

Lifestyles for a Healthy Longevity - 2019

Recently speaking before a prestigious group of women in Los Angeles, I was asked to share what I believed to be the **must do's** to not just live long, but to live well – both physically and cognitively. They were seeking to learn how to better insure their health, quality of life and sense of well-being for as long as they lived.

I shared the good news: **Heart Disease, Stroke, Diabetes, Cognitive Decline** (dementia, Alzheimer's disease) and many **Cancers** can be prevented AND a life with a sense of balance and well-being is truly possible. However, most individuals would need to adopt well-established healthy lifestyles and take pro-active control of their health. First, they would need to learn the current status of their actual health.

What is exciting about the perspective of **longevity** is how medical research is validating the fact that we do have significant influence over our future health. Scientific research continues to provide growing evidence as to how our brain actually responds to our behaviors through a learning process called *neurogenesis*. Medical research has revealed that the *underlying cause* of most *quality of life*-threatening diseases is **inflammation**. We are learning how **chronic stress** increases inflammation in our body and lowers our immune system defenses against infections and cancers (See: *The Role of Stress* below). Further, and of major importance for menopausal women, is the tragic myth that **Estrogen** is harmful has finally been completely refuted. Rather, in 2019 overwhelming research data demonstrates how and why estrogen plays an important role in a woman's quality of life, disease prevention and her longevity (See page 2 and References).

What Do We Know?

- ◆ Humans are now **living longer** than ever.
- ◆ **Life Expectancy:**
 - Defined by Social Security and Insurance Companies as the 'number of years we have to live'
 - In general, if you are **65 yrs.** of age:
 - **Males** can expect to live to **84 yrs.**
 - **Females** can expect to live to **88 yrs.**
 - **25%** will live > **90 yrs.** & **10%** > **95 yrs.**
 - *By 2050 20% of the U.S. will be 65 or older (**83 million** persons); **DOUBLE** the 2010 population.

SO, our challenge for our future is: How do we *live well*, while we are *living longer*?

- ◆ We **KNOW** that the quality of our lives is significantly influenced by how we chose to live our lives (**our lifestyles**) throughout our lives.
- ◆ We **KNOW** that studies are replete with outcome data that demonstrates **the benefits** of what and how much we eat, how much we exercise, how we manage our stress, challenge our brains, achieve a level of financial security, and socially engage with each other.

BOTTOM LINE:

Living Well Is:

Living Healthy, Living Purposefully, Being Socially Engaged & Being Financially Independent

♥ FOR WOMEN: What is Known in 2019 about Estrogen Replacement Therapy?

- ◆ Long-term follow up of the initial WHI Study of post-menopausal women who have taken estrogen for over 20 years have an **all-cause** mortality **60% lower** than women who never took estrogen, up to a **25% lower** incidence of breast cancer and **63% lower** mortality, if they should get breast cancer.
- ◆ 2012 British Study on the role of HRT & Heart Disease: 50% REDUCED risk of heart attack, heart failure and mortality, AND **no increase** of cancer (breast), blood clots, or stroke.
- ◆ All animals produce hormones that are produced in various glands in the body. They are released into the bloodstream and exert their effect by attaching to specific receptors located in all the body's cells.
- ◆ The active hormone estrogen is *Estradiol (E2)* and *E2-receptors* are part of all normal cells of the body.
- ◆ Hundreds of studies have demonstrated estrogens' vital role in a woman's normal metabolism. Certain tissues are 100% dependent on the presence of E2; e.g. the endometrium (the lining of uterine cavity), the vagina and vulva. Other tissues can continue to function without estrogen, but not optimally; e.g. bone, skin, brain (especially the prefrontal cortex and hippocampus), the walls of arteries, muscles, joints.
- ◆ Estrogen is also neuro-protective in the brain, especially in the hippocampus and prefrontal cortex with prospective studies showing that after 20 years of estrogen replacement the incidence of dementia AND Alzheimer's Disease (A.D.) have been REDUCED by 40-50%!!!
- ◆ In the absence of estrogen, there are significant changes in the tissues and organs of the body, including emotional and cognitive changes. I have hundreds of patients whose *sense of well-being* has been dramatically improved by their using ERT. (If they forget to use it, their husbands quickly remind them.)
- ◆ An example: Read a patient testimonial letter describing how estrogen impacted her life and her sense of well-being on my website under **Women's' Health Articles: "Estrogen and My Sense of Well-Being"**
- ◆ For a complete review read my recent updated website article: www.gordongunnmd.com **Women's' Health Articles: "Menopause and Hormone Therapy – Update 2019"** and listen to my Podcast: **"Benefits of Hormone Replacement Therapy in Women"**.

Stress: How Does It Impact Our Lives?

♥ Stress is Life "Out of Balance"

- Stress induces hormonal changes in the body to help it adapt to both real and perceived emergencies. The adrenal glands produce cortisol, adrenalin and norepinephrine and are called *stress responsive steroid* hormones.
- How people respond to the *daily* stressors in their lives is predictive of their future health. It is well established that chronic stress *reduces* the body's immune response, in part due to chronic higher levels of circulating cortisol.
- In **Acute Stress** situations, as in survival mode [classic fight-or-flight reaction], the *optimal* amounts of cortisol can be life-saving. You become more aware, awake, focused and are generally more responsive. It also helps to shift blood flow away from areas of your body where it might not be as crucial, like the skin and digestive tract, and towards more essential areas at the moment, like the heart, blood vessels and muscles. This help you better deal with the stressful situation.
- **Chronic Stress & Chronic Anxiety** occurs when you *dwel*l on a problem. In chronic stress the body *continuously* releases excessive stress hormones, especially cortisol, and **chronic elevated levels can lead to serious issues**. Too much cortisol can suppress the immune system, increase blood pressure, blood sugar and risk for heart disease and diabetes. It can also decrease libido, cause anxiety and depression, contribute to obesity and lead to chronic **inflammation** in the body.
- Studies show after ten years of enduring chronic daily stressors there is a significantly higher incidence of chronic physical health conditions, including stroke, heart attack, risk of dying from a heart attack, acute and chronic inflammatory conditions, and even cancers' response to therapy.

♥ Learning to Manage Stress:

First, identify the common *causes* of stress in your life: e.g. Issues at work, relationships, financial or health. **Then**, try to identify the causes of your stress and group them into two lists: those you can try to alter or change and those you feel you have no control over.

- **External Stress Factors** are conditions you often CAN change:
 - **Identify the obstacles** that you need to overcome or the changes that need to occur in order to reduce or even eliminate your stress.
 - **Give yourself permission** to *take care of yourself*. Accept the reality that you may not be able to meet all the expectations of others. Look in the mirror and say: “It is OK to take care of me too”. Discover *your sense of purpose*.
 - **Share your decisions** with all the persons who will be affected by your actions. Ask for their understanding and even their help. Then: **start your journey**.
- **Internal Stress Factors** - Explore how you typically respond to those conditions you CANNOT change. Consider *actively embracing* the **Five Positive Lifestyle Behaviors** I have listed below. These behaviors can reduce stress, decrease your risk of heart disease, improve your cognitive abilities and definitely improve your sense of well-being. Make *a commitment* to yourself to engage and practice them on a daily basis.

1. Managing Stress with Meditation & Mindful Awareness – Achieving Balance in Your Life.

I refer to *balance* within this context as an emotional and spiritual sense of well-being. Physical balance (being ‘rooted’ is best practiced through Tai Chi. Stress is a struggle with what is, what was or what may be. Chronic stress is a killer to our body’s immune system and our brain. It raises circulating cortisol (the *stress hormone*) that suppresses the immune defenses that our body employs to fight infection, heal an injury and eliminate random mutant cancer cells. Studies have clearly shown chronic stress and chronic anxiety are directly related to an increased risk for heart attack, stroke, cancer, depressive behavior, actual depression and cognitive decline leading to dementia. Stress is NOT your friend.

Meditation when practiced on a daily basis is a powerful tool to reduce stress. When you meditate, you’re focused on the moment, on your breathing and you learn to feel the tension in your body begin to relax. I believe that achieving balance by learning to manage stress successfully is the foundation upon which to build healthy behaviors. This is the tough one, because it requires commitment and practice, practice and practice. I can testify that it works. For many, it starts with giving themselves permission to take personal time – every day. I tell my patients: “If you want to insure a healthier life, NOT taking time for you is NOT an option.” (Refer to my website: *LifeStyle Articles: **Meditation – What Exactly Is It** and **Thoughts on Balance – A Personal Story***)

2. Exercise.

Whether it’s running or yoga, exercise is one of the best ways to manage and relieve stress. Exercise builds grey matter in the brain and also releases endorphins, which improves your mood. (Refer to my website Health Article: **Exercise – How Much Is Enough?**)

3. Sleep.

Sleep is a very important natural stress reliever. Make sure to find the right balance of sleep that allows you to feel well rested and alert. To promote better sleep, establish a bedtime routine that signals the brain that it’s time to rest. A recent discovery identified a *Glymphatic* system within our brain that clears our metabolic waste products and is optimized while sleeping, especially, if on sleeping on one’s side.

4. Organization.

When your life is more organized, it offers a sense of control and gives you peace of mind. If you're feeling edgy in your cluttered house or room, clean it up. If needed, make to-do lists so as not to forget anything.

5. Positive Attitude - Enjoy Every Day.

Take time for the activities that bring you joy. Engage socially with family, friends, social organizations, church activities and philanthropy organizations. Discover the power your smile can bring to your world.

Our Immune System - Its Role in Inflammation in the Body: *The Good & The Bad*

♥ Protective ("Good"):

- Our body's immune response to infection and/or physical injury includes the creation and release of specific *antibodies* to eliminate the infectious agent (e.g. dangerous bacteria and viruses) and to increase the blood levels of white blood cells *WBC's*, which fight infection and heal the injured tissues. There is a normal increase in the blood circulating to the affected areas. When the skin is involved, the result can be seen as redness or inflamed.
- Normally, this inflammatory response is TEMPORARY.

♥ Destructive ("Bad"):

- **Auto-Immune & Inflammatory Disorders:** Our immune system can also create antibodies that attack our body's normal cells, causing an inflammatory response, which then becomes CHRONIC and destructive. EXAMPLES include:
 - **Our Gut** (intestinal tract), including the esophagus, stomach, small intestine and colon.
 - Normally, our immune cells ignore the trillions of *healthy bacteria* (biome) that live in the gut. But for some people their immune cells can begin to attack their healthy bacteria, creating a disruption in the normal digestion causing chronic inflammation referred to as *irritable bowel syndrome*. As we age our intestinal tract can become *intolerant* or *allergic* to certain foods we ingest such as milk products, gluten, certain vegetables.
 - Immune cells can also attack the digestive tract itself, an *autoimmune condition* known as *inflammatory bowel disease (IBD)* – e.g. ulcerative colitis, proctitis, Crohn's disease.
 - **Our Joints**
 - *Rheumatoid Arthritis* is an autoimmune disorder that can occur at any age and appears to have a genetic component; but is also linked to smoking and a lack of vitamin D.
 - *Osteoarthritis* is a degenerative disease of the joints related to chronic overuse and age.
 - **Our Arteries - Heart Disease, Stroke & Peripheral Vascular Disease**
 - Inflammation can occur within the lining of the wall of arteries, resulting in the formation of plaque, which is a composite of cholesterol and inflammatory cells. Once begun plaque tends to be progressive, often becoming unstable and susceptible to rupture causing a clot to form. This sudden event blocks the blood supply to the organ it supplies. E.g. heart or brain.
 - Role of **CRP-hs** and **interleukin-6 receptor (IL6R)**: These inflammatory proteins play an important role in both the formation and the progression of arterial plaque.
 - Chronic inflammation associated with obesity and autoimmune disorders has a higher risk of arterial disease.
 - **Our Risk of Cancer**
 - Chronic inflammation has been linked to cancers of the lung, esophagus, and colon.
 - **Our Gums**
 - Periodontal disease is chronic inflammation of the gums caused by bacteria accumulation. Periodontal disease doesn't just affect oral health. It is linked to heart disease and dementia.

○ **Our Weight and Diabetes**

- **Nutrition** – Three important points about nutrition and its role in heart disease are:
 1. There is no single best diet or eating strategy for heart disease prevention for everyone.
 2. Heart disease is complex. The optimal eating strategy for any individual depends on their unique mix of their genetics, biome of their gut, immune system, medications, supplements, environment and their personal lifestyles.
 3. The connection between food, atherosclerosis, heart disease and diabetes cannot be interpreted by looking only at blood levels of *total cholesterol or glucose (sugar)*. A mix of indicators known to link diet to heart disease and diabetes must be evaluated, including the blood markers of metabolics and heart disease risk (e.g., small-dense LDL-C, large HDL-C, fatty acid profiles, inflammatory markers, genetics, diabetes). (*BostonHeartDiagnostics.com*).

▪ **Obesity**

- A major cause of inflammation in the body.
- Losing weight is one of the most effective ways to fight inflammation. Often that is easier said than done. Elevated levels of inflammation-related proteins and chronic inflammation in the intestines could slow down metabolism, so you eat more and burn fewer calories.
- Inflammation increases insulin resistance & raises the risk for diabetes.
- Waist circumference is more important than your BMI (body mass index). For women under 35" and for men under 40" is associated with lower risk of Type 2 diabetes (see below) and heart disease.

▪ **Diabetes**

- A disease in which the body is unable to properly use and store carbohydrates (blood sugar). Diabetes occurs when either the *pancreas* does not produce adequate insulin or when the body cells do not respond well to insulin, which is called "insulin resistance."
- There are two types of diabetes: Type 1 (*juvenile diabetes*) and Type 2 (*adult onset*).
 - **Type 1 Diabetes** - occurs because the cells of the pancreas are destroyed by the body's immune system and does not produce insulin. The typical age a person finds out they have Type 1 diabetes is under 20 years old and can develop rather suddenly. While developing Type 1 diabetes is not preventable, it is important that it is diagnosed and treated as its earliest onset. People with Type 1 diabetes can live long and healthy lives with careful medical management and self-care.
 - **Type 2 Diabetes** – occurs when the pancreas does not secrete adequate insulin or the body cells are resistant to insulin, so higher than normal insulin levels are required for glucose (sugar) metabolism. Type 2 diabetes develops over time. While there are genetic risk factors for Type 2 diabetes, there are many lifestyle behaviors that can be adapted to prevent, reduce the severity and even reverse Type 2 diabetes.

○ **Our Skin**

- The effects of inflammation aren't just internal: They can also be reflected on your skin.
- *Psoriasis*, for example, is an inflammatory condition that occurs when the immune system causes skin cells to grow too quickly.
- Skin allergies result in both acute and chronic inflammation and can occur from both external irritants and with either acute or chronic stress.

○ **Our Brain: Mood, Depression and Cognition**

- Stress adversely affects learning and memory and can lead to depressive behaviors.
- Inflammation in the brain and inflammatory markers in our blood have been linked to symptoms of depression, such as low mood, fatigue, lack of appetite, and poor sleep.

Conclusion:

- ◆ ***Be Pro-Active in both prevention and early detection of diseases***
- ◆ ***Remember: Every choice you make, every action you take - has consequences***
- ◆ ***Take ownership of your health and choose wisely***
- ◆ ***Staying healthy is a lot of WORK***
- ◆ ***Your health IS your best investment towards achieving a life of Living Well & Living Long***
- ◆ ***It is never too late to be open to re-inventing yourself and acquiring new habits (Lifestyles)***

My Six “C’s” for Achieving a Live of Living Well and Living Long

- ◆ **Care** for yourself – if you do not, no one else will; except maybe at your end of life
- ◆ **Change** – Be open and welcome the option of transformation. Review your *trade-offs* What compromises are you are willing and not willing to make?
- ◆ **Commitment** to engaging in behaviors that will enhance your life
- ◆ **Connectedness** to others – social connections play a key role in longevity
- ◆ **Consistency** in your actions = perseverance = sustainability. Newly learned behaviors require practice, practice, and more practice to create and instill in your brain new neurogenic pathways (neurogenesis). These pathways become the *new normal* in spontaneous behavior patterns
- ◆ **Control** by learning to be rooted and centered in your daily life through mindful meditation. Consider learning the practice of Tai Chi

MY GOAL:

“A natural flow to my life as I move through my day with balance and a sense of well-being”

Gordon C. Gunn, M.D.

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References:

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