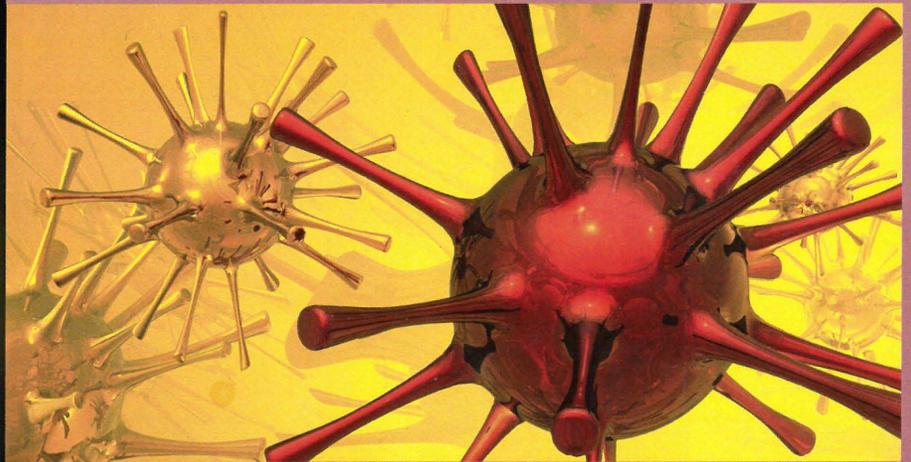


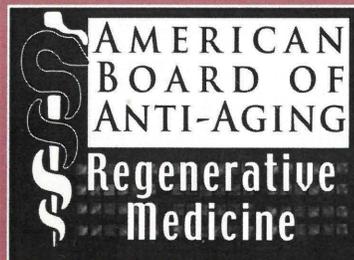
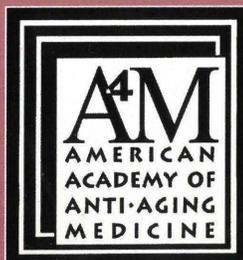


Anti-Aging Therapeutics Volume XI



Editors:

Dr. Ronald Klatz
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Chapter 32
**A Comprehensive Lifestyle Intervention to Manage
Menopause-Andropause and Improve Functions Affected by Aging**

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ABSTRACT

This paper will discuss the methods and results of the Menopause-Andropause Study, which evaluated the effects of a comprehensive lifestyle program on common symptoms of menopause and andropause, and various aspects of mental, physical, and energy functioning, and hair and skin status that may be negatively affected as we age. The lifestyle changes we studied encompassed diet and juicing, supplementation, exercise, stress management, and modification of behaviors and attitudes.

INTRODUCTION

The objective of all of our Menopause-Andropause Health Study groups over the years has been measure the effects of a comprehensive lifestyle program on common symptoms of menopause and andropause. The three-month study was the latest phase of a larger, ongoing intervention that we have conducted for more than 15 years to determine how lifestyle choices affect daily functioning and well-being.

In keeping with this larger purpose, the menopause-andropause study also evaluated the impact of our lifestyle protocols on various aspects of mental, physical, and energy functioning, and hair and skin status that may be negatively affected as we age. The lifestyle changes we studied encompassed diet and juicing, supplementation, exercise, stress management, and modification of behaviors and attitudes.

An important aspect of our lifestyle studies is that participants make these changes concurrently. We believe that a multicomponent approach to lifestyle change best reflects the way people improve their health in everyday life. However, our multifactorial intervention also means that we do not (and cannot) determine which specific lifestyle factor is responsible for a given improvement. The multiple inputs – diet, physical activity, stress reduction and so forth – work together to achieve the positive effect.

We chose to focus on menopause and andropause in our continuing study of lifestyle change because we wanted to evaluate the potential benefits of natural, nontoxic therapies during this transitional phase of life. Conventional medicine has traditionally approached menopause as a disease and has favored the use of pharmaceutical, synthetic hormone replacement therapy as a “cure.” Two popular hormone replacement products are Premarin, a synthetic estrogen derived from the urine of pregnant horses, and Provera, a synthetic progestin. However, clinical studies have confirmed that the use of synthetic hormones can increase the risk of breast cancer by up to 33%. The treatment of andropause, when the symptoms are recognized and evaluated, usually centers on the administration of testosterone.

Our goal was to determine how much improvement in menopause or andropause symptoms could be achieved with lifestyle changes alone. If women can minimize their symptoms with these natural interventions, they may have less need for hormone replacement therapy. Even bioidentical hormone products such as estriol and estradiol, which are natural versions of the synthetic hormones used by mainstream medicine, may be needed in lesser amounts if lifestyle changes prove useful. The same philosophy applies to andropause. To the extent that lifestyle choices can help men manage their symptoms, possibly enabling them to reduce the amount of testosterone replacement they require.

MENOPAUSE

Menopause is a biological event common to women around the world. It can be defined as the conclusion of the female reproductive phase of life. The onset typically occurs between the ages of 45 and 50, although it may occur anywhere between 40 and 60, or be initiated at an earlier age due to ovarian surgery and certain types of illnesses. The period of pre-menopause and post-menopause can be thought of as processes lasting several years or more.

Symptoms

Hot flashes are a common symptom of menopause. In addition, women may have dry skin, irritability, vaginal dryness, night sweats, urinary tract infections, mood swings, fatigue, and sleep disturbances. It should be noted that some women do not have any troublesome symptoms during menopause.

Nonetheless, this period in a woman's life cycle is characterized by a diminishing production of estrogen by the ovaries. When this occurs, the manufacture of estrogen is transferred to the adrenal glands and, to a lesser extent, the body's fat cells. Consequently, women with healthy adrenal glands often are less susceptible to acute symptoms.

A common misconception is that women will lose their sexual drive once they experience menopause. In fact, only a small percentage of women lose their ability to become aroused, and these cases can be effectively treated. Many women report heightened sexuality because the risk of pregnancy is absent. Another outdated belief is that, after this hormonal change occurs, life will no longer be enjoyable. Many women mistakenly fear that their later years will be marked by intense psychological problems.

Many studies have shown that women in Asian countries tend to adapt more easily to the hormonal changes involved in menopause because they accept the aging process as a natural transition. Age is associated with wisdom and respect in Asian countries, and therefore women do not dread this stage of life. In the United States and other post-industrial Western countries, women have a profound fear of advanced age due to cultural conditioning. This negative outlook is often correlated with the acquisition of acute menopausal symptoms. Asian women also may avoid such symptoms in part because their diets contain high quantities of soy products.

ANDROPAUSE

While menopause has traditionally been defined as a female condition, men experience a similar condition called andropause, which is caused by low testosterone levels. This is commonly referred to as male menopause. It typically begins as men enter their 40s.

At this stage in life, many men begin to experience physical and emotional changes. The exercise routine that formerly held their body together is, alone, no longer sufficient. Fat slowly appears in places where muscle used to be. Sexual activity and interest wane, and a man's enthusiasm for living may decrease along with his sexual desire. When men have low levels of testosterone, it has a domino effect on mood, mental skills, memory, and sexual desire. Reports indicate that approximately 25 million men in the U.S. between 40 and 55 years of age suffer from andropause.

THE MENOPAUSE-ANDROPAUSE STUDY

Methods

The Menopause-Andropause Health Study lasted for three months. We held regular support group meetings as participants followed the program's multiple lifestyle protocols. Of the 51 people who participated in the group, 30 had sufficient data to be included in our analysis of results.

At the conclusion of the three-month period, participants rated the degree of change (or lack thereof) they had experienced in 37 outcome measures that we listed in a preformatted questionnaire. The 37 measures were divided into five major areas of assessment: 1) menopause or andropause symptoms, 2) mental function, 3) energy function, 4) body fat percentage, infections, allergies and digestion, and 5) hair and skin condition. Our rating scale included five degrees of change for participants to select for each outcome measure: worse, unchanged, improved, slightly improved, or much improved.

In addition to the data we collected by questionnaire, participants follow-up was conducted by telephone for up to six months after the formal intervention period had ended. We also obtained

testimonials and compliance information from 22 participants through videotaped, in-person statements, or telephone interviews.

Intervention Protocols

Diet and Juicing

Our nutritional protocols featured a largely vegetarian diet.¹⁻³ The focus was on the consumption of complex carbohydrates – such as grains, legumes, fruits, vegetables and nuts and seeds – and daily juicing. The goals of the diet, juicing, and supplementation protocols were to turn off inflammatory reactions, to stop the process of glycation, which creates a cross-linking of proteins and sugars that has a negative effect on cells, and to rebalance hormones.

We permitted fish as an optional food choice because the omega-3 fatty acids found in various types of fish protect against heart disease and stroke and provide other health benefits.⁴⁻⁶ However, any fish containing high levels of mercury or polychlorinated biphenyls were to be avoided.⁷ We also recommended that participants consume healthy fats, which tend to be low in the typical American diet.

Specifically, the study asked participants to make the following dietary changes:

- Eliminate meat, including beef and poultry, and shellfish, swordfish, catfish and shark. Replace with fresh, non-farmed coldwater fish (including Pacific or Alaskan salmon, orange roughy, trout, sole, mackerel, sardines, calamari, octopus, cod, sea bass, halibut, mahi-mahi and snapper) and with vegetarian sources of protein, including organic nuts, nut butters, seeds, soybeans and soy products, quinoa (a high-protein grain), veggie burgers, soy chicken patties, sunshine burgers (made with sunflower seeds), seaweeds (such as wakame, arame, hijiki, dulse, and kelp) and protein shakes. Mix beans with grains such as brown rice, kamut, buckwheat, millet, and amaranth.
- Eliminate dairy, including milk, yogurt, cheese, butter, ice cream, cream sauces, and anything containing casein. Replace with nondairy milks (rice, soy, nut and Silken tofu). Replace butter with coconut oil, almond oil, Earth Balance spread or Spectrum spread. Replace ice cream with rice or soy ice cream without added sugar.
- Eliminate non-organic produce. Replace with organically grown fruits, vegetables, grains and beans. We recommended nine servings of fruits and vegetables a day, and four servings of beans/legumes and grains.
- Eliminate wheat. Replace with spelt bread, sprouted whole grain bread, rice bread, millet bread, and Essene bread, as well as pastas, pancakes, and waffles made from spelt, buckwheat, quinoa, and rice.
- Eliminate sugar and artificial sweeteners (including maple syrup). Replace with stevia, Agave nectar, and organic kiwi sugar, raw honey, molasses, barley malt, and brown rice syrup. (Chromium picolinate, 200 mcg, was recommended to relieve sugar cravings.)
- Eliminate caffeine and alcohol, including chocolate, coffee, tea, colas, wines, hard liquor, etc. Replace with herbal teas, Mu tea, twig tea, Japanese teas, grain beverages (such as Cafix), green tea, and white tea (no black or oolong tea).
- Eliminate carbonated drinks, including soda and seltzer. Replace with spring, distilled, or filtered water, lemon water, fresh-squeezed organic fruit juice, iced herbal tea, Teecino, Soy coffee, coconut juice, or water.
- Eliminate fried and processed foods. Replace with steamed, sautéed, stir-fried, grilled, or broiled foods.
- Eliminate chemicals, including food additives, preservatives, coloring agents, and artificial flavorings. Avoid MSG and Miso. Use non-irradiated spices and flavorings such as Herbamare, sea salt, granulated dulse, and other sea vegetables, sesame seeds, organic, wheat-free soy sauces, and salad dressings consisting of olive oil, lemons, spices, and balsamic vinegar.

- *Include* the following beneficial foods in the diet as well: sprouts, sea vegetables, onions, garlic, and healthy oils. For cooking, use coconut, macadamia, and mustard seed oils (but not olive oil). For baking, use hazelnut and macadamia oils. For salads, and to add to cooked foods, use flaxseed oil, extra virgin cold pressed olive oil, safflower, seed (grape, sesame, sunflower), avocado, and nut (almond, walnut, hazelnut, peanut) oils.
- *Include* fresh juices. Participants started with one glass of green juice per day and built up to eight glasses per day in week 12. The juice consisted of 4 ounces of dark and light green vegetables and 6 ounces of fluid, or 1 tablespoon of chlorophyll-rich green powder and 10 ounces of fluid (such as milk substitute, cooled herb tea, diluted vitamin water, organic fruit juice or filtered water). To this, 1 ounce of aloe concentrate and 1 teaspoon of red fruit powder were added.
- The program suggested that participants make a gallon of fresh green juice to be used over a week. Ingredients included: 1-2 bunches of organic celery, 1-2 bunches of organic parsley, 4-5 organic cucumbers, 4 organic lemons and/or limes, 4-5 organic apples and optional foods such as cruciferous vegetables (purple cabbage, cauliflower, broccoli), green leafy vegetables (kale, chard, collards, mustard greens, arugula, spinach, bok choy), ginger, dill weed, fennel, scallions, onions, garlic, mint, cilantro, and other natural spices/flavorings. Carrots, tomatoes, or beets could be added for sweetness, but in limited amounts only for people with imbalances related to sugar consumption.

Complex carbohydrates are beneficial in several ways. First, they are high in fiber and therefore can prevent common afflictions associated with aging, such as constipation, hemorrhoids, intestinal diseases, high blood pressure, and colorectal cancer. They also are rich in phytochemicals, antioxidant substances found in plants that help to prevent everything from cancer to arthritis and heart disease. Phytonutrients may be among the principal agents that repair DNA damage.⁸⁻¹⁰

Polyphenols, a type of phytonutrient, have a great neuroprotective effect. They also have anti-inflammatory properties and are powerful iron chelators. Polyphenols can be obtained from blueberries, bilberries, any deep-colored berries, plums, grapes, and blackcurrants. Color can be used as a guide; in general, the stronger, more vibrant the color, the more nutritional value a fruit or vegetable has.

Sea vegetables and algae may not be household words, but the sea vegetables dulse, kelp, and nori are exceptionally high in minerals, particularly calcium, iodine, potassium, and magnesium, and in trace elements as well. Garlic and onions are health superstars because they contain sulfur compounds that have anti-aging and anticancer properties.

In terms of menopause, dietary choices can help manage symptoms and avert the need for synthetic hormone replacement therapy. Women who incorporate natural estrogen-containing foods into their diets can experience dramatic relief from hot flashes. Studies have shown that plant estrogens, such as those found in soy products (e.g., tofu, tempeh, soybeans), are quite helpful in combating symptoms. Other foods that enhance estrogen, although in more modest amounts, are cashews, almonds, alfalfa, flaxseeds, apples, grapefruit, lemons, pears, peaches, kuzu (a thickener used in place of flour), and boron-containing items such as green leafy vegetables, fruits, nuts, and legumes.

In addition, an increased dietary intake of fiber and reduced quantities of animal products can limit irritability. Sunflower seeds, walnuts, hazelnuts, cabbage, asparagus, broccoli, and barley are also additional combatants of menopausal symptoms.

Nutrition is an important component of mental functioning during menopause and andropause. Just as positive dietary choices help to maintain good health, poor dietary habits can negatively impact emotions and exacerbate or bring on an episode of depression. What can be difficult in promoting proper nutrition as we age is the fact that our bodies may become less efficient in absorbing and utilizing key nutrients. Furthermore, someone suffering from depression may have little or no appetite for food. The first step in eating a brain-healthy diet is to eliminate fast foods, simple carbohydrates, alcohol, artificial sweeteners, white flour products, and caffeine.

An important benefit of drinking juices daily and eating a well-balanced diet, with an emphasis on organically grown fruits and vegetables, is to help detoxify the body. The green juices included in the menopause-andropause study help with this process by supplying it with chlorophyll, the ultimate blood purifier.

No matter how well we take care of ourselves, the air, water, food, and household products we come into contact with every day tend to be increasingly full of highly toxic chemicals. These manmade

chemicals – which may number in the hundreds of thousands – have profound adverse affects on human health. Once they are absorbed, they are never fully eliminated, except by means of a comprehensive detoxification regimen.

During menopause and andropause, it is especially important to counter a group of toxic chemicals known as endocrine disruptors, which directly target the hormonal system. The endocrine system comprises all of the body's glands, including the thyroid and parathyroids, reproductive glands (testes and ovaries), adrenal glands, pancreas, and hypothalamus, pituitary, and pineal glands. These glands and others secrete hormones that are responsible for a great deal of the body's regulatory activities. Many of the glands work in unison, and the hormones create a network of communication. Consequently, a disruption of one gland or hormone creates the potential for great disturbance throughout the body that will affect other internal systems.

There are numerous endocrine disruptors in our modern, industrial environment: emissions from factories and automobiles, incineration plants, household products, cosmetics, sunscreens, soaps and perfumes, solvents, dental sealants, plastics, polystyrene (better known as Styrofoam) and, most importantly, pesticides.

Detrimental health effects associated with endocrine-disrupting chemicals include immunological disorders, cancer of the breast, colon, cervix, vagina, and testicles, abnormalities of the uterus, cervix, and vagina, non-Hodgkin's lymphoma, reduced sperm count and male infertility, prostate gland dysfunction, and behavioral and mental disorders. In women, endocrine disruptors accumulate faster and are stored in more concentrated amounts because they are attracted to fatty cells. Synthetic chemicals also can be passed easily to the bloodstream of a developing baby. Some endocrine disruptors convert into metabolites, a more toxic form of the original chemical, as they pass to the child.

Supplementation

This component of the study recommended a core group of vitamins, minerals, and herbs for both men and women. To that, we added a smaller group of supplements targeted specifically to women or specifically to men. The protocols were as follows:

SUPPLEMENTS FOR BOTH MEN AND WOMEN:

Vitamin A	10,000 IU
Vitamin B1 (Thiamine Mononitrate)	25 mg
Vitamin B2	50 mg
Vitamin B6	50 mg
Vitamin B12 (Cyanocobalamin)	1,000 mcg
Vitamin C (in divided doses)	5,000 mg
Vitamin E	600 IU
Vitamin D3	1,000 IU
Pantothenic acid (D-calcium pantothenate)	300 mg
Choline Bitartrate	150 mg
Inositol	150 mg
Calcium Citrate	800 mg
Magnesium Citrate	800 mg
Zinc	15 mg
Selenium	100 mcg
Copper	2 mg
L-Carnitine	500 mg
L-Carnosine (in divided doses)	1,500 mg
L-Cysteine	200 mg
L-Glutamine	500 mg
L-Taurine	100 mg
L-Tyrosine 1	100 mg
N-Acetyl Cysteine	800 mg
Alpha Lipoic Acid	500 mg
Co-enzyme Q10	300 mg
Glucero-phosphorylcholine	250 mg
Quercetin	1,000 mg
Phosphatidyl-Serine	200 mg
Pycnogenol	100 mg
DHEA (if blood chemistry or saliva level shows deficiency)	15 mg

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Astaxanthin	25 mg
Benfotiamine	50 mg
Bromelain	100 mg
Lutein	25 mg
Lycopene	25 mg
Rutin	100 mg
Tocotrienols	200 mg
Bilberry Fruit Extract	25 mg
Blue Cohosh	100 mg
Broccoli Stem	25 mg
Cabbage Leaf	25 mg
Carrot Root	25 mg
Cayenne	50 mg
China Green Tea Leaf Powder	200 mg
Citrus Bioflavonoid	300 mg
Ginkgo Bilboa Leaf	100 mg
Grape Seed Extract (Resvertenol 300 mg)	150 mg
Licorice Root	25 mg
Milk Thistle Leaf	25 mg
Raspberry Leaf Powder	5 mg
Red Wine Concentrate	100 mg
Rosemary Leaf Powder	25 mg
Siberian Ginseng Root	100 mg

ADDITIONAL SUPPLEMENTS FOR WOMEN ONLY:

Black Cohosh Root	100 mg
Chasteberry Fruit Powder	100 mg
Dong Quai Root	100 mg
EPA/DHA	1400/1000 mg
Flaxseed oil	1-3 T
GLA	285-1425 mg
L-Theanine	100-200 mg
L-Tryptophan	500-1000 mg
Pomegranate Extract	200 mg
Red Clover Blossom Extract	100 mg
Soy Bean Extract	500 mg
St. Johns Wort	300 mg
Vitex Berry Extract	625 mcg

ADDITIONAL SUPPLEMENTS FOR MEN ONLY:

Acetyl-L-Carnitine	1,000-2,000 mg
Cernitin	100 mg
Chrysin (do not take if you have prostate cancer)	1,500 mg
Citrus Pectin	220 mg
Milk Thistle Seed	200 mg
Muir puama	600 mg
Phytosterol Complex	100 mg
Piperine	10 mg
Pygeum Bark Extract	160 mg
Saw Palmetto Berry Extract	250 mg
Soy Germ Powder	120 mg
Stinging Nettles	200 mg

Vitamin D is an important nutrient for menopausal women. It can be supplemented in quantities of 1000 IU or more per day, and also is absorbed directly from sunlight. Vitamin E is beneficial as well in reducing vaginal dryness and thinning. Natural sources of vitamin E, including the various mixed tocopherols, are more efficient than artificial versions.

Adequate quantities of essential fatty acids should be consumed because they act as natural hormone supplements, prevent cancer, and can alleviate the symptoms of aging. People on low-fat diets often suffer essential fatty acid deficiency and, consequently, need to incorporate certain foods into their diet to raise fatty acid levels. Omega-3 fatty acids are contained in fish, fish oil, and flaxseed oil. Many Americans have an excess of omega-6 fatty acids in relation to omega-3's. However, one type of

beneficial omega-6 that is deficient in many women is gamma linoleic acid. GLA is available as evening primrose oil, borage oil, and blackcurrant seed oil.

Calcium supplements may help to prevent or reduce bone loss (osteoporosis). Calcium supplementation is particularly beneficial when started before menopause. While many women have difficulty assimilating dairy products, calcium citrate and amino acid chelate offer alternative calcium sources that can be easily digested. Regardless of the source, a woman's body requires 1300 mg of calcium on a daily basis. Boron also may help with maintenance of bones.

Finally, certain soy products have high amounts of isoflavones, which are phytoestrogens that perform like a weaker version of estrogen. Several studies have found that soy significantly reduces the occurrence of hot flashes. A double-blind, placebo-controlled study showed that women who received 60 g of soy protein isolate per day lessened their hot flash episodes by 45%. The results of one study showed a significant decrease in the occurrence of hot flashes after a six-week period among women who had taken 400 mg of soy extract and 50 mg of isoflavone daily.

In addition to natural supplements, there are many herbs that can enhance a woman's ability to cope with menopause. They include chasteberry or vitex, black cohosh, which has been shown to help relieve menopausal symptoms, and dong quai. Traditional Asian physicians have used dong quai for centuries to balance female hormones and avoid problems associated with menopause.

Menopause is not just a deficiency of estrogen. The levels of four hormones – estrogen, testosterone, DHEA and progesterone – must be balanced during menopause to ensure proper mental and physical functioning. The hormones affect the entire body and are linked to energy levels, brain electrical activity and cognitive function, healthy sexual function, vaginal lubrication, proper sleep, mood, skin and hair, muscle tone, and a general feeling of well-being.

Exercise

The exercise protocol included both aerobic and resistance training. For the aerobic portion, we recommended 45 minutes of cardiac conditioning a day in which participants sustained 70% of their optimal heart rate. Although exercise produces harmful free radicals, our protocols emphasized the consumption of antioxidant-rich foods that help to neutralize free radicals. Resistance training (free weights, circuit training, videos, and calisthenics) was to be done for a half-hour a day, working on every muscle group in the body.

Research demonstrates that exercise can diminish the occurrence of hot flashes in menopausal women. Exercise can also be a good counter to menopausal depression and mood swings because it enhances the production of endorphins and serotonin in the brain. Women who want to completely reap time benefits of physical fitness should initiate regular exercise significantly before the onset of menopause, although any time is a good time to begin – with medical guidance. Similarly, a regular exercise routine can help men to counteract the physical impact of andropause on the body. Numerous studies have documented that high-intensity exercise helps men keep their testosterone levels elevated.

Regular aerobic exercise assists with detoxifying the body as well. Waste products are removed from the system with each exhalation. Exercise facilitates lung functioning and enables us to detoxify, as we sweat, through the outlet of our skin. Along with an adequate intake of water, it also helps to detoxify the lymphatic system, which is part of the body's immunological function.

In addition, exercise allows more blood to flow to the tissues throughout the body. By oxygenating brain cells, exercise enhances brain function. It also improves metabolism, so that the body can easily maintain a normal weight. Finally, weight-bearing exercises, such as walking, jogging and weightlifting, enhance bone density and thus help to prevent osteoporosis.

Beneficial forms of exercise include biking, running, swimming, walking, and dancing. An effective option is power walking, which provides the aerobic benefits of running without putting stress on the joints. Crosstraining also can be advantageous, but it is important to perform different exercises on different days of the week to avoid overexerting any one part of the body.

Stress Reduction

The relaxation/meditation aspect of the intervention recommended a minimum of two half-hour sessions per day of techniques such as Tai Chi,¹¹ qi gong,¹² meditation,¹³ prayer,¹⁴ yoga,¹⁵ journal writing,¹⁶ listening to calming music,¹⁷ or walking.

Stress overtaxes the adrenal system and is a major contributor to premature aging, degenerative disease and early death. In these hurried times, we need to make a conscious effort to slow down and find satisfaction in life. Meditation and relaxation techniques help with that effort. In addition, biofeedback uses the body's own signals to help combat stress. Massage is also an excellent way to relax.

Behavior Modification

Participants learned to identify their problem areas – such as overworking, overeating, unclear life goals, or dysfunctional relationships – and seek to modify that behavior. They kept journals in which they wrote about life issues and challenges. This regular practice helped them to recognize life-affirming goals and determine how to achieve them in the face of obstacles.

In addition, it was important for participants to change their attitude toward lifestyle practices required by the study, such as vegetarian eating and daily exercise, and toward any toxic relationships they had. In some cases, they had to develop new social networks to gain support for the lifestyle changes they were making. The intervention program supported participants in adopting new lifestyle behaviors through group meetings in which questions and concerns were addressed, education on diet, exercise, stress management and other topics, exercise demonstrations, and a “buddy system” that encouraged support within small groups.

Study Results

More than half of participants – and usually a substantial majority – reported improvement in 35 of the 37 outcome measures listed in our questionnaire. These included all 10 of our measures of menopause and andropause symptoms. In a noteworthy finding, 100% of participants saw improvement in three measures of functioning: overall energy function, overall mental function, and concentration. In fact, participants fared well across the board in our measures of mental functioning and energy functioning.

In the charts to follow, we provide a detailed presentation of the study results. As noted earlier, participants rated the degree of change they had experienced in each of the 37 measures at the end of their participation. The rating scale provided to them included five choices: worse, no change, slightly improved, improved, or much improved. In two of the charts presented here, we have combined the three levels of improved condition – slightly improved, improved and greatly improved – into one “improved” category.

In addition to the chart data, testimonials from participants confirm the many positive changes associated with lifestyle interventions. Almost all participants were enthusiastic in reporting their personal experiences, frequently citing additional benefits such as weight loss, joint disorder relief, new hair growth, renewed menstrual cycles, first-time marathon training, and increased self-esteem. Participants typically reported remarkable, and often outstanding, results.

The following six charts present the findings of our study:

Chart 1: Change in Menopause Symptoms

Female participants rated the degree of change they experienced in five symptoms of menopause. A majority reported improvement in all five measures. Two common symptoms of menopause – night sweats and hot flashes – were improved in 87% and 71% of women, respectively. About two-thirds scored positive change in incontinence (69%) and vaginal secretion/dryness (67%). Least often improved was painful intercourse (55%).

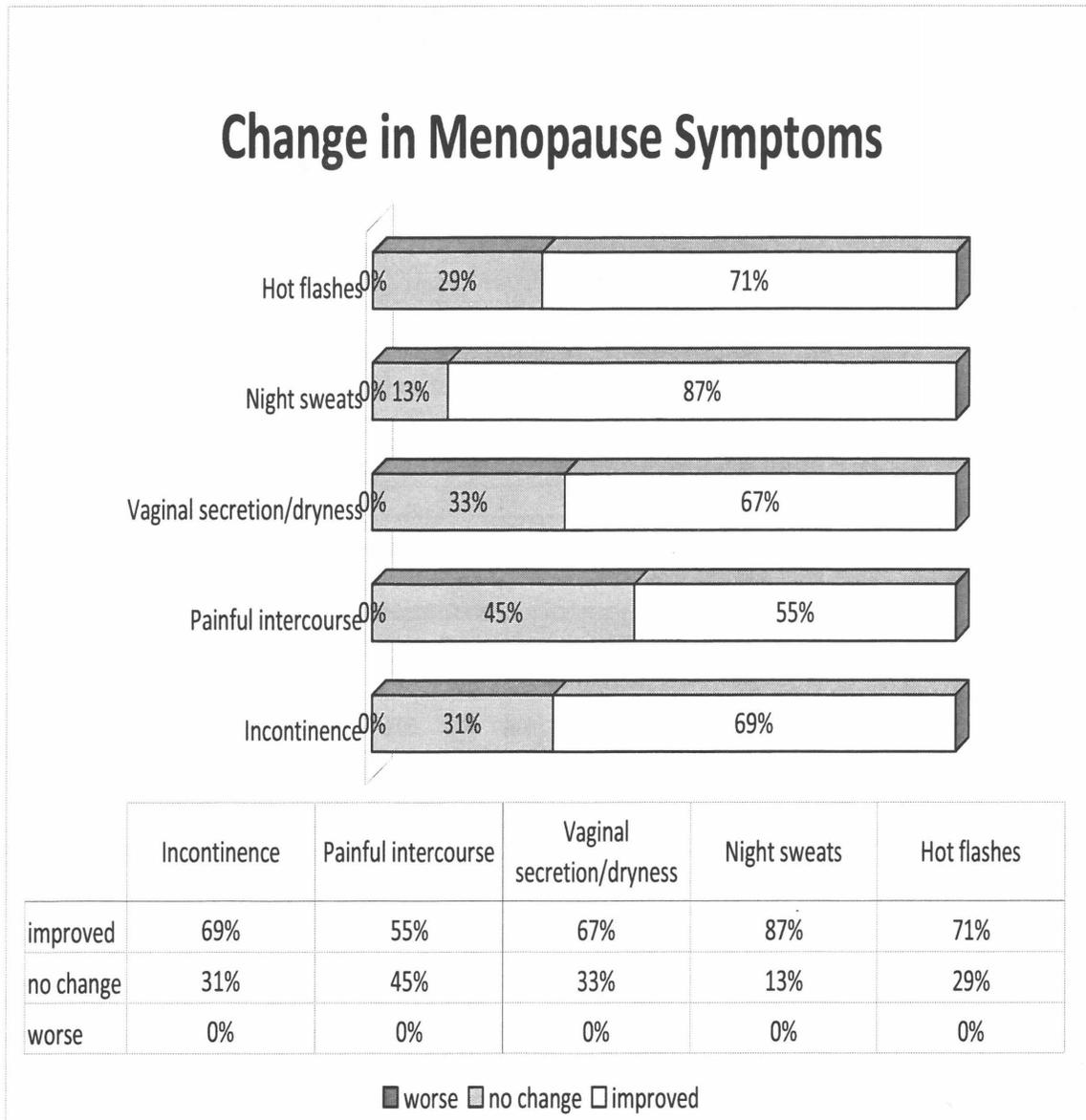
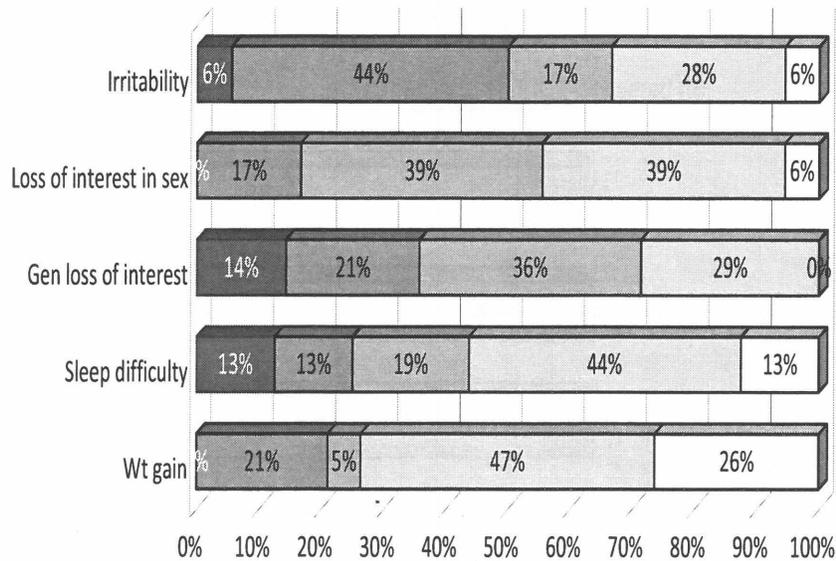


Chart 2: Change in Andropause Symptoms

Male participants rated their degree of change in five symptoms of andropause, more than half reported improvement in all five measures. The reversal of a loss of interest in sex was the most frequent improvement (84% of participants), including all three levels of improvement. This was followed by a reversal of weight gain (78%), sleep difficulty (76%), and general loss of interest (65%). The lowest rate of change was in irritability (51%).

Change in Andropause Symptoms

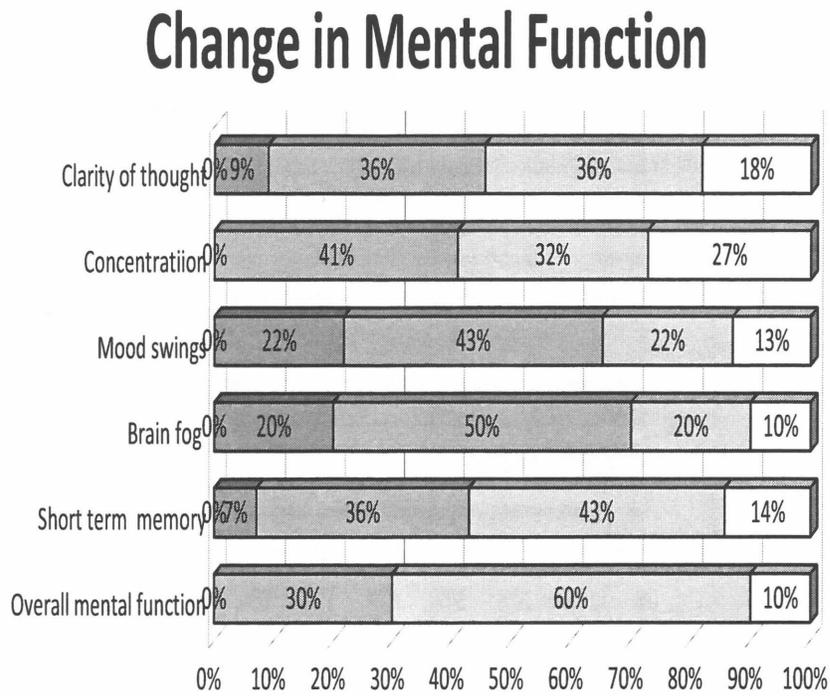


	Wt gain	Sleep difficulty	Gen loss of interest	Loss of interest in sex	Irritability
much improved	26%	13%	0%	6%	6%
improved	47%	44%	29%	39%	28%
slightly improved	5%	19%	36%	39%	17%
no change	21%	13%	21%	17%	44%
worse	0%	13%	14%	0%	6%

worse
 no change
 slightly improved
 improved
 much improved

Chart 3: Change in Mental Function

This category saw high levels of improvement in six measures of functioning that may be affected during menopause-andropause and the aging process in general. Two of the measures –overall mental function and concentration – improved in 100% of participants. The other measures show frequent improvement across the board: short-term memory (93% of participants), clarity of thought (90%), brain fog (80%), and mood swings (78%).

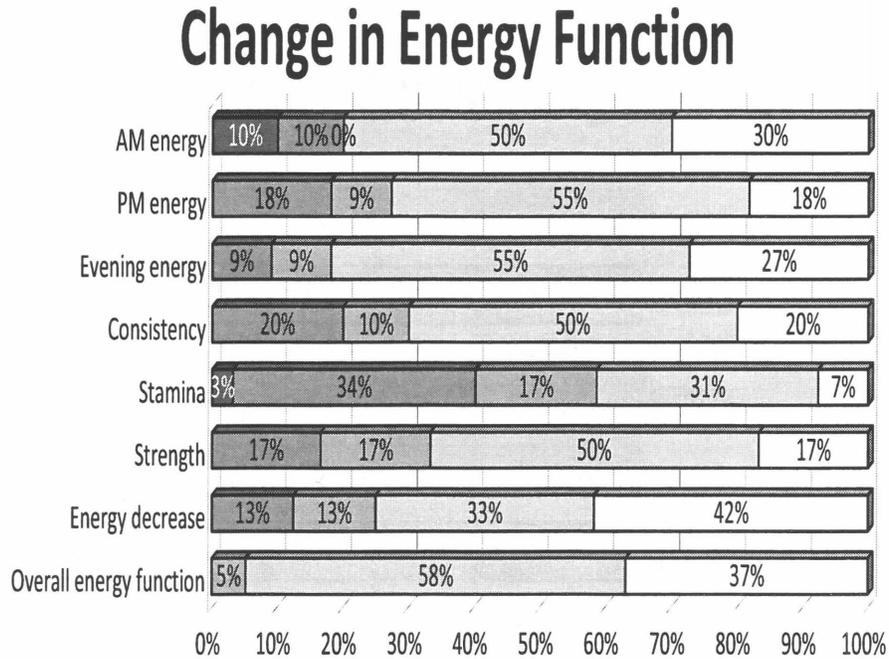


	Overall mental function	Short term memory	Brain fog	Mood swings	Concentration	Clarity of thought
much improved	10%	14%	10%	13%	27%	18%
improved	60%	43%	20%	22%	32%	36%
slightly improved	30%	36%	50%	43%	41%	36%
no change	0%	7%	20%	22%	0%	9%
worse	0%	0%	0%	0%	0%	0%

■ worse ■ no change ■ slightly improved □ improved □ much improved

Chart 4: Change in Energy Function

This category also generated high rates of positive change. Eighty percent or more of participants scored improvements in seven of our eight energy measures, with 100% reporting improvement in their overall energy function. Also improved: evening energy (91%), energy decrease (88%), strength (84%), p.m. energy (82%), a.m. energy (80%), consistency (80%) and, least often, stamina (55%).



	Overall energy function	Energy decrease	Strength	Stamina	Consistency	Evening energy	PM energy	AM energy
much improved	37%	42%	17%	7%	20%	27%	18%	30%
improved	58%	33%	50%	31%	50%	55%	55%	50%
slightly improved	5%	13%	17%	17%	10%	9%	9%	0%
no change	0%	13%	17%	34%	20%	9%	18%	10%
worse	0%	0%	0%	3%	0%	0%	0%	10%

worse
 no change
 slightly improved
 improved
 much improved

Chart 5: Change in Body Function

More than three-fourths of participants reported improvement in four of five measures of body functioning. Most often improved was percentage of body fat (95% of participants), followed by digestion (86%), infection (77%) and, least often, allergy (33%).

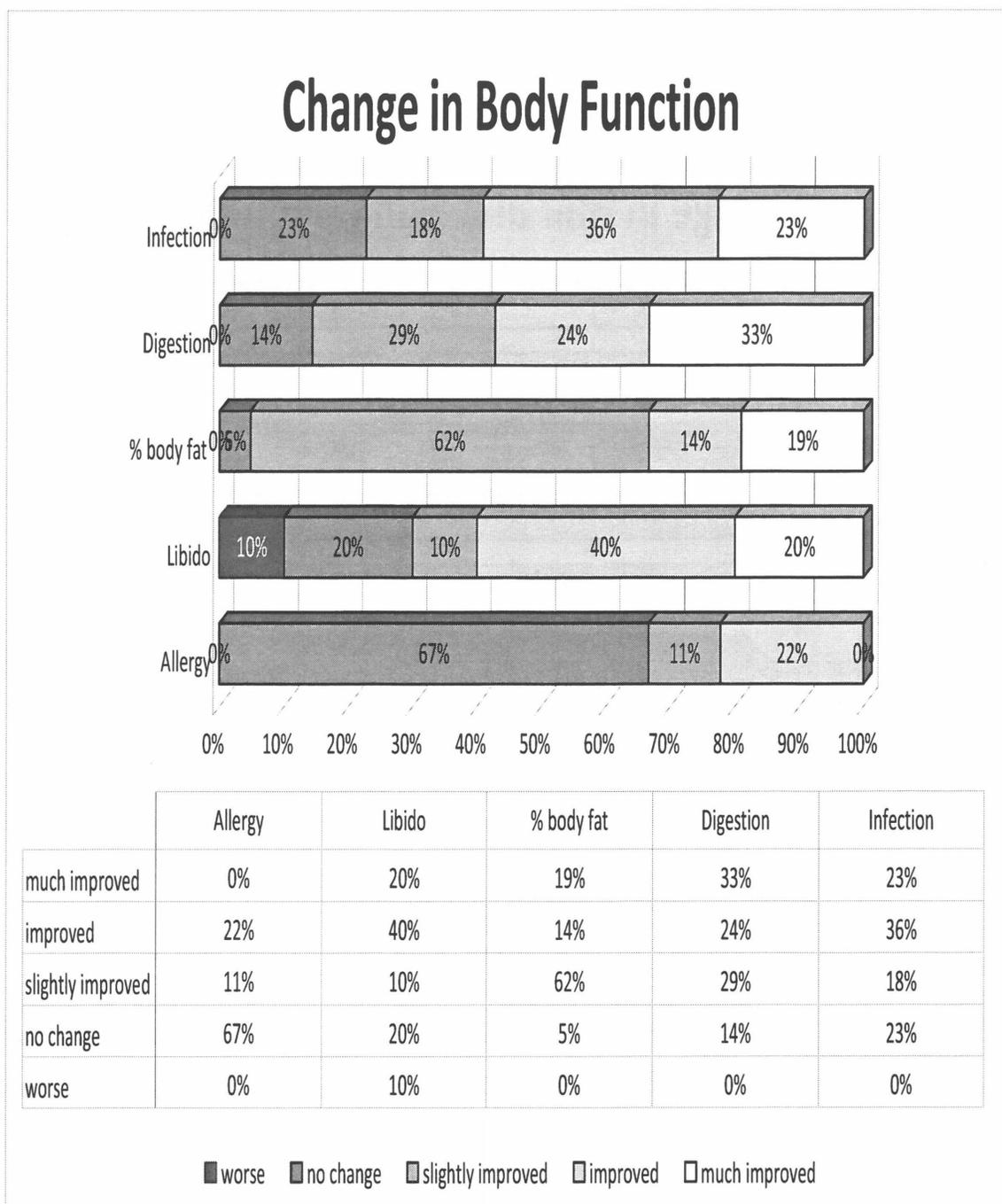
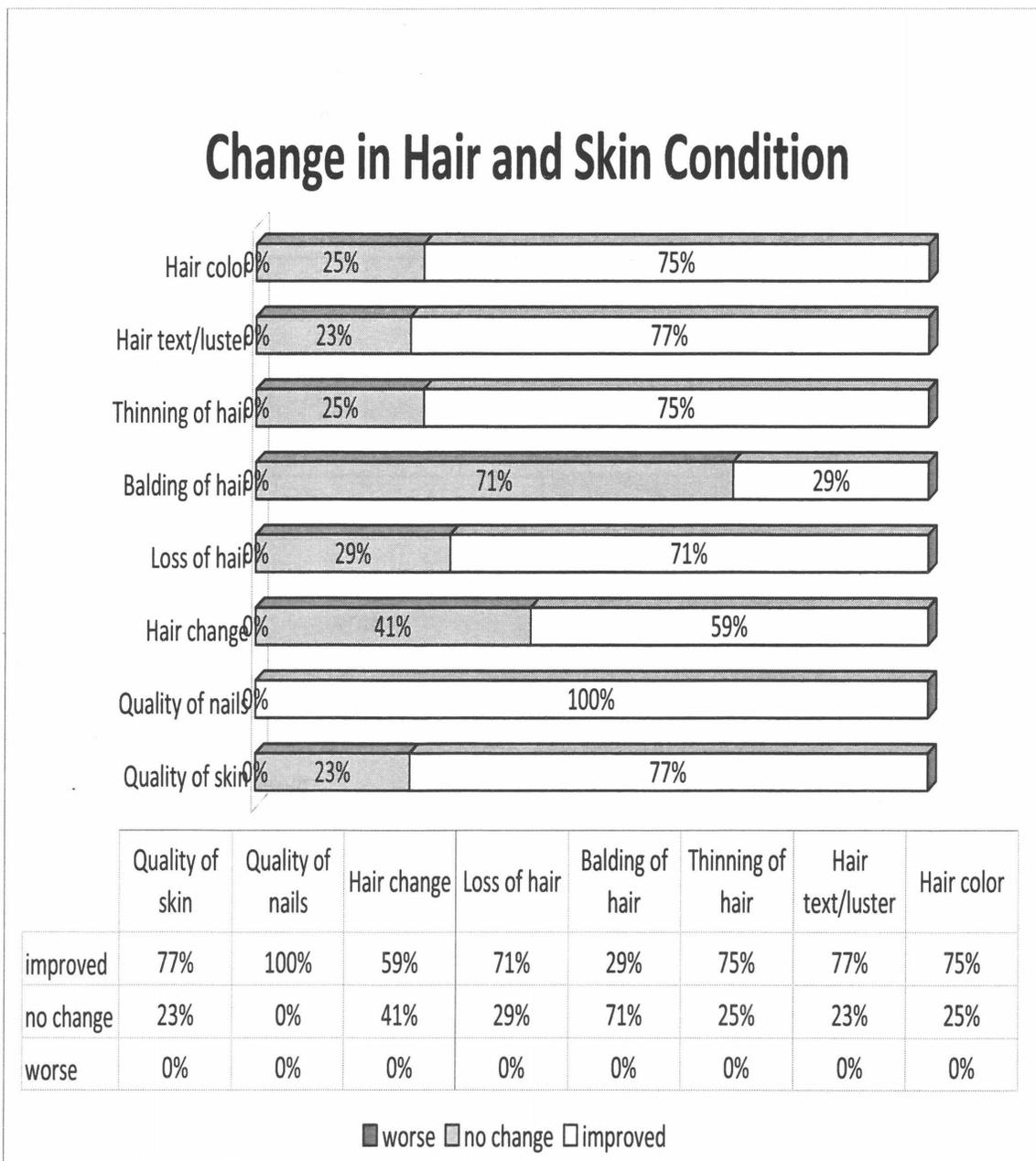


Chart 6: Change in Hair and Skin Condition

A majority of participants saw improvement in seven of eight measures of hair, skin, and nail condition. Quality of nails was improved in 100% of participants, and quality of skin in 77%. The remaining six measures concerned hair status, and more than 70% said four of them had improved: hair texture/luster (77%), thinning of hair (75%), hair color (75%), and loss of hair (71%). Three in 10 saw improvement in balding (29%).



CONCLUDING REMARKS

The Menopause-Andropause Health Study demonstrates that natural, nontoxic lifestyle interventions – including diet, exercise, supplementation, stress management and behavior modification – can help manage symptoms associated with this transitional stage of life. In addition to these positive results, the program generated high levels of improvement in various aspects of mental and energy functioning that may be negatively affected by menopause-andropause, and the aging process in general. It is worth noting that participants were able to make the necessary lifestyle changes despite the comprehensive nature of the intervention. Support provided by the program was an important part of this process.

These findings suggest that the medical field should consider a more wellness-oriented approach to helping patients minimize the symptoms of menopause-andropause and counter the effects of aging on everyday functioning. A more natural approach may be especially important for women due to the health questions surrounding the use of synthetic hormone replacement therapy. By using lifestyle changes as a tool to manage menopausal symptoms, women may have less need for synthetic hormones or even bioidentical hormone products. Similarly, men may have a reduced need for testosterone therapy. In this way, a lifestyle approach may help shift the perspective of the medical establishment – and the patients it serves – toward a wellness paradigm.

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Anti-Aging Therapeutics

Volume XI

2008 Conference Year

Editors

Dr. Ronald Klatz
and
Dr. Robert Goldman



An official educational work published by A4M Publications

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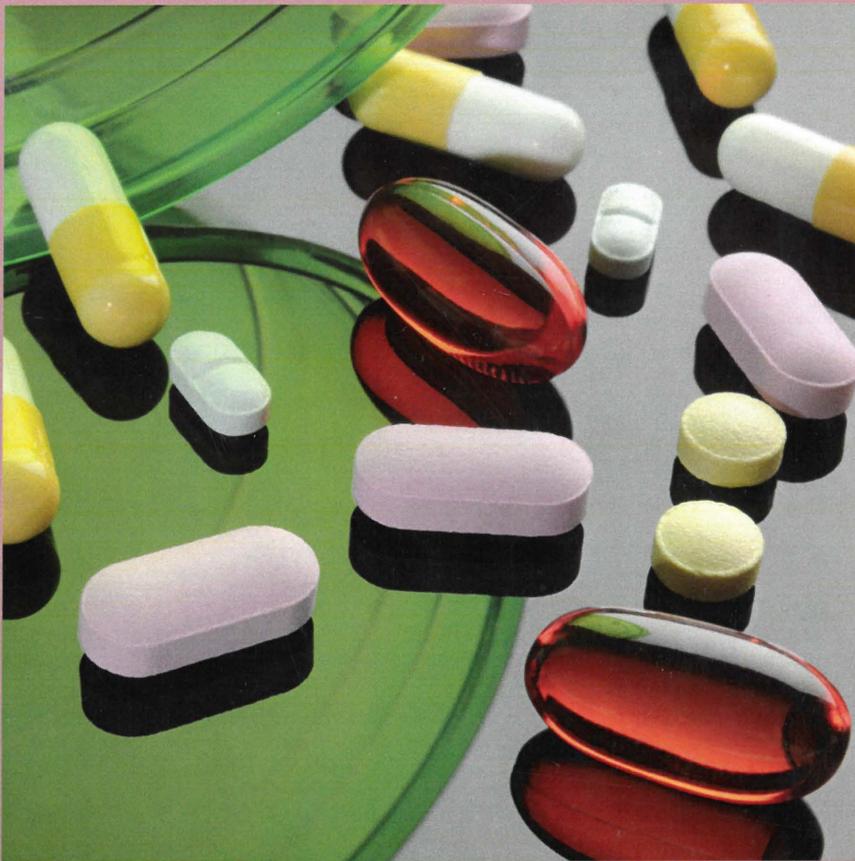
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Printed in the United States of America.



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