

THE ANTI-AGING PROGRAM

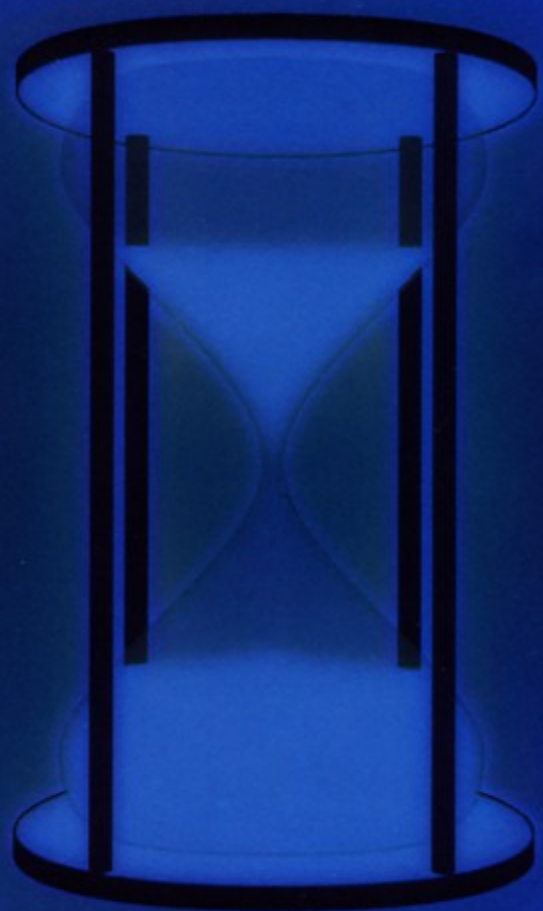
a baby boomer's guide to health and beauty

by Pat Lam and Dr. Maria Sulindro

As we move cautiously into the 21st century, many of us who were born after World War II are taking a moment to ponder on our mortality. This cohort, labeled the "baby boomers" is entering "the golden years" with a certain amount of trepidation. We are concerned about what is ahead for us particularly relative to our appearance, health and mortality. Although we see our children or nieces/nephews growing up to be adults around us, somehow we don't really believe that we are getting old! Older, but not old is what we would like to believe! How depressing is this aging phenomena to the 78-million baby boomers who are expected to emerge within the next 30 years. To compound the psychological effects of aging, we hear of friends, rela-

tives and business associates, suffering and even dying from heart diseases, different forms of cancer, diabetes, osteoporosis, Alzheimer's, and arthritis. Almost everyone is taking some kind of supplement as a form of insurance against the diseases that occur with aging. People are desperately seeking alternative health treatments to ward off these health problems and at the same time, finding ways to increase their energy and looks. We buy exercise equipment, join gyms, and even try to eat organic foods in a positive attempt to look and feel good.

These changes that we see in our bodies are scientifically known as biomarkers. Biomarkers can be described as biological indicators of changes in the body and they can be either external or internal.





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External biomarkers of aging

Although each one of us ages differently, aging symptoms are common in humans. As baby boomers, we have noticed our bodies changing during the past few years. However, no matter how much one tries to exercise, fat accumulates on the body, especially on the abdomen on men, and around the hips on women. Looking in the mirror, one is confronted with an older version of oneself. Grey hairs seem to appear more rapidly, and the fine lines which we had reluctantly accepted in our early 30s have deepened. The skin seems to have lost its youthful glow and appears somewhat dull and sallow. A few of us notice some jowls developing on the lower jaw as the tissues slacken, and worse of all, the neck has begun to assume some "crepiness." Brown spots are starting to appear all over the face and body, especially on the exposed areas on the back of our hands, arms and back. More redness (rosacea) and broken capillaries become more spread out and evident on the cheeks and around the nose. Small lesions known as keratoses grow in profusion all over the neck, decollete, and even on the back. Some people develop large or small blood spots known as hemangiomas on the neck or decollete. What is happening to us? This is described as aging and these external signs tell us that we are aging!

Internal biomarkers of aging

These are symptoms that are typically not visible. For example, we don't seem to have the same level of energy that we had before. We feel tired more quickly and seem to need less sleep. We tend to forget names and faces and our vision has become worse, so we need eyeglasses or stronger prescriptions to read the menu in the restaurant! The doctor tells us that our cholesterol levels are too high and we go to the toilet too often at nights. Anti-aging health practitioners define aging as a disease that can be delayed or prevented, and are characterized by three phases:

1. **Sub-clinical phase** (age 25 to 35). During this period, most hormone levels have started to decline, so by age 35, growth hormone (gh) levels are about 14 percent less than in youth. Environmental pollution, poor diet and high stress produce excess free-radical damage in cells and are not outwardly visible. Although we may look and feel normal, internal cellular damage is already occurring.

2. **Transition phase** (age 36 to 45). By now, most hormonal levels have fallen by less than 25 percent and both internal and external biomarkers begin to be more visible or felt. This includes graying of the hair, skin pigmentation and reduced energy, while on the inside, increased cellular damage by free radicals continues, depending on lifestyle. If not controlled or slowed, abnormal cells form, leading to diseases such as cancer.

3. **Clinical phase** (age 45+). Decline of most hormones accelerates, and by age 70, skin degeneration leads to deep wrinkles, deterioration of muscular-skeletal joints resulting in arthritis. Some organs may begin to fail because of wear and tear as chronic illnesses set in.

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Exercise is the single anti-aging tool that is available to everyone, regardless of age, sex or ethnicity.



Psychological effects of aging

We are fortunate to live in an era where new technologies are available to help restore youthfulness to our skin and body. When the outside looks unattractive, we feel depressed and lose confidence in ourselves. Studies have shown that in western

society, attractive people are treated more positively than those who look unattractive. Humans seem to possess an inherent instinct to gravitate toward beautiful things. This can be clearly seen in the purchase of attractive cars, furniture and clothing as society continues to exploit this worship of beautiful things including humans. When we look good and dress attractively, our self-esteem increases and we act more confident and work more efficiently.

The increased aging population has placed more demands for anti-aging therapies by both physicians and anti-aging health practitioners. There are four main components of an anti-aging program: precise anti-aging exercise; bal-

anced diet with optimal supplementation; anti-aging stress therapy/management; natural hormone enhancement.

Precise anti-aging exercise

Exercise as an anti-aging tool is available to everyone, regardless of age, sex or ethnicity. By age 60, almost half of your muscular strength will be lost. Precise anti-aging exercise incorporates three important components; increased flexibility for joints, cardiovascular activity for a strong heart, and strength training for muscles. The bene-

fits of exercise are innumerable and include a decreased body fat mass and an increased lean body mass; an improved cardiovascular system; a stronger respiratory system; a stronger bone mass; and an increase in mental and physical vitality.

Studies have shown that bone mass decreases by 1 percent every decade after age 30, and if young people would include exercise as part of their daily lives from youth, optimal bone mass formation can result thus decreasing the risk of osteoporosis in aging. Since muscles burn more calories than fat, your basic metabolic rate will increase and more fat will ultimately be burnt. Exercise at least three times a week for a minimum of 20 minutes and try to maintain a target heart rate of 60 to 70 percent to avoid excessive oxidation forming in body tissues. Except for genetic factors, high risk populations for osteoporosis include small-boned Caucasian and Asian females as well as anorexic individuals. Physical activity doesn't have to be strenuous to achieve anti-aging benefits. Strength training and other weight-bearing exercises, especially brisk walking among older people, are anti-aging activities in themselves. Incorporating a precise anti-aging exercise program can prevent loss or deterioration of muscles and bones and help to reverse the aging process.

Anti-aging stress reduction/management

Stress is a silent killer! Why? Because it increases the levels of cortisol (the bad hormone). This accelerates free-radical formation in body tissues. The free-radical theory underlies most aging theories and has been accepted by most anti-aging scientists as a major variable in aging. This theory postulates that when oxygen is taken into the body to oxidize foods, some electrons become unpaired as a result of oxidative processes that occur in tissues. The body can usually handle this in small amounts, but when excess free radicals occur during high stress, the formation of unstable electrons occurs. Free radicals ultimately attack the DNA and mitochondria leading to premature cellular aging, dysfunctional cells and eventually cell

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Making the correct choices of foods will enhance digestion, increase absorption of essential nutrients, and protect against the diseases of aging.

death. External biomarkers of high stress levels include deep lines and wrinkles, accelerated graying hairs and insomnia. Internally, high stress levels accelerate the production of cortisol (the stress hormone) and increase the risk of high blood pressure, stroke and cardiovascular diseases.

Stress relief modalities come in three categories: mental, physical and functional. Mental stress reduction activities include music, reading, meditation, singing, praying, etc. Physical activities include exercise or sports, yoga, tae kwon do and window shopping, which can help decrease stress. Functional activities include spa treatments such as massage, facial stress therapy and similar relaxing treatments, which are very beneficial in reducing high stress levels. These modalities can be mixed for each individual, so find out which works best for you and make stress reduction activities a lifestyle habit.

Anti-aging supplementation

How can we combat the deterioration of our internal organs such as our heart, liver, lungs and bones? We can actually exert a great degree of control in this area. Apart from genetics, nutrition underlies all the major age-related diseases. If you make good food choices and consider factors that will enhance digestion and absorption of essential nutrients, you will boost your body's protective functions from the diseases of aging. This includes consuming fiber-rich foods, natural enzyme foods or supplements, e.g., papain and bromelain found in papaya and pineapple, and the consumption of cancer fighting foods such as soy. A balanced anti-aging diet comprises a 50:25:25 ratio of carbohydrates/protein/fat with carbohydrates mainly in the form of fruits and vegetables. Protein should preferably come from plant sources such as beans, tofu, fish and lean meat. Fats should be from monounsaturated and unsaturated fats rather than from animal sources. Eat less saturated fats and more monounsaturated fats (olive oil, canola, flaxseed oil) and polyunsaturated fats (corn, safflower).

Soy products have been found to be one of the biggest breakthroughs in fighting cancer, particularly breast cancer. They contain *diadzen* and *genisten* which are

isoflavones that mimic natural estrogen in the body. Cruciferous plants include broccoli, cauliflower and brussels sprouts. Garlic and lycopene (found in tomatoes) are both known for their cancer-fighting properties and contributions toward anti-aging. Dietary supplements that fight free radicals include flax and selenium. Other measures include modifications in lifestyle behaviors including the elimination of smoking and excess alcohol.

The anti-aging diet is safe and enjoyable and will help people reach or maintain their ideal weight. This is usually 5 to 10 percent of your ideal body weight. For men, the ideal body weight is 106 lbs for the first 5 feet of height and 6 lbs for every inch thereafter, while for females, the ideal body weight is 100 lbs for the first 5 feet and 5 lbs for each inch thereafter. Other anti-aging tips include eating several smaller meals throughout the day instead of three large meals and avoiding refined sugars that accelerate aging diseases such as diabetes.

Other ways of preventing the formation of excess free radicals is to reduce the daily kcal intake as you get older. This aging theory states that reduced daily kcal intake will result in less free-radical formation.

Hormonal regulation

Scientific studies have shown that after age 40, all hormonal levels begin to decline so that at age 80, there is only about 20 percent of former levels in our systems. This is why we get tired more easily as we get older. Our basal metabolic rate drops so that even if we consume small portions of food, it is burnt so slowly that we gain weight easily. Growth hormone (gh) levels, in particular, have been studied extensively by anti-aging scientists and are believed to be mainly responsible for aging. At 45+ years of age, most hormone production continues to decline except for the "bad" cortisol hormone. The quickest way to reduce this downward slide is to receive gh injections which are typically given by physicians to help recover former hormone levels. A complete battery of testing hormonal levels is usually done before any hormone injections are given. Gh enhancers are also available as dietary supplements in the form of "secretagogues." Secretagogues are used to trigger the pituitary gland to produce more growth hormone. *continues*

itary gland to release gh naturally which maintains the bodily organs. Secretagogues can be sold by any healthcare practitioner.

What can we do? Follow the anti-aging program, early in life. There are several options available for improving or regaining a youthful skin and body, and they can be either invasive or non-invasive procedures.

Invasive procedures

The popularity of various types of cosmetic surgery has increased significantly among both sexes, particularly facial cosmetic surgery. Cosmetic procedures such as liposuction, lip and breast augmentation, botox injections for softening facial lines, cheek, chin and lip implants, and blepharoplasty attest to the desire among baby boomers to look younger. Physicians from various specialties are training to perform laser surgery and chemical peels to fulfill their patients' demands for more youthful-looking skin.

Non-invasive procedures

Estheticians provide non-invasive treatments to rejuvenate the skin and body, and good results are obtained. However, with accelerated aging skin, from diseases and lifestyle stressors, better and more powerful treatments are necessary for optimal results. Baby boomers are more educated, possess more disposable income to spend on themselves, and are more likely to participate in trying new treatments that their predecessors would probably cringe from. Today, the advanced scientific approaches to achieve younger, healthier skin and body are available and baby boomers want them!

High-tech skin therapies

For facial rejuvenation, skin care treatments have transcended the normal applications of vegetable and enzyme peels, and have entered the high-tech world of skin resurfacing. Sophisticated modalities such as microdermabrasion to abrade skin tissues have become ubiquitous. The Lam Probe is another device that helps to remove minor skin abnormalities which seem to proliferate in the aging individual. This includes skin tags, fibromas, hemangiomas (blood spots), hyperpigmentation, cholesterol deposits and milia and various keratoses. New screening devices that detect mole cancers such as Molemax and

high tech equipment such as Skinmax can "look" inside the skin and help the skin specialist to analyze the skin more effectively and devise the best treatment for their clients.

Active ingredients that increase cellular regeneration and improve skin's elasticity include embryoblasts (embryo extracts), which show remarkable results especially when used in conjunction with microdermabrasion. This treatment can be used as an alternative form of skin rejuvenation for those who do not want to endure the "downtime" of laser surgery or chemical peels. Topical antioxidants used to delay or prevent premature skin aging, have been developed and incorporated into many skin care products. Neutraceuticals such as coenzyme 10 are also being combined into skin care ingredients in an attempt to fight free radicals, although their realistic beneficial effects are still being explored by anti-aging scientists.

Stress management

How can excess free radicals be reduced in the body? The esthetician can offer several forms of stress therapy treatments to help the client relax. These can be calming and therapeutic treatments such as hydrotherapy, body massage, aromatherapy, scalp and facial treatments. Specific stress therapy treatments have been designed to teach the client how to breathe deeply and relax, as well as how to manage his or her stressors.

Conclusion

In the anti-aging market, estheticians can embark on new areas of business such as marketing dietary supplements. Anti-aging dietary supplements are based on high potency vitamins and minerals that will help prevent or delay age-related diseases such as cardiovascular diseases (high-blood pressure, stroke), diabetes, osteoporosis, arthritis and Alzheimer's. Almost all of the leading diseases of death are age-related and are closely associated with nutrition deficiencies. If you have strong interest in the "wellness" component of the esthetic profession, you could seek certification as an anti-aging health practitioner. Clients expect estheticians to have knowledge of health and wellness. By

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The esthetician can offer several forms of stress therapy treatments to help the client reduce stress levels.

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becoming an anti-aging health practitioner, the esthetician can become more credible in the public's perception as a healthcare professional. With all of this advanced technology available at our fingertips, we can use it to help ourselves as well as our clients to prevent pain, suffering and disabilities that are associated with aging. We can help ourselves, family, friends and clients look and feel good, and ultimately, live longer, healthier, more active and productive lives than our predecessors. Anti-aging experts are predicting that human life will be extended to 120 to 130 years in the next 30 years. If you want to be included in this group, maximize your knowledge of anti-aging techniques. ■



Pat Lam, B.Sc. Hons., board certified anti-aging health practitioner, vice-principal of Lam School of Advanced Esthetics (Canada) International CIDESCO

examiner, author of Practical Nutrition for the Health and Beauty Professional. She is on the scientific advisory board for the Academy of Anti-aging Research and is currently working to develop preparatory courses in Anti-aging certification for estheticians. For more information, you can fax her at (416) 439-4224, or e-mail: hubert@lamskin.com.



Dr. Maria Sulindro is a renowned anti-aging specialist, board certified physician in anti-aging medicine and a specialist in physical medicine

and rehabilitation. She is the founder and president of eAntiAging.com. A community-oriented educational Web site on anti-aging and can be contacted at her email: Dr.Maria@eAntiAging.com.