## Bibliography

- Abbas AK, Murphy KM, Sher A. Functional diversity of helper T lymphocytes. Nature. 1996;383:787–93.
- Adaikalakoteswari A, Finer S, Voyias PD, et al. Vitamin B12 insufficiency induces cholesterol biosynthesis by limiting s-adenosylmethionine and modulating the methylation of SREBF1 and LDLR genes. Clinical Epigenetics. 2015;7:14.
- Adaikalakoteswari A, Jayashri R, Sukumar N, et al. Vitamin B12 deficiency is associated with adverse lipid profile in Europeans and Indians with type 2 diabetes. Cardiovascular Diabetology. 2014;13:129.
- Adkins Y, Kelley DS. Mechanisms underlying the cardioprotective effects of omega-3 polyunsaturated fatty acids. J Nutr Biochem. 2010;21(9):781-92.
- Agarwal DK, Singh P, Chakrabarty M, et al. Cottonseed oil quality, utilization and processing. Central Institute for Cotton Research, Nagpur; 2003. (CICR TECHNICAL BULLETIN NO: 25.)
- Ailhaud G, Massiera F, Weill P, et al. Temporal changes in dietary fats: role of n-6 polyunsaturated fatty acids in excessive adipose tissue development and relationship to obesity. Prog Lipid Res. 2006;45:203–36.
- Akinkuolie AO, Ngwa JS, Meigs JB, et al. Omega-3 polyunsaturated fatty acid and insulin sensitivity: A meta-analysis of randomized controlled trials. Clinical Nutrition. 2011 Dec;30(6):702-707.
- Alberti KGMM, Zimmet P, Shaw J. The metabolic syndrome—a new worldwide definition. The Lancet. 2005;366(9491):1059-1062.
- Allen JE, WynnTA. Evolution of Th2 immunity: a rapid repair response to tissue destructive pathogens. PLoS Pathog. 2011;7:1–4.
- Allen LH. Causes of vitamin B12 and folate deficiency. Food and Nutrition Bulletin. The United Nations University. 2008;29(2):S20-S34.

Allen LH. Vitamin B-12. Adv Nutr. 2012 Jan; 3(1): 54–55.

- Alonso-Magdalena P, Morimoto S, Ripoll C, et al. The estrogenic effect of bisphenol A disrupts pancreatic beta-cell function in vivo and induces insulin resistance. Environ. Health Perspect. 2006;114:106-112.
- Alvheim AR, Malde MK, Osei-Hyiaman D, et al. Dietary linoleic acid elevates endogenous
  2-AG and anandamide and induces obesity. Obesity (Silver Spring). 2012;20:1984– 94.
- American Diabetes Association. Standards of Medical Care in Diabetes-2011. Diabetes Care. 2011;34(Sup 1): S11-S61.
- American Diabetes Association. Standards of medical care in diabetes-2016. Diabetes Care. 2016;39(suppl 1):S1-S106.
- American Dietetic Association. Position of the American Dietetic Association: functional foods. J Am Diet Assoc. 1999;99:1278–1285.
- Amin T, Thakur M. A Comparative Study on Proximate Composition, Phytochemical Screening, Antioxidant and Antimicrobial Activities of Linum usitatisimum L. (flaxseeds). Int J Curr Microbiol App Sci. 2014;3(4):465-481.
- Aminoff M, Carter JE, Chadwick RB, et al. Mutations in CUBN, encoding the intrinsic factor-vitamin B12 receptor, cubilin, cause hereditary megaloblastic anaemia 1. Nat Genet. 1999;21:309–313.
- Anjana RM, Pradeepa R, Das AK, et al. Physical activity and inactivity patterns in India results from the ICMR-INDIAB study (Phase-1) [ICMR-INDIAB-5]. International Journal of Behavioral Nutrition and Physical Activity. 2014;11:26.
- Anjana RM, Pradeepa R, Deepa M, et al. Prevalence of diabetes and prediabetes (impaired fasting glucose and/or impaired glucose tolerance) in urban and rural India: phase I results of the Indian Council of Medical Research-INdia DIABetes (ICMR-INDIAB) study. Diabetologia. 2011 Dec;54(12):3022-7.
- Anthony RM, Rutitzky LI, Urban JF, et al. Protective immune mechanisms in helminth infection. Nat Rev Immunol. 2007;7:975–87.
- AOAC. Association of Official Analytical Chemists, "Official Methods of Analysis". 18th Edition, Washington; 2005.
- Appold K. Dangers of Vitamin B12 Deficiency. Aging Well. 2012 Jan-Feb;5(1):30.

- Arora S, Singh B, Gupta VK et al. Burden Of Vitamin B12 Deficiency In Urban Population In Delhi, India: A Hospital Based Study. International Journal of Pharma and Bio Sciences. 2011;2(1):B521-B528.
- Arterburn LM, Hall EB, Oken H. Distribution, interconversion, and dose response of n\_3 fatty acids in humans. Am J Clin Nutr. 2006;83(suppl):1467S–76S.
- Ashley NT, Weil ZM, Nelson RJ. Inflammation: Mechanisms, Costs, and Natural Variation. Annu. Rev. Ecol. Evol. Syst. 2012. 43:385–406.
- Ashwell M, Hsieh SD. Six reasons why the waist-to-height ratio is a rapid and effective global indicator for health risks of obesity and how its use could simplify the international public health message on obesity. International Journal of Food Sciences and Nutrition. 2005;56(5):303-307.
- Atapattu PM. Obesity at Menopause: An Expanding Problem. Pat Care. 2015;1:1.
- Audebert M, Gendre JP, Le Quintrec Y. Folate and the nervous system (author's transl). Sem Hop. 1979;55:1383-1387.
- Austria JA, Richard MN, Chahine MN, et al. Bioavailability of Alpha-Linolenic Acid in Subjects after Ingestion of Three Different Forms of Flaxseed. Journal of the American College of Nutrition. 2008;27(2):214-21.
- Axelson M, Sjövall J, Gustafsson BE, et al. Origin of lignans in mammals and identification of a precursor from plants. Nature. 1982;298:659-660.
- Babu US, Mitchell GV, Wiesenfeld P, et al. Nutritional and hematological impact of dietary flaxseed and defatted flaxseed meal in rats. International Journal of Food Sciences and Nutrition. 2000;51(2):109-117.
- Badawy A, State O, Sherief S. Can thyroid dysfunction explicate severe menopausal symptoms? J Obstet Gynaecol. 2007;27(5):503-5.
- Bade G, Shah S, Nahar P et al. Effect of menopause on lipid profile in relation to body mass index. Chron young sci. 2014;5(1):20-4.
- BAIF Development Research Foundation. Final Report: National Agricultural Innovation
   Project (Indian Council of Agricultural Research). A Value Chain on Linseed:
   Processing and Value Addition for Profitability-Production to Consumption System
   (PCS). BAIF Development Research Foundation, Bharati Vidyapeeth University,



Pune, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, Ensigns Diet Care Pvt Ltd, Pune. 2014.

- BAIF-NIPI PROJECT, 2013. retrived from http://www.flaxseed%20roasting/BAIF-NAIP.htm
- Baik HW, Russell RM. Vitamin B12 deficiency in the elderly. Annu Rev Nutr. 1999;19:357-77.
- Baker TG. A Quantitative and Cytological Study of Germ Cells in Human Ovaries. Proc R Soc Lond B Biol Sci. 1963;158:417.
- Balion C, Kapur BM. Folate. Clinical utility of serum and red blood cell analysis. Clin Lab News. 2011;37:8-9.
- Barclay AW, Flood VM, Rochtchina E, et al. Glycemic Index, Dietary Fiber, and Risk of Type 2 Diabetes in a Cohort of Older Australians. Diabetes Care. 2007 Nov;30(11):2811-2813.
- Barnes KW, Debrah E. Determination of Nutrition Labeling Education Act Minerals in Foods by Inductively Coupled Plasma- Optical Emission Spectroscopy. Atomic Spectroscopy. 1997;18(2):41-54.
- Barre DE, Mizier-Barre KA, Stelmach E, et al. Flaxseed Lignan Complex Administration in Older Human Type 2 Diabetics Manages Central Obesity and Prothrombosis—An Invitation to Further Investigation into Polypharmacy Reduction. Journal of Nutrition and Metabolism. 2012;2012:585170.
- Barros RP, Machado UF, Warner M, et al. Muscle GLUT4 regulation by estrogen receptors ERβ and ERα. Proc Natl Acad Sci USA. 2006;103:1605–1608.
- Barros RPA, Gustafsson JA. Estrogen Receptors and the Metabolic Network. Cell metabolism. 2011;14(3):289-299.
- Bauld R, Brown R. Stress, psychological distress, psychosocial factors, menopause symptoms and physical health in women. Maturitas. 2009;62:160–165.

Beedholm-Ebsen R, Wetering KVD, Hardlei T, et al. Identification of multidrug resistance protein 1 (MRP1/ABCC1) as a molecular gate for cellular export of cobalamin. Blood. 2010; 115: 1632–1639.

Beejmohun V, Fliniaux O, Grand E, et al. Microwave-assisted extraction of the main phenolic compounds in flaxseed. Phytochem Anal. 2007 Jul-Aug;18(4):275-82.



- BeMiller JN, Whistler RL, Barkalow DG. Aloe, chia, flaxseed, okra, psyllium seed, quince seed, and tamarind gums. In: Industrial Gums, eds Whistler RL and BeMiller JN, 3rd ed, Academic Press, New York. 1993; p 227-256.
- Benoist B. Conclusions of a WHO Technical consultation on folate and vitamin B<sub>12</sub> deficiencies. Food Nutr Bull. 2008;29(Suppl):S238-44.
- Benzie IF, Strain JJ. The ferric reducing ability of plasma (FRAP) as a measure of "antioxidant power": the FRAP assay. Analytical biochemistry. 1996;239(1):70-76.
- Berendsen HH. The role of serotonin in hot flushes. Maturitas. 2000;36(3):155–164.
- Bermudez EA, Rifai N, Buring J, et al. Interrelationships Among Circulating Interleukin-6, C-Reactive Protein, and Traditional Cardiovascular Risk Factors in Women. Arteriosclerosis, Thrombosis, and Vascular Biology. 2002;22:1668-1673.
- Bessesen DH. The Role of Carbohydrates in Insulin Resistance. J. Nutr. 2001; 131: 2782S–2786S.
- Bhardwaj A, Kumar D, Raina SK, et al. Rapid Assessment for Coexistence of Vitamin B12 and Iron Deficiency Anemia among Adolescent Males and Females in Northern Himalayan State of India. Hindawi Publishing Corporation: Anemia. 2013; 2013:959605.
- Bhaswant M, Poudyal H, Brown L. Mechanisms of enhanced insulin secretion and sensitivity with n-3 unsaturated fatty acids. J Nutr Biochem. 2015 Jun;26(6):571-84.
- Bhathena SJ, Ali AA, Mohamed AI, et al. Differential effects of dietary flaxseed protein and soy protein on plasma triglyceride and uric acid levels in animal models. J Nutr Biochem. 2002, Nov;13(11):684-689.
- Bhatia P, Kulkarni JD, Pai SA. Vitamin B12 deficiency in India: Mean corpuscular volume is an unreliable screening parameter. The national medical journal of india. 2012;25(6):336-338.
- Bhattarai T, Bhattacharya K, Chaudhuri P, et al. Correlation of Common Biochemical Markers for Bone Turnover, Serum Calcium, and Alkaline Phosphatase in Post-Menopausal Women. Malays J Med Sci. 2014 Jan;21(1):58–61.



- Bhattarai T, Bhattacharya K, Chaudhuri P, et al. Correlation of common biochemical markers for bone turnover, serum calcium, and alkaline phosphatase in postmenopausal women. Malays J Med Sci. 2014;21(1):58-61.
- Bianchi ME. DAMPs, PAMPs and alarmins: all we need to know about danger. J. Leuk. Biol. 2007;81:1–5.
- Bjornholm M, Zierath JR. Insulin signal transduction in human skeletal muscle: identifying the defects in Type II diabetes. Biochem Soc Trans., 2005;33:354-357.
- Blagosklonny MV. Why men age faster but reproduce longer than women: mTOR and evolutionary perspectives. Aging. 2010;2(5):265-273.
- Block E. Quantitative morphological investigations of the follicular system in women; variations at different ages. Acta Anat (Basel). 1952;14:108.
- Boardman HMP, Hartley L, Eisinga A, et al. Hormone therapy for preventing cardiovascular disease in post-menopausal women. Cochrane Database Syst Rev. 2015;3:CD002229.
- Bonora E, Formentini G, Calcaterra F, et al. HOMA-Estimated Insulin Resistance Is an Independent Predictor of Cardiovascular Disease in Type 2 Diabetic Subjects: Prospective data from the Verona Diabetes Complications Study. Diabetes Care. 2002;25(7):1135-1141.
- Botez MI. Folate deficiency and neurological disorders in adults. Med Hypotheses 1976;2:135-140.
- Brady CW. Liver disease in menopause. World J Gastroenterol. 2015;21(25):7613–7620.
- Brand-Williams W, Cuvelier ME, Berset CLWT. Use of a free radical method to evaluate antioxidant activity. LWT-Food science and Technology. 1995;28(1):25-30.
- Bratanova-Tochkova TK, Cheng H, Daniel S, et al. Triggering and augmentation mechanisms, granule pools, and biphasic insulin secretion. Diabetes. 2002;51(Suppl. 1):S83–90.
- Bravi E, Perretti G, Marconi O, et al. Secoisolariciresinol diglucoside determination in flaxseed (Linum usitatissimum L.) oil and application to a shelf life study. Food Chemistry. 2011;126(4):1553-1558.
- Brenna JT. Efficiency of conversion of alpha-linolenic acid to long chain n-3 fatty acids in man. Curr Opin Clin Nutr Metab Care. 2002 Mar;5(2):127-32.



- Brodowska KM, Catthoor R, Brodowska AJ, et al. A comparison of antioxidant properties of extracts from defatted and non-defatted flax (Linum usitatissimum) seeds. Albanian Journal of Agricultural Sciences. 2014 June; 13(2):16-23.
- Brouwer IA, Katan MB, Zock PL. Dietary -Linolenic Acid Is Associated with Reduced Risk of Fatal Coronary Heart Disease, but Increased Prostate Cancer Risk: A Meta-Analysis. J Nutr. 2004;134:919 –922.
- Brown IJ, Tzoulaki I, Candeias V, et al. Salt intakes around the world: implications for public health. International Journal of Epidemiology. 2009;38:791-813.
- Bryzgalova G, Gao H, Ahren B, et al. Evidence that oestrogen receptor-alpha plays an important role in the regulation of glucose homeostasis in mice: insulin sensitivity in the liver. Diabetologia.2006;49:588-597.
- Buckley JD, Howe PRC. Long-Chain Omega-3 Polyunsaturated Fatty Acids May Be Beneficial for Reducing Obesity—A Review. Nutrients. 2010;2(12):1212-1230.
- Burdge GC, Finnegan YE, Minihane AM, et al. Effect of altered dietary n\_3 fatty acid intake upon plasma lipid fatty acid composition, conversion of [13C] alphalinolenic acid to longer chain fatty acids and partitioning towards beta-oxidation in older men. Br J Nutr. 2003;90:311–21.
- Burdge GC, Jones AE, Wootton SA. Eicosapentaenoic and docosapentaenoic acids are the principal products of alpha-linolenic acid metabolism in young men. Br J Nutr. 2002 Oct;88(4):355-63.
- Burdge GC, Wootton SA. Conversion of alpha-linolenic acid to eicosapentaenoic, docosapentaenoic and docosahexaenoic acids in young women. Br J Nutr. 2002 Oct;88(4):411-20.
- Burger HG, Dudley EC, Hopper JL, A et al. The endocrinology of the menopausal transition: a cross-sectional study of a population-based sample. J Clin Endocrinol Metab. 1995;80(12):3537–45.
- Burger HG. The menopause: when it is all over or is it? J Obstet Gynaecol. 1994;34:293-295.
- Burks DJ, White MF. IRS proteins and beta-cell function. Diabetes. 2001;50(Suppl 1):S140-5.



- Burr GO, Burr MM. On the nature and role of the fatty acids esential in nutrition. J Biol Chem. 1930(2);86:587-621.
- Butler L, Santoro N. The reproductive endocrinology of the menopausal transition. Steroids. Jun 2011;76(7):627-35.
- Buys E, Sips P. New insights into the role of soluble guanylate cyclase in blood pressure regulation. Curr Opin Nephrol Hypertens. 2014, Mar;23(2):135-42.
- Calder PC, Ahluwalia N, Brouns F, et al. Dietary factors and low-grade inflammation in relation to overweight and obesity. Br J Nutr. 2011;106(Suppl. 3):S5–S78.
- Calder PC, Albers R, Antoine JM, et al. Inflammatory disease processes and interactions with nutrition. Br J Nutr. 2009;101:1-45.
- Caligiuri SPB, Aukema HM, Ravandi A, et al. Flaxseed Consumption Reduces Blood Pressure in Patients With Hypertension by Altering Circulating Oxylipins via an α-Linolenic Acid–Induced Inhibition of Soluble Epoxide Hydrolase. Hypertension. 2014;64:53-59.
- Calles-Escandon J, Arciero PJ, Gardner AW, et al. Basal fat oxidation decreases with aging in women. J Appl Physiol. 1994;78:266-271.
- Calles-Escandon J, Poehlman ET. Aging, fat oxidation and exercise. Aging Clin Exp Res. 1997;9:57-63.
- Carey DG, Jenkins AB, Campbell LV, et al. Abdominal Fat and Insulin Resistance in Normal and Overweight Women Direct Measurements Reveal a Strong Relationship in Subjects at Both Low and High Risk of NIDDM. Diabetes. 1996;45:633-638.
- Carmel R, Mallidi PV, Vinarskiy S, et al. Hyperhomocysteinemia and Cobalamin Deficiency in Young Asian Indians in the United States. American Journal of Hematology. 2002;70:107-114.
- Carmel R. Mild transcobalamin I (haptocorrin) deficiency and low serum cobalamin concentrations. Clin Chem. 2003, 49.
- Carraro JCC, Dantas MIDS, Espeschit ACR, et al. Flaxseed and Human Health: Reviewing Benefits and Adverse Effects. Food Reviews International. 2012;28(2):203-230
- Carter JF. Sensory evaluation of flaxseed of different varieties. Proc. Flax Inst. 1996;56:201-203.



- Casper RF, Yen SS. Neuroendocrinology of menopausal flushes: an hypothesis of flush mechanism. Clin Endocrinol (Oxf). 1985;22(3):293–312.
- Cassani RSL, Fassini PG, Silvah JH, et al. Impact of weight loss diet associated with flaxseed on inflammatory markers in men with cardiovascular risk factors: a clinical study. Nutrition Journal. 2015;14(5):1-8.
- Caudill MA. Folate bioavailability: implications for establishing dietary recommendations and optimizing status. Am J Clin Nutr. 2010;91:1455S-60S.
- CDC. Vitamin B12 'ÉCLIA': Method No: 4009.02. Laboratory procedure manual. Nutritional Biomarkers Branch Division of Laboratory Sciences. National Center for Environmental Health.
- Cefalu WT. Insulin resistance: cellular and clinical concepts. Exp Biol Med (Maywood). 2001;226:13–26.
- Chahal JS, Raina SK, Sharma KK et al. How common is Vitamin B12 deficiency A report on deficiency among healthy adults from a medical college in rural area of North-West India. International journal of nutrition, pharmacology, neurological diseases. 2014;4(4):241-245.
- Chambers JC, Eda S, Bassett P, et al. C-reactive protein, insulin resistance, central obesity, and coronary heart disease risk in Indian Asians from the United Kingdom compared with European whites. Circulation. 2001;104:145–50.
- Chandorkar S, Vaidya N, Patel R. Anthropometric Indices, Lipid Profile and hsCRP Levels in Adults(25-60 Years) in an Urban Setting. International Journal of Applied Biology and pharmaceutical Technology. 2011;2:424-430.
- Chandra J. FIAP Supplementary Information Submitted to the SCN Working Group on Micronutrients Report; 2006.
- Chandrashekara S. C-reactive protein: An inflammatory marker with specific role in physiology, pathology, and diagnosis. IJRCI. 2014;2(S1):SR3.
- Chauhan K, Kansara K. Impact of flaxseeds supplementation on cognitive impairment among institutionalized elderly of urban Vadodara [Master's thesis]. Vadodara: Faculty of Family and Community Sciences, M S. University; 2012.



- Chen J, Saggar JK, Corey P, et al. Flaxseed and pure secoisolariciresinol diglucoside, but not flaxseed hull, reduce human breast tumor growth (MCF-7) in athymic mice. J Nutr. 2009;139(11):2061-6.
- Chen JQ, Eshete M, Alworth WL, et al. Binding of MCF-7 cell mitochondrial proteins and recombinant human estrogen receptors alpha and beta to human mitochondrial DNA estrogen response elements. J Cell Biochem. 2004;93:358–373.
- Chen JQ, Yager JD, Russo J. Regulation of mitochondrial respiratory chain structure and function by estrogens/estrogen receptors and potential physiological/pathophysiological implications. Biochim Biophys Acta. 2005;1746:117.
- Clavel T, Borrmann D, Braune A, et al. Occurrence and activity of human intestinal bacteria involved in the conversion of dietary lignans. Anaerobe. 2006b;12(3):140–7.
- Clavel T, Henderson G, Alpert CA, et al. Intestinal bacterial communities that produce active estrogen-like compounds enterodiol and enterolactone in humans. Applied & Environmental Microbiology. 2005;71(10):6077–85.
- Clavel T, Henderson G, Engst W, et al. Phylogeny of human intestinal bacteria that activate the dietary lignan secoisolariciresinol diglucoside. FEMS Microbiology Ecology. 2006a;55(3):471–478.
- Clegg DJ, Brown LM, Woods SC, et al. Gonadal hormones determine sensitivity to central leptin and insulin. Diabetes. 2006;55:978-987.
- Clifford AJ, Noceti EM, Block-Joy A, et al. Erythrocyte folate and its response to folic acid supplementation is assay dependent in women. J Nutr. 2005;135:137–43.
- Cohen L, Meira J, Cosendey GM, et al. Evaluation of the Influence of Whole and Defatted Flaxseed on Satiety, Glucose, and Leptin Levels of Women in the Late Postoperative Stage of Bariatric Surgery. Obesity Surgery. 2013, Feb;23(2):157-166.
- Cohen LS, Soares CN, Vitonis AF, et al. Risk for new onset of depression during the menopausal transition. Arch Gen Psychiatry. 2006;63:385–90.
- Cook NR, Buring JE, Ridker PM. The Effect of Including C-Reactive Protein in Cardiovascular Risk Prediction Models for Women. Ann Intern Med. 2006;145(1):21-29.



- Cooke PS, Naaz A. Role of estrogens in adipocyte development and function. Exp Biol Med (Maywood). 2004;229:1127–1135.
- Cornish SM, Chilibeck PD, Paus-Jennsen L, et al. A randomized controlled trial of the effects of flaxseed lignan complex on metabolic syndrome composite score and bone mineral in older adults. Applied Physiology, Nutrition, and Metabolism. 2009;34(2): 89-98.
- Coulman KD, Liu Z, Michaelides J, Hum WQ, et al. Fatty acids and lignans in unground whole flaxseed and sesame seed are bioavailable but have minimal antioxidant and lipid-lowering effects in postmenopausal women. Molecular Nutrition & Food Research. 2009 Nov; 53(11):1366–1375.
- Coylewright M, Reckelhoff JF, Ouyang P. Menopause and Hypertension : An Age-Old Debate Hypertension. 2008;51:952-959.
- Crilly RG, Jones MM, Horsman A, et al. Rise in plasma alkaline phosphatase at the menopause. Clin Sci (Lond). 1980 Apr;58(4):341-2.
- Crook MA. Clinical Chemistry and Metabolic Medicine: Plasma lipids and Lipoproteins. 7th edition. Edwarld Arnold publishers Ltd; 2006. p198–213.
- Cummings J, Mann J. Carbohydrates. In J. Mann, S. Truswell, Editors. Essentials of human nutrition. 4th ed. New York, NY: Oxford; 2012.
- Daly LE, Kirke PM, Molloy A, et al. Folate levels and neural tube defects. Implications for prevention. JAMA. 1995;274:1698-1702.
- Danforth DR, Arbogast LK, Mroueh J, et al. Dimeric inhibin: a direct marker of ovarian aging. Fertil Steril. 1998;70:119.
- Das UN. A defect in the activity of Delta6 and Delta5 desaturases may be a factor predisposing to the development of insulin resistance syndrome. Prostaglandins Leukot Essent Fatty Acids. 2005, May;72(5):343-50.
- Dasgupta S, Salman M, Lokesh S, et al. Menopause versus aging: The predictor of obesity and metabolic aberrations in menopausal women of Karnataka, South India. Journal of mid-life health. 2012;3(1),24-30.
- Daun JK, Barthet VJ, Chornick TL, et al. Structure, composition, and variety development of flaxseed. In: Thompson LU, Cunnane SC, Editors. Flaxseed in Human Nutrition. 2nd ed. AOCS Press, Champaign, IL: 2003; p 1-40.



- Davis SR, Burger HG. Androgens and the postmenopausal woman. J Clin Endocrinol Metab. 1996;81:2759-2763.
- Davis SR, Castelo-Branco C, Chedraui P, et al. Understanding weight gain at menopause. Climacteric. 2002;15:419-429.
- Deepa M, Farooq S, Deepa R, et al. Prevalence and significance of generalized and central body obesity in an urban Asian Indian population in Chennai, India (CURES: 47). European Journal of Clinical Nutrition. 2009;63:259–267.
- Dennerstein L, Dudley EC, Hopper JL, et al. A prospective population-based study of menopausal symptoms. Obstet Gynecol. 2000;96:351-358.
- Denter J, Bisping, B. Formation of B-vitamins by bacteria during the soaking process of soybeans for tempe fermentation. Int J Food Microbiol. 1994;22:23–31.
- D'Eon TM, Souza SC, Aronovitz M, et al. Estrogen regulation of adiposity and fuel partitioning. Evidence of genomic and non-genomic regulation of lipogenic and oxidative pathways. J Biol Chem. 2005;280:35983–35991.
- Derby CA, Crawford SL, Pasternak RC, et al. Lipid changes during the menopause transition in relation to age and weight: the Study of Women's Health Across the Nation. Am J Epidemiol. 2009;169:1352-1361.
- Deshpande A, Patil S, Manjunatha A, et al. A study of atherosclerotic risk factors in postmenopausal women. IJBAR. 2012;03(08):645-647.
- Dev N, Marcus SR. High sensitive C-reactive protein, an independent and early novel inflammatory marker in healthy obese women. Biomedical Research. 2012;23(1):73-77.
- Devalia V, Hamilton M, Molloy A. Guidelines for the diagnosis and treatment of cobalamin and folate disorders. Br J Haematol. 2014;166:496-513.
- Devaraj S, Rosenson RS, Jialal I. Metabolic syndrome: an appraisal of the proinflammatory and procoagulant status. Endocrinol Metab Clin North Am. 2004;33:431–53.
- Devarhubli C, Jha PK, Sun. Is reverse osmosis slowing you down? DNA Ahmedabad [Internet]. 2011 Dec 4. Available from: http://www.dnaindia.com/india/report-isreverse-osmosis-slowing-you-down-1621189



- Dewell A, Marvasti FF, Harris WS, et al. Low- and High-Dose Plant and Marine (n-3) Fatty Acids Do Not Affect Plasma Inflammatory Markers in Adults with Metabolic Syndrome. J Nutr. 2011 Dec;141(12):2166-2171.
- Dharshini, Sumayaa S, Thirunalasundari T. Phytonutrient composition and antioxidant activity of processed flaxseed. Indo American Journal of Pharm Research. 2013;3(2):2239-2247.
- Di Martino V, Lebray P, Myers RP, et al. Progression of liver fibrosis in women infected with hepatitis C: long-term benefit of estrogen exposure. Hepatology. 2004;40:1426–1433.
- Dietrich JB. Endothelial cells of the blood-brain barrier: a target for glucocorticoids and estrogens? Front Biosci. 2004;9:684–693.
- Ding EL, Song y, Manson JE, et al. Sex Hormone–Binding Globulin and Risk of Type 2 Diabetes in Women and Men. N Engl J Med. 2009 Sep;361(12):1152–1163.
- Dobiasova M, Frohlich J. The plasma parameter log (TG/HDL-C) as an atherogenic index: correlation with lipoprotein particle size and esterification rate in apoB lipoprotein-depleted plasma (FER(HDL)). Clin Biochem. 2001;34:583–588.
- Dodin S, Lemay A, Jacques H, et al. The effects of flaxseed dietary supplement on lipid profile, bone mineral density, and symptoms in menopausal women: a randomized, double-blind, wheat germ placebo-controlled clinical trial. J Clin Endocrinol Metab. 2005;90(3):1390-7.
- Dodson G, Steiner D. The role of assembly in insulin's biosynthesis. Curr Opin Struct Biol. 1998 Apr;8(2):189-94.
- Dosi R, Bhatt N, Shah P, et al. Cardiovascular Disease and Menopause. J Clin Diagn Res. 2014 Feb;8(2):62–64.
- Douchi T, Yamamoto S, Yoshimitsu N, et al. Relative contribution of aging and menopause to changes in lean and fat mass in segmental regions. Maturitas. 2002;42:301-306.
- Dubnov-Raz G, Pines A, Berry EM. Diet and lifestyle in managing postmenopausal obesity. Climacteric. 2007 Oct;10(S2):38-41.



- Ebrahimi M, Rajion MA, Meng GY, et al. Diet high in α-linolenic acid up-regulate PPAR-α gene expression in the liver of goats. Electronic Journal of Biotechnology. 2015,May;18(3):210–214.
- Eichling PS, Sahni J. Menopause related sleep disorders. J Clin Sleep Med. 2005;1(3):291300.
- Elayath and Iyer. Metabolic derangements in pre, peri and post-menopausal women and strategies for the management of primary hyperlipidemia in adult women [Dissertation]. Vadodara: Faculty of Family and Community Sciences, M.S. University; 2013.
- El-Beltagi HS, Salama ZA, El-Hariri DM. Evaluation of fatty acids profile and the content of some secondary metabolites in seeds of different flax cultivars (Linum usitatissimum L.). Gen Appl Plant Physiology. 2007;33(3-4):187-202.
- Elder JA, Thacker HL. Menopause. Cleveland clinic. Centre for continuing education. [Published: October 2013; cited 5th July, 2016]. Available from: http://www.clevelandclinicmeded.com/medicalpubs/diseasemanagement/women s-health/menopause/
- Elshal MF, Kumosani TA, Abulnaja KO. Influence of defatted flaxseed diet on insulin sensitivity, vascular permeability and lipid profile in a rat model of type 2 diabetes mellitus. Journal of Medicinal Plants Research. 2012; 6(11):2188-2193.
- Emanuela F, Grazia M, Marco DR, et al. Inflammation as a Link between Obesity and Metabolic Syndrome. Journal of Nutrition and Metabolism. 2012;2012:476380.
- Emken EA, Adlof RO, Gulley RM. Dietary linoleic acid influences desaturation and acylation of deuterium-labeled linoleic and linolenic acids in young adult males. Biochim Biophys Acta. 1994;1213:277–88.
- Ensign diet care Pvt. Ltd. Available from: http://www.ensignsgroup.com/diet\_care/index.php?option=com\_content&view= article&id=20&Itemid=19
- Eshtiaghi R, Esteghamati A, Nakhjavani M. Menopause is an independent predictor of metabolic syndrome in Iranian women. Maturitas. 2010 Mar;65(3):262-6.
- Evans DJ, Hoffmann RG, Kalkhoff RK, et al. Relationship of androgenic activity to body fat topography, fat cell morphology, and metabolic aberrations in premenopausal women. J Clin Endocrinol Metab. 1983;57:304-310.



- Evans MJ, Lai K, Shaw LJ, et al. Estrogen receptor alpha inhibits IL-1beta induction of gene expression in the mouse liver. Endocrinology. 2002;143:2559-2570.
- Faeh D, Chiolero A, Paccaud F. Homocysteine as a risk factor for cardiovascular disease: should we (still) worry about it? Swiss Med Wkly. 2006;136:745–56.
- Faintuch J, Bortolotto LA, Marques PC, et al. Systemic inflammation and carotid diameter in obese patients: pilot comparative study with flaxseed powder and cassava powder. Nutr Hosp. 2011;26(1):208-213.
- FAO/WHO. Folate and folic acid. In: Human Vitamin and Mineral Requirements. Report of a Joint FAO/WHO Expert Consultation. FAO, Rome; 2002. p 53-63.
- FAO/WHO. Joint FAO/WHO Expert Consultation on Fats and Fatty Acids in Human Nutrition, Interim Summary of Conclusions and Dietary Recommendations on Total Fat & Fatty Acids. WHO, Geneva; 2008. Available from: http://www.fao.org/ag/agn/nutrition/docs/Fats%20and%20Fatty%20Acids%20Su mmary.pdf
- Fardet A. Complex foods versus functional foods, nutraceuticals and dietary supplements: differential health impact (Part 1). Agro FOOD Industry Hi Tech. 2015;26(2):20-24.
- Fatourechi V. Subclinical Hypothyroidism: An Update for Primary Care Physicians. Mayo Clin Proc. 2009;84(1):65–71.
- Faulds MH, Zhao C, Dahlman-Wright K et al. The diversity of sex steroid action: regulation of metabolism by estrogen signalling. J Endocrinol. 2012;212:3-12.
- Fedosov SN, Fedosova NU, Krautler B, et al. Mechanisms of discrimination between cobalamins and their natural analogues during their binding to the specific B12-transporting proteins. Biochemistry. 2007;46(21):6446–6458.
- Feng D, Shen Y, Chavez ER. Effectiveness of different processing methods in reducing hydrogen cyanide content of flaxseed. Journal of the Science of Food and Agriculture. 2003, June;83(8):836-841.
- Fine EJ, Soria ED. Myths about vitamin B12 deficiency. South Med J. 1991;84:1475-1481.
- Fischer M, Baessler A, Schunkert H. Renin angiotensin system and gender differences in the cardiovascular system. Cardiovasc Res. 2002; 53: 672–677.



- Flatt JP. Dietary fat, carbohydrate balance and weight maintenance: effects of exercise. Am J Clin Nutr. 1987;45:296-306.
- Flax Council of Canada. Flax Council of Canada Announces GRAS Status Determined for Flax in U.S. Flax Focus. 2009;22(1):1-2.
- Flynn JM, Dimitrijevich SD, Younes M, et al. Role of wild-type estrogen receptor-beta in mitochondrial cytoprotection of cultured normal male and female human lens epithelial cells. Am J Physiol Endocrinol Metab. 2008;295:E637–E647.
- Folic Acid Monograph. Alternative Medicine Review. 2005; 10(3): 222-229.
- Foryst-Ludwig A, Clemenz M, Hohmann S, et al. Metabolic actions of estrogen receptor  $\beta$  (ER $\beta$ ) are mediated by a negative cross-talk with PPAR $\gamma$ . PLoS Genet. 2008;4:e1000108.
- Foster DL, Ryan KD. Endocrine mechanisms governing transition into adulthood: a marked decrease in inhibitory feedback action of estradiol on tonic secretion of luteinizing hormone in the lamb during puberty. Endocrinology. 1979;105:896-904.
- Franklin R, Ploutz-Synder L, Kanaley J. Longitudinal changes in abdominal fat distribution with menopause. Metabolism. 2009;58(3):311–315.
- Freedman RR, Krell W. Reduced thermoregulatory null zone in postmenopausal women with hot flashes. Am J Obstet Gynecol. 1999;181(1):66–70.
- Freedman RR. Physiology of hot flashes. Am J Hum Biol. 2001;13(4):453–464.
- Freeman EW, Sammel MD, Lin H, et al. Associations of hormones and menopausal status with depressed mood in women with no history of depression. Arch Gen Psychiatry. 2006;63:375–382.
- Freeman EW, Sammel MD, Lin H, et al. Obesity and Reproductive Hormone Levels in the Transition to Menopause. Menopause. 2010 July;17(4):718–726.
- Fuentealba C, Figuerola F, Estevez AM, et al. Optimization of secoisolariciresinol diglucoside extraction from flaxseed (Linum usitatissimum L.) and isolation by a simple HPLC-UV method. CyTA–Journal of Food. 2015;13(2):273–281.
- Fukumitsu S, Aida K, Shimizu H, et al. Flaxseed lignan lowers blood cholesterol and decreases liver disease risk factors in moderately hypercholesterolemic men. Nutrition Research. 2010;30(7):441-446.



- Fukumitsu S, Aida K, Ueno N, et al. Flaxseed lignan attenuates high-fat dietinduced fat accumulation and induces adiponectin expression in mice. British Journal of Nutrition. 2008;100(3):669-676.
- Fung MM, Poddar S, Bettencourt R, et al. A cross-sectional and 10-year prospective study of postmenopausal estrogen therapy and blood pressure, renal function, and albuminuria: The Rancho Bernardo Study. Menopause. 2011;18(6):629–637.
- Galea E, Santizo R, Feinstein DL, et al. Estrogen inhibits NF kappa B-dependent inflammation in brain endothelium without interfering with I kappa B degradation. Neuro report. 2002;13:1469–1472.
- Gammon CS, Hurst PRV, Coad J, Kruger R, Stonehouse W. Vegetarianism, vitamin B12 status, and insulin resistance in a group of predominantly overweight/obese South Asian women. Nutrition. 2012; 28(1):20-24.
- Ganguli D, Das N, Saha I, et al. Association between Inflammatory Markers and Cardiovascular Risk Factors in Women from Kolkata, W.B, India. Arq Bras Cardiol. 2011;96(1).
- Gawrisch K, Eldho NV, Holte LL. The structure of DHA in phospholipid membranes. Lipids. 2003;38:445–52.
- Ghafoorunissa. Fats in Indian diets and their nutritional and health implications. Lipids. 1996;31:S287–91.
- Ghosh S, May MJ, Kopp EB. NF-κβand Rel proteins: evolutionarily conserved mediators of immune responses. Annu Rev Immunol. 1998;16:225–60.
- Ghosh S, May MJ, Kopp EB. NF-κβand Rel proteins: evolutionarily conserved mediators of immune responses. Annu. Rev. Immunol. 1998;16:225–60.
- Gibson RS. Principles of Nutritional Assessment. 2nd ed. New York, NY, USA: Oxford University Press; 2005.
- Gillingham L. The metabolic fate of alpha linolenic acid (ALA): Extremely limited conversion efficiency. The Journal of IHP–Continuing Education. 2013;72-79.
- Gillingham LG, Gustafson JA, Han SY, et al. High-oleic rapeseed (canola) and flaxseed oils modulate serum lipids and inflammatory biomarkers in hypercholesterolaemic subjects. British Journal of Nutrition. 2011;105:417–427.



- Gillingham LG, Robinson KS, Jones PJH. Effect of high-oleic canola and flaxseed oils on energy expenditure and body composition in hypercholesterolemic subjects. Metabolism. 2012, Nov;61(11):1598-1605.
- Ginsberg HN. Insulin resistance and cardiovascular disease. J Clin Invest. 2000;106(4):453–458.
- Glazer G, Zeller R, Delumba L, et al. The Ohio Midlife Women's Study. Health Care Women Int. 2002;2:612–30.
- Global adult tobacco survey (GATS). India factsheet. Ministry of health and family welfare, Govt. of India, Indian Institute of population sciences, Mumbai; 2009-10. Available http://www.who.int/tobacco/surveillance/en\_tfi\_india\_gats\_fact\_sheet.pdf
- Godsland IF. Oestrogens and insulin secretion. Diabetologia. 2005;48:2213-2220.
- Gold EB. The Timing of the Age at Which Natural Menopause Occurs. Obstet Gynecol Clin North Am. 2011;38(3): 425–440.
- Gonzalez CR, Novelle MG, Caminos JE, et al. Regulation of lipin1 by nutritional status, adiponectin, sex and pituitary function in rat white adipose tissue. Physiol Behav. 2012;105:777–783.
- Gopalan C, Rama Shastri BV, Balasubramanian SC, et al. Nutritive value of Indian Foods. National Institute of Nutrition, Hyderabad; 2012.
- Goyens PL, Spilker ME, Zock PL, et al. Compartmental modeling to quantify alphalinolenic acid conversion after longer-term intake of multiple tracer boluses. J Lipid Res. 2005;46:1474–83.
- Grady D. Management of Menopausal Symptoms. N Engl J Med. 2006;355:2338-2347.
- Gravena AAF, Brischiliari SCR, Lopes TCR, et al. Excess weight and abdominal obesity in post-menopausal Brazilian women: a population based study. BMC Women's Health. 2013;13:46.
- Green R, Allen LH, Bjorke-Monsen AL, et al. Vitamin B<sub>12</sub> deficiency. Nature Reviews: Disease Primers. 2017;3:17040.
- Green R. Vitamin B12 deficiency from the perspective of a practicing hematologist. Blood. 2017;129:2603–2611.



- Greenblum C, Rowe M, Neff D, et al. Midlife women: symptoms associated with menopausal transition and early postmenopause and quality of life. Menopause. 2013 Jan;20(1):22-7.
- Grundy SM. What is the contribution of obesity to the metabolic syndrome? Endocrinol Metab Clin North Am. 2004;33:267–82.
- Gulluce M, Sahin F, Sokmen M, et al. Antimicrobial and antioxidant properties of the essential oils and methanol extract from Mentha longifolia L. ssp. longifolia. Food chemistry. 2007;103(4):1449-1456.
- Gupta A, Gupta V, Agrawal S, et al. Association between circulating leptin and insulin resistance, the lipid profile, and metabolic risk factors in North Indian adult women. BioScience Trends. 2010;4(6):325-332.
- Gupta ES, Sheth SP, Ganjiwale JD. Association of Vitamin B12 Deficiency and Use of Reverse Osmosis Processed Water for Drinking: A Cross-Sectional Study from Western India. Journal of Clinical and Diagnostic Research. 2016 May;10(5):OC37-OC40.
- Gupta N, Vibha, Khandekar J, et al. Hypertension and its risk factors among postmenopausal women in Delhi. Ind J Comm Health. 2014;26(4):412–416.
- Gupta R, Gupta VP, Bhagat N, et al. Obesity is major determinant of coronary risk factors in India: Jaipur Heart Watch studies. Indian Heart Journal. 2008;60(1):26-33.
- Gupta R, Sharma KK, Gupta A, et al. Persistent high prevalence of cardiovascular risk factors in the urban middle class in India: Jaipur Heart Watch-5. Assoc Physicians India. 2012 Mar;60:11-6.
- Gutch M, Kumar S, Razi SM, et al. Assessment of insulin sensitivity/resistance. Indian Journal of Endocrinology and Metabolism. 2015;16(1):160-164.
- Haffner SM, Gonzalez C, Miettinen H, et al. A Prospective Analysis of the HOMA Model: The Mexico City Diabetes Study. Diabetes Care. 1996 Oct;19(10):1138-1141.
- Haffner SM. The Metabolic Syndrome: Inflammation, Diabetes Mellitus, and Cardiovascular Disease. Am J Cardiol. 2006;97(suppl):3A–11A.
- Hall CA, MAnthey FA, Lee RE et al. Stability of α-Linolenic Acid and Secoisolariciresinol Diglucoside in Flaxseed-Fortified Macaroni. Journal of food sience. 2005;70(8):c483–c489.



- Hallal PC, BoAndersen L, Bull FC, et al. Global physical activity levels: surveillance progress, pitfalls, and prospects. The Lancet. 2012;380(9838):247-257.
- Hallund J, Ravn-Haren G, Bugel S, et al. A Lignan Complex Isolated from Flaxseed Does Not Affect Plasma Lipid Concentrations or Antioxidant Capacity in Healthy Postmenopausal Women J Nutr. 2006a;136(1):112-116.
- Hallund J, Tetens I, Bugel S, et al. Daily Consumption for Six Weeks of a Lignan Complex Isolated from Flaxseed Does Not Affect Endothelial Function in Healthy Postmenopausal Women. J Nutr. 2006b;136(9):2314-2318.
- Halsted CH. The intestinal absorption of dietary folates in health and disease. J Am Coll Nutr. 1989;8:650-658.
- Hamoda H, Panay N, Arya R, et al. The British Menopause Society & Women's Health Concern 2016 recommendations on hormone replacement therapy in menopausal women. Post Reproductive Health. 2016;22(4):165–183.
- Harlow SD, Gass M, Hall JE, et al. Executive summary of the Stages of Reproductive Aging Workshop + 10: addressing the unfinished agenda of staging reproductive aging. Menopause. 2012;19(4).
- Harlow SD, Paramsothy P. Menstruation and the Menopause Transition. Obstet Gynecol Clin North Am. 2011;38(3): 595–607.
- Harmening D. Megaloblastic anemia. Clinical haematology and fundamentals of haemostasis. 4th ed. Pennsylvania, United States: F.A. Davis; 2002. p112-9.
- Harper CR, Edwards MC, Jacobson TA. Flaxseed Oil Supplementation Does Not Affect Plasma Lipoprotein Concentration or Particle Size in Human Subjects. J Nutr. 2006;136(11):2844-2848.
- Harris WS, Mozaffarian D, Lefevre M, et al. Towards establishing dietary reference intakes for eicosapentaenoic and docosahexaenoic acids. J Nutr. 2009;139(4):804S-19S.
- Hasler CM. Functional Foods: Benefits, Concerns and Challenges—A Position Paper from the American Council on Science and Health. The Journal of Nutrition. 2002;132(12):3772–3781,



- Hawkes C, Popkin BM. Can the sustainable development goals reduce the burden of nutrition-related non-communicable diseases without truly addressing major food system reforms? BMC Medicine. 2015;13:143.
- Heikkinen T, Puolivali J, Liu I, et al. Effects of Ovariectomy and Estrogen Treatment on Learning and Hippocampal Neurotransmitters in Mice. 2002;41(1):22–32.
- Herchi W, Bahashwan S, Trabelsi H, et al. Changes in proximate composition and oil characteristics during flaxseed development. Grasas y Aceites. 2014;65(2).
- Hernandez-Valencia M, Cordova-Perez N, Zarate A, et al. Hypothyroidism Associated to Menopause Symptoms Worsening Change With Thyroid Substitution Therapy. Ginecol Obstet Mex. 2008;76(10):571-575.
- Heyssel RM, Bozian RC, Darby WJ, et al. Vitamin B12 turnover in man. The assimilation of vitamin B12 from natural foodstuff by man and estimates of minimal daily requirements. Am J Clin Nutr. 1966;18:176-184.
- Hillier SG, Reichert LE, Van Hall EV. Control of preovulatory follicular estrogen biosynthesis in the human ovary. J Clin Endocrinol Metab. 1981;52:847-856.
- Hiremath N, Ravindra U, Nagaratna TK. Fatty acid profile of selected flaxseed, Linum usitatissimum L varieties. International Journal of Farm Sciences. 2014;4(4):44-50.
- Ho HC, Wu S, Chan SG, et al. Menopausal transition and changes of body composition: a prospective study in Chinese perimenopausal women. International Journal of Obesity. 2010 Mar;34:1265–1274.
- Hoffbrand AV. The history of folic acid. British Journal of Haematology. 2001;113:579-589.
- Holstun J, Zetocha Z. North Dakota Oilseed Council North Dakota Agricultural Products Utilization Commission, Institute for Business and Industry Development North Dakota State University; 1994.
- HOMA2 Calculator. The Oxford Centre for Diabetes, Endocrinology and Metabolism, The University of Oxford. 2004. Calculated from https://www.dtu.ox.ac.uk/homacalculator/
- Homocysteine Studies Collaboration. Homocysteine and risk of ischemic heart disease and stroke: a meta-analysis. JAMA. 2002;288(16):2015-22.



- Hosseinian FS, Muir AD, Westcott ND, et al. AAPH-mediated antioxidant reactions of secoisolariciresinol and SDG. Org Biomol Chem. 2007;5(4):644-54.
- Huang HY, Caballero B, Chang S, et al. The Efficacy and Safety of Multivitamin and Mineral Supplement Use to Prevent Cancer and Chronic Disease in Adults: A Systematic Review for a National Institutes of Health State-of-the-Science Conference. Annals of Internal Medicine. 2006;145:372-85.
- Huang T, Chen Y, Yang B, et al. Meta-analysis of B vitamin supplementation on plasma homocysteine, cardiovascular and all-cause mortality. Clinical Nutrition. 2012;31(4):448-454.
- Huffman FG, Gomez GP, Zarini GG. Metabolic syndrome and high-sensitivity c reactive protein in Cubans. Ethnicity & Disease. 2009 Spring;19:115-120.
- Hunt A. Vitamin B12 deficiency. BMJ. 2014;349:g5226.
- Hunter SJ, Garvey WT. Insulin action and insulin resistance: diseases involving defects in insulin receptors, signal transduction, and the glucose transport effector system. Am J Med. 1998;105:331–45.
- Hussein N, Ah-Sing E, Wilkinson P, et al. Long-chain conversion of [13C] linoleic acid and alpha-linolenic acid in response to marked changes in their dietary intake in men. J Lipid Res. 2005;46:269–80.
- Hutchins AM, Brown BD, Cunnane SC, et al. Daily flaxseed consumption improves glycemic control in obese men and women with pre-diabetes: a randomized study. Nutrition Research. 2013 May;33(5):367-375.
- Ibrugger S, Kristensen M, Mikkelsen MS, et al. Flaxseed dietary fiber supplements for suppression of appetite and food intake. Appetite 2012 April;58(2):490-495.
- Igweh JC, Nwagha IU, Okaro JM. The effects of menopause on the serum lipid profile of normal females of south east Nigeria. Nigerian journal of physiological sciences. 2005;20(1-2):48-53.
- Ikeda Y, Suehiro T, Nakamura T, et al. Clinical Significance of the Insulin Resistance Index as Assessed by Homeostasis Model Assessment. Endocrine Journal. 2001;48(1):81-86.
- Imran M, Ahmad N, Anjum FM, et al. Potential protective properties of flax lignan secoisolariciresinol diglucoside. Nutrition Journal. 2015;14:71.



- Indian Council of Agricultural Research. Annual report: All India (coordinated Research Project on Linseed 'PROJECT COORDINATING UNIT (LINSEED). C.S.A.U.A. & T., Kanpur; 2010-2011.
- Indian Council of Medical Research. Nutrient requirements and recommended dietary allowances for Indians. Report of the Expert Group of the Indian Council of Medical Research. Hyderabad: National Institute of Nutrition; 2010.
- Institute of Medicine. Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids. Washington, D. C.: National Academies Press; 2002.
- Institute of Medicine. Vitamin B12. In Dietary reference intakes for thiamin, riboflavin, niacin, vitamin B6, folate, vitamin B12, pantothenic acid, biotin and choline; Food and Nutrition Board: National Research Council, Washington, DC, USA: National Academy Press; 1998. pp. 306-356.
- International Diabetic Federation, 2017. Available from https://www.idf.org/ournetwork/regions-members/south-east-asia/members/94-india.html
- International Food Information Council (IFIC). Foundation Functional Foods Component Chart; March 2009. Available from: http://www.foodinsight.org/Content/6/FINAL-IFIC-Fndtn-Functional-Foods-Backgrounder-with-Tips-and-changes-03-11-09.pdf
- International Life Sciences Institute. Safety assessment and potential health benefits of food components based on selected scientific criteria: ILSI North America Technical Committee on Food Components for Health Promotion. Crit Rev Food Sci Nutr. 1999;39:203–316.
- International Physical Activity Questionnaire, short; 2002. Available from http://uacc.arizona.edu/sites/default/files/ipaq\_english\_telephone\_short.pdf
- Internatonal Diabetic Federation, 2013. Diabetes Atlas 6<sup>th</sup> edition. Available from: http://www.idf.org/sites/default/files/EN\_6E\_Atlas\_Full\_0.pdf.
- Jacob RA, Wu MM, Henning SM, et al. Homocysteine increases as folate decreases in plasma of healthy men during short- term dietary folate and methyl group restriction. J Nutr. 1994;124:1072–80.
- James PA, Oparil S, Carter BL, et al. Evidence-Based Guideline for the Management of High Blood Pressure in Adults Report From the Panel Members Appointed to the Eighth Joint National Committee (JNC 8). JAMA. 2014;311(5):507-520.



- Janeway CA, Travers P, Walport M, et al. Immunobiology: The Immune System in Health and Disease. New York: Garland Sci.; 2005.
- Jansen GHE, Arts ICW, Nielen MWF, et al. Uptake and metabolism of enterolactone and enterodiol by human colon epithelial cells. Arch Biochem Biophys. 2005;435:74-82.
- Jasti S, Siega-Riz AM, Bentley MA. Dietary Supplement Use in the Context of Health Disparities: Cultural, Ethnic and Demographic Determinants of Use. The journal of nutrition. 2003;33:2010S–2013S.
- Jeemon P, Prabhakaran D, Ramakrishnan L, et al. Association of high sensitive C-reactive protein (hsCRP) with established cardiovascular risk factors in the Indian population. Nutrition & Metabolism. 2011;8:19.
- Jeemon P, Prabhakaran D, Ramakrishnan L, et al. Sentinel Surveillance in Industrial Populations Study Group. Association of high sensitive C-reactive protein (hsCRP) with established cardiovascular risk factors in the Indian population. Nutr Metab (Lond). 2011;8:1–8.
- Jesmin S, Islam AMS, Akter S, et al. Metabolic syndrome in pre- and post-menopausal rural women in Bangladesh: result from a population-based study. BMC Research Notes. 2013,6:157.
- Ji Y, Tan S, Xu Y, et al. Vitamin B supplementation, homocysteine levels, and the risk of cerebrovascular disease: A meta-analysis. Neurology. 2013;81(15):1298-1307.
- Joffe YT, Collins M, Goedecke JH. The Relationship between Dietary Fatty Acids and Inflammatory Genes on the Obese Phenotype and Serum Lipids. Nutrients. 2013;5(5): 1672-1705.
- Johnson RK, Brands LJ, Howard BV, et al. Dietary Sugars Intake and Cardiovascular Health: A Scientific Statement From the American Heart Association. Circulation. 2009;120:1011-1020.
- Jones ME, Schoemaker MJ, Wright L, et al. Menopausal hormone therapy and breast cancer: what is the true size of the increased risk? Br J Cancer. 2016;115:1–9.
- Joshi R. (2003). Metabolic syndrome-Emerging clusters of the Indian phenotype. J Assoc Physicians India, 51:445-6.
- Joshi SR, Anjana RM, Deepa M, et al. Prevalence of Dyslipidemia in Urban and Rural India: The ICMR–INDIAB Study. PLoS ONE. 2014;9(5):e96808.



Joshi SR. Type 2 diabetes in Asian Indians. Clin Lab Med. 2012;32(2):207-16.

- Kakkar V, Kaur D, Chopra K, et al. Assessment of the variation in menopausal symptoms with age, education and working/non-working status in north-Indian sub population using menopause rating scale (MRS). Maturitas. 2007 July;57(3):306-314.
- Kamath DY, Xavier D, Sigamani A, et al. High sensitivity C-reactive protein (hsCRP) & cardiovascular disease: An Indian perspective. Indian J Med Res. 2015 Sep;142(3):261–268.
- Kanis JA, Harvey NC, Cooper C, et al. A systematic review of intervention thresholds based on FRAX: a report prepared for the National Osteoporosis Guideline Group and the International Osteoporosis Foundation. Advisory Board of the National Osteoporosis Guideline Group. Arch Osteoporos. 2016;11:25.
- Kanwar G, Kirad S, Chawala L et al. A Comparative Study Of Serum Lipid Profile Between Premenopausal And Postmenopausal Women In Kota, Rajasthan, India. IMPACT: International Journal of Research in Applied, Natural and Social Sciences. 2014;2(8): 61-66.
- Kanwar G, Kirad S, Chawala L, et al. A comparative study of serum lipid profile between premenopausal and postmenopausal women in Kota, Rajasthan, India. IMPACT: International Journal of Research in Applied, Natural and Social Sciences. 2014 Aug;2(8):61-66.
- Kapil U, Bhadoria AS. Prevalence of Folate, Ferritin and Cobalamin Deficiencies inst Adolescent in India. J Family Med Prim Care. 2014 Jul-Sep;3(3):247–249.
- Kapoor S, Sachdeva R, Kochhar A. Effect of Flaxseed Supplementation on body mass Index and Blood Glucose Levels of Menopausal Diabetic Females. Journal of Research. 2011;48(1&2):77-83.
- Kapur P, Sinha B, Pereira BMJ. Measuring climacteric symptoms and age at natural menopause in an Indian population using the Greene Climacteric Scale.<sup>-</sup> Menopause. 2009 March/April;16(2):378-384.
- Karam JH. Pancreatic Hormones and Diabetes Mellitus. In: Greenspan FS, Strewler GJ, editors. Basic and Clinical Endocrinology. Stamford CT USA: Appleton & Lange; 1997. p. 601–2.



- Karatela RA, Sainani GS. Plasma homocysteine in obese, overweight and normal weight hypertensives and normotensives. Indian Heart J. 2009 Mar-Apr;61(2):156-9.
- Karli N, Baykan B, Ertas M, et al. Impact of sex hormonal changes on tension-type headache and migraine: a cross-sectional population-based survey in 2,600 women. J Headache Pain. 2012 Oct;13(7):557-65.
- Kasote DM. Flaxseed phenolics as natural antioxidants. International Food Research Journal. 2013; 20(1): 27-34.
- Kasper DL, Braunwald E, Fauci AS, et al. Harrison's textbook. Principles of Internal Medicine, 17th edition. New York: McGraw-Hill Medical Publishing Division; 2008. chapter 100.
- Kaul N, Kreml R, Austria JA, et al. A Comparison of Fish Oil, Flaxseed Oil and Hempseed Oil Supplementation on Selected Parameters of Cardiovascular Health in Healthy Volunteers. Journal of the American college of Nutrition. 2008;27(1):51-58.
- Kaur K, Singhal H, Pitkin J, et al. Medscape. Available from: http://emedicine.medscape.com/article/276104-overview.
- Kaushansky K, Lichtman M, Beutler E, et al. Folate, cobalamin and megaloblastic anaemia. In: Williams haematology. 8th ed. McGraw Hill; 2010. p538-45.
- Kaye SA, Folsom AR, Soler JT, et al. Associations of body mass and fat distribution with sex hormone concentrations in postmenopausal women. Int J Epidemiol. 1991;20:151-156.
- Khalesi S, Irwin C, Schubert M. Flaxseed Consumption May Reduce Blood Pressure: A Systematic Review and Meta- Analysis of Controlled Trials. J Nutr. 2015;145:758-65.
- Khanduri U, Sharma A, Joshi A. Occult cobalamin and folate deficiency in Indians. The national medical journal of India. 2005; 18(4): 182-183.
- Khera A, McGuire DK, Murphy SA, et al. Race and Gender Differences in C-Reactive Protein Levels. Journal of the American College of Cardiology. 2005;46(3):464-469.
- Khokhar KK, Kaur G, Sidhu S. Prevalence of Obesity in Working Premenopausal and Postmenopausal Women of Jalandhar District, Punjab. J Hum Ecol. 2010;29(1):57-62.



- Klee GG. Cobalamin and Folate Evaluation: Measurement of Methylmalonic Acid and Homocysteine vs Vitamin B<sub>12</sub> and Folate. Clinical Chemistry. 2000;46:1277-1283.
- Kligman L, Younus J. Management of hot flashes in women with breast cancer. Curr Oncol. 2010;17:81–86.
- Kotecha PV. Nutritional anemia in young children with focus on Asia and India. Indian Journal of Community Medicine. 2011;36(1):8-16.
- Krause DN, Duckles SP, Pelligrino DA. Influence of sex steroid hormones on cerebrovascular function. Journal of Applied Physiology. 2006;101(4):1252-1261.
- Krauss RM, Siri PW. Metabolic abnormalities: triglyceride and low-density lipoprotein. Endocrinol Metab Clin North Am. 2004;33:405–15.
- Krautler B. Vitamin B12: chemistry and biochemistry. Biochemical Society Transactions. 2005;33(4).
- Kriplani A, Banerjee K. An overview of age of onset of menopause in northern India. Maturitas. 2005 Nov–Dec; 52(3-4):199–204.
- Kris-Etherton PM, Harris WS, Appel LJ. AHA Scientific Statement: Fish consumption, fish oil, omega-3 fatty acids and cardiovascular disease. Circulation. 2002;106:2747-2757.
- Kubota Y, Evenson KR, Maclehose RF, et al. Physical Activity and Lifetime Risk of Cardiovascular Disease and Cancer. Med Sci Sports Exerc. 2017;49(8):1599-1605.
- Kumar J, Garg G, Sundaramoorthy E, et al. Vitamin B12 deficiency is associated with coronary artery disease in an Indian population. Clin Chem Lab Med. 2009;47(3):334-338.
- Kumar TR, Wang Y, Lu N, et al. Follicle stimulating hormone is required for ovarian follicle maturation but not male fertility. Nature Genetics. 1997;15:201–204.
- Kumar V. Linseed Varieties and its charectristics. Agropedia. [Updated 2012 Oct 16]. Available from: http://agropedia.iitk.ac.in/content/linseed-varieties-and-itscharectristics
- Kumari SN, Rosario SB, Gowda DKM. Altered Liver Function and the Status of Calcium in Postmenopausal Women in and Around Mangalore. Al Ameen J Med Sci. 2010;3(2):115-119.



- Kummerow FA, Zhou Q, Mahfouz MM, et al. Trans fatty acids in hydrogenated fat inhibited the synthesis of the polyunsaturated fatty acids in the phospholipid of arterial cells. Life Sci 2004;74:2707–23.
- Lai CS, Wu JC, Pan MH. Molecular mechanism on functional food bioactives for antiobesity. Current Opinion in Food Science. 2015;2:9-13.
- Lai MM, Li CI, Kardia SLR, et al. Sex difference in the association of metabolic syndrome with high sensitivity C-reactive protein in a Taiwanese population. BMC Public Health. 2010;10:429.
- Lange C, Hemmrich G, Klostermeier UC, et al. Defining the origins of the NOD-like receptor system at the base of animal evolution. Mol. Biol. Evol. 2001;28:1687-702.
- Lange C, Hemmrich G, Klostermeier UC, et al. Defining the origins of the NOD-like receptor system at the base of animal evolution. Mol. Biol. Evol.2001; 28:1687–702.
- Le May C, Chu K, Hu M, et al. Estrogens protect pancreatic beta-cells from apoptosis and prevent insulin-deficient diabetes mellitus in mice. Proc Natl Acad Sci USA. 2006;103: 9232-9237.
- Lee IM, Shiroma EJ, Lobelo F, et al. Effect of physical inactivity on major noncommunicable diseases worldwide: an analysis of burden of disease and life expectancy. The Lancet. 2012;380(9838):219–229.
- Leiblum S, Bachmann G, Kemmann E, et al. Vaginal atrophy in the postmenopausal woman: the importance of sexual activity and hormones. JAMA. 1983;249:2195-2198.
- Lemay A, Dodin S, Kadri N, et al. Flaxseed dietary supplement versus hormone replacement therapy in hypercholesterolemic menopausal women. Obstetrics and Gynecology. 2002 Sep;100(3):495–504.
- Lemieux C, Phaneuf D, Labrie F, et al. Estrogen receptor alpha-mediated adipositylowering and hypocholesterolemic actions of the selective estrogen receptor modulator acolbifene. Int J Obes. 2005;29:1236-1244.
- Levy PD, Cline D. Asymptomatic Hypertension in the Emergency Department: A Matter of Critical Public Health Importance. Academic Emergency Medicine. 2009;16:1251–1257.



- Li D, Ding C, Qiu L. Postoperative hormone replacement therapy for epithelial ovarian cancer patients: a systematic review and meta-analysis. Gynecol Oncol. 2015;139:355–362.
- Li H, Ruan XZ, Powis SH, et al. EPA and DHA reduce LPS-induced inflammation responses in HK-2 cells: evidence for a PPAR-gammadependent mechanism. Kidney Int. 2005;67:867–74.
- Li Y, Huang T, Zheng Y, et al. Folic Acid Supplementation and the Risk of Cardiovascular Diseases: A Meta-Analysis of Randomized Controlled Trials. Journal of the American Heart Association. 2016;5:e003768.
- Libby P. Mechanisms of acute coronary syndromes and their implications for therapy. N Engl J Med. 2013;368:2004–13.
- Libretexts. Vitamin B12: Cobalamin. Available from: https://chem.libretexts.org/Core/Biological\_Chemistry/Vitamins%2C\_Cofactors\_a nd\_Coenzymes/Vitamin\_B12%3A\_Cobalamin22
- Lichtenstein AH, Appel LJ, Brands M, et al. Diet and Lifestyle Recommendations: A Scientific Statement From the American Heart Association Nutrition Committee. Circulation. 2006;114:82-96.
- Lichtenstein AH, Schwab US. Relationship of dietary fat to glucose metabolism. Atherosclerosis 2000;150:227-243.
- Lim WS, Gammack JK, Niekerk JKV, et al. Omega 3 fatty acid for the prevention of dementia. The Cochrane library. 2009;1.
- Lindberg UB, Crona N, Silverstolpe G, et al. Regional adipose tissue metabolism in postmenopausal women after treatment with exogenous sex steroids. Horm Metab Res. 1990;22:345-351.
- Lindenbaum J, Rosenberg IH, Wilson PW, et al. Prevalence of cobalamin deficiency in the Framingham elderly population. Am J Clin Nutr. 1994;60(2):11.
- Lindenbaum J, Savage DG, Stabler SP, et al. Diagnosis of cobalamin deficiency : II. Relative sensitivities of serum cobalamin, methylmalonic acid, and total homocysteine concentrations. Am J Haematol. 1990;34:99-107.



- Liou YA, King DJ, Zibrik D, et al. Decreasing linoleic acid with constant alpha-linolenic acid in dietary fats increases (n-3) eicosapentaenoic acid in plasma phospholipids in healthy men. J Nutr. 2007;137(4):945-52.
- Liu S, Willett WC, Stampfer MJ, et al. A prospective study of dietary glycemic load, carbohydrate intake, and risk of coronary heart disease in US women. Am J Clin Nutr. June 2000;71(6):1455-1461.
- Liu JH, Yen SSC. Induction of midcycle gonadotropin surge by ovarian steroids in women: a critical evaluation. J Clin Endocrinol Metab. 1983;57:797-802.
- Lizcano F, Guzman G. Estrogen Deficiency and the Origin of Obesity during Menopause BioMed Research International. 2014;2014:757461.
- Llaneza P, Inarrea J, Gonzalez C, et al . Differences in health-related quality of life in a sample of obese and non-obese menopausal Spanish women. Maturitas. 2007;58:387–3 94.
- Long AN, Dagogo-Jack S. The Comorbidities of Diabetes and Hypertension: Mechanisms and Approach to Target Organ Protection. J Clin Hypertens (Greenwich). 2011 Apr;13(4): 244–251.
- Lorgeril MD, Defaye SP. Importance of nutrition in chronic heart failure patients. Eur Heart J. 2005;26(21):2215-7.
- Low YL, Taylor JI, Grace PB, et al. Phytoestrogen exposure correlation with plasma estradiol in postmenopausal women in European Prospective Investigation of Cancer and Nutrition-Norfolk may involve diet-gene interactions. Cancer Epidemiology, Biomarkers & Prevention. 2005a;14(1):213–20.
- Low YL, Taylor JI, Grace PB, et al. Polymorphisms in the CYP19 gene may affect the positive correlations between serum and urine phytoestrogen metabolites and plasma androgen concentrations in men. Journal of Nutrition. 2005b;135(11):2680–6.
- Lucas EA, Mahajan SS, Soung DY, et al. Flaxseed but Not Flaxseed Oil Prevented the Rise in Serum Cholesterol Due to Ovariectomy in the Golden Syrian Hamsters. Journal of Medicinal Food. 2011 Feb;14(3):261-267.
- Lucchesi LM, Hachul H, Yagihara F, et al. Does menopause influence nocturnal awakening with headache? Climacteric. 2013 Jun;16(3):362-8.



- Lundholm L, Zang H, Hirschberg AL, et al. Key lipogenic gene expression can be decreased by estrogen in human adipose tissue. Fertil Steril. 2008;90:44–48.
- Luoto R, Sharrett AR, Eigenbrodt M, et al. Pulse pressure and age at menopause. BMC Womens Health. 2002;2:6.
- Maas AHEM, Franke HR. Women's health in menopause with a focus on hypertension. Netherlands Heart Journal. 2009;17(2):68-72.
- Machado AM, Paula H, Cardoso LD, et al. Effects of brown and golden flaxseed on the lipid profile, glycemia, inflammatory biomarkers, blood pressure and body composition in overweight adolescents. Nutrition. 2015; 31(1):90-96.
- Machado AM, Paula HD, Cardoso LD et al. Effects of brown and golden flaxseed on the lipid profile, glycemia, inflammatory biomarkers, blood pressure and body composition in overweight adolescents. Nutrition. 2015;31:90–96.
- Macniven R, Bauman A, Abouzeid M. A review of population-based prevalence studies of physical activity in adults in the Asia-Pacific region. BMC Public Health. 2012;12:41.
- Mahajan A, Jaiswal A, Tabassum R, et al. Elevated levels of C-reactive protein as a risk factor for metabolic syndrome in Indians. Atherosclerosis. 2012;220(1):275-81.
- Mahajan A, Tabassum R, Chavali S, et al. High-sensitivity C-reactive protein levels and type 2 diabetes in urban North Indians. J Clin Endocrinol Metab. 2009;94(6):2123-7.
- Mahajan N, Aggarwal M, Bagga A. Health issues of menopausal women in North India. J Midlife Health. 2012 Jul-Dec;3(2):84–87.
- Mahalle N, Kulkarni MV, Garg MK et al. Vitamin B12 deficiency and hyperhomocysteinemia as correlates of cardiovascular risk factors in Indian subjects with coronary artery disease. Journal of Cardiology. 2013;61(4):289-294.
- Maiti S, Das KL. Estimation of serum vitamin b12 levels in metabolic syndrome patients: a tertiary hospital based study in eastern part of India. International Journal of Information Research and Review. 2015 Sep;2(09):1137-1141.
- Malaisse WJ. Physiology, pathology and pharmacology of insulin secretion: recent acquisitions. Diabetes & Metabolism. 1997;23(Suppl 3):6-15.



- Malcolmson LJ, Przybylski R, Daun JK. Storage stability of milled flaxseed. Journal of the American Oil Chemists' Society. 2000;77(3):235-238.
- Mangukiya S, Modi B, Chaurasia P, et al. Distribution Of Vitamin B12 Level According To Socio-Demographic Characteristics In Patients Of Dhiraj General Hospital, Pipariya, Gujarat. National journal of medical research. 2011;1(2):54-56.
- Mani I, Kurpad AV. Fats & fatty acids in Indian diets: Time for serious introspection. Indian J Med Res. 2016;144(4):507–514.
- Mankhey RW, Bhatti F, Maric C. 17β-Estradiol replacement improves renal function and pathology associated with diabetic nephropathy. American Journal of Physiology-Renal Physiology. 2005;288(2):F399-F405.
- Manson JE, Chlebowski RT, Stefanick ML, et al. Menopausal Hormone Therapy and Health Outcomes During the Intervention and Extended Poststopping Phases of theWomen's Health Initiative Randomized Trials. JAMA. 2013;310(13):1353-1368.
- Marwaha RK, Tandon N, Ganie MA, et al. Status of Thyroid Function in Indian Adults: Two Decades After Universal Salt Iodization. JAPI. 2012;60:32-36.
- Mason JB. Biomarkers of nutrient exposure and status in one-carbon (methyl) metabolism. J Nutr. 2003;133(Suppl 3):941S–7S.
- Matthews DR, Hosker JP, Rudenski AS, et al. Homeostasis model assessment: insulin resistance and beta-cell function from fasting plasma glucose and insulin concentrations in man. Diabetologia. 1985;28(7):412-9.
- Mauvais-Jarvis F, Clegg DJ, Hevener AL. The Role of Estrogens in Control of Energy Balance and Glucose Homeostasis. Endocr Rev. 2013;34(3):309-338.
- McCullough RS, Edel AL, Bassett CM, et al. The alpha linolenic acid content of flaxseed is associated with an induction of adipose leptin expression. Lipids. 2011 Nov;46(11):1043-52.
- McEwen B. Genome and Hormones: Gender Differences in Physiology Invited Review: Estrogens effects on the brain: multiple sites and molecular mechanisms. J Appl Physiol. 2001;91:2785–2801.
- McEwen. The Molecular and Neuroanatomical Basis for Estrogen Effects in the Central Nervous System. The Journal of Clinical Endocrinology & Metabolism. 1999;84(6):1790-1797.



- McKinlay SM, Brambilla DJ, Posner JG. The normal menopause transition. Maturitas. 1992 Jan;14(2):103-15.
- McMahon JA, Skeaff CM, Williams SM, et al. Lowering Homocysteine with B Vitamins Has No Effect on Blood Pressure in Older Adults. Nutr. 2007 May;137(5):1183-1187.
- Medzhitov R. Origin and physiological roles of inflammation. Nature. 2008;454:428–35.
- Mendelsohn ME, Karas RH. The protective effects of estrogen on the cardiovascular system. N Engl J Med. 1999;340:1801-1811.
- Menon UV, Sundaram KR, Unnikrishnan AG, et al. High prevalence of undetected thyroid disorders in an iodine sufficient adult south Indian population. J Indian Med Assoc. 2009;107:72–7.
- Menopause Symptoms. Available from: http://www.menopause-faq.com/menopausesymptoms.htm retrived on 7th July 2016
- Metz J, Bell AH, Flicker L, et al. The significance of subnormal serum vitamin B12 concentration in older people: a case control study. J Am Geriatr Soc. 1996;44:1355-1361.
- Metz J. A high prevalence of biochemical evidence of vitamin B12 or folate deficiency does not translate into a comparable prevalence of anemia. Food and Nutrition Bulletin, The United Nations University. 2008;29(2):S74-S85.
- Michalek AM, Mahoney MC, Calebaugh D. Hypothyroidism and diabetes mellitus in an American Indian population. J Fam Pract. 2000 Jul;49(7):638-40.
- Milewicz A, Tworowska U, Demissie M. Menopausal obesity–myth or fact? Climacteric. 2001; 4(4):273-283.
- Miner M, Esposito K, Guay A, et al. Cardiometabolic risk and female sexual health: the Princeton III summary . J Sex Med. 2012;9:641–651.
- Miranda M, Chacon MR, Gomez J, et al. Human subcutaneous adipose tissue LPIN1 expression in obesity, type 2 diabetes mellitus, and human immunodeficiency virus–associated lipodystrophy syndrome. Metabolism. 2007;56:1518–1526.
- Misra A, Khurana L. Obesity and the Metabolic Syndrome in Developing Countries. J Clin Endocrinol Metab. 2008 Nov;93(11):S9–S3.



- Miyamoto E, Kittaka-Katsura H, Adachi S, et al. Assay of vitamin B12 in edible bamboo shoots. Vitamins (Japanese). 2005;79:329–332.
- MM H, Desai VK, Kavishwar A. A Study on Effect of Life Style Risk Factors On Prevalence Of Hypertension In White Collar Job People Of Surat. The Internet Journal of Occupational Health. 2011;1:1.
- Mohammadi A, Mirzaei F, Moradi MN, et al. Effect of flaxseed on serum lipid profile and expression of NPC1L1, ABCG5 and ABCG8 genes in the intestine of diabetic rat. Avicenna Journal of Medical Biochemistry. 2013 Sep.;1(1):1-6.
- Mohan V, Deepa R, Velmurugan K, et al. Association of C-reactive protein with body fat, diabetes and coronary artery disease in Asian Indians: the Chennai Urban Rural Epidemiology Study (CURES-6). Diabet Med. 2005 Jul;22(7):863-70.
- Mohan V, Sandeep S, Deepa R, et al. Epidemiology of type 2 diabetes: Indian scenario. Indian J Med Res. 2007;125(3):217-30.
- Moknatjou R, Hajimahmoodi M, Toliyat T, et al. Effect of Roasting on Fatty Acid Profile of Brown and Yellow Varieties of Flaxseed (Linum usitatissimum L). Tropical Journal of Pharmaceutical Research. 2015 Jan;14(1):117-123.
- Moller M, Radestad A, von Schoultz B et al 2013. Effect of estrogen and testosterone replacement therapy on cognitivefatigue. Gynecol Endocrinol. 2013 Feb;29(2):173-6.
- Monica SJ, Joseph M. Phytochemical screening of flaxseed (Linum usitatissimum L.). IJSR. 2016 Mar;5(3):218-220.
- Monteiro WLA, Rosa G, Luiz RR, et al. Effects of different types of flaxseed flour in appetite and satiety sensations among overweight and obese women. Int J Cardiovasc Sci. 2016;29(1):37-46.
- Moreno M, Ordonez P, Alonso A, et al. Chronic 17beta-estradiol treatment improves skeletal muscle insulin signaling pathway components in insulin resistance associated with aging. Age (Dordr). 2010;32:1-13.
- Morise A, Serougne C, Gripois D, et al. Effects of dietary alpha linolenic acid on cholesterol metabolism in male and female hamsters of the LPN strain. J Nutr Biochem. 2004;15:51–61.



- Morris DH. Flax: a health and nutrition primer. Flax Council of Canada, Cornell University. 4<sup>th</sup> Ed. 2007.
- Muir AD, Westcott ND. Flaxseed constituents and human health. Flax: The genus Linum. London. 2003;243-51.
- Mukaiyama K, Kamimura M, Uchiyama S, et al. Elevation of serum alkaline phosphatase (ALP) level in postmenopausal women is caused by high bone turnover. Aging Clin Exp Res. 2015 Aug;27(4):413-8.
- Muramatsu T, Yatsuya H, Toyoshima H, et al. Higher dietary intake of alpha-linolenic acid is associated with lower insulin resistance in middle-aged Japanese. Preventive Medicine. 2010 June;50(5-6):272–276.
- Murthy JMK. Hyperhomocysteinemia, ischemic stroke and B12 treatment: the jury is still out. Neurology India. 2005;53(3):271-272.
- Nathan C. Points of control in inflammation. Nature. 2002;420:846–52.
- National Agricultural Innovation Project- Component 2: All India Coordinated Research Project on Oilseeds (Linseed). BAIF Development Research Foundation, Pune, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, Bharati Vidyapeeth University, Pune and Ensigns Diet Care Private Limited. Available from http://www.Dr.Panjabrao%20Deshmukh%20Krishi%20Vidyapeeth,%20Akola.htm# abtdept
- National Committee for Clinical Laboratory Standards Reference and selected procedures for the quantitative determination of haemoglobin in blood: approved standards. 2nd ed. Villanova, PA: National Committee for Clinical Laboratory Standards; 1994.
- National family health survey (NFHS-3). Nutrition in India. International Institute for<br/>PopulationSciences,<br/>Sciences,<br/>Deonar,<br/>Mumbai;2005-06.<br/>2005-06.http://rchiips.org/nfhs/nutrition\_report\_for\_ website\_18sep09.pdf

National Institute of Nutrition. Dietary guidelines for Indians. NIN, Hyderabad; 2010.

National Institute of Nutrition. Indian Food Composition Table. NIN, Hyderabad; 2017.

National Nutrition Monitoring Bureau (NNMB). Diet and Nutritional status of rural population, NNMB; 2002. (Technical Report: 21). Available from:



http://wcd.nic.in/Schemes/research/nti1947/72%20dietary%20intakes%20pr%204 2.pdf .

- National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS). Available from: http://www.nrhmhp.gov.in/sites/default/files/files/NCD\_Guidelines.pdf
- National Sample Survey Organisation (NSSO). Nutritional Intake in India, 2004-2005. Ministry of Statistics & Programme Implementation Government of India; 2007. (NSS Report No. 513(61/1.0/6)).
- NCD Alliance. NCDs: A Priority for Women's Health and Development. NCD Alliance; 2011.
- NCEP/ATP III. Executive Summary of the Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). Expert Panel On Detection, Evaluation, And Treatment Of High Blood Cholesterol In Adults. JAMA: the Journal of the American Medical Association. 2001;285(19):2486–97.
- Nettleton JA. Omega-3 fatty acids: comparison of plant and seafood sources in human nutrition. J Am Diet Assoc. 1991;91:331–7.
- NHANES. Biochemistry Profile in Refrigerated Serum. Laboratory procedure manual; 1999–2000.
- NHANES. Complete Blood Count (CBC) with Five-Part Differential. Laboratory procedure manual; 2003–2004.
- NHANES. C-Reactive Protein in Serum. Laboratory procedure manual; 2007–2008.
- NHANES. Ferritin in Serum. Laboratory procedure manual; 2009-2010.
- NHANES. Glycohemoglobin in Blood. Laboratory procedure manual; 2001-2002.
- NHANES. Insulin in Serum. Laboratory procedure manual; 2001–2002.
- NHANES. Iron and TIBC in Serum. Laboratory procedure manual; 2001–2002.
- NHANES. Plasma Glucose in Serum. Laboratory Procedure Manual; 2003–2004.
- NHANES. Total Cholesterol, Direct HDL, Precipitated HDL, Triglycerides, and LDL. Laboratory procedure manual; 2003-2004.



NHANES. Total T3 (T3) in Serum. Laboratory procedure manual; 2011-2012.

NHANES. Total T4 (T4) in Serum. Laboratory procedure manual, 2011-2012.

- NHLBI Obesity Education Initiative. The practical guide: Identification, evaluation and treatment of overweight and obesity in adults. National Institutes of Health; 2000. (NIH Publication Number 00 4084).
- Nielsen MJ, Rasmussen MR, Andersen CB et al. Vitamin B12 transport from food to the body's cells—a sophisticated, multistep pathway. Nat. Rev. Gastroenterol. Hepatol. 2012;9(6):345–354.
- Nounou HA, Deif MM, Shalaby MA. Effect of flaxseed supplementation and exercise training on lipid profile, oxidative stress and inflammation in rats with myocardial ischemia. Lipids Health Dis. 2012;11:129.
- O'Leary F, Samman S. Vitamin B12 in Health and Disease. Nutrients. 2010;2:299-316.
- Obersby D, Chappell DC, Dunnett A et al. Plasma total homocysteine status of vegetarians compared with omnivores: a systematic review and meta-analysis. British Journal of Nutrition. 2013;109:785–794.
- Oh K, Jung K, Choi J, et al. Headaches in middle-aged women during menopausal transition: aheadache clinic-based study. Eur Neurol. 2012; 68(2):79-83.
- Oh RC, Brown DL. Vitamin B12 deficiency. Am Fam Physician. 2003 Mar 1;67(5):979-986.
- Olalla LMS, Muniz FJS, Vaquero MP. N-3 fatty acids in glucose metabolism and insulin sensitivity. Nutr Hosp. 2009;24(2):113-127.
- Oomah BD, Kenaschuk EO, Mazzat G. Phenolic Acids in Flaxseed. J. Agric. Food Chem. 1995;43:2016-2019.
- Oomah BD, Mazza G, Kenaschuk EO. Flavonoid content of flaxseed: Influence of cultivar and environment. Euphytica. 1996 Jan;90(2):163-167.
- Ospina JA, Brevig HN, Krause DN, et al. Estrogen suppresses IL-1β-mediated induction of COX-2 pathway in rat cerebral blood vessels. Am J Physiol Heart Circ Physiol. 2002;286:H2010–H2019.
- Overlie I, Morkrid L, Andersson AM, et al. Inhibin A and B as markers of menopause: a five-year prospective longitudinal study of hormonal changes during the menopausal transition. Acta Obstet Gynecol Scand. 2005 Mar;84(3):281-5.



- Palacios S, Henderson VW, Siseles N, et al. Age of menopause and impact of climacteric symptoms by geographical region. Climacteric. 2010;13(5):419-428.
- Pali V, Mehta N. Evaluation of Oil Content and Fatty Acid Compositions of Flax (Linum usitatissimum L.) Varieties of India. Journal of Agricultural Science. 2014;6(9):198-207.
- Palmer BF, Clegg DJ. The sexual dimorphism of obesity. Molecular and Cellular Endocrinology. 2015;402:113–119.
- Palmon SC, Williams MJ, Littleton-Kearney MT, et al. Estrogen increases cGMP in selected brain regions and in cerebral microvessels. J Cereb Blood Flow Metab. 1998;18:1248–1252.
- Pan A, Chen M, Chowdhury R, et al. a-Linolenic acid and risk of cardiovascular disease: a systematic review and meta-analysis. Am J Clin Nutr. 2012;96:1262–73.
- Pan A, Sun J, Chen Y, et al. Effects of a Flaxseed-Derived Lignan Supplement in Type 2 Diabetic Patients: A Randomized, Double-Blind, Cross-Over Trial. PLoS ONE. 2007;2(11):e1148.
- Pan A, Yu D, Demark-Wahnefried W, et al. Meta-analysis of the effects of flaxseed interventions on blood lipids. Am J Clin Nutr. 2009;90:288–97.
- Panay N, Hamoda H, Arya R, et al. The 2013 British Menopause Society & Women's Health Concern recommendations on hormone replacement therapy Menopause International: The Integrated Journal of Postreproductive Health. 2013;0(0):1–10.
- Pandey S, Srinivas M, Agashe S, et al. Menopause and metabolic syndrome: A study of 498 urban women from western India. Journal of mid-life health. 2010;1(2):63-69.
- Pandey SN, Vaidya ADB, Vaidya RA, et al. Hyperhomocystinemia as a cardiovascular risk factor in Indian women: Determinants and directionality. JAPI. 2006 Oct;54:769-774.
- Pang X, Liu J, Zhao J, et al. Homocysteine induces the expression of C reactive protein via NMDAr-ROS-MAPK-NF-κB signal pathway in rat vascular smooth muscle cells. Atherosclerosis. 2014;236:73–81.
- Pannacciulli N, Cantatore FP, Minenna A. C-reactive protein is independently associated with total body fat, central fat, and insulin resistance in adult women. International Journal of Obesity. 2001;25:1416-1420.



- Panotopoulos G, Ruiz J, Raison J, et al . Menopause, fat and lean distribution in obese women. Maturitas. 1996;25:11-19.
- Parameshwari S, Nazni P. Fatty acid composition and hypolipidemic effect of roasted flaxseed powder. Int J Pharm Med & Bio Sc. 2012 Oct;1(2):150-158.
- Parikh F, Kapoor D. Homocysteine and Insulin Sensitivity in Cardiovascular Disease–Is there a link? JAPI. 2009 Jun;57:437-438.
- Park HT, Cho GJ, Ahn KH, et al. Thyroid stimulating hormone is associated with metabolic syndrome in euthyroid postmenopausal women. Maturitas. 2009;62(3):301-5.
- Paschos GK, Magkos F, Panagiotakos DB, et al. Dietary supplementation with flaxseed oil lowers blood pressure in dyslipidaemic patients. European Journal of Clinical Nutrition. 2007;61:1201–1206.
- Pastore LM, Carter RA, Hulka BS, et al. Self-reported urogenital symptoms in postmenopausal women: Women's Health Initiative. Maturitas. 2004;49:292–303.
- Patel HL, Gor SK, Shah AM et al. Prevalence of vitamin b12 deficiency in highersocioeconomical class of bhuj-kutch. IOSR Journal of Pharmacy. 2012;2(5):01-03.
- Pattanaik U, Prasad K. Oxygen free radicals and endotoxic shock: Effect of flaxseed. J Cardiovasc Pharmacol Ther. 1998;3(4):305-318.
- Pawlosky RJ, Hibblen JR, Lin Y, et al. Effects of beef- and fish-based diets on the kinetics of n\_3 fatty acid metabolism in human subjects. Am J Clin Nutr. 2003;77:565–72.
- Pearce EN. Thyroid dysfunction in perimenopausal and postmenopausal women. Menopause Int. 2007;13(1):8-13.
- Pearson TA, Mensah GA, Alexander RW, et al. Markers of Inflammation and Cardiovascular Disease Application to Clinical and Public Health Practice A Statement for Healthcare Professionals From the Centers for Disease Control and Prevention and the American Heart Association. Circulation. 2003;107:499-511.
- Pechere-Bertschi A, Burnier M. Female sex hormones, salt, and blood pressure regulation. Am J Hypertens. 2004;17:994-1001.
- Perry JR, Weedon MN, Langenberg C, et al. Genetic evidence that raised sex hormone binding globulin (SHBG) levels reduce the risk of type 2 diabetes. Hum Mol Genet. 2010;19:535–544.



- Peterson J, Dwyer J, Adlercreutz H, et al. Dietary lignans: physiology and potential for cardiovascular disease risk reduction. Nutr Rev. 2010 Oct; 68(10): 571–603.
- Pfeiffer CM, Fazili Z, Zhang M. Folate analytical methodology. In: Bailey LB, editor. Folate in health and disease. 2nd ed. Boca Raton (FL): CRC Press, Taylor & Francis Group; 2010. p. 517–74.
- Pfeilschifter J, Koditz R, Pfohl M, et al. Changes in proinflammatory cytokine activity after menopause. Endocr Rev. 2002;23:90–119.
- Pickering TG, Hall JE, Appel LJ, et al. Association Council on High Blood Pressure Research From the Subcommittee of Professional and Public Education of the American Heart Animals: Part 1: Blood Pressure Measurement in Humans: A Statement for Professionals Recommendations. Circulation. 2005;111:697-716.
- Plourde M, Cunnane SC. Extremely limited synthesis of long chain polyunsaturates in adults: implications for their dietary essentiality and use as supplements. Appl Physiol Nutr Metab. 2007;32(4):619-34.
- Poehlman ET, Toth MJ, Gardner AW. Changes in energy balance and body composition at menopause: a controlled longitudinal study. Ann Intern Med, 1995;123:673-675.
- Potter K, Hankey GJ, Green DJ, et al. The effect of long-term homocysteine-lowering on carotid intima-media thickness and flow-mediated vasodilation in stroke patients: a randomized controlled trial and meta-analysis. BMC Cardiovasc Disord. 2008;8:24.
- Pouteau E, Aprikian O, Grenot C, et al. A low alpha-linolenic intake during early life increases adiposity in the adult guinea pig. Nutr Metab (Lond). 2010;7:8.
- Pradhan R, Meda V, Rout P, et al. Supercritical CO2 extraction of fatty oil from flaxseed and comparison with screw press expression and solvent extraction processes. J. Food Eng. 2010;98(4), 393-397.
- Prasad K. Antihypertensive Activity of Secoisolariciresinol Diglucoside (SDG) Isolated from Flaxseed: Role of Guanylate Cyclase. International Journal of Angiology. 2004, Feb;13(1):7-14.
- Prasad K. Effect of chronic administration of lignan complex isolated from flaxseed on the hemopoietic system. Molecular and Cellular Biochemistry. 2005 Mar; 270(1-2):139-45.



- Prasad K. Secoisolariciresinol Diglucoside (SDG) Isolated from Flaxseed, an Alternative to ACE Inhibitors in the Treatment of Hypertension. Int J Angiol. 2013;22(4):235–238.
- Prasad K. Suppression of phosphoenolpyruvate carboxykinase gene expression by secoisolariciresinol diglucoside (SDG), a new antidiabetic agent. International Journal of Angiology. 2002 Mar;11(2):107-109.
- Prasad, K. Flaxseed and cardiovascular health. Journal of Cardiovascular Pharmacology. 2009;54:369-377.
- Price TM, O'Brien SN, Welter BH, et al. Estrogen regulation of adipose tissue lipoprotein lipase-Possible mechanism of body fat distribution. Am J Obstet Gynecol. 1998;178:101-107.
- Prince EA, Adamo KB, Hamel ME, et al. A comparison of direct versus self-report measures for assessing physical activity in adults: a systematic review. Int J Behav Nutr Phys Act. 2008 Nov;6(5):56.
- Proell M, Riedel SJ, Fritz JH, et al. The Nod-like receptor (NLR) family: a tale of similarities and differences. PLoS One. 2008;3:e2199.
- Proell M, Riedel SJ, Fritz JH, et al. The Nod-like receptor (NLR) family: a tale of similarities and differences. PLoS One. 2008; 3:e2199.
- Provan D, Singer C, Baglin T, et al. Red cell disorders. In: Oxford handbook of clinical haematology. 3rd ed. Oxford University Press, 2010: p46-7.
- Qu HQ, Li Q, Rentfro AR, et al. The definition of insulin resistance using HOMA-IR for Americans of Mexican descent using machine learning. PLoS One. 2011;6(6):e21041.
- Quinn K, Basu TK. Folate and vitamin B12 status of the elderly. Eur J Clin Nutr. 1996;50:340-342.
- Radhika G, Sathya RM, Sudha V, et al. Dietary Salt Intake and Hypertension in An Urban South Indian Population-[CURES-53]. JAPI. 2007;55:405-411.
- Raffaelli B, Hoikkala A, Leppala E, et al. Enterolignans. J. Chromatogr. B. 2002;777:29-43.
- Rafnsson SB, Saravanan P, Bhopal RS et al. Is a low blood level of vitamin B12 a cardiovascular and diabetes risk factor? A systematic review of cohort studies. European Journal of Nutrition. 2011;50(2):97–106.



- Rajamoorthi K, Petrache HI, McIntosh TJ, et al. Packing and viscoelasticity of polyunsaturated omega-3 and omega-6 lipid bilayers as seen by (2) H NMR and X-ray diffraction. J Am Chem Soc. 2005;127:1576–88.
- Rajesha J, Ranga RA, Karuna KM, et al. Hepato-protective potential of hull fraction from indian flaxseed cultivar. Asian Journal of Medical Sciences. 2010;(1):20-25.
- Ramachandran A, Snehalatha C, Satyavani K, et al. Metabolic syndrome in urban Asian Indian adults—a population study using modified ATP III criteria. Diabetes Research and Clinical Practice. 2003 Jun;60(3):199–204.
- Ramadori G, Veit T, Schwogler S, et al. Expression of the gene of the alpha-smooth muscle-actin isoform in rat liver and in rat fat-storing (ITO) cells. Virchows Arch B Cell Pathol Incl Mol Pathol. 1990;59:349–357.
- Randolph JF, Zheng H, Sowers MR, et al. Change in Follicle-Stimulating Hormone and Estradiol Across the Menopausal Transition: Effect of Age at the Final Menstrual Period. J Clin Endocrinol Metab. 2011;96(3):746–754.
- Rao CR, Kamath VG, Shetty A, et al. High Blood Pressure Prevalence and Significant Correlates: A Quantitative Analysis from Coastal Karnataka, India. ISRN Preventive Medicine. 2013;2013:574973.
- Rao RSP, Nair S, Nair NS, et al. Acceptability and effectiveness of a breast health awareness programme for rural women in India. Indian Journal of medical sciences. 2005;59(9):398-402.
- Rasic-Milutinovic Z, Perunicic G, Pljesa S, et al. Effects of N-3 PUFAs Supplementation on Insulin Resistance and Inflammatory Biomarkers in Hemodialysis Patients. Renal Failure. 2007;29(3):321-329.
- Razmara A, Krause DN, Duckles SP. Testosterone augments endotoxin-mediated cerebrovascular inflammation in male rats. Am J Physiol Heart Circ Physiol. 2005; 289: H1843–H1850.
- Reaven G. The metabolic syndrome or the insulin resistance syndrome? Different names, different concepts, and different goals. Endocrinol Metab Clin North Am. 2004;33:283–303.
- Rebuffe-Scrive M, Eldh J, Hafstrom LO, et al. Metabolism of mammary, abdominal, and femoral adipocytes in women before and after menopause. Metabolism. 1986;35:792-797.



- Reddy KS, Katan MB. Diet, nutrition and the prevention of hypertension and cardiovascular diseases. Public Health Nutrition. 2004;7(1A):167-186.
- Reddy KS. Prevention and control of non-communicable diseases: status and strategies. Indian council for research on international economic relations; 2003. (Working paper no. 104).
- Refsum H, Smith AD, Ueland PM, et al. Facts and recommendations about total homocysteine determinations: an expert opinion. Clin Chem. 2004;50:3–32.
- Refsum H, Yajnik CS, Gadkari M, et al. Hyperhomocystinemia and evevated methylmalnoic acid indicate a high prevalence of cobalamin deficiency in Asian Indians. Am J Clin Nutr. 2001;74:233-41.
- Reiner M, Niermann C, Jekauc D et al. Long-term health benefits of physical activity–a systematic review of longitudinal studies. BMC Public Health. 2013;13:813.
- Ren GY, Chen CY, Chen GC, et al. Effect of Flaxseed Intervention on Inflammatory Marker C-Reactive Protein: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. Nutrients. 2016;8(136):1-12.
- Reue K, Dwyer JR. Lipin proteins and metabolic homeostasis. J Lipid Res. 2009;50 (suppl):S109–S114.
- Revell P, O'Doherty MJ, Tang A, et al. Folic acid absorption in patients infected with the human immunodeficiency virus. J Intern Med. 1991;230:227-231.
- Rhee Y, Brunt A. Flaxseed supplementation improved insulin resistance in obese glucose intolerant people: a randomized crossover design. Nutrition Journal. 2011;10:44.
- Ribas V, Drew BG, Soleymani T, et al. Skeletal muscle specific ERα deletion is causal for the metabolic syndrome. Endocr Rev. 2010;31:S5.
- Richardson SJ, Senikas V, Nelson JF. Follicular depletion during the menopausal transition: evidence for accelerated loss and ultimate exhaustion. J Clin Endocrinol Metab. 1987;65(6):1231-7.
- Ridker PM, Buring JE, Cook NR, et al. C-Reactive Protein, the Metabolic Syndrome, and Risk of Incident Cardiovascular Events: An 8-Year Follow-Up of 14 719 Initially Healthy American Women. Circulation. 2003;107:391-397.



- Ridker PM, Charles MD, Hennekens H, et al. C-Reactive Protein and Other Markers of Inflammation in the Prediction of Cardiovascular Disease in Women. N Engl J Med. 2000;342:836-843.
- Ridker PM, Rifai R, Cook NR, et al. Non–HDL Cholesterol, Apolipoproteins A-I and B<sub>100</sub>, Standard Lipid Measures, Lipid Ratios, and CRP as Risk Factors for Cardiovascular Disease in Women. JAMA. 2005;294(3):326-333.
- Ridker PM, Wilson PWF, Grundy SM. Should C-Reactive Protein Be Added to Metabolic Syndrome and to Assessment of Global Cardiovascular Risk? Circulation. 2004;109: 2818-2825.
- Ridker PM. Prevention of Cardiovascular Disease High-Sensitivity C Reactive Protein: Potential Adjunct for Global Risk Assessment in the Primary. Circulation. 2001;103:1813-1818.
- Rietzschel E, De Buyzere M. High-sensitive C-reactive protein: universal prognostic and causative biomarker in heart disease? Biomarkers Med. 2012;6(1):19–34.
- Roach JC, Glusman G, Rowen L, et al. The evolution of vertebrate Toll-like receptors. Proc Natl Acad Sci USA. 2005;102:9577–82.
- Roach JC, Glusman G, Rowen L, et al. The evolution of vertebrate Toll-like receptors. Proc. Natl. Acad. Sci. USA. 2005; 102:9577–82.
- Rogers NH, Perfield JW II, Strissel KJ, et al. Reduced energy expenditure and increased inflammation are early events in the development of ovariectomy-induced obesity. Endocrinology. 2009;150:2161–2168.
- Ross PD, Kress BC, Parson RE, et al. Serum Bone Alkaline Phosphatase and Calcaneus Bone Density Predict Fractures: A Prospective Study. Osteoporosis International. 2000;11(1):76-82.
- Rossi R, Origliani G, Modena MG. **Tra**nsdermal 17-β-Estradiol and Risk of Developing Type 2 Diabetes in a Population of Healthy, Nonobese Postmenopausal Women. Diabetes Care. 2004 Mar; 27**(3)**:645-649.
- Rossi R, Origliani G, Modena MG. Transdermal 17-β-Estradiol and Risk of Developing Type 2 Diabetes in a Population of Healthy, Nonobese Postmenopausal Women. Diabetes Care. 2004;27(3):645-649.



- Rossouw JE, Anderson GL, Prentice RL, et al. Risks and benefits of estrogen plus progestin in healthy postmenopausal women: principal results From the Women's Health Initiative randomized controlled trial. JAMA. 2002 Jul;288(3):321-33.
- Rubilar M, Gutierrez C, Verdugo M et al. Flaxseed As A Source Of Functional Ingredients. J soil sci plant nutr. 2010;10(3):373-377.
- Rzewnicki R, Vanden-Auweele Y, De Bourdeaudhuij I. Addressing overreporting on the International Physical Activity Questionnaire (IPAQ) telephone survey with a population sample. Public Health Nutr. 2003 May;6(3):299-305.
- Sadasivam S, et al. Biochemical Methods. Revised Second Edition. New Delhi: New Age publisher; 2005. p 8-9.
- Sadeghian S, Fallahi F, Salarifar M, et al. Homocysteine, vitamin B12 and folate levels in premature coronary artery disease. BMC Cardiovasc Disord. 2006;6:38.
- Sadler GR, Dhanjal SK, Shah NB, et al. Asian Indian Women: Knowledge, Attitudes and Behaviors Toward Breast Cancer Early Detection. Public Health Nursing. 2001;18:357–363.
- Salem N Jr, Litman B, Kim HY, et al. Mechanisms of action of docosahexaenoic acid in the nervous system. Lipids. 2001;36:945–59.
- Sandeep S, Gokulakrishnan K, Deepa M, et al. Insulin resistance is associated with increased cardiovascular risk in Asian Indians with normal glucose tolerance--the Chennai Urban Rural Epidemiology Study (CURES-66). J Assoc Physicians India. 2011;59:480-4.
- Santilli F, Davi G, Patrono C. Homocysteine, methylenetetrahydrofolate reductase, folate status and atherothrombosis: A mechanistic and clinical perspective. Vascular Pharmacology. 2016;48:1-9.
- Santizo R, Pelligrino DA. Estrogen reduces leukocyte adhesion in the cerebral circulation of female rats. J Cereb Blood Flow Metab. 1999;19:1061–1065.
- Santizo RA, Anderson S, Ye S, et al. Effects of estrogen on leukocyte adhesion after transient forebrain ischemia. Stroke. 2000;31:2231–2235.
- Santizo RA, Xu HL, Galea E, et al. Combined endothelial nitric oxide synthase upregulation and caveolin-1 downregulation decrease leukocyte adhesion in pial venules of ovariectomized female rats. Stroke. 2002;33:613–616.



- Santoro N, Epperson CN, Mathews SB. Menopausal Symptoms and Their Management. Department Endocrinol Metab Clin North Am. 2015;44(3):497–515.
- Santoro N, Komi J. Prevalence and impact of vaginal symptoms among postmenopausal women. J Sex Med. 2009;6:2133–2142.
- Santoro N, Randolph JF Jr. Reproductive hormones and the menopause transition. Obstet Gynecol Clin North Am. 2011;38(3):455-66.
- Sartang MM, Mazloom Z, Dehkordi HR, et al. The effect of flaxseed supplementation on body weight and body composition: a systematic review and meta-analysis of 45 randomized placebo-controlled trials. Obes Rev. 2017 Sep;18(9):1096-1107.
- Satyanarayana U, Chakravarthy U. Textbook of Biochemistry, 3rd ed. New Delhi: Elsevier; 2006. p152-6.
- Saunders. Dorland's Illustrated Medical Dictionary. USA: Elsevier; 2007.
- Saxena S, Katare C. Evaluation of flaxseed formulation as a potential therapeutic agent in mitigation of dyslipidemia. Biomed J. 2014;37:386-90.
- Scazzone C, Bono A, Tornese F, et al. Correlation between Low Folate Levels and Hyperhomocysteinemia, but not with Vitamin B12 in Hypertensive Patients. Ann Clin Lab Sci Summer. 2014;44(3):286-290.
- Schenk S, Saberi M, Olefsky JM. Insulin sensitivity: modulation by nutrients and inflammation. J Clin Invest. 2008;118:2992–3002.
- Schindler AE. Thyroid function and postmenopause. Gynecological Endocrinology. 2003;17(1):79-85.
- Schoenfeld D. Statistical considerations for a parallel trial where the outcome is a<br/>measurement.2013.Calculatedfrom:http://hedwig.mgh.harvard.edu/sample\_size/js/js\_parallel\_quant.html
- Schorno A, Tulbek MC, Hall CA, et al. IFT Annual Meeting; 2003, July 13. Chicago IL, USA. Evaluation of physical and chemical properties of roasted flaxseeds. Session 14B, No. 6.
- Schunkert H, Danser AH, Hense HW, et al. Effects of estrogen replacement therapy on the reninangiotensin system in postmenopausal women. Circulation. 1997;95:39-45.



- Scuteri A, Stuehlinger MC, Cooke JP, et al. Nitric oxide inhibition as a mechanism for blood pressure increase during salt loading in normotensive postmenopausal women. J Hypertens. 2003;21:1339–1346.
- Seifer DB, Lambert-Messerlian G, Hogan JW, et al. Day 3 serum inhibin-B is predictive of assisted reproductive technologies outcome. Fertil Steril. 1997;67:110.
- Sekhri T, Kanwar RS, Wilfred R, et al. Prevalence of risk factors for coronary artery disease in an urban Indian population. BMJ Open. 2014;4:e005346.
- Sekine S, Sasanuki S, Aoyama T et al. Lowering Systolic Blood Pressure and Increases in Vasodilator Levels in SHR with Oral a-Linolenic Acid Administration. J Oleo Sci. 2007;56,(7) 341-345.
- Semmler A, Moskau S, Grigull A, et al. Plasma folate levels are associated with the lipoprotein profile: a retrospective database analysis. Nutrition Journal. 2010;9:31.
- Serhan CN, Savill J. Resolution of inflammation: the beginning programs the end. Nat. Immunol. 2005;6:1191–97.
- Serhan CN. Novel eicosanoid and docosanoid mediators: resolvins, docosatrienes, and neuroprotectins. Curr Opin Clin Nutr Metab Care. 2005;8:115–21.
- Shah D. The Annual Conference of the British Menopause Society. J Midlife Health. 2010 Jan-Jun;1(1):48–50.
- Shah MB. Obesity and sexuality in women. Obstet Gynecol Clin North Am. 2009;36:347– 360.
- Sharma S, Tandon VR, Mahajan A. Menopausal Symptoms in Urban Women. JK Science. 2007 Jan-Mar; 9(1):13-17.
- Shenoy R, Vernekar P. Fasting Lipid Profile in Pre- and Post-Menopausal Women: A Prospective Study. Int J Sci Stud. 2015;3(9):116-119.
- Sherman BM, West JH, Korenman SG. The menopausal transition: analysis of LH, FSH, estradiol, and progesterone concentrations during menstrual cycles of older women. J Clin Endocrinol Metab. 1976;42:629–636.
- Shetty PS. Nutrition transition in India. Public Health Nutrition. 2002;5(1A):175–182.



- Shim YY, Gui B, Arnison PG, et al. Flaxseed (Linum usitatissimum L.) bioactive compounds and peptide nomenclature: A review. Trends in Food Science & Technology. 2014;38:5e20.
- Shimodaira M, Okaniwa S, Hanyu N et al. Optimal Hemoglobin A1c Levels for Screening of Diabetes and Prediabetes in the Japanese Population. Journal of Diabetes Research. 2015; 2015:932057.
- Shobha V, Tarey SD, Singh RG, et al. Vitamin B<sub>12</sub> deficiency & levels of metabolites in an apparently normal urban south Indian elderly population. Indian J Med Res. 2011;134:432-439.
- Shoelson SE, Lee J, Goldfine AB. Inflammation and insulin resistance. J Clin Invest. 2006;116(7):1793–1801.
- Simbalista RL, Sauerbronn AV, Aldrighi JM, et al. Consumption of a Flaxseed-Rich Food Is Not More Effective Than a Placebo in Alleviating the Climacteric Symptoms of Postmenopausal Women. J. Nutr. 2010 Feb;140(2):293-297.
- Simopoulos AP. Essential fatty acids in health and chronic disease. Am J Clin Nutr. 1999;70(Supl.):560S-569S.
- Simopoulos AP. The importance of the omega-6/omega-3 fatty acid ratio in cardiovascular disease and other chronic diseases. Exp Biol Med (Maywood). 2008 Jun;233(6):674-88.
- Singh K, Mridula D, Barnwal P, et al. Physical and chemical properties of flaxseed. Int. Agrophys. 2012;26:423-426.
- Singh K, Mridula D, Rehal J, et al. Flaxseed: a potential source of food, feed and fiber. Critical Reviews in Food Science and Nutrition. 2011;51(3):210-222.
- Singh PN, Arthur KN, Orlich MJ, et al. Global epidemiology of obesity, vegetarian dietary patterns, and noncommunicable disease in Asian Indians. Am J Clin Nutr. 2014;100(suppl):359S–64S.
- Singh RB, Pella D, Mechirova V, et al. Prevalence of obesity, physical inactivity and undernutrition, A triple burden of disease during transition in a developing economy. The Five city study group. ActaCardiol. 2007;62(2):119-127.



- Singh S, Issac R, Benjamin AI, et al. Prevalence and Association of Physical Activity with Obesity: An Urban, Community-Based, Cross-Sectional Study. Indian J Community Med. 2015 Apr-Jun;40(2):103–107.
- Singhania PR, Gupta G, Ray KS. Inflammatory Biomarkers in Asian Indian Women with Metabolic Syndrome. Food and Nutrition Sciences. 2013;4:1021 1027.
- Singleton VL, Orthofer R, Lamuela-Raventos RM. Analysis of total phenols and other oxidation substrates and antioxidants by means of Folin-Ciocalteu reagent. Methods in enzymology. 1999;299:152-178.
- Sites CK, Toth MJ, Cushman M, et al. Menopause-related differences in inflammation markers and their relationship to body fat distribution and insulin-stimulated glucose disposal. Fertility and Sterility. 2001;77(1):128-135.
- Sites CK, Toth MJ, Cushman M, et al. Menopause-related differences in inflammation markers and their relationship to body fat distribution and insulin-stimulated glucose disposal. Fertil Steril. 2002;77:128–135.
- Smeds AI, Eklund PC, Sjoholm RE, et al. Quantification of a broad spectrum of lignans in cereals, oilseeds, and nuts. J Agric Food Chem. 2007;55:1337-1346.
- Snehalatha C, Sivasankari S, Satyavani K, et al. Insulin resistance alone does not explain the clustering of cardiovascular risk factors in southern India. Diabet Med. 2000;7(2):152-7.
- Sobczynnska-Malefora A, Gorska R, Pelisser M, et al. An audit of holotranscobalamin ("Active" B12) and methylmalonic acid assays for the assessment of vitamin B12 status: application in a mixed patient population. Clin Biochem. 2014;47:82-6.
- Somdatta P, Baridalyne N. Awareness of breast cancer in women of an urban resettlement colony. Indian J Cancer. 2008;45:149-53.
- Sowers MF, Luborsky J, Perdue C, et al. Thyroid stimulating hormone (TSH) concentrations and menopausal status in women at the mid-life: SWAN. Clinical Endocrinology. 2003;58(3):340–347.
- Sprecher H. Metabolism of highly unsaturated n-3 and n-6 fatty acids. Biochim Biophys Acta. 2000;1486(2-3):219-31.
- Srivastava RK, Bachani D. Burden of NCDs, Policies and Programme for Prevention and Control of NCDs in India. Indian J Community Med. 2011 Dec;36(Suppl1):S7–S12.



- Stabler SP, Allen RH. Vitamin B12 deficiency as a worldwide problem. Annu Rev Nutr. 2004;24:299-326.
- Staessen JA, van der Heijden-Spek JJ, Safar ME, et al. Menopause and the characteristics of the large arteries in a population study. J Hum Hypertens. 2001;15:511-8.
- Stampfer MJ, Hu FB, Manson JE, et al. Primary Prevention of Coronary Heart Disease in Women through Diet and Lifestyle. N Engl J Med. 2000;343:16-22.
- Standard Tables of Food Composition in Japan. Report of the Subdivision on Resources, 5th ed. The Council for Science and Technology, Ministry of Education, Culture, Sports, Science, and Technology, Japan; 2005. p150–151.
- Stuglin C, Prasad K. Effect of Flaxseed Consumption on Blood Pressure, Serum Lipids, Hemopoietic System and Liver and Kidney Enzymes in Healthy Humans. Journal of Cardiovascular Pharmacology and Therapeutics. 2005;10(1).
- Stuglin C, Prasad K. Effect of flaxseed consumption on blood pressure, serum lipids, hemopoietic system and liver and kidney enzymes in healthy humans. J Cardiovasc Pharmacol Ther. 2005 Mar;10(1):23-7.
- Stulnig TM. Immunomodulation by polyunsaturated fatty acids: Mechanisms and effects. Int. Arch. Allergy Immunol. 2003;132:310–321.
- Sturdee DW. The menopausal hot flush-anything new? Maturitas. 2008;60(1):42-49.
- Su HI, Freeman EW. Hormone changes associated with the menopausal transition. Minerva Ginecol. 2009;61(6):483–489.
- Sugiuchi H, Irie T, Uji Y, et al. Homogeneous assay for measuring low-density lipoprotein cholesterol in serum with triblock copolymer and a-cyclodextrin sulfate. Clinical Chemistry. 1998;44(3):522–531.
- Sukla KK, Nagar R, Raman R. Vitamin-B12 and folate deficiency, major contributing factors for anemia: A population based study. e-SPEN Journal. 2014;9:e45-e48.
- Sunday L, Ospina J, Krause DN, et al. Estrogen modifies cerebral vascular inflammation. Stroke. 2004;35:249.
- Sunday L, Tran MM, Krause DN, et al. Estrogen and progestagens differentially modulate vascular proinflammatory factors. Am J Physiol Endocrinol Metab. 2006;291:E261–E267.



- Svendsen O, Hassager C, Christiansen C. Age- and Menopause-Associated Variations in Body Composition and Fat Distribution in Healthy Women as Measured by Dual-Energy X-Ray Absorptiometry. Metabolism. 1995;44(3):369-373.
- Svendsen OL, Hassager C, Christiansen C. Age- and menopause-associated variations in body composition and fat distribution in healthy women as measured by dualenergy x-ray absorptiometry. Metabolism. 1995 Mar;44(3):369–373.
- Svendsen OL, Hassager C, Christiansen C. Relationships and independence of body composition, sex hormones, fat distribution and other cardiovascular risk factors in overweight postmenopausal women. Int J Obes. 1993;17:459-463.
- Swanson D, Block R, Mousa SA. Omega-3 Fatty Acids EPA and DHA: Health Benefits Throughout Life Adv Nutr. 2012 Jan;3:1-7.
- Tamai Y, Wada K, Tsuji M, et al. Dietary Intake of Vitamin B12 and Folic Acid Is Associated With Lower Blood Pressure in Japanese Preschool Children. Am J Hypertens. 2011;24(11):1215-1221.
- Tanner SM, Aminoff M, Wright FA, et al. Amnionless, essential for mouse gastrulation, is mutated in recessive hereditary megaloblastic anemia. Nat Genet. 2003;33:426– 429.
- Tchernof A, Poehlman ET, Despres JP. Body Fat Distribution, The Menopause Transition, And Hormone Replacement Therapy. Diabetes & Metabolism (Paris). 2000;26:12-20.
- Teixeira BC, Lopes AL, Macedo RCO, et al. Inflammatory markers, endothelial function and cardiovascular risk. J vasc bras. 2014;13(2).
- Terauchi M, Hiramitsu S, Akiyoshi M, et al. Associations among depression, anxiety and somatic symptoms in peri- and postmenopausal women. J Obstet Gynaecol Res. 2013 May;39(5):1007-13.
- The United States Government Global Health Initiative. Strategy document, 2010. Available from: http://www.pepfar.gov/documents/organization/136504.pdf
- The World Bank. NCDs POLICY BRIEF-India. The World Bank, South Asia Human Development, Health Nutrition, and Population; 2011.



- Thompson LU, Boucher BA, Liu Z, et al. Phytoestrogen content of foods consumed in Canada, including isoflavones, lignans, and coumestan. Nutr Cancer. 2006;54:184-201.
- Thomson CA, Stanaway J, Neuhouser ML, et al. Nutrient Intake and Anemia Risk in the WHI Observational Study. J Am Diet Assoc. 2011 Apr;111(4):532–541.
- Thurston RC, Joffe H. Vasomotor Symptoms and Menopause: Findings from the Study of Women's Health Across the Nation. Obstet Gynecol Clin North Am. 2011 Sep;38(3):489–501.
- Tillin T, Hughes AD, Godsland IF, et al. Insulin Resistance and Truncal Obesity as Important Determinants of the Greater Incidence of Diabetes in Indian Asians and African Caribbeans Compared With Europeans: The Southall And Brent REvisited (SABRE) cohort. Diabetes Care. 2013;36:383–393.
- Tiwari J, Naagar JK. Changes in serum lipid profile in postmenopausal women with reference to Body mass index (BMI). Int J Med Res Rev. 2015;3(5):456-460.
- Tominaga S, Nishi K, Nishimoto S, et al. (–)-Secoisolariciresinol attenuates high-fat dietinduced obesity in C57BL/6 mice. Food Funct. 2012,3:76-82.
- Torkan M, Entezari MH, Siavash M. Effect of Flaxseed on Blood Lipid Level in Hyperlipidemic Patients. Reviews on Recent Clinical Trials. 2015, Mar;10(1):61-67(7).
- Tosi F, Sarra DD, Kaufman JM, et al. Total Body Fat and Central Fat Mass Independently Predict Insulin Resistance but Not Hyperandrogenemia In Women With Polycystic Ovary Syndrome. J Clin Endocrinol Metab. 2015;100(2):661-669.
- Tremollieres FA, Pouilles JM, Ribot CA. Relative influence of age and menopause on total and regional body composition changes in postmenopausal women. Am J Obstet Gynecol. 1996 Dec;175(6):1594-600.
- Tyagi R, Dhall M, Kapoor S. Bio-Social Predictors of Hypertension In Premenopausal and Postmenopausal Women. SAGE Open. 2015 Jan-Mar;1–12.
- Tzang BS, Yang SF, Fu SG, et al. Effects of dietary flaxseed oil on cholesterol metabolism of hamsters. Food Chemistry. 2009 June;114(4):1450–1455.
- Ulloa-Aguirre A, Timossi C. Structure–function relationship of follicle-stimulating hormone and its receptor. Human Reproduction Update. 1998;4(3):260–283.



- Unni J. Third consensus meeting of Indian Menopause Society (2008): A summary. J Midlife Health. 2010;1:43-7.
- Ursoniu S, Sahebkar A, Andrica F, et al. Effects of flaxseed supplements on blood pressure: A systematic review and meta-analysis of controlled clinical trial. Clin Nutr. 2016 Jun;35(3):615-25.
- USFDA. Conclusion of the expert penal. Determination of GRAS status of theaddition of whole and milled flaxseedto conventional foods and meat and poultry products. 2009.
- Valente E, Scott J, Ueland P, et al. Diagnostic accuracy of holotranscobalamin, methylmalonic acid, serum cobalamin, and other indicators of tissue vitamin B12 status in the elderly. Clin Chem. 2011;57:856-63.
- Van der Voort DJ, Geusens PP, Dinant GJ. Risk factors for osteoporosis related to their outcome: fractures . Osteoporos Int. 2001;12:630–638.
- van Harmelen V, Ryden M, Sjolin E, et al. A role of lipin in human obesity and insulin resistance: relation to adipocyte glucose transport and GLUT4 expression. J Lipid Res. 2007;48:201–206.
- van Leeuwen MA, van Rijswijk MH. Acute phase proteins in the monitoring of inflammatory disorders. Baillieres Clin Rheumatol. 1994 Aug;8(3):531-52.
- Vermunt SH, Mensink RP, Simonis MM, et al. Effects of dietary alpha-linolenic acid on the conversion and oxidation of 13C-alphalinolenic acid. Lipids. 2000;35:137–42.
- Vidyasagar S, Razak UKA, PrashanthCK, et al. Highly sensitive C-reactive protein in metabolic syndrome. JIACM. 2013;14(3-4):230-4.
- Vikram NK, Misra A, Pandey RM, et al. Association between subclinical inflammation & fasting insulin in urban young adult north Indian males. Indian J Med Res. 2006;124(6):677-82.
- Villa E, Karampatou A, Camma C, et al. Early menopause is associated with lack of response to antiviral therapy in women with chronic hepatitis C. Gastroenterology. 2011;140:818–829.
- Wadia RS, Bandishti S, Kharche M. B12 and folate deficiency: incidence and clinical features. Neurol India. 2000;48(4):304-304.



- Wang Q, Hassager C, Ravn P, et al. Total and regional body-composition changes in early postmenopausal women: age-related or menopause-related? Am J Clin Nutr. 1994 Dec;60(6):843-8.
- Wang Y, Fofana B, Roy M, et al. Flaxseed lignan secoisolariciresinol diglucoside improves insulin sensitivity through upregulation of GLUT4 expression in diet-induced obese mice. Journal of Functional Foods. 2015 Oct;18(A):1-9.
- Warner ET, Wolin KY, Duncan DT, et al. Differential Accuracy of Physical Activity Self-Report by Weight Status. Am J Health Behav. 2012 Mar;36(2):168–178.
- Wasir JS, Misra A, Vikram NK, et al. C-reactive protein, obesity, and insulin resistance in postmenopausal women in urban slums of North India. Diabetes and metabolic syndrome clinical Research & Reviews. 2007;1(2):83-89.
- Weiss G, Skurnick JH, Goldsmith LT, et al. Menopause and Hypothalamic-Pituitary Sensitivity to Estrogen JAMA. 2004;292(24):2991-2996.
- Wheatcroft SB, Williams IL, Shah AM, et al. Pathophysiological implications of insulin resistance on vascular endothelial function. Diabet Med. 2003;20:255–68.
- WHO/NMH. Fact Sheet Tobacco. WHO, Geneva; 2009. Available from: http://www.who.int/nmh/publications/fact\_sheet\_tobacco\_en.pdf
- Wich BK, Carnes M. Menopause and the aging female reproductive system. Endocrinol Metab Clin North Am. 1995;24:273-295.
- Wilcox G. Insulin and Insulin Resistance. Clin Biochem Rev. 2005;26(2):19-39.
- Winter JS, Faiman C. The development of cyclic pituitary-gonadal function in adolescent females. J Clin Endocrinol Metab. 1973;37:714–718.
- Wohlers LM, Spangenburg EE. 17beta-estradiol supplementation attenuates ovariectomy-induced increases in ATGL signaling and reduced perilipin expression in visceral adipose tissue. J Cell Biochem. 2010;110:420-427.
- Wongwananuruk T, Rattanachaiyanont M, Leerasiri P, et al. The Usefulness of Homeostatic Measurement Assessment-Insulin Resistance (HOMA-IR) for Detection of Glucose Intolerance in Thai Women of Reproductive Age with Polycystic Ovary Syndrome. International Journal of Endocrinology. 2012; 2012:571035.



- World Health Organization. Noncommunicable Diseases (NCD) Country Profiles. WHO, Geneva; 2014.
- World Health Organization. Appropriate body-mass index for Asian populations and its implications for policy and intervention strategies. Lancet. 2004;363(9403):157-163.
- World Health Organization. Research on the menopause in 1990s. WHO, Geneva; 1996. (Technical report series 866).
- World Health Organization. Conclusions of a WHO Technical Consultation on folate and vitamin B12 deficiencies. Food and Nutrition Bulletin. 2008;29(2):S238-S244.
- World Health Organization. Diet, Nutrition and the Prevention of Chronic Diseases. Report of a Joint WHO/FAO Expert Consultation. WHO, Geneva; 2003. (WHO Technical Report Series No. 916)
- World Health Organization. Global disease burden. WHO, Geneva; 2004. Available from: http://www.who.int/healthinfo/global\_burden\_disease/risk\_factors/en/
- World Health Organization. Global Health Observatory (GHO), World Health Organization, Geneva; 2014. Available from: http://www.who.int/gho/ncd/mortality\_morbidity/en/
- World Health Organization. Global recommendations on physical activity for health.WHO,Geneva;2010.Availablehttp://apps.who.int/iris/bitstream/10665/44399/1/9789241599979\_eng.pdf
- World Health Organization. Global status report on alcohol and health. WHO, Geneva; 2014. Available from: http://www.who.int/substance\_abuse/publications/global\_alcohol\_report/en
- World Health Organization. Global strategy for the prevention and control of noncommunicable diseases. WHO, Geneva; 2000.
- World Health Organization. Haemoglobin concentrations for the diagnosis of anaemia and assessment of severity. Vitamin and Mineral Nutrition Information System. WHO, Geneva; 2011. (WHO/NMH/NHD/MNM/11.1)
- World Health Organization. Iron Deficiency Anaemia Assessment, Prevention, and Control A guide for programme manager. WHO, Geneva; 2001. (WHO/NHD/01.3)



- World Health Organization. Mortality attributable to Tobacco. WHO, Geneva; 2012. Available from: http://www.who.int/tobacco/publications/surveillance/rep\_mortality\_attributabl e/en/
- World Health Organization. Overweight and Obesity fact sheet. Department of Sustainable Development and Healthy Environments. WHO, Geneva; 2011.
- World Health Organization. Waist Circumference and Waist-Hip Ratio Report of a WHO Expert Consultation. WHO, Geneva; 2011.
- World Health Organization. Women and the Rapid Rise of Non-communicable Diseases. WHO, Geneva; 2002. (WHO/NMH/02.01).
- World Health Organization. Women: Today's Evidence Tomorrow's Agenda. WHO, Geneva; 2009.
- World Health Report 2016. Monitoring health for the SDGs: sustainable development goals. WHO, Geneva; 2016.
- Wu F, Guo Y, Chatterji S, et al. Common risk factors for chronic non-communicable diseases among older adults in China, Ghana, Mexico, India, Russia and South Africa: the study on global AGEing and adult health (SAGE) wave 1. BMC Public Health. 2015;15:88.
- Wu H, Pan A, Yu Z, et al. Lifestyle Counselling and Supplementation with Flaxseed or Walnuts Influence the Management of Metabolic Syndrome. J Nutr. 2010;140:1937–1942.
- Yadav S, Boddula R, Genitta G, et al. Prevalence & risk factors of prehypertension & hypertension in an affluent north Indian population. Indian J Med Res. 2008;128:712-720.
- Yajnik CS, Deshpande SS, Lubree HG, et al. Vitamin B12 Deficiency and Hyperhomocysteinemia in Rural and Urban Indians. JAPI. 2006;54:775-782.
- Yajnik CS, Joglekar CV, Lubree HG, et al. Adiposity, inflammation and hyperglycaemia in rural and urban Indian men: Coronary Risk of Insulin Sensitivity in Indian Subjects (CRISIS) Study. Diabetologia. 2008;51:39–46.
- Yanes LL, Reckelhoff JF. Postmenopausal Hypertension. Am J Hypertens. 2011;24(7):740-749.



- Yang H, Mao Z, Tan H. ASAE Annual Meeting; 2004, August 2. Otawa, Canada. Determination and removal methods of cynogenic glycoside in flaxseeds. Paper number 046066. (doi: 10.13031/2013.16947)
- Yang HT, Lee M, Hong KS, et al. Efficacy of folic acid supplementation in cardiovascular disease prevention: An updated meta-analysis of randomized controlled trials. European Journal of Internal Medicine. 2012;23(8):745-754.
- Yang JD, Abdelmalek MF, Pang H, et al. Gender and menopause impact severity of fibrosis among patients with nonalcoholic steatohepatitis. Hepatology. 2014;59:1406–1414.
- Yari Z, Rahimlou M, Poustchi H, et al. A. Flaxseed Supplementation in Metabolic Syndrome Management: A Pilot Randomized, Open-labeled, Controlled Study. Phytother Res. 2016 Aug;30(8):1339-44.
- Yasuda M, Shimizu I, Shiba M, et al. Suppressive effects of estradiol on dimethylnitrosamine-induced fibrosis of the liver in rats. Hepatology. 1999;29:719–727.
- Yen SS, Tsai CC, Vandenberg G, et al. Gonadotropin dynamics in patients with gonadal dysgenesis: a model for the study of gonadotropin regulation. J Clin Endocrinol Metab. 1972;35:897-904
- Yoneda M, Thomas E, Sumida Y, et al. The influence of menopause on the development of hepatic fibrosis in nonobese women with nonalcoholic fatty liver disease. Hepatology. 2014;60:1792.
- Young SN, Ghadirian AM. Folic acid and psychopathology. Prog Neuropsychopharmacol Biol Psychiatry. 1989;13:841-863.
- Young T, Rabago D, Zgierska A, et al . Objective and subjective sleep quality in premenopausal, perimenopausal, and postmenopausal women in the Wisconsin Sleep Cohort Study. Sleep. 2003;26(6):667-672.
- Zeisel S. Regulation of 'nutraceuticals.' Science. 1999;285(5435):1853–1855.
- Zeng R, Xu CH, Xu YN, et al. The effect of folate fortification on folic acid-based homocysteine-lowering intervention and stroke risk: a meta-analysis. Public health nutrition. 2015;18(8):1514-1521.



- Zhang S, Yong-Yi B, Luo LM, et al. Association between serum homocysteine and arterial stiffness in elderly: a community-based study. J Geriatr Cardiol. 2014;11:32–8.
- Zhang W, Wang X, Liu Y, et al. Dietary flaxseed lignan extract lowers plasma cholesterol and glucose concentrations in hypercholesterolaemic subjects. British Journal of Nutrition. 2008;99(6):1301-1309.
- Zhishen J, Mengcheng T, Jianming W. The determination of flavonoid contents in mulberry and their scavenging effects on superoxide radicals. Food chemistry. 1999;64(4):555-559.

