A word from the chief...

No one likes to admit they’re getting old. It summons the thought of one day having to give up on all the things you once enjoyed. And that’s enough to make anyone cringe—especially me. But it doesn’t have to be that way. At Isagenix, we’re redefining what it means to age well.

In this issue you’ll learn a combination of healthy behaviors that are key to maintaining a youthful body—getting regular exercise and sleep, managing stress, and gaining optimal nutrition by using Isagenix products.

I don’t know about you, but my bucket list is a mile long. I look forward to a day when we can all enjoy life to the fullest—well into old age. Thanks to advances in science and research, I believe we are on our way. Until that day arrives, however, we have Isagenix. I’m truly grateful to be part of this company and culture.

As George Burns once said, “You can’t help getting older, but you don’t have to get old.” For being a comedian, he knew a thing or two about the aging process: Find a way to enjoy life, no matter your age.

Live well and adventurously,

Suk Cho, Ph.D.
Isagenix Chief Science Officer
A New Way to AGE WELL

Everybody ages. It’s inevitable and a fact of life. But aging doesn’t have to mean slowing down or settling for less-than-perfect health.

It’s time to say goodbye to the ways people have aged in the past and introduce a new way to age. Embracing recent medical and nutritional research, scientists at Isagenix are seeking out ways to best keep the body in a youthful state.

As with all aspects of health, no one product is the answer. Instead, Isagenix offers the Total Health and Longevity System with Product B® IsaGenesis®. This system of products is formulated to target the physiological changes associated with accelerated aging: muscle loss, weight gain, oxidative stress, insufficient micronutrient intake, and threatened cellular integrity.
Here are 5 steps to combat unwanted, age-related changes.

Step 1. Age Strong
Age-related muscle wasting, or sarcopenia, is caused by inadequate dietary protein intake, lack of exercise, increased oxidative stress, and other nutritional imbalances. People who are physically inactive can lose as much as 3 to 5 percent of their muscle mass each decade after age 30.

With 24 grams of the right type of protein including whey protein rich in branched-chain amino acids, the IsaLean Shake supports optimal protein absorption and effective muscle building for aging adults.

Step 2. Age Lean
With age-related muscle loss comes fat gain. Adults can gain as much as 1/2 a pound of fat every year after age 30. It’s not surprising then that more than one-third of U.S. adults over age 65 are obese (1).

The Isagenix Healthy Aging solution combines protein-rich Shake Days with very low calorie-intake Cleanse Days to build muscle, burn fat, and assist with long-term weight maintenance. Making Cleanse Days a lifelong habit can also assist with healthy aging.

Step 3. Age Happy
One of the greatest contributors to premature aging is stress. While short bursts of the stress hormone, cortisol, can help avoid life-threatening situations (think “fight or flight”), chronically elevated levels create an imbalance of oxidative stress within the body leading to serious health consequences over time (2, 3).

Priming the body with the Adaptogens found in Ionix® Supreme can help strengthen your capacity to resist and reduce the effects of stress.
**Step 4: Age Nourished**

Ageless Essentials™ with Product B® IsaGenesis® is more than a vitamin pack. It contains the right amounts of vitamins, minerals, omega-3 fatty acids, and antioxidants in convenient A.M. and P.M. packs to complement your diet and support healthy aging.

The National Health and Nutrition Examination Survey (NHANES) 2009-2010 shows that nearly the entire U.S. population is at risk of vitamin and mineral insufficiency—and older adults are no exception.

**Step 5. Age Protected**

An important part of healthy aging is maintaining the integrity of the 100 trillion cells that make up the body, specifically by supporting telomere health. These little clusters of DNA at the end of chromosomes provide cellular protection and allow cells to divide and replicate—an essential function for tissue growth.

Product B® IsaGenesis® is scientifically designed to deliver optimal levels of active ingredients targeted to support telomere health.

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**REFERENCES**

Nutritional cleansing has always been a unique part of Isagenix. Routine Cleanse Days are truly at the heart of some of the greatest health benefits attributed to weight loss with Isagenix.

Now, recent research at Skidmore College increasingly suggests that Cleanse Days—in combination with Shake Days—could increase the chance of a healthier, longer life. They do so by improving metabolic and cardiovascular markers including insulin sensitivity and arterial health.

If there’s one takeaway from the most recent two-phase Skidmore study it’s this: Isagenix has made it easier for you to achieve a healthier lifestyle and age well.

Cleanse Days (an intermittent fasting day primarily comprised of drinking detox-promoting Cleanse for Life) and Shake Days (an example of calorie restriction by exchanging two meals a day with high-protein IsaLean Shakes) were key to this success.

**Signs of Better Aging**

In the initial 10-week weight-loss phase, all of the 43 men and women on Isagenix products lost weight. With that weight loss came significant drops in visceral and total body fat along with improvements in metabolism and insulin sensitivity (1).

These findings give further validation for Isagenix product use related to weight loss. Previously, another study conducted at the University of Illinois at Chicago had come to similar conclusions that the Isagenix system was superior when compared to a heart-healthy diet (2,3).

In addition, in the Skidmore College study, subjects had a 10 percent improvement in arterial flexibility and blood flow suggestive of better cardiovascular health (1). It’s an excellent finding considering that, as some scientists say, “you’re only as old as your arteries.”

The Skidmore study went further. It was one of the first studies to ever measure an increase in circulating toxins as a result of an intervention combining calorie restriction and intermittent fasting. The noted increase in circulation of toxins is an essential first step in detoxifying and eliminating these harmful compounds from the body (1).

**Long-Term Success**

By extending the trial for a full year, the Skidmore College researchers became the first to evaluate the long-term benefits of Isagenix. It’s this type of research that most other companies only dream of and rarely decide to invest in.
As part of the second phase of the study, the Skidmore College researchers divided the original weight-loss subjects into two groups. One they allowed to continue using the Isagenix system with less stringency for a more “real life” compliance scenario. The other group was assigned a heart-healthy diet. Both groups were counseled by registered dietitians.

The final results from the study (still currently in progress) are months away. However, hints from the preliminary findings at six months shared at Isagenix Celebration by the study’s lead author Paul Arciero, Ph.D., show that, so far, results are no less impressive for Isagenix than what they were at 10 weeks. The study’s findings are to be submitted for publication in peer-reviewed journals in the future.

Sneak Peek at the Results

One of the key findings is that the metabolic and cardiovascular improvements observed during the weight-loss phase were either maintained or improved. Moreover, the results suggest that individuals using the Isagenix system maintained a higher metabolism deemed essential to prevent weight regain. In addition, these subjects continued to improve both their arterial flexibility and also continued to release more stored toxins from fat tissue.

As far as optimizing health long term, all the evidence suggests that Isagenix promotes weight loss, followed by long-term weight management and cardiovascular improvement. And once again, cleansing is key.

What is it about cleansing that allows for successful weight loss and maintenance, and improvement to overall health? Scientists are only beginning to understand the power of this dietary practice that does everything from activating longevity genes, to stimulating pathways in the body that increase autophagy (the body’s way of clearing out old cells to make room for new), to enhancing the activity of the energy-producing centers in cells—which leads to improvements in circulation, cardiovascular health markers, cognitive health, and reduced oxidative stress (4-9).

By incorporating Cleanse Days and Shake Days on an Isagenix system there’s no need for deprivation as with many main-stream diets. Regular healthy eating patterns, even including indulgent meals and favorite comfort foods here and there, can still be followed. Cleanse Days allow for real-world living, and when performed on a regular basis will help to maintain a healthy weight and improve health to increase longevity.

REFERENCES

To ensure we're following the vision of Founder and Master Formulator John Anderson, Chief Science Officer Suk Cho, Ph.D., and his team of researchers and scientists, are dedicated to creating no-compromise, evidence-based products that are safe and effective.

“Not many companies invest in a year-long study showing the efficacy of their products. Science is why I love my job at Isagenix, because Isagenix is invested in scientifically supported products.”

– Suk Cho, Ph.D. Isagenix Chief Science Officer

NEW UNIVERSITY STUDY GIVES CREDENCE TO THE POWER OF ISAGENIX

After the remarkable results in a University of Illinois at Chicago study, Paul Arciero, Ph.D., and Director of Health and Exercise Sciences at Skidmore College, was interested in designing his own study, extending the subject group to include men.

In his 10-week study, men and women, considered obese or morbidly obese, followed the Isagenix system. The initial results were so impressive, that the subjects were divided and the study was extended to one full year to examine the long-term benefits of using the Isagenix system compared to a heart-healthy diet plan.

THE SKIDMORE COLLEGE STUDY AIMS TO ANSWER THREE MAIN QUESTIONS:

- Can the results of an Isagenix system be maintained over a long period of time?
- How does weight loss affect detoxification?
- What happens to metabolism when weight loss is achieved with the Isagenix system?

PHASE 1 (0 – 11 WEEKS)

The year-long study included two phases. Phase 1, the first 11 weeks, had all subjects follow the Isagenix 30-Day System.

ISAGENIX WEIGHT LOSS

All subjects followed the Isagenix 30-Day System, including two meal replacements and a 400–600 calorie meal, with additional IsaLean® Bars and Ageless Essentials Daily Pack

Results:

- **AVERAGE 24 LB. WEIGHT LOSS**
- **AVERAGE 17% DECREASE IN BODY FAT**
- **AVERAGE 33% DECREASE IN VISCERAL FAT**
- **AVERAGE 9% INCREASE IN LEAN MUSCLE MASS**
- **AVERAGE 44% INCREASE IN TOXINS RELEASED**
PHASE 2 (11 WEEKS – 12 MONTHS)

Phase 2 divided the group in two, with one group continuing to use Isagenix and the other following a heart-healthy diet.

WEIGHT MAINTENANCE (Study concluding November 2014)

Subjects were divided into two groups and both were counseled by registered dietitians.

<table>
<thead>
<tr>
<th>Isagenix Maintenance</th>
<th>Heart-Healthy Diet Maintenance</th>
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<tr>
<td>Continued with at least 1 IsaLean® meal replacement per day, and 1–4 Cleanse Days per month.</td>
<td>Followed a heart-healthy diet</td>
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Results after first six months - Isagenix compared to Heart Healthy

- **Continued Weight Loss**: 4 TIMES MORE
  - ISAGENIX
  - Heart-Healthy Diet

- **Fat Loss**: 4 TIMES MORE
  - ISAGENIX
  - Heart-Healthy Diet

- **Increased Lean Muscle Mass**: 2 TIMES MORE
  - ISAGENIX
  - Heart-Healthy Diet

- **Increased Metabolism**: 3 TIMES MORE
  - ISAGENIX
  - Heart-Healthy Diet

- **Toxins Released**: 4 TIMES MORE
  - ISAGENIX
  - Heart-Healthy Diet

““We had amazing results and data, and very real transformations to date. These results give credence to what we do. More science, more evidence, and more validation that our Isagenix systems improve health and show long-term benefits.”” - Dr. Suk Cho

This is the first study looking at a nutritional intervention that affects the body’s ability to detoxify itself through fat loss. I’m excited about this potential contribution to the scientific literature.

PAUL ARCIERO, Ph.D.
Director of the Human Nutrition and Metabolism Lab and a professor in the Department of Health and Exercise Sciences at Skidmore College.
Since their discovery more than 75 years ago by the Nobel Laureate geneticist Hermann Müller, telomeres have attracted worldwide attention among scientists investigating the aging process.
Telomeres are the protective caps on the ends of chromosomes composed of short DNA sequences protecting our DNA and genetic material from damage.

Another Nobel Laureate, Elizabeth Blackburn, likened telomeres to the little plastic caps on the ends of shoelaces (aglets).

Under normal conditions, when a cell divides, telomeres shorten. If they grow too short, they reach what’s known as the Hayflick limit (named after the esteemed gerontologist Leonard Hayflick), and the protective capacity of the telomere decreases. Real-world relevance of telomere shortening can be observed during the aging process in humans when comparing the length of telomeres from newborns (8,000 base pairs) to adults (3,000 base pairs) to elderly individuals (1,500 base pairs). Therefore, because several disease states and pathological processes have been linked to telomere shortening, several academic laboratories and companies have explored intervention strategies to slow down the rate of telomere attrition.

Several lifestyle factors can also significantly affect telomere health and the rate of telomere shortening.

Among the most studied factors associated with shorter telomeres are psychosocial: depression, anxiety, and childhood adversity (1,2). Other lifestyle factors associated with telomere length include smoking, physical activity, drugs and toxins, and oxidative stress. Indeed, the decades of research implicating oxidative stress in the aging process has recently begun addressing and demonstrating a similarly deleterious role of oxidative stress on telomere length (3-5). As a result, antioxidant intake and subsequent plasma concentrations may be newly emerging biomarkers of telomere status (6-8).

Oxidative stress is defined as an overabundance of reactive oxygen species (ROS). Excessive oxidative stress damages DNA, proteins, and lipids. While ROS are produced under normal conditions, oxidative stress occurs under conditions of poor health. To prevent oxidative stress, the body requires antioxidant nutrients such as glutathione precursors like the amino acid cysteine (found in IsaLean Shakes) along with specific enzymes (9,10). Among these antioxidant enzymes is catalase, which functions to convert toxic and DNA-damaging hydrogen peroxide (H$_2$O$_2$) into water (11,12).

With this in mind, Isagenix partnered with scientists in the School of Nutrition and Health Promotion at Arizona State University to conduct a clinical evaluation in an independent, randomized, placebo-controlled, double-blinded study to evaluate B’s effect on catalase and other enzymes.

Third-generation Product B blend of plant botanicals, bioactives that provide significant protection against telomere shortening in cellular systems. However, obtaining clinical support as a potential natural product against telomere shortening proved difficult due to analytical shortcomings and methodological issues in measuring telomere length. For this reason most studies considering the impact of dietary, environmental, or lifestyle factors on telomeres are frequently observed in studies with thousands of study participants.

In this study researchers had subjects consume either Product B or a placebo for 12 weeks and observed that subjects supplemented with Product B demonstrated a significant elevation of catalase in red blood cells (increase by 30 percent vs. placebo). Considering the role catalase may play in the aging process, this was very exciting news and the relevance of this finding was not lost on the researchers, who commented, “The increase in catalase observed by Product B is an exciting development considering the relationship between the enzyme and increased lifespan in animal studies.”

Now, Isagenix has developed fourth generation product B IsaGenesis—which contains a novel lipid-soluble blend to increase absorption and bioavailability.

Clinical and experimental evidence is slowly emerging supporting the benefits of the nutritional antioxidants, plant botanicals, and other bioactives provided by Ageless Essentials™ Daily Pack, containing Product B® IsaGenesis®, IsaOmega Supreme®, C-Lyte®, Essentials for Men™ or Essentials for Women™, and Ageless Actives™. In conjunction with a healthy diet, weight and stress management, quality and sufficient sleep, and regular exercise, Product B IsaGenesis may provide the most optimal protection against age-accelerated telomere shortening and a longer, healthier life.
REFERENCES


MOLECULAR Typography designed and created by Mithila Shafiq | www.planetmithi.com
Reaching retirement age should not mean retiring your running shoes, yet it happens all too often. The thought of exercising may sound like an uphill battle for many adults, but Isagenix products can help.
Plus, it could mean the difference between succumbing to reduced mobility, reduced function, and chronic health problems, or reaching and enjoying a healthy old age.

One in three adults worldwide are already considered physically inactive, according to the World Health Organization (Figure 1). Less than 5 percent are getting the recommended 150 minutes of exercise weekly, and 42 percent are sitting for at least four hours per day (1).

As these adults get older, and particularly in countries where people enjoy higher incomes per capita (Figure 2), their amount of physical inactivity only increases. This physical inactivity accounts for more than 3 million deaths per year (2).

Scientists warn that being sedentary can result in poor health. Chief among the consequences is a higher risk of insulin resistance that can lead to metabolic syndrome, type 2 diabetes, and cardiovascular disease (1-3).

**Beyond Blood Sugar**

“What we’re learning is that more important than controlling blood sugar for protecting against insulin resistance is where that sugar is going,” said cardiovascular health researcher Zhaoping Li, M.D., a member of the Isagenix Scientific Advisory Board (SAB), during a Science Talk at Isagenix 2014 Celebration in San Diego.

When skeletal muscle is exercised, Dr. Li explained, it then becomes the body’s main sugar disposal keeping it out of the bloodstream and fat tissue. Less sugar in the bloodstream and into muscles ultimately results in improved insulin sensitivity, better appetite control, and less body weight.

Otherwise, according to nutritionist Michael Colgan, Ph.D., also a SAB member speaking at the conference, inactivity leads to muscle loss. In fact, the average person loses 1 to 2 percent of muscle every year between 40 and 50, with that amount doubling after 60.

The result is a drop in strength and mobility, as well as brittle bones, Dr. Colgan said. But worse yet, body fat accumulates, and the poor blood sugar control affects cardiovascular and brain health.

**Muscling Through Aging**

To make the most of the exercise they do, older adults also need enough protein daily to avoid age-related loss of muscle, according to Dr. Li.

Older adults, generally require protein in amounts higher than the current recommended daily allowances (RDA) of 0.8 grams per kilogram (4). New estimates predict that older adults ought to be getting 1.5 to 2 grams per kilogram (5). But the difficulty is that older adults have the greatest trouble meeting recommendations. According to data from national surveys, up to 30 percent only receive half of the recommended amounts daily (4).

Plus, when older adults do seek to obtain enough protein in their diets, they often underestimate how many calories they are also consuming (6). For example, if choosing to eat a serving of chuck eye steak (308 g), they may not realize that it contains a whopping 852 calories (a large part of it from saturated fat) that will only end up around their middles.

High-protein meal replacements offer adults a convenient way to control calories while still reaching their protein requirements, Dr. Li said. These include Isagenix products such as IsaLean Shakes, IsaLean Pro Shakes, and IsaLean Bars.

The whey protein found in these products offers a key advantage because it is higher in branched-chain amino acids needed to stimulate muscle synthesis without an accompanying excess of calories, Dr. Li said. Moreover, Dr. Colgan said, using whey protein, especially after workouts, helps muscles recover faster from exercise allowing consumers to engage in it more often and seek greater benefits.

**“Adapt” to Activity**

Additionally, there are other products that assist in helping older adults move more to gain more from physical activity – Ionix® Supreme, e+™, and t+ Chai – each of which contain botanicals called *Adaptogens*.

Speaking on the topic of Adaptogens at 2014 Celebration was nutritional biochemist Eric Gumpricht, Ph.D., who discussed how these special botanicals assist the body in overcoming stress and improving performance.

For older adults taking them daily, these products can provide the extra energy and support needed for regular daily activity, as well as help in improving performance and quickening recovery.

According to Dr. Gumpricht, a typical method of using the products would be a shot of Ionix Supreme in the morning, followed by e+ just before a workout for its load of caffeine, and t+ Chai as a calming recovery drink at night.
Sleep More to Move More

Right after a t+ Chai, the surest way to optimize recovery is through proper, healthy amounts of sleep. However, in older adults, sleeping is usually restless due to inadequate amounts of melatonin.

Supplementing with melatonin comes easy with a spray or two of Sleep Support and Renewal™. The product is part of the Isagenix Brain and Sleep Support System formulated by Dr. Colgan.

Dr. Colgan describes it as an important part of the regimen for exercise, especially when getting older, to take advantage of the body’s natural circadian rhythms that determine when muscles go through their stage of rebuilding – usually occurring at night.

Essentials to Energize

Another way to re-energize aging muscles is taking Ageless Essentials Daily Pack for its several ingredients including vitamin C, highly absorbable coenzyme Q10, vitamin D, and resveratrol.

Exercise by itself helps the body improve its own antioxidant status, according to molecular biologist Bill Andrews, Ph.D., but the addition of these other ingredients can work at a mitochondrial level in muscle cells.

Mitochondria are ultimately responsible for 90 percent or more of the energy provided to the body—and muscles.

“B” More Active

Because regular exercise, antioxidant status, muscle health, and the health of telomeres are all intertwined (7), Dr. Andrews recommends adding Product B IsaGenesis to the Ageless Essentials Daily Pack.

Adding in Product B IsaGenesis to the Ageless Essentials Daily Pack not only provides a sure win for healthier aging, but supports cellular integrity through increased antioxidant status by protecting telomeres.

Ultimately the combining of regular exercise, consuming IsaLean Shake or IsaLean Pro, taking Sleep Support Renewal Spray nightly for recovery, and taking Ageless Essentials Daily Pack with Product B IsaGenesis, is what Dr. Andrews considers a more comprehensive approach to healthier aging.

It’s also convenient in that exercising more—while using these Isagenix products—could lead to a more enjoyable, longer life.

REFERENCES

THE PERKS OF EXERCISING EVERY DAY OF YOUR LIFE

5-10%
Average amount of muscle loss between age 40 and 50 for inactive adults

78%
Percentage of the 39 million adults over 65 that don’t engage in exercise

Physical inactivity leads to increased body fat including deadly visceral fat

RESISTANCE
exercise helps build muscle mass

ENDURANCE
activities support heart health

EXERCISE
burns calories leading to a slimmer waist

PHYSICAL activity can help improve insulin sensitivity

MOVING daily can reduce joint stress

HOW ISAGENIX CAN HELP KEEP YOU FIT FOR LIFE

ISAPRO®
IsaPro features whey protein, which has a high concentration of branched-chain amino acids (BCAAs) to support muscle growth and cysteine for recovery.

IONIX® SUPREME
This herbal drink contains Adaptogens—plants grown in stressful environments that support optimal mental and physical performance.

AGELESS ESSENTIALS™ DAILY PACK
More than a multivitamin, Ageless Essentials contains several cellular-protecting nutrients like vitamin C, CoQ10, vitamin D, and resveratrol to provide antioxidant support and assist with recovery.

SLEEP SUPPORT AND RENEWAL™
Supplementing with melatonin is a safe way to improve sleep quality—a vital component for muscle synthesis and rebuilding.