



## **AGE ERASERS: AGING WITH GRACE-A NATURAL APPROACH TO PRESERVING YOUR 'HEALTH SPAN'**

DON'T BELIEVE EVERYTHING YOU HEAR ABOUT YOUR AGE  
AGING IN YEARS DOES NOT HAVE TO MEAN A DECLINE IN HEALTH, ENERGY, OR LOOKS.

### **BEHIND BIOLOGICAL AGING:**

As people reach a "certain age," they begin to wonder why their bodies start to physically deteriorate. The answer isn't simple, and the reasons are as variable and unique as you are. Biological aging, aging of your cells at the molecular level, can be brought on by environmental and metabolic free radicals, spontaneous errors in genetic coding and division, and maladaptive biochemical reactions, as well as nutritional issues- and those are just a few of the processes we've learned about. In other words, lots of different things going on inside your cells can cause damage, some are within your control and some are not.

As with all living things, each of our individual cells undergoes a kind of 'life cycle.' How we age hinges on a delicate balance between our cells' renewal capacity and their knowing when to die, a balance that drives cellular aging and increased susceptibility to diseases.

### **WHEN OUR CELLS START TO AGE, SO DO WE**

In the normal state of health, our body systems are composed of cells programmed by DNA to carry out the specific duties required to make that system work. When we're young our rapidly dividing skin cells generate glowing skin, our hair follicles grow lush shiny hair, our bone cells constantly turn over and mineralize, our immune cells proliferate when faced with infection, our cardiovascular cells keep the heart and blood vessels resilient, and so on. As we age our cells divide and repair themselves less frequently and become prone to cell division defects, leaving us with less capacity to enrich and protect these systems. This is when we notice signs of degeneration.

### **HORMONES AND NUTRITION - CAN AGING BE STOPPED?**

The short answer to that question is no- but it can be slowed down. Many of you have heard of certain celebrities using bioidentical hormones, such as human growth hormone, to "prevent" aging, and lots of people are reporting great results in this area. There is controversy

surrounding hormones, though, and we really don't know the long-term effects of using hormones- bioidentical or otherwise-as an elixir of youth.

Meanwhile, numerous exciting studies link simple lifestyle changes- such as adding a quality multivitamins, quality herbal formulations, reducing chronic stress, or modifying the way you eat-will slow down aging.

Simply put, the more positive information our cells receive from our daily choice-whether from foods rich in micronutrients, exercise, adequate sleep, or managing chronic stress-the more healthful messages they relay to our genes the less likely we are to follow the disease pathways that run in our families.

### INFLAMMATION- THE KEY TO CHRONIC DISEASE AND RAPID AGING??

It's fascinating to watch the medical establishment discover inflammation. In the past few years there have been studies suggesting that chronic inflammation lies at the root of heart disease, cancer, osteoporosis, Alzheimer's, autoimmune diseases like rheumatoid arthritis and psoriasis, and many other immune disorders. Many of the diseases and complaints associated with aging- including aging skin- can also be attributed to chronic inflammation.

Inflammation is a particularly important issue for women in perimenopause and menopause. Somehow this major hormonal transition stokes the fire. Inflammation caused by hormonal imbalance could be the key why women suffer 75% of all autoimmune disease.

Inflammation plays a central role in disease and aging, and that controlling inflammation is critical to your health. But what's remarkable is that conventional medicine still has no definitive tests, or diagnosis, for chronic or systemic inflammation. There is no consensus in medical science about what this kind of inflammation really is or how it undermines your health.

### WHAT IS CHRONIC INFLAMMATION?

Like an unattended fire, chronic inflammation can slowly spread and lead to serious metabolic breakdown, with vast implications for your long term health. You may have heard that disorders like rheumatoid arthritis, inflammatory bowel disease, and eczema stem from inflammation. Chronic inflammation has now been connected to a host of modern diseases, from obesity, diabetes, atherosclerosis, and high blood pressure, to Alzheimer's, osteoporosis, Parkinson's, cancer, and even depression. In the functional medical world, we view all chronic and degenerative illnesses-and even biological aging – as rooted in chronic inflammation.

### CAUSES OF INFLAMMATION

Systemic or chronic inflammation has a domino effect that can seriously undermine your health. So how does it all begin?

### THE IMMUNE SYSTEM AND THE INFLAMMATORY RESPONSE

MANY EXPERTS NOW SEE INFLAMMATION AS ARISING FROM AN IMMUNE SYSTEM RESPONSE THAT'S OUT OF CONTROL. When you catch a cold or sprain your ankle, your immune system switches into gear. Infection or injury trigger a chain of events called the INFLAMMATORY CASCADE.

The familiar signs of normal inflammation- heat, pain, redness, and swelling- are the first signs that your immune system is being called into action.

In a delicate balance of give-and-take, inflammation begins when PRO-INFLAMMATORY HORMONES in your body call out for your white blood cells to come and clear out infection and damaged tissue. These agents are matched by equally powerful, closely related anti-inflammatory compounds, which move in once the threat is neutralized to begin the healing process.

Acute inflammation that ebbs and flows as needed signifies a well-balanced immune system. But symptoms of inflammation that don't recede are telling you that the 'on' switch to your immune system is stuck. It's poised on high alert-even when you aren't in imminent danger. In some cases, what started as a healthy mechanism, like building scar tissue or swelling, just won't shut off.

#### CHRONIC INFLAMMATION AND ITS ROOTS IN THE DIGESTIVE SYSTEM

Two-thirds of the body's defenses reside in the gastrointestinal (GI) tract.

Intestinal bloating, frequent bouts of diarrhea or constipation, gas and pain, heartburn and acid reflux are early signs of an inflamed digestive tract. It's not surprising that your immune system first clicks into hyper drive in your digestive tract- it was designed to eliminate viruses and bacteria in your food before they infect your body.

#### INFLAMMATION: MENOPAUSE & ANDROPAUSE

Changing levels of estrogen, progesterone, and testosterone have a role in age-related inflammation.

#### ENVIRONMENTAL CAUSES OF INFLAMMATION

Synthetic fibers, latex, adhesives, plastics, air fresheners, cleaning products- these are just some of the vast array of chemicals we are exposed to every day. Many of us work in hermetically sealed office buildings with re-circulated air that only increases our exposure.

Sick buildings make sick people. As do pesticides, pollution, and heavy metals. Lead and mercury are just two of the thirty heavy metals in our environment that our bodies must detoxify. And these toxins are in everything; our drinking water, our food, even breast milk. Many of these chemicals are fat-soluble, meaning they are stored in fat and accumulate in our bodies until they reach toxic levels. Chemical sensitivity is just the most visible end of the spectrum.

Constant exposure to noxious chemicals and airborne irritants- even if it's a low dose- makes your immune system crazy. Some people are naturally better detoxifiers and can withstand more exposure before they have symptoms. Others need more support. Learning as much as you can about the products you use, the buildings you live in and the water you drink is crucial to preventing or fighting inflammation.

## PSYCHOLOGICAL STRESS- CORTISOL AND INFLAMMATION

HAVE YOU EVER HAD A PANIC ATTACK? Woken from a crazy dream in a cold sweat with your heart pounding? These are VASOREACTIONS initiated by a perceived threat that dilates blood vessels- just like inflammation. Wider capillaries mean more blood and nutrients to your organs to better ward off an attack or deal with a situation. This 'fight or flight' response is orchestrated by your body and triggers the release of the stress hormone CORTISOL from your ADRENAL GLANDS.

CORTISOL directly influences your insulin levels and metabolism. It also plays a role in chronic inflammation and your immune system. I'm sure that you've seen this relationship in your own life: how many times have you worked endless hours only to go on vacation and get sick? Your body is good at keeping a lid on things, but it can't do it forever. Coping with persistent stress takes a steady toll on your immune system, your adrenals, and your nervous system.

Your body reacts to stressors universally, whether they are biological or psychological. The more acute the threat feels, the more drastic the response will be. With inflammation, painful emotional baggage is as damaging as physical stress. Think about Asthma. An emotional shock will trigger an attack in some people as often as physical exertion or an allergen. Thoughts and internalized feelings are very powerful-and they manifest themselves physically all the time with symptoms of inflammation. Stress makes your skin break out. Your intestines go into revolt during a painful break-up. But the good news is feelings can – and should- be enlisted as allies in the healing process.

With all the other factors contributing to inflammation, coping with stress and emotional pain is often overlooked- but it's really important. It can play a big part in restoring your immune system's balance before it gets overloaded.

## WHY CHRONIC INFLAMMATION IS ON THE RISE

Our bodies weren't designed for a daily barrage of toxins, infectious agents and stress, seen and unseen. This kind of demand requires a lot of support to maintain your immune system resilience. Our go-go lifestyle just doesn't make room unless we pay attention. It all has pro-or anti-inflammatory effect, and for most of us, the factors are skewed toward inflammation.

Well documented research links depression and stress to a rise in inflammatory markers signaling an increased risk for atherosclerosis and coronary heart disease. One thing is certain about society today; we appear to be more stressed and depressed than ever.

While the incidence of inflammation and inflammatory disease is rising in all developed countries, it's important to remember that each of us has an individual response to stressors in

our life. Some of this unique response is determined by genetics. But much of is within our control- if we understand how our choices affect our health.

You can see that countering chronic inflammation takes a combination approach because it arises from a combination of causes.

#### EFFECTS OF INFLAMMATION-SYMPTOMS, CONDITONS AND RELATED DISEASES

ACID REFLUX/HEARTBURN

ACNE

ALLERGIES AND SENSITIVITIES

ALZHEIMER'S DISEASE

ASTHMA

ATHEROSCLEROSIS

BRONCHITIS

CANCER

CARDITIS

CELIAC DISEASE

CHRONIC PAIN

CROHN'S DISEASE

CIRRHOSIS

COLITIS

DEMENTIA

DERMATITIS

DIABETES

DRY EYES

EDEMA

EMPHYSEMA

ECZEMA

FIBROMALGIA

GASTROENTERITIS

GINGIVITIS

HEART DISEASE

HEPATITIS

HIGH BLOOD PRESSURE

INSULIN RESISTANCE

JOINT PAIN/ARTHRITIS/RHEUMATOID ARTHRITIS

NEPHRITIS

OBESITY

OSTEOPOROSIS

PARKINSON'S DISEASE

PERIODONTAL DISEASE

PSORIASIS

SCLERODERMA

SINUSITIS

SPASTIC COLON

SYSTEMIC CANDIDIASIS

TENDONITIS  
UTI'S  
VAGINITIS

#### CANCER: THE WOUND THAT NEVER HEALS

Back in the 1860's, renowned pathologist Rudolf Virchow speculated that cancerous tumors arise at the site of chronic inflammation. A century later, oncologists paid more attention to the role that various genetic mutations play in promoting abnormal growths that eventually become malignant. Now researchers are exploring the possibility that mutation and inflammation are mutually reinforcing processes, that left unchecked can transform normal cells into potentially deadly tumors.

How might that happen? One of the most potent weapons produced by macrophages and other inflammatory cells are so called oxygen free radicals. These highly reactive molecules destroy just about anything that crosses their path-particularly DNA. A glancing blow that damages but doesn't destroy a cell could lead to a genetic mutation that allows it to keep on growing and dividing. The abnormal growth is still not a tumor, but to the immune system, it looks very much like a wound that needs to be fixed. When immune cells get called in, they bring growth factors and a whole slew of proteins that called other inflammatory cells. Those things come in and go "heal, heal, heal" but instead of healing, you're 'feeding, feeding, feeding.'

Sometimes the reason for the initial inflammatory cycle is obvious- as with chronic heartburn, which continually bathes the lining of the esophagus with stomach acid, predisposing a person with esophageal cancer

#### WHEN THE BODY ATTACKS ITSELF

No doctors have more experience treating chronic inflammation than the physicians who specialize in rheumatoid arthritis, multiple sclerosis, lupus and other autoimmune disorders. For decades these diseases have provided the clearest example of a body at war with itself. But the spark that fuels their internal destruction doesn't come from excess cholesterol deposits or a stubborn bacterial infection. Instead, In a bizarre twist of fate, the body's super sophisticated learned immunological defenses mistakenly direct an inflammatory attack against healthy cells in such places as the joints, nerves and connective tissue.

Over the past years, powerful drugs, have worked wonders against rheumatoid arthritis and other autoimmune disorders. But as often happens in medicine, the drugs have also created some problems.

Inflammation may be more of a problem in the earlier stages of autoimmune diseases like multiple sclerosis. So much tissue is eventually destroyed that nerve damage becomes permanent.

#### ASTHMA WITHOUT ALLERGIES

One of the most intriguing questions in immunology today is why everyone doesn't suffer from asthma. After all, the air we breathe is full of germs, viruses and other irritants. Since half of those with asthma are hypersensitive to common substances like cat dander or pollen, it stands that their allergic reactions trigger the chronic inflammation in their bodies. Yet the people who develop asthma as adults- one of the most rapidly growing segments of the population- often don't have allergies. Doctors still don't know what's driving their disease, but the signs of inflammation are every bit as present in their lungs.

Many treatments for asthma are designed to control inflammation, although they still do not cure the disease.

Everywhere they turn, doctors are finding evidence that inflammation plays a larger role in chronic diseases than they thought.

#### RESTORE BALANCE AND PREVENT DISEASE AND RAPID AGING

It's certainly disturbing that chronic inflammation is at the root of nearly every modern disease on the rise today. But accompanying that news is the opportunity to make everyday choices that limit the fuel for the fire and profoundly lessen our chances of disease and enhance our quality of life.