



Favorite Five Articles from Recent Medical Journals



Acne Is Caused by Diet, Especially Dairy Products

Two recently published studies make a causal link between the high-fat Western diet and acne. **The influence of dietary patterns on acne vulgaris in Koreans** by JY Jung published in the *European Journal of Dermatology* concluded, "This study also showed that a high glycemic load diet, dairy food intake, high fat diet, and iodine in Korean foods appear to play a role in acne exacerbation."¹ Another study, **Role of insulin, insulin-like growth factor-1, hyperglycaemic food and milk consumption in the pathogenesis of acne vulgaris** by Bodo C. Melnik, published in the journal *Experimental Dermatology*, blamed milk consumption for adult acne.²

Comment: These two new studies add to previous research showing cow's milk causes acne.³ Researchers reported in 2006 after studying 6,094 girls, aged 9 to 15, that those consuming two or more glasses of milk daily had 20% to 30% more acne, compared to girls consuming less than one glass daily. In this research, low-fat milk was implicated, suggesting that it was not the fat from the milk and cheese, but rather properties of the dairy protein that promoted pimples. This study proposed that milk protein causes a rise of a powerful growth hormone, insulin-like growth factor-1 (IGF-1), in the body, which in turn promotes acne. Male hormones, called androgens, which are increased by the consumption of milk and cheese, provide another mechanism for dairy's role in causing acne.

For at least the past four decades doctors have told patients that diet has nothing to do with their acne. This dogmatic statement is based primarily on one study published 42 years ago in the *Journal of the American Medical Association*.² The author, Dr. James Fulton, studied 30 adolescents (14 girls and 16 boys) attending an acne clinic, and 35 young adult male prisoners with mild to moderate acne. The Chocolate Manufacturers Association of America provided the study with two kinds of candy bars: one with and one without chocolate. Both bars were made mostly of fat and sugar and had similar amounts of calories (557 to 592 calories per bar). The subjects then added one or the other bar to their usual daily food intake for the next four weeks. Nothing else was changed in their diet during the experiment except for the addition of the candy bars. They were still eating the same high-fat Western foods: meat, dairy, and free oils. Dr. Fulton and colleagues then counted the pimples on their young faces. Forty-six of the 65 subjects stayed the same, 10 were better, and 9 were worse. Not unexpectedly, the rate of sebum—a fatty substance secreted by the skin—excretion increased by 60% with the addition of either kind of the high-fat, high-sugar candy bar, with or without chocolate.

Please remember that the results of this single, seriously flawed, and irrelevant experiment are the heart and soul of the claim that "diet has nothing to do with acne." Multiple scientific studies and the experiences of a few teenagers fortunate enough to have changed their diets show otherwise.

During their teenage years, boys and girls are obsessed with their personal appearance—not a single hair can be out of place when they leave for school each morning. Obviously, a face glistening with oily skin and marked by inflamed pustules is likely to destroy a young person's self-image and self-confidence, to say the least. Protective parents will stand up for their children and make all efforts to support their happiness and success during these developmental years. In this case the benefits for children are as simple as fixing the foods on their dinner plates.

1) Jung JY, Yoon MY, Min SU, Hong JS, Choi YS, Suh DH. The influence of dietary patterns on acne vulgaris in Koreans. *Eur J Dermatol*. 2010 Nov-Dec;20(6):768-72.

2) Melnik BC, Schmitz G. Role of insulin, insulin-like growth factor-1, hyperglycaemic food and milk consumption in the pathogenesis of acne vulgaris. *Exp Dermatol*. 2009 Oct;18(10):833-41.

3) Adebamowo CA, Spiegelman D, Berkey CS, Danby FW, Rockett HH, Colditz GA, Willett WC, Holmes MD. Milk consumption and acne in adolescent girls. *Dermatol Online J*. 2006 May 30;12(4):1.

4) Fulton JE Jr. Effect of chocolate on acne vulgaris. *JAMA*. 1969 Dec 15;210(11):2071-4.

What Is the Best Baby Formula?

Differential growth patterns among healthy infants fed protein hydrolysate or cow-milk formulas by Julie A. Mennella, published in the journal *Pediatrics* found, "...that CMF-fed (cow milk formula-fed) infants' weight gain was accelerated, whereas PHF-fed (protein hydrolysate formula-fed) infants' weight gain was normative."¹ The authors noted that rapid rates of growth during the first year increase the risk for obesity, metabolic syndrome, and mortality from cardiovascular disease later on in life. Thus excessive weight gain for an infant is undesirable. Using breast-fed babies as the "gold standard of normal," formula feeding has long been known to cause excessive weight gain. Growth differences were attributable to differences in gains in weight, not length. Soy-based formula was not tested.

Comment: As a practicing doctor, I find it very difficult to recommend any kind of artificial infant feeding. I can only recommend human breast milk (preferably from its original container, the breast). Bottle-feeding is known to cause an increase in the risk of sudden infant death syndrome (crib death), pneumococcal pneumonia (occurring 60 times more frequently during the first three months of life), hospitalization (occurring 10 times more frequently during the first year), reduced IQ, behavioral and speech difficulties, and an increase in ear infections. Much of the research states that feeding babies formula rather than breast milk contributes to type-1 diabetes. Furthermore, recent evidence suggests feeding PHF formula rather than cow's milk-based formula will reduce the risk of children developing type-1 diabetes.²

Soy formulas promote estrogen-like activities due to their soy proteins. Lifetime exposure to estrogenic substances, especially during critical periods of development, has been associated with cancers and several deformities of the reproductive systems, including hypospadias in male babies.³ Research published in the February 2011 issue of the *American Journal of Clinical Nutrition* found negative effects of bottle-feeding on the health of young children's arteries.⁴

My strong recommendation is that at the first hint of a problem with breast-feeding, mothers need to connect with a lactation consultant (like [La Leche League](#)). The health and happiness of the entire family depends on successful breast-feeding.

What about those rare circumstances when breast-feeding by the real mother is impossible? The next choice is a surrogate mother (a wet nurse). Unfortunately, this option is no longer the social norm in our society. Milk from a [breast-milk bank](#) is the next best choice. If left with the choice between various chemical concoctions called formula, protein hydrolysate formula is the most reasonable one to make.

Protein hydrolysate formulas are also known as "hypoallergenic cow's milk-based formulas." They are commonly recommended for infants who cannot tolerate (are allergic to) intact proteins (usually cow's-milk proteins). In preparing these formulas, the milk proteins are broken down by enzymes and then ultra-filtrated to remove large molecules. Brands of these formulas include Similac Alimentum, Advance Ross Pediatrics EleCare, and Nutramigen Lipil. Thus, when parents and grandparents ask me what the best formula alternative to breast milk is; under duress, I recommend hypoallergenic cow's milk-based formula.

1) Mennella JA, Ventura AK, Beauchamp GK. Differential growth patterns among healthy infants fed protein hydrolysate or cow-milk formulas. *Pediatrics*. 2011 Jan;127(1):110-8.

2) Knip M, Virtanen SM, Seppä K, Ilonen J, Savilahti E, Vaarala O, Reunanen A, Teramo K, Hämäläinen AM, Paronen J, Dosch HM, Hakulinen T, Akerblom HK; Finnish TRIGR Study Group. Dietary intervention in infancy and later signs of beta-cell autoimmunity. *N Engl J Med*. 2010 Nov 11;363(20):1900-8.

3) Bar-El DS, Reifen R. Soy as an endocrine disruptor: cause for caution? *J Pediatr Endocrinol Metab*. 2010 Sep;23(9):855-61.

4) Evelein AM, Geerts CC, Visseren FL, Bots ML, van der Ent CK, Grobbee DE, Uiterwaal CS. The association between breastfeeding and the cardiovascular system in early childhood. *Am J Clin Nutr*. 2011 Apr;93(4):712-8.

Hidden Vegetables Cause Weight Loss

Hidden vegetables: an effective strategy to reduce energy intake and increase vegetable intake in adults by Alexandria D. Blatt

published in the April 2011 issue of the *American Journal of Clinical Nutrition* found, “Large amounts of pureed vegetables can be incorporated into various foods to decrease the energy density. This strategy can lead to substantial reductions in energy intakes and increases in vegetable intakes.” Laboratory studies show that people tend to eat a consistent weight of food. As a result, if the energy density of the food is decreased, people consume less energy. The weight of the food remained about the same even after the pureed vegetables were added. To reduce the energy density, the amounts of pureed vegetables (carrots, squash, and cauliflower) in the standard recipe were increased by 3 or 4.5 times as the other ingredients were decreased. The overall vegetable intake was increased from a baseline of nine ounces daily to about sixteen ounces daily, which resulted in 357 fewer calories consumed daily. Ratings of hunger, fullness, and palatability did not differ between the various types of meals with and without added vegetables.

Comment: Increasing the intake of vegetables, especially at the expense of high-fat meat and dairy products, and “free oils,” results in weight loss and better health. Unfortunately, many people do not like vegetables. In this experiment the vegetables were pureed and hidden in the foods. One of the tricks we (Mary and John McDougall) used to get our children to eat vegetables when they were growing up was to blend them first and then add this blend to sauces. Spaghetti sauce was a favorite one for hiding frightening vegetables.

Unfortunately, blending also causes adverse physical changes to the whole vegetable. Hitting a vegetable with a steel blade thousands of times in a grinder or blender disrupts the structure of the vegetables. The dietary fibers are pulverized, and as a result more food is consumed at a meal, and the body’s insulin levels rise higher—both changes making the pureed vegetables slightly more fattening. But in practical terms this difference will be imperceptible in weight loss and better health. Therefore, it is always better to eat your carrots, broccoli, and cauliflower whole. If that strategy is not resulting in better food choices then hiding pureed vegetables in other foods, and at the same time removing fats and oils, can be an effective way to lower calorie intake and should help with weight loss.

Blatt AD, Roe LS, Rolls BJ. Hidden vegetables: an effective strategy to reduce energy intake and increase vegetable intake in adults. *Am J Clin Nutr.* 2011 Apr;93(4):756-63

Measurement of PSA Velocity Harms More Men

An Empirical Evaluation of Guidelines on Prostate-specific Antigen Velocity in Prostate Cancer Detection by Andrew J. Vickers published in the March 16, 2011 issue of the *Journal of the National Cancer Institute* came to the definitive conclusion that, “We found no evidence to support the recommendation that men with high PSA velocity should be biopsied in the absence of other indications; this measure should not be included in practice guidelines....We found no reason to believe that implementation of the guideline (to include the use of the PSA velocity test) would improve patient outcomes; indeed, its use would lead to a large number of unnecessary biopsies. We therefore recommend that organizations issuing policy statements related to PSA and prostate cancer detection remove references to PSA velocity.”¹ These conclusions contradict the National Comprehensive Cancer Network (NCCN) and American Urological Association (AUA) guidelines, which state that men with a high PSA velocity (the rate of change of the PSA level)—between 0.35 to 4.0 ng/mL per year—should be considered for biopsy, even if the absolute level of PSA is very low.

Comment: The diagnosis of prostate cancer usually begins with a blood test to measure the prostate specific antigen (PSA). A PSA value over 4 ng/ml is considered worrisome. Because this static test is highly unreliable, doctors have looked to the rate of rise of the PSA, called the *PSA velocity*, to better predict who will be found to have prostate cancer by a biopsy of the prostate gland. All this testing is done in hopes of helping men ward off death. The end result, however, is more suffering for men and more profit for the prostate industries. For example, The American Urologic Association (AUA), a heavy promoter of PSA and PSA Velocity testing, represents the interests of its 16,500 members, most of them from urology and oncology businesses, and this organization is funded by GlaxoSmithKline, Lilly, Novartis, Pfizer, and other companies with obvious vested interests.

Think twice before agreeing to a PSA measurement of any kind. The PSA is a high-risk test—there is a 10% chance the results will be positive, leading to the next test, a series of biopsies of the prostate gland, which will show prostate cancer, on average, 30% of the time (depending on a man’s age). In the US the rate of microscopic prostate cancer is found in 8% of men in their twenties, 30% of men in their thirties, 50% of men in their fifties, and 80% of men in their seventies.^{2,3} In addition to the expected anxiety, inconvenience, discomfort, and additional medical expenses, common complications from a biopsy include pain with the biopsy, blood in the urine, pain while urinating, and rectal bleeding. Blood in the semen and erectile dysfunction are also often reported following the biopsies. One month after surgery, 41% of men report erectile dysfunction, and after six months the problem persists in 15% of men.⁴ In other words, it is permanent. On average, 12 separate needle biopsies are done during a single evaluation by the urologist, thereby causing damage the nerves involved with male erection.

- 1) Vickers AJ, Till C, Tangen CM, Lilja H, Thompson IM. An Empirical Evaluation of Guidelines on Prostate-specific Antigen Velocity in Prostate Cancer Detection. *J Natl Cancer Inst.* 2011 Mar 16;103(6):462-9.
- 2) Sakr WA . The frequency of carcinoma and intraepithelial neoplasia of the prostate in young male patients. *J Urol.* 1993 Aug;150 (2 Pt 1):379-85.
- 3) Stamey TA, Caldwell M, McNeal JE, Nolley R, Hemenez M, Downs J. The prostate specific antigen (PSA) era in the United States is over for prostate cancer: What happened in the last 20 years. *J Urol.* 2004 Oct;172(4, Part 1 Of 2):1297-1301.
- 4) Fujita K, Landis P, McNeil BK, Pavlovich CP. Serial prostate biopsies are associated with an increased risk of erectile dysfunction in men with prostate cancer on active surveillance. *J Urol.* 2009 Dec;182(6):2664-9.

BP Pills (ARBs) Increase the Risk of Dying

Olmesartan for the delay or prevention of microalbuminuria in type 2 diabetes by Hermann Haller, published in the March 10, 2011 issue of the *New England Journal of Medicine* found, "Olmesartan was associated with a delayed onset of microalbuminuria (protein in the urine), even though blood-pressure control in both groups was excellent according to current standards. The higher rate of fatal cardiovascular events with olmesartan among patients with preexisting coronary heart disease is of concern."¹ In this randomized, double-blind, multicenter, controlled trial, 4447 patients with type 2 diabetes, half received olmesartan and have taken a placebo, for a median of 3.2 years. Additional antihypertensive drugs were used as needed to lower blood pressure to less than 130/80 mm Hg.

There was a greater number of fatal cardiovascular events in the group on olmesartan (15 patients compared with 3 patients in the placebo group). This excess in deaths was due to more cases of fatal myocardial infarction (5 vs. 0) and sudden cardiac deaths (7 vs. 1) in the olmesartan group.

Daiichi Sankyo supported this study. This Japanese-based company is involved in research, development, manufacturing, import, sales and marketing of pharmaceutical products. As might be expected, the article was written with an obvious effort to minimize the adverse consequences of this medication on patients.

Comment: Olmesartan belongs to a class of drugs known as angiotensin-receptor blockers (ARBs), also called angiotensin-receptor II antagonists. The most common brand name is Benicar. In Canada and Europe it is called Olmetec. These medications act by blocking the action of a blood vessel-constricting hormone called angiotensin. The medication lowers blood pressure by dilating the blood vessels and reducing the resistance to blood flow.

In November of 2004 an editorial titled, "Angiotensin receptor blockers and myocardial infarction. These drugs may increase myocardial infarction—and patients may need to be told," was published in the *British Medical Journal*.² The truth is, patients are never told about this real risk. This review noted that many previous studies have shown an increase in strokes and heart attacks with the use of ARBs.

One effort was made to take the spotlight off of olmesartan. Rather than the tested medication the researchers suggested the reason for more heart disease could have been the overtreatment of the blood pressure. This phenomena, known as the "[J-curve](#)" of [mortality](#)", results when blood pressure is lowered with medication below 85 mmHg diastolic. The study was designed to lower patients' diastolic blood pressure to less than 80 mmHg diastolic.

In general, I introduce [medications](#) for elevated blood pressure when the pressure is sustained at 160/100 mmHg or greater for months. I pick this level to initiate drug-therapy based on the British Guidelines for Hypertension. I prefer the diuretic chlorthalidone to all other medications. My goal is to lower the diastolic pressure to between 85 and 90 mmHg with medication, but not any lower than that since the "J-curve of mortality" shows that overaggressive treatment with medications kills. I rarely use angiotensin receptor blockers because of the increased risk of strokes, heart attacks, and death that are described in this article. Other medications in this class include: Cozaar, Diovan, Avapro, Micardis, Teveten, Hyzaar, and Atacand.

- 1) Haller H, Ito S, Izzo JL Jr, Januszewicz A, Katayama S, Menne J, Mimran A, Rabelink TJ, Ritz E, Ruilope LM, Rump LC, Viberti G; ROADMAP Trial Investigators. Olmesartan for the delay or prevention of microalbuminuria in type 2 diabetes. *N Engl J Med.* 2011 Mar 10;364(10):907-17.

2) Verma S, Strauss M. Angiotensin receptor blockers and myocardial infarction. *BMJ*. 2004 Nov 27;329(7477):1248-9.

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