perán F, Llopis J. Changes in calcium and phosphorus absorption and retention during long-term magnesium deficiency in rats. *Nutrition Research*. 1993;13(6):691-9.
- Seymour EM, Lewis SK, Urcuyo-Llanes DE, Tanone II, Kirakosyan A, Kaufman PB, et al. Regular tart cherry intake alters abdominal adiposity, adipose gene transcription, and inflammation in obesity-prone rats fed a high fat diet. *Journal of medicinal food*. 2009;12(5):935-42.
- Terra X, Montagut G, Bustos M, Llopiz N, Ardèvol A, Bladé C, et al. Grape-seed procyanidins prevent low-grade inflammation by modulating cytokine expression in rats fed a high-fat diet. *The Journal of nutritional biochemistry*. 2009;20(3):210-8.

- Bolland MJ, Barber PA, Doughty RN, Mason B, Horne A, Ames R, et al. Vascular events in healthy older women receiving calcium supplementation: randomised controlled trial. *Bmj*. 2008;336(7638):262-6.
- Schmitz C, Perraud A-L, Johnson CO, Inabe K, Smith MK, Penner R, et al. Regulation of vertebrate cellular Mg<sup>2+</sup> homeostasis by TRPM7. *Cell*. 2003;114(2):191-200.
- Rios-Lugo MJ, Madrigal-Arellano C, Gaytán-Hernández D, Hernández-Mendoza H, Romero-Guzmán ET. Association of serum zinc levels in overweight and obesity. *Biological trace element research*. 2020;198(1):51-7.
- Norouzi S, Adulcikas J, Sohal SS, Myers S. Zinc transporters and insulin resistance: therapeutic implications for type 2 diabetes and metabolic disease. *Journal of biomedical science*. 2017;24:1-10.
- Zhao T, Huang Q, Su Y, Sun W, Huang Q, Wei W. Zinc and its regulators in pancreas. *Inflammopharmacology*. 2019;27:453-64.
- Fukunaka A, Fujitani Y. Role of zinc homeostasis in the pathogenesis of diabetes and obesity. *International journal of molecular sciences*. 2018;19(2):476.
- Olechnowicz J, Tinkov A, Skalny A, Suliburska J. Zinc status is associated with inflammation, oxidative stress, lipid, and glucose metabolism. *The journal of physiological sciences*. 2018;68(1):19-31.
- Baltaci AK, Mogulkoc R, Baltaci SB. The role of zinc in the endocrine system. *Pakistan journal of pharmaceutical sciences*. 2019;32(1).
- Prasad AS. Discovery of human zinc deficiency: 50 years later. *Journal of Trace Elements in Medicine and Biology*. 2012;26(2-3):66-9.
- Sun L, Yu Y, Huang T, An P, Yu D, Yu Z, et al. Associations between ionomic profile and metabolic abnormalities in human population. *PloS one*. 2012;7(6):e38845.
- MacDonald RS. The role of zinc in growth and cell proliferation. *The Journal of nutrition*. 2000;130(5):1500S-8S.
- Frassinetti S, Bronzetti GL, Caltavuturo L, Cini M, Della Croce C. The role of zinc in life: a review. *Journal of environmental pathology, toxicology and oncology*. 2006;25(3).
- Liu M, Zhu H, Zhai T, Pan H, Wang L, Yang H, et al. Serum zinc- $\alpha$ 2-glycoprotein levels were decreased in patients with premature coronary artery disease. *Frontiers in endocrinology*. 2019;10:197.
- Samad N. Serum levels of leptin, zinc and tryptophan with obesity: A case-control study. *Pakistan Journal of Pharmaceutical Sciences*. 2017;30(5).
- Błażewicz A, Klatka M, Astel A, Partyka M, Kocjan R. Differences in trace metal concentrations (Co, Cu, Fe, Mn, Zn, Cd, and Ni) in whole blood, plasma, and urine of obese and nonobese children. *Biological trace element research*. 2013;190:155-190.
- Fan Y, Zhang C, Bu J. Relationship between selected serum metallic elements and obesity in children and adolescent in the US. *Nutrients*. 2017;9(2):104.
- Yang H, Lee S, Han K, Kang B, Lee S, Yoon K, et al. Lower serum zinc levels are associated with unhealthy metabolic status in normal-weight adults: the 2010 Korea National Health and Nutrition Examination Survey. *Diabetes & metabolism*. 2015;41(4):282-90.
- Czernichow S, Vergnaud A-C, Galan P, Arnaud J, Favier A, Faure H, et al. Effects of long-term antioxidant supplementation and association of serum antioxidant concentrations with risk of metabolic syndrome in adults. *The American journal of clinical nutrition*. 2009;90(2):329-35.
- Ma J, Betts NM. Zinc and copper intakes and their major food sources for older adults in the 1994-96 continuing survey of food intakes by individuals (CSFII). *The Journal of nutrition*. 2000;130(11):2838-43.
- Seo J-A, Song S-W, Han K, Lee K-J, Kim H-N. The associations between serum zinc levels and metabolic syndrome in the Korean population: findings from the 2010 Korean National Health and Nutrition Examination Survey. *PloS one*. 2014;9(8):e105990.
- Azab SF, Saleh SH, Elsaed WF, Elshafie MA, Sherief LM, Esh AM. Serum trace elements in obese Egyptian children: a case-control study. *Italian Journal of Pediatrics*. 2014;40:1-7.
- Dasarathan R, Kumar S, Ganesh V, Chenthil K. Study of serum Zinc status among type 2 diabetes mellitus patients. *IJAM*. 2017;4(5):1344-7.
- Cai X, Li X, Fan W, Yu W, Wang S, Li Z, et al. Potassium and obesity/metabolic syndrome: a systematic review and meta-analysis of the epidemiological evidence. *Nutrients*. 2016;8(4):183.
- Shin D, Joh H-K, Kim KH, Park SM. Benefits of potassium intake on metabolic syndrome: The fourth Korean National Health and Nutrition Examination Survey (KNHANES IV). *Atherosclerosis*. 2013;230(1):80-5.

- Sun K, Su T, Li M, Xu B, Xu M, Lu J, et al. Serum potassium level is associated with metabolic syndrome: a population-based study. *Clinical nutrition*. 2014;33(3):521-7.
- Sun K, Lu J, Jiang Y, Xu M, Xu Y, Zhang J, et al. Low serum potassium level is associated with nonalcoholic fatty liver disease and its related metabolic disorders. *Clinical endocrinology*. 2014;80(3):348-55.
- Jain N, Minhajuddin AT, Neeland IJ, Elsayed EF, Vega GL, Hedayati SS. Association of urinary sodium-to-potassium ratio with obesity in a multiethnic cohort. *The American journal of clinical nutrition*. 2014;99(5):992-8.
- Ge Z, Zhang J, Chen X, Yan L, Guo X, Lu Z, et al. Are 24 h urinary sodium excretion and sodium: potassium independently associated with obesity in Chinese adults? *Public health nutrition*. 2016;19(6):1074-80.
- Murakami K, Livingstone MBE, Sasaki S, Uenishi K. Ability of self-reported estimates of dietary sodium, potassium and protein to detect an association with general and abdominal obesity: comparison with the estimates derived from 24 h urinary excretion. *British Journal of Nutrition*. 2015;113(8):1308-18.
- Teramoto T, Kawamori R, Miyazaki S, Teramukai S. Sodium intake in men and potassium intake in women determine the prevalence of metabolic syndrome in Japanese hypertensive patients: OMEGA Study. *Hypertension Research*. 2011;34(8):957-62.
- Ge Z, Guo X, Chen X, Tang J, Yan L, Ren J, et al. Association between 24 h urinary sodium and potassium excretion and the metabolic syndrome in Chinese adults: the Shandong and Ministry of Health Action on Salt and Hypertension (SMASH) study. *British Journal of Nutrition*. 2015;113(6):1002-96.
- Ashcroft FM. ATP-sensitive potassium channelopathies: focus on insulin secretion. *The Journal of clinical investigation*. 2005;115(8):2047-58.
- Kelly TN, Gu D, Rao D, Chen J, Chen J, Cao J, et al. Maternal history of hypertension and blood pressure response to potassium intake: The gensalt study. *American journal of epidemiology*. 2012;176(suppl\_7):S55-S63.
- Zhang Z, Cogswell ME, Gillespie C, Fang J, Loustalot F, Dai S, et al. Association between usual sodium and potassium intake and blood pressure and hypertension among US adults: NHANES 2005–2010. *PloS one*. 2013;8(10):e75289.
- Murakami K, Sasaki S, Uenishi K, for Nutrition JDSS, Group B. The degree of misreporting of the energy-adjusted intake of protein, potassium, and sodium does not differ among under-, acceptable, and over-reporters of energy intake. *Nutrition Research*. 2012;32(10):741-50.
- Esmailzadeh A, Kimiagar M, Mehrabi Y, Azadbakht L, Hu FB, Willett WC. Fruit and vegetable intakes, C-reactive protein, and the metabolic syndrome. *The American journal of clinical nutrition*. 2006;84(6):1489-97.