

Medical News - IMVA - Endocrine Function and Magnesium - Menopause and Premenstrual Syndrome - May 31, 2006

Dear IMVA,

Dr. David Eddy^{[i][1]} several years ago showed that the conventional approach to treating diabetes did little to prevent the heart attacks and strokes that are complications of the disease. And though some positive changes have been implemented because of his work the medical community still has not seen that mega doses of magnesium is the treatment of choice for both prevention and treatment of diabetes. Insulin is crucial for many but it does not treat the fundamentals, it does not prevent or cure. Insulin is believed to manage the consequences of the disease, but it is becoming more evident each day that magnesium is also a crucial necessity in both type one and type two-diabetes.

Dr Eddy has been working for many years trying to solve the thorniest riddle in medicine. "The problem is that we don't know what we are doing," he says. Even today, with a high-tech health-care system that costs the nation \$2 trillion a year, there is little or no evidence that many widely used treatments and procedures actually work better than various cheaper alternatives. Eddy has repeatedly punctured cherished physician myths. He showed, for instance, that the annual chest X-ray was worthless and that doctors had little clue about the success rate of procedures such as surgery for enlarged prostates.^{[ii][2]}

Dr. Eddy has been diligent in asking if there is actual evidence^{[iii][3]} to support what doctors are doing. The answer, he was surprised to hear, was no. "I concluded that medicine was making decisions with an entirely different method from what we would call rational," says Eddy.

The portion of medicine that has been proven effective is still outrageously low -- in the range of 20% to 25%.

Dr. David Eddy

Below is the final chapter I just finished for **Transdermal Magnesium Therapy**, which should be published in July in the United States. It presents the crucial link between key hormones, cholesterol and magnesium - and does that in the context of women's issues like menopause, menstrual problems and other related issues.

There is ample evidence that almost each and every woman alive should be considering supplementing heavily with magnesium and doing that in a way that stimulates production of DHEA. Again and again my research has sustained the medical insight that it is magnesium that belongs first on the list in the treatment and prevention of most diseases.

The Magnesium Oil I champion is as natural and common a product as unprocessed sea salt. It's a raw material that is easily produced when you make salt from sea water evaporation. One of my main missions in life is to bring recognition to this valuable sea brine. For all the billions spent by pharmaceutical companies in research they will never find the medical power and safe efficiency of magnesium chloride (and other sea minerals) harvested from the oceans waters.

The entire world's health could be dramatically improved just by tapping into the power of the sea, which offers a richness of minerals severely lacking in most commercial foods today. It is because of this that I am involving myself with people around the world who harvest the sea. There is the magnesium chloride called [Magnesium Oil](#), there are [concentrated sea minerals](#) for oral consumption, some of which contain powerful herbs. There is [pure sea water](#) in both hypertonic (non-concentrated sea water) and isotonic (diluted sea water), which are very suitable for babies and young children. The Hawaiian state government and the Japanese are investing heavily in this young industry. Though it is not from the sea but high alkaline lakes, it was [spirulina](#) that first captured me 25 years ago. All of this passion for the healing properties of water, and the bountiful medical products that can be extracted from it are all expressed in the *Waters of Life* section of the **Survival Medicine for the 21 Century** book.

Without extensive information on the outcomes of treatments, it's fiendishly difficult to know the best approach for care. It is the reason my passion is for medical basics, for substances whose actions, functions and safety are crystal clear. It is also the reason why I favor [natural chelators](#) that have proven, through extensive studies, their efficacy in removing heavy metals.

Inflammation and systemic stress are central attributes of many pathological conditions. Thus if we find a way to directly and safely reduce inflammation and systemic stress we have found a potent medical approach that would be effective across a wide range of pathologies. **Inflammation is the missing link to explain the role of magnesium in many pathological conditions.** There is nothing in the world of medicine that is so basic to health as magnesium, and so necessary for recovering the integrity of medical practice. We as individuals and doctors, nurses and other health care practitioners just cannot afford to overlook the basic need (massive nutritional deficiency) that almost all patients have for magnesium.

Today with so many medical options, which change wildly depending on which health care professional you chose to see, it behooves us to return to rational medicine and to medical basics. The public is vulnerable to the fickle winds of medicine that is more religious in nature than rational. What we are led to believe about any particular treatment and what is truly helpful can often be worlds apart. With the serious kinds of challenges facing an increasingly larger percentage of the public, blind belief and faith in treatments is not sufficient.

Is it too much to expect health care workers and doctors to be rational? Though many of us pride ourselves in our rationality we live in an irrational world. Our governments are irrational and so are many of our laws. Even corporate capitalism and our entire economic system are irrational. It is the same in medicine where the safest drugs and healing substances are either banned outright or precluded in favor of vastly more toxic and dangerous substances. Magnesium is the most rational of all healing substances. In medicine it offers us a return to bedrock science and rationality in medicine.

Mark Sircus Ac., OMD
Director International Medical Veritas Association
<http://www.MagnesiumForLife.com>
<http://www.imva.info>
+55-83-3252-2195
www.skype.com ID: marksircus

Endocrine Function and Magnesium

Menopause and Premenstrual Syndrome International Medical Veritas Association



Every day the same type of conversation takes place between women going through menopause and their doctors. Afterwards doctors usually write out prescriptions for estrogen pills or patches, saying they will replace the hormones that a woman's body ought to be making. The doctor promises these medicines will cure her hot flashes, slow her bone loss, and reduce her risk of a heart attack. Unfortunately we find out:

The risk of having a blood clot was close to 30 percent more for a woman on estrogen vs. not on estrogen.^{[iv][4]}

Dr. J. David Curb

Estrogen therapy appears to increase the risk of blood clots in the veins of postmenopausal women who have had their uterus removed. These latest results from the Women's Health Initiative (WHI) were unexpected, even to the study's lead author. "It surprised us all how few benefits have come out of this and how many negatives," said Dr. J. David Curb, a professor of geriatric medicine at the University of Hawaii. The study appeared in the April 10, 2006 issue of the Archives of Internal Medicine.

These same women ask if the pills cause cancer. The doctor acknowledges that there is an increased risk of uterine and breast cancer, but argues that the benefits to the heart and bones are worth taking the chance. Of course there is concern about other risks from these medications like strokes and water retention, among others.

Like animals lured into a snare by a trail of crumbs, women have been cajoled with scientific studies, media advertising, patient hand books and drug samples to accept Hormone Replacement Therapy as a magic potion.

Sherill Sellman

Hormone Replacement Therapy (HRT) does not do justice to the finely tuned hormone system^{[v][5]} that operates throughout a woman's life. In reality, hormone levels may begin to change in the 30s, as a woman enters a period called perimenopause. In the decades leading up to menopause, small hormonal imbalances can exist, so by the time menopause sets in, a woman may have already experienced close to 20 years of hormonal imbalance.

Hormone replacement actually can cause the body to slow down the production of its own natural hormones, including melatonin, DHEA, progesterone and human growth hormone. HRT does not treat the cause of any problem, it only addresses--and perpetuates--the symptoms. Adding hormones artificially is a form of medical roulette because you never really know how the finely balanced hormonal system will respond.

My MD put me on hormone therapy, a combination of estrogen and progesterone and the effects on me were profound. Within the first month .my feet and legs swelled up all the way to my knees. I could not get shoes on, (but the hot flashes were gone) and when I stopped the hormones, it took almost a full month for the swelling to dissipate and my feet and legs to get back to normal. I experienced breakthrough bleeding, which was told to me might occur, but everyday?
Claudia

French RN, LPHA

In addition to the risk of disease, the side effects associated with HRT include mood changes, nausea, breakthrough vaginal bleeding and bloating, breast tenderness, concerns about breast^{[vi][6]},^{[vii][7]} and ovarian cancer^{[viii][8]}, gall bladder disease, and thromboembolic events. Strong Medline warnings for estrogen now state: "Estrogen increases

the risk that you will develop endometrial cancer (cancer of the lining of the uterus [womb]). The longer you take estrogen, the greater the risk that you will develop endometrial cancer. If you have not had a hysterectomy (surgery to remove the uterus), you might have been given another medication called a progestin to take with estrogen. This may decrease your risk of developing endometrial cancer, but may increase your risk of developing certain other health problems, including breast cancer.”^{[ix][9]}

Concerns about safety and effectiveness are causing a retreat from the blanket use of HRT. An estimated 30 to 45 percent of women who receive prescriptions for HRT will not have their prescriptions filled or will discontinue therapy within 12 months of initiation.^{[x][10]}

Crucial link between Cholesterol, Magnesium and Hormones.

It is impossible to consider estrogen and progesterone in isolation from other hormones and from precursors like cholesterol and magnesium. **All steroid hormones are created from cholesterol in a hormonal cascade.** Cholesterol, that most maligned compound, is actually crucial for health and is the mother of hormones from the adrenal cortex, including cortisone, hydrocortisone, aldosterone, and DHEA. One of the most basic hormones and the first in the cascade is pregnenolone, which is converted into other hormones, including dehydroepiandrosterone (DHEA), progesterone, testosterone, and the various forms of estrogen. These hormones are interrelated, each performing a unique biological function.

DHEA is a steroid hormone produced by the adrenal gland and ovaries and converted to testosterone and estrogen. After being secreted by the adrenal glands, it circulates in the bloodstream as DHEA-sulfate (DHEAS) and is converted as needed into other hormones. Estrogens are also steroids.

Cholesterol cannot be synthesized without magnesium and cholesterol is a vital component of hormones. Aldosterone is one such hormone, and helps to control the balance of magnesium and other minerals in the body. Interestingly aldosterone needs magnesium to be produced and it also regulates magnesium's balance.^{[xi][11]} Women who suffer from premature menopause, or an early failure of the ovaries report that magnesium often helps fight the crashing fatigue that often comes at the beginning of premature or early menopause by boosting energy levels.^{[xii][12]}

The role that magnesium plays in the transmission of hormones (such as insulin, thyroid, estrogen, testosterone, DHEA, etc.),

neurotransmitters (such as dopamine, catecholamines, serotonin, GABA, etc.), and mineral electrolytes is a strong one. Research concludes that it is **magnesium status that controls cell membrane potential** and through this means controls uptake and release of many hormones, nutrients and neurotransmitters.

“Magnesium,” says Dr. Lewis B. Barnett, “is needed by the pituitary gland. The pituitary, sometimes called the miracle gland, takes instructions from the hypothalamus in the brain to which it is connected by a thin stalk, then transmits them through the body in the form of chemical messengers known as hormones. These hormones not only exert a direct influence of their own, but also trigger the production of other vital hormones elsewhere in the body. **When the pituitary is not getting the magnesium it needs, it fails in its function of exercising a sort of thermostatic control over the adrenals which are thus allowed to overproduce adrenaline.**”

During perimenopause^{[xiii][13]}, there are wide fluctuations in the hormones estrogen, testosterone, FSH, LH, and progesterone and it is these widely fluctuating hormone levels that can cause many problems, the least of which is hot flashes.

Estrogens are primarily responsible for the conversion of girls into sexually-mature women in the development of breasts, the further development of the uterus and vagina, broadening of the pelvis, growth of pubic and axillary hair and play a role in the increase in adipose (fat) tissue. They also participate in the monthly preparation of the body for a possible pregnancy and participate in pregnancy if it occurs. Estrogen is not one hormone, but many, and our bodies continue to make estrogens all of our lives. **The adrenals, the fat tissues, and perhaps the uterus make estrogens.**

Menopause is brought on by the natural decrease in the body's production of estrogen and progesterone.

Estrogen causes a higher absorption and use of magnesium and zinc. Estrogen is normally associated with pregnancy. During pregnancy the body needs more minerals and estrogen takes care of the higher absorption. The estrogen enables a female to get just enough magnesium out of a low-magnesium diet. When the estrogen levels drop, the magnesium absorption drops and hypomagnesemia (magnesium deficiency) is the result. This can then cause a severe depression or diabetes or hypoglycemia or many other problems as both estrogen and magnesium levels drop through the years.^{[xiv][14]}

The use of contraceptives, and estrogen replacement therapies cause magnesium deficiencies.^{[xv][15]}

When you realize that more than three hundred types of tissues throughout the body have receptors for estrogen--which is to say that they're affected in some way by the hormone--it's not surprising that its decrease would cause physical changes. Estrogen affects the genital organs (vagina, vulva, and uterus), the urinary organs (bladder and urethra), breasts, skin, hair, mucous membranes, bones, heart and blood vessels, pelvic muscles, and the brain. It's the loss of estrogen to these organs that causes the ultimate changes of menopause, including dry skin and hair, incontinence and susceptibility to urinary tract infections, vaginal dryness, and, most important, the diseases osteoporosis and heart disease. These diseases are at the center of the controversy concerning menopause: Because estrogen plays a role in preventing these diseases, should you replace the estrogen lost at the time of menopause with a synthetic version?

Estrogens also have non-reproductive effects. They antagonize the effects of the, parathyroid hormone, minimizing the loss of calcium from bones, and they promote blood clotting.^{[xvi][16]} There are several forms of estrogen but the one most important for reproduction is estradiol, a substance secreted by the ovary. In addition to being responsible for the development of sexual characteristics in women, estrogen governs the monthly thickening of the endometrium and the quantity and quality of cervical and vaginal mucus so important to the successful passage of the sperm.

Magnesium is super critical to endocrine function. Gonadotropin Releasing Hormone (GnRH) is a master hormone from the hypothalamus in the brain. It sparks the release of follicle stimulating hormone and luteinizing hormone from the pituitary gland, which in turn prompt production of estrogen and progesterone in the ovaries. Magnesium is involved in melatonin production and the circadian clocks in the human body. In particular, a deficiency of magnesium can impair the suprachiasmatic nucleus of the hypothalamus.^{[xvii][17]} And balanced magnesium status is required to obtain efficiency of suprachiasmatic nuclei and the pineal gland.^{[xviii][18]} Examinations of the sleep electroencephalogram (EEG) and of the endocrine system points to the involvement of the limbic-hypothalamus-pituitary-adrenocortical axis because magnesium affects all elements of this system. Magnesium has the property to reduce the release of adrenocorticotrophic hormone (ACTH) and to affect adrenocortical sensitivity to ACTH.

Hormone replacement therapy (HRT) is based on the incorrect assumption that your body becomes incapable of producing appropriate amounts of hormones simply because we reach a certain age. Your body does alter its hormone production as you pass through the stages of our life, but hormone problems are a function of how healthy you are, not how old you are.
Theresa Dale, ND

In today's age, with a staggering 68% of Americans not consuming the recommended daily intake of magnesium and more than 19% of Americans not consuming even half of the government's recommended daily intake of magnesium, we can easily see that magnesium impacts these life changes, the accompanying discomforts and can often reduce the problems and long term risks that occur.

Prior to menopause, estrogen plays a protective role in relation to heart disease, but as estrogen production diminishes, the risk of heart disease increases.
Ten years after menopause, a woman has nearly the same risk as a man of dying of heart disease.^{[xix][19]}

Renowned magnesium researcher, Dr. Mildred Seelig points out that although there is no uniform agreement that estrogens lower serum magnesium levels, most of the evidence points in that direction. It is also possible that the paradoxical effects of estrogen on diseases of the cardiovascular system relate partially to its effects on magnesium distribution. It has been shown that serum magnesium falls with the cyclic increase in estrogen secretion. Since rats given estrogen showed decreased serum magnesium levels, without increased urinary magnesium output, and since the bone-magnesium increased, Goldsmith and Baumberger (1967) proposed that a **shift of magnesium to the tissues** was responsible for the estrogen-induced fall in serum magnesium. The role that magnesium plays in the transmission of hormones (such as insulin, thyroid, estrogen, testosterone, DHEA, etc.), neurotransmitters (such as dopamine, catecholamines, serotonin, GABA, etc.), and minerals and mineral electrolytes is crucial.

The symptoms occurring during perimenopause can be severe and may correlate with naturally decreasing levels of DHEA which hit peak levels around the age of twenty and then decrease as we age.

Since DHEA is one of the primary bio-markers for aging, the long range effect of large doses of magnesium in a usable form is to significantly raise DHEA levels and thus produce true age reversal results. Dr. Norman Shealy, who is an expert on anti-aging, has done studies regarding magnesium and aging, refers to DHEA as the Master Hormone. He states that when produced at sufficient levels, DHEA will induce the production of all of the other hormones whose depletion can be associated with many symptoms of aging. He found that through the transdermal use of Magnesium Oil, women have reported complete abatement of menopausal symptoms and some have even returned to their menstrual cycle. **This effect was found only when magnesium is applied through the skin,** and not with oral products.

One of the major sexual impacts of decreased estrogen is a shrinking of the vagina and thinning of the vaginal walls, along with a loss of elasticity and decreased vaginal lubrication during sexual arousal. Some women experience only slight changes in sexual functioning, while others have dryness and pain with intercourse, or genital soreness for a few days after sexual activity, if they don't use a vaginal lubricant or take some form of hormone replacement. We have reports from some women using magnesium oil, that when sprayed in the vaginal area, lubrication is increased, vaginal dryness decreases, and sexual arousal is increased. Dr. Shealy confirms these findings from his clinical experience.

It would seem from experimental studies on animals that when one is low on magnesium, small problems loom large, even overpowering. Thus animals deprived of magnesium suffer from super excitability to such an extent that they become hysterical at the sound of small noises or the sight of shadows.

J. I.

R odale

Premenstrual syndrome (PMS) is characterized by physical and

emotional symptoms that develop following ovulation and decrease with the beginning of menstruation. These recurrent symptoms typically include anxiety, depression, irritability, fatigue, abdominal bloating, fluid retention in fingers and ankles, breast tenderness, altered sex drive, headache, and food cravings. The combination and severity of symptoms vary among women. The Office of Women's Health within the Department of Health and Human Services reports that as many as 75 percent of women experience some symptoms of premenstrual syndrome. **This correlates quite closely with MIT's estimate that 67 % of the population is deficient in magnesium.**

Natural supplementation with magnesium is highly preferred over use of DHEA creams with their many precautions and can relieve many of these troublesome problem.

The importance of balancing calcium with magnesium is noted by Dr. Christianne Northrup, **who recommends a ratio of 1:1** between calcium and magnesium for PMS symptoms.^{[xx][20]} Magnesium supplementation has been shown, in double-blind trials, to be effective in relieving premenstrual symptoms. Dr. Melvyn R Werbach believes that even though many nutrients are implicated in the development of PMS, the borderline magnesium levels seen in PMS patients can explain most of the symptoms.^{[xxi][21]} He notes that marginal deficiency of magnesium can deplete brain dopamine, impair estrogen metabolism, increase insulin secretion, and cause enlargement of the adrenal cortex (responsible for producing many hormones including sex hormones, stress hormones, and blood-sugar hormones).

"I think magnesium is the underrated all-star in terms of menopausal women," says Ann Louise Gittleman, PhD, pointing out it is not only good for bones, but it helps prevent heart disease and can keep you calm and help you sleep throughout the night. She recommends all women going through menopause take magnesium supplements along with Flax Seed.^{[xxii][22]} Up to 80% of American women experience hot flashes during menopause while only 10% of Japanese women experience that symptom. Some researchers speculate that these differences may be due to differences in diet, lifestyle, and/or cultural attitudes toward aging.^{[xxiii][23]} But these suggested differences are vague and global in scope. In all likelihood the big difference is magnesium. Japanese women consume a large amount of sea vegetables of one kind or another all of which are extraordinarily high in magnesium.

Magnesium plays a critical role in a wide range of essential activities throughout the body, including many functions relevant to

premenstrual changes experienced by some women. Magnesium is classed as 'nature's tranquillizer' and so is vital in those aspects of the pre-menstrual symptoms which relate to anxiety, tension, etc. Women with PMS have been found to have lower levels of red blood cell magnesium than women who don't have symptoms and the supplementation of magnesium has been found to be extremely useful in alleviating many of the PMS symptoms and even more effective when taken with vitamin B6 at the same time. A magnesium deficiency can cause blood vessels to go into spasms so if you suffer from menstrual migraines magnesium can be useful in preventing these spasms.

Magnesium is necessary for serotonin synthesis, which in turn is critical in mood regulation. Magnesium also appears to promote proper fluid balance, helping to ease the uncomfortable build up of excess fluid experienced by some women prior to menstruation. Inadequate magnesium levels have been found in women who experience premenstrual cravings and appetite changes.

A woman's menopause should not be seen as a pathologic endocrine deficiency disease because female hormones normally abate with advancing age as reproductive function comes to a halt. How and why this happens is a relative mystery to mainstream medicine but we can easily see how certain conditions will hasten and deepen the decline of the key hormones involved.

It is clear though that living without the protective effects of estrogen increases a woman's risk for developing serious medical conditions, including osteoporosis and cardiovascular disease. Women have every reason in the world to start supplementing their diets with large amounts of magnesium early in life, especially with magnesium chloride when applied transdermally. Though no one knows exactly why that form alone seems to provoke increases in DHEA levels, it probably has something to do with the penetration of the magnesium through the fat tissues.

Women should pay particular attention to adequate intakes of magnesium starting early on and supplement as necessary to assure adequate DHEA levels and better balanced hormone levels. Because women's issues are centered on hormonal balances it is vital to understand that the only way discovered so far to raise DHEA levels naturally is through transdermal application of magnesium chloride. Though magnesium chloride can be purchased in many pharmacies I

highly recommend people experience a [naturally made magnesium chloride](#) that is a by-product of salt production. Below are some briefs on specific conditions related to menopause or menstruation where magnesium is shown to be of significant help.

Menstrual Migraine

Low magnesium levels may be a trigger for menstrual migraine. Mauskop et al reported a deficiency in ionized magnesium in 45% of attacks of menstrual migraine, while only 15% of nonmenstrually related attacks had a deficiency. They also demonstrated that attacks associated with low ionized magnesium could be aborted by intravenous magnesium infusions. Facchinetti et al demonstrated that menstrual migraine could be prevented by administration of oral magnesium during the last 15 days of the menstrual cycle.

Menopause, Mood Disorders and Magnesium

Perimenopause and menopause related mood disorders cause significant distress to a large number of women. In the United States, one half of perimenopausal women will report feeling irritated or depressed.^{[xxiv][24]} Different studies have shown that a woman's risk for a first bout with depression rises sharply as she approaches menopause. "There is a subgroup of women who, for multiple reasons, may be more vulnerable," said Dr. Lee Cohen of Harvard Medical School, which followed 460 Boston-area women for six years.^{[xxv][25]} Several studies^{[xxvi][26]}, ^{[xxvii][27]} show without doubt that there is a definite relation between magnesium deficiency and depression and that increasing our intake of magnesium can bring relief. Please see chapter on magnesium, violence and depression.

Osteoporosis

Each year over 300,000 women suffer a hip fracture brought on by osteoporosis. Within a year, one in five will die.

Magnesium plays a significant role in preventing Osteoporosis in the post menopausal period. Studies have shown that magnesium improves bone mineral density.^{[xxviii][28]} Without adequate magnesium, calcium cannot enter the bones.^{[xxix][29]} Heavy metal exposure affects bone density. Although women with menopause may suffer from osteoporosis due to estrogen deficiency, bone fragility increases with increasing magnesium deficiency. High calcium intake is recommended for women with menopause, but adequate magnesium intake is

necessary to lower dietary Ca/Mg ratio, because the high ratio prompts blood coagulation. A group of menopausal women were given magnesium hydroxide to assess the effects of magnesium on bone density. At the end of the 2-year study, magnesium therapy appears to have prevented fractures and resulted in a significant increase in bone density.^{[xxx][30]} The relationship between calcium and magnesium is dealt with extensively in the chapter on Calcium and Magnesium.

Magnesium and Hot Flashes

Many menopausal women suffer from heart palpitations associated with hot flashes. This can be helped by increasing your intake of magnesium. Magnesium plays a significant role in body temperature regulation.^{[xxxi][31]} Studies in the use of therapeutic hypothermia have shown the efficacy of magnesium in lowering body temperatures. This supports the use of transdermal magnesium therapy for surface cooling by non invasive methods.^{[xxxii][32]} Body temperature may be regulated by Mg in two ways. One is through its central sedative effect on the hypothalamus and the second through its peripheral effect achieved by reducing the neuromuscular excitability. Mg is lowered during hyperthermia due to its loss via sweat and magnesium diuresis^{[xxxiii][33]} Since we see that magnesium plays a significant role in regulation of blood sugars and regulation of body temperature, **it makes good sense to utilize magnesium for the treatment of vasomotor symptoms during menopause and we can expect to find great improvement, more comfort, less mood disturbance and a smoother transition to post menopause.** In addition Magnesium serves as a natural muscle relaxant, making it useful for relieving such symptoms as muscle cramping and anxiety.

International Medical Veritas Association
Copyright 2006 All rights reserved.

IMPORTANT DISCLAIMER: The communication in this email is intended for informational purposes only. Nothing in this email is intended to be a substitute for professional medical advice.

To unsubscribe write to director@imva.info

I am using the free version of SPAMfighter for private users.
It has removed 445 spam emails to date.
Paying users do not have this message in their emails.
Try [SPAMfighter](#) for free now!

^[i]^[1] Dr. David Eddy is the doctor whose Stanford PhD thesis made front-page news in 1980 by overturning the guidelines of the time. It showed that annual chest X-rays and yearly Pap smears for women at low risk of cervical cancer were a waste of resources, and it won the most prestigious award in the field of operations research, the Frederick W. Lanchester prize. Based on his results, the American Cancer Society changed its guidelines.

^[ii]^[2] http://www.businessweek.com/magazine/content/06_22/b3986001.htm

^[iii]^[3] "We don't have the evidence [that treatments work], and we are not investing very much in getting the evidence," says Dr. Stephen C. Schoenbaum, executive vice-president of the Commonwealth Fund and former president of Harvard Pilgrim Health Care Inc.

^[iv]^[4] <http://www.healthfinder.gov/newsletters/heart042406.asp>

^[v]^[5] In Greek, hormone means "to set in motion." Hormones are made by endocrine glands to control another part of the body. They require protein and fatty acids, cholesterol and magnesium to manufacture them. Many different hormones must be balanced one with another. This is done in at least two ways: (1) by the brain's information center, which monitors the state of the body, and (2) self-regulation as each gland detects chemical levels in the blood, giving "feedback" on the needs of the body. Glands may react by secreting one hormone to shut down the production or effects of another. Glands have the power to produce several different kinds of hormones at any time. The liver also has the power to control an overabundance of some hormones in the blood. Endocrine glands include the gonads, pineal, pituitary, thyroid, parathyroid, thymus and adrenals.

^[vi]^[6] Colditz GA, Hankinson SE, Hunter DJ, Willett WC, Manson JE, Stampfer MJ, et al. The use of estrogens and progestins and the risk of breast cancer in postmenopausal women. *N Engl J Med* 1995;332:1589-93.

^[vii]^[7] Collaborative Group on Hormonal Factors in Breast Cancer. Breast cancer and hormone replacement therapy. *Lancet* 1997;350:1047-59.

^[viii]^[8] Garg PP, Kerlikowske K, Subak L, Grady D. Hormone replacement therapy and the risk of epithelial ovarian carcinoma: a meta-analysis. *Obstet Gynecol* 1998;92:472-9.

^[ix]^[9] <http://www.nlm.nih.gov/medlineplus/druginfo/medmaster/a682922.html>

^[x]^[10] Hill DA, Weiss NS, LaCroix AZ. Adherence to postmenopausal hormone therapy during the year after the initial prescription. *Am J Obstet Gynecol* 2000;182:270-6.

^[xi]^[11] A deficiency in magnesium causes hyperplasia of the adrenal cortex, elevated aldosterone levels, and increased extracellular fluid volume. Aldosterone increases the urinary excretion of magnesium; hence, a positive feedback mechanism results, which is aggravated since there is no renal mechanism for conserving magnesium.

^[xii]^[12] <http://www.earlymenopause.com/9909.htm>

^[xiii]^[13] Perimenopause is the naturally occurring transition period that takes place in women *before* the onset of menopause. It may begin as early as 35, even earlier for women who smoke. It is a temporary phase,

typically lasting two to three years for most women, though for some it can last as long as 10 or 12 years. Women in perimenopause rank insomnia, irritability, and depressed mood among the most common complaints. Mental health is the most prevalent difficulty, not hot flashes. This stage of a women's life has not been talked about much, and a woman can find herself experiencing puzzling changes, and not know why. Studies have shown that in the perimenopause the incidence of negative changes was somewhat higher than in the postmenopause, the latter bringing relief of discomfort and a more positive mental outlook. Perimenopause terminates with the cessation of menstruation.

[xiv][14] <http://www.newtreatments.org/depression>

[xv][15] Dahl, 1950; Nida and Broja, 1957; Goldsmith, 1963; Goldsmith et al., 1970; Goldsmith, 1971). The use of estrogen-containing oral contraceptives has been shown to reduce the serum levels of magnesium (in users versus nonusers) by 16% (Goldsmith et al., 1966), 28% (DeJorge et al., 1967), and by 27% and 33% (Goldsmith, 1971). Evaluation of different contraceptives suggests that it is the estrogen moiety that is responsible for the decrease in serum magnesium (Goldsmith and Goldsmith, 1966; Goldsmith et al., 1970, Goldsmith and Johnston, 1976/1980) although there are conflicting findings. So all the contraceptive pills, and hormone replacement estrogen preparations are probably decreasing women's magnesium levels too. Seelig, Mildred; <http://www.mgwater.com/Seelig/Magnesium-Deficiency-in-the-Pathogenesis-of-Disease/chapter5.shtml#toc5-1-4-3>

[xvi][16] <http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/S/SexHormones.html>

[xvii][17] http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12635882

[xviii][18] http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=12030424

[xix][19] Richard N. Ash MD; Alternative Medicine and Health; <http://alternative-medicine-and-health.com/conditions/menopause.htm>

[xx][20] Northrup, C. MD. Women's Bodies, Women's Wisdom. Judy Piatkus Publ. London, England, 1995.

[xxi][21] Werbach, M. MD, J Alt & Comp Med. Feb. 1994;12(2).

[xxii][22] Take Control of Your Hot Flashes:

<http://www.cbsnews.com/stories/2005/09/15/earlyshow/series/main848036.shtml>

[xxiii][23] Reports differ but there has been some consensus that up to 80% of women in western societies such as Australia suffer from a myriad of physical and psychological difficulties at menopause (MacLennan, 1988). These include hot flushes, night sweats, vaginal dryness, loss of libido, palpitations, headaches, osteoporosis, depression and irritability (Walsh & Schiff, 1990). Interestingly, women in some non-western cultures appear to be significantly less affected by menopausal ills. For instance, Mayan women from South America (Beyene, 1986) and Rajput women in India (Kaufert, 1982) report no 'symptoms'. According to Lock *et al* (1988) Japanese women rarely mention hot flushes and the incidence of other problems such as backache and headache is low. It is therefore expected that due to the cross-cultural nature of the sample certain differences are likely to emerge with regard to physical, psychological and socio-cultural menopause experiences.

Women, body and society. Cross-cultural differences in menopause experiences;

Gabriella Berger & Eberhard Wenzel ; <http://www.ldb.org/menopaus.htm>

[xxiv][24] Obermeyer CM. Menopause across cultures: a review of the evidence. *Menopause* 2000;7:184-92.

[xxv][25] Risk for new onset of depression during the menopausal transition: the Harvard study of moods and cycles. Cohen: *Arch Gen Psychiatry*. 2006 Apr;63(4):385-90.

[xxvi][26] Cerebrospinal fluid magnesium and calcium related to amine metabolites, diagnosis, and suicide attempts; Banki et al; *Biol Psychiatry*. 1985 Feb;20(2):163-71.

[xxvii][27] Treatment of severe mania with intravenous magnesium sulphate as a supplementary therapy.

Heiden A et al; *Psychiatry Res*. 1999 Dec. 27; 89(3): 239-46

[xxviii][28] Institute of Medicine. Food and Nutrition Board. Dietary Reference Intakes: Calcium, Phosphorus, Magnesium, Vitamin D and Fluoride. National Academy Press. Washington, DC, 1999

[xxix][29] Aging and magnesium; Saito N, Nishivama S; *Clin Calcium*. 2005 Nov;15(11):29-36.

[xxx][30] Magnesium supplementation and osteoporosis. Seijka Je, Weaver; *Nutr Rev*. 1995 Mar;53(3):71-4

[xxxi][31] How significant is magnesium in thermoregulation? *J Basic Clin Physiol Pharmacol*. 1998;9(1):73-85. PMID: 9793804 [PubMed - indexed for MEDLINE]

[xxxii]^[32] Therapeutic hypothermia shows promise as a treatment for acute stroke. Surface cooling techniques are being developed but, although noninvasive, they typically achieve slower cooling rates than endovascular methods. We assessed the hypothesis that the addition of intravenous MgSO₄ to an antishivering pharmacological regimen increases the cooling rate when using a surface cooling technique. Subjects who received MgSO₄ had significantly higher mean comfort scores than those who did not (48±15 versus 38±12; P<0.001). CONCLUSIONS: Administration of intravenous MgSO₄ increases the cooling rate and comfort when using a surface cooling technique. Magnesium sulfate increases the rate of hypothermia via surface cooling and improves comfort. Stroke. 2004 Oct;35(10):2331-4. Epub 2004 Aug 19. PMID: 15322301 [PubMed - indexed for MEDLINE] http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15322301&itool=iconfft&query_hl=4&itool=pubmed_docsum [xxxiii]^[33] <http://72.14.203.104/search?q=cache:2Lsm-2ZiMbQJ:www.profmagnesium.com/PDF%27S/Mg%2520in%2520Thermoregulation%25201997.pdf+magnesium+and+thermoregulation&hl=en&gl=us&ct=clnk&cd=5>