

March 2017

Vol. 2 Issue 3

# THE (ANTI-AGING) POWER OF POSITIVE THINKING

Science Proves Having a 'Half-Glass-Full' Attitude Can Lead to a Longer, Healthier Life

Are you a "glass half full" or a "glass half empty" kind of person?

Do you tend to be consumed by negative thoughts or do you let things go easily?

Your answer matters a lot.

And not only because optimistic people are easier to be around. (Who wants to hang out with a Negative Nancy? I sure don't!)

You see, the way you react to everyday situations — whether you tend to think you're the victim of bad luck all the time or see obstacles as a challenge — can make a huge difference when it comes to your health.

In fact, science shows that the way you think can even affect *how long you live*.

We know this because of a molecular biologist named Elizabeth Blackburn.



Your outlook on life has a bigger impact on how well you age — and how long you live — than you might think.

Today, I'm going to tell you about Dr. Blackburn's groundbreaking discovery. And I'll also share simple steps you can take right now to reframe your thoughts — and live a happier, healthier, longer life.

ALSO IN THIS ISSUE: This Common Medical Test Kills 15,000 People Every Year.....7 The Bizarre Link Between Oreos and Hot Flashes.....12

#### A NOBEL PRIZE-WINNING DISCOVERY

In 1975, Elizabeth Blackburn was studying pond scum at Yale University. In a spectacular quantum leap, she cracked the aging code for the *entire human race*.

That sounds so dramatic. But it's not an overstatement.

She discovered **telomeres**.

Dr. Blackburn's research was so earthshaking that in 2009, she won the Nobel Prize in Physiology or Medicine. At the same time, she gave birth to an entirely new field of scientific research.

She laid bare the greatest secret of life: why and how we age.

But this is not just fascinating science.

It's *life-changing* information.

Telomere research puts into YOUR hands the power to slow down — and even REVERSE — your own aging process.

Even most anti-aging doctors missed this momentous event. And mainstream medicine still doesn't get it.

In fact, when I spoke at a conference in Colombia last summer, only a handful of the more than 100 doctors in attendance had even heard of telomeres.

The discovery of telomeres turns everything they've been taught about disease and aging upside-down.

To cure disease and reverse aging, *you don't need a doctor*. You don't need any technology. You don't need drugs... therapies... surgery... insurance... or hospital visits.

Believe it or not, much of how you age and how healthy you are can be controlled with the power of your own mind.

### TELOMERES CONTROL YOUR BIOLOGICAL AGE

If you've been reading my newsletters for a while, you may know that telomeres are part of your chromosomes. They are like the little plastic tips on your shoelaces. They keep your DNA from unraveling.



#### **TELOMERES SHORTEN AS YOU AGE**

Your telomeres shorten each time your cells divide. But there's good news... you can stop and even reverse this process.

Every time your cells divide, your telomeres become shorter. When they get too short, they expose your DNA to damage. Cells start to malfunction. They lose their ability to make healthy new cells. That leads to premature aging. You start to look and feel like an "old person."

Damaged DNA also makes you more likely to get a chronic disease. Your risk of cancers, diabetes, heart disease, stroke, osteoporosis and Alzheimer's steadily climbs as your telomeres get shorter.

But long telomeres ensure that cells divide in a healthy way and act like young cells. You feel young, with a healthy heart, strong immune system, powerful lungs, pain-free joints and a sharp brain. In other words, if you can control the length of your telomeres, you control aging. And you can.

Today I want to share with you one of the simplest and most powerful ways to protect your telomeres. *It even helps them grow longer.* 

It may sound impossible, but something as basic as a positive outlook can help you live longer and healthier — and science proves it.

#### STRESS CAN CUT YOUR BIOLOGICAL LIFE BY UP TO 17 YEARS

Did you know that people with the most stress have the shortest telomeres?<sup>1</sup>

Harvard researchers found women suffering severe anxiety had shorter telomeres. And *telomere lengths in the most stressed women indicated up to 6 additional years of aging.*<sup>2</sup>

In another study from the University of California, Dr. Blackburn and her team examined 58 healthy mothers who cared either for a healthy child or a chronically ill child. As you might expect, the mothers caring for an ill child over many years had the highest levels of stress. They also had the shortest telomeres. The researchers estimated that the **women with the most stress had telomere shortening equivalent to 9 to17 additional years** of aging compared with the low-stress group.<sup>3</sup>

You see, as you deal with stress all day, your levels of the stress hormone cortisol rise. And those high cortisol levels erode your telomeres.<sup>4</sup> In addition, stress causes inflammation and oxidative damage. Both of those conditions erode telomeres directly.

Cortisol also sabotages telomerase, the enzyme that rebuilds your telomeres.

We've known this for a while, but more recent research reveals that it's **how you deal with stress** that determines whether it will erode your telomeres or support them.

You see, when you're caught in a stressful situation — whether it's working for an unreasonable so-and-so, raising children, caring for aging parents, or dealing with a difficult relationship — cortisol nibbles at your telomeres.



#### HIGH STRESS = SHORTER TELOMERES AND LESS TELOMERASE

Dr. Blackburn compared the telomere length and telomerase activity of two groups of women. Women who had high stress levels had much shorter telomeres and less telomerase than women with less stress. But your frame of mind can make all the difference in **how much** damage you do to your telomeres.

You see, the Negative Nancy's of the world compound the damage.

You know the type...

They're always complaining about their bad luck or that life is unfair...

People with this attitude see stress as a *threat*... and they age faster.

Every time you dwell on an unpleasant situation... moan about your bad luck... get angry at yourself... or say unkind things to the mirror, your cortisol levels creep up a little more. Your blood vessels constrict. You open yourself up to more cellular damage.

Studies on white blood cells prove this. They clearly show a link between that kind of negative frame of mind and shorter telomeres. We call it a "threat-stress" response.

And if you become hostile and cynical in the face of stress, things get even worse. In a British study of civil servants, people with "high cynical hostility" were 30% more likely to have short telomeres.<sup>5</sup>

But if you see stress as a *challenge* your body has a healthier response.

If you have a "bring it on, I can do this" attitude, your blood vessels don't constrict. Blood flows to your heart and brain. You get a **brief** shot of cortisol. It energizes you for the battle. Then it drops, because you've dealt with the challenge. You're not stewing over what happened. That's the healthier **"challenge-stress"** response.

#### HOW TO BOOST YOUR BODY'S "STRESS RESILIENCE"

With my patients I've found that one of the best ways to deal with stress, stop the damage to telomeres, and boost telomerase is with meditation. And science backs me up on this...

In another study from Harvard, researchers measured telomeres in a group of 37 women. They found that women who practiced meditation had significantly longer telomeres than controls who did not meditate.<sup>6</sup>

Dr. Blackburn and her team also studied the effects of meditation at a retreat in Colorado. Thirty retreat participants meditated for about six hours per day for three months. The control group was 30 people on the waitlist for the retreat center. Those who completed the course had 30% higher levels of telomerase than the group on the waiting list.<sup>7</sup>

More telomerase means your telomeres are preserving their length and protecting your cells.

The meditators also felt they had more control over their stress (more of the healthy challengestress response). And they felt less neurotic about their stress (less of the unhealthy stress-threat response).

But you don't have to meditate for six hours a day.

In another study of 39 family dementia caregivers, half did an ancient chanting meditation for 12 minutes a day. The other half listened to relaxing music. After only eight weeks, the meditation group had their telomerase activity shoot up by 43%. The music group had a paltry 3.7% increase.<sup>8</sup>

### THE CURE FOR EVERYTHING — IN JUST 10 MINUTES A DAY

When I first discovered telomeres, I saw what it would mean for the world. Short telomeres are at the root of all premature aging and chronic diseases.

At the **Sears Institute for Anti-Aging Medicine**, I put that science to work. I help my patients protect their telomeres from damage. I help them turn on telomerase to rebuild telomeres.



Meditation reduces stress and lengthens telomeres.

One of the easiest ways they do that is with a simple daily meditation practice.

In just minutes a day, you can switch on telomerase and rebuild your telomeres.

Now, sometimes I find new patients are intimidated by the idea of meditation. But don't be. You don't have to get up before the sun. Or sit cross-legged on the floor for an hour without scratching your nose.

There are hundreds of ways to meditate. And it's very easy to get started. All it takes is 10 or 15 minutes a day. Here's a simple technique for beginners:

#### **Sitting Meditation**

- Find a quiet space to sit.
- Sit up in a comfortable position with your back straight. A chair is fine to use.
- Rest your hands in your lap and close your eyes.
- Let your attention focus on the movement of your breath.
- Follow the breath in silently to the count of four.
- Follow the breath out silently to the count of eight as you feel your body relax.
- Whenever your mind wanders, bring your attention back to the breath.

That's it. The benefit comes from noticing your mind wandering and bringing your attention back.

If you feel too pressed for time to sit in meditation, that's a sign you would really benefit from it. Most meditators find that time slows and they are able to get much more done in a day if they take time out to sit quietly.

But if it's still too daunting, you might want to try a mini-meditation. One of my favorite methods is a simple walk.

#### **Walking Meditation**

In a walking meditation you just become mindful of your own body as you move. Here's how to start:

- Choose a location. Find somewhere you can walk back and forth for at least 10 to 15 paces. Start with a place that is relatively quiet and private. It can be indoors or outside.
- Start walking. Walk 10 to 15 steps. Then pause and breathe for as long as you like. When you're ready, turn and walk back in the opposite direction for 10 or 15 steps. Repeat this pattern for as long as you like.

- 3. Notice each step. Take slow, small steps that feel natural and not exaggerated. Your arms can be behind your back or at your sides — any position that feels natural. You don't have to change the way you walk. Just be aware of each part of each step. For example, notice that you are:
- lifting one foot
- moving your foot a bit forward
- placing your foot down, heel first
- shifting your weight onto your front leg as the back heel lifts and the toes of that foot remain touching the ground
- lifting your back foot totally off the ground
- swinging your back foot forward
- making contact with the ground with your back foot, heel first
- shifting your weight onto that foot as your whole body moves forward.
- 4. Bring your mind back in focus. Your mind will wander. It happens to everyone. When you notice it, re-focus on the movement of your steps.

Once you get the hang of it, you can squeeze walking meditation into your day. You can do it any time you're walking even if it's just from the house to the car, and the car to the office or supermarket. Over time you'll be able to do it anywhere, even in a busy, noisy city.

And the whole time you will be boosting telomerase and slowing down your own aging process.

#### References

1 Kirsi Ahola et al, "Work-Related Exhaustion and Telomere Length: A Population-Based Study." *PLOS One*, Published: July 11, 2012, DOI: 10.1371/journal. pone.0040186

2 Olivia I. Okereke et al, "High Phobic Anxiety Is Related to Lower Leukocyte Telomere Length in Women." *PLOS One* Published: July 11, 2012, DOI: 10.1371/ journal.pone.0040516

3 Epel ES, Blackburn EH, Lin J, et al. "Accelerated telomere shortening in response to life stress." *Proceedings of the National Academy of Sciences of the United States of America.* 2004;101(49):17312-17315.

4 Choi, J., et al. "Reduced Telomerase Activity in Human T Lymphocytes Exposed to Cortisol." *Brain Behav Immun.* May 2008. 22(4) 600-605.

5 Brydon L, Lin J, Butcher L, et al. "Hostility and Cellular Aging in Men from the Whitehall II Cohort." *Biological Psychiatry*. 2012;71(9):767-773.

6 Elizabeth A. Hoge, Maxine M. Chen, Esther Orr, et al. "Loving-Kindness Meditation practice associated with longer telomeres in women." *Brain, Behavior, and Immunity*, Volume 32, Issue null, Pages 159-163.

7 Jacobs TL, Epel ES, Lin J, Blackburn EH, et al, "Intensive meditation training, immune cell telomerase activity, and psychological mediators." *Psychoneuroendocrinology*. 2011;36(5):664-81.

8 H. Lavretsky, P. Siddarth, N. Nazarian, N. St. Cyr, D.S. Khalsa, J. Lin, E. Blackburn, E.S. Epel, and M. R. Irwin, "A pilot study of yogic meditation for family dementia caregivers with depressive symptoms: Effects on mental health, cognition, and telomerase activity." *Int J Geriatr Psychiatry.* 2013; 28(1): 57–65.

## THIS COMMON MEDICAL TEST KILLS 15,000 PEOPLE EVERY YEAR

WHY YOU SHOULD AVOID IT — AND WHAT TO DO IF YOU CAN'T

The number of new breast cancer cases jumped 25% over the past four decades — and researchers say that number will *increase 50%* in the next 15 years.<sup>1</sup>

A major cause of this is our daily exposure to chemicals in our environment that mimic the female sex hormone estrogen. They're everywhere, in everything from water bottles to beauty products. They've caused an epidemic of high estrogen levels called estrogen dominance.

And high estrogen levels are known to increase a woman's chances of getting breast cancer.

But there's something else contributing to the rising breast cancer rates... radiation.

In fact, a 2011 report from the National Academy of Medicine found that hormone therapy and radiation exposure were the two factors most strongly associated with a woman's chance of developing breast cancer.<sup>2</sup>

Like estrogen, radiation is all around us. We're exposed to trace amounts of it every day from our cellphones, TVs, fluorescent lamps, the air — even the water we drink and the glass we drink it from.

But there's one source of radiation that hits you with about *a year's worth* of the average person's typical exposure in a single 15-minute dose.

I'm talking about a *computed tomography* scan, or CT scan.

A single CT scan subjects you to between 150 and 1,000 times the radiation of a regular X-ray. It's about the same level of radiation some survivors of the Hiroshima and Nagasaki atomic bombs were exposed to in WWII.<sup>3</sup>



CT scans expose you to dangerous levels of cancer-causing radiation.

And the most tragic part of this story is that between 30 and 50% of the 85 million scans performed every year in the U.S. are not medically necessary.<sup>4</sup>

According to researchers at the National Cancer Institute, the risk of developing a fatal cancer from a scan is 1 in 2,000. If you do the math, you'll see that means those 85 million CT scans account for about 30,000 new cancer cases<sup>5</sup> and 15,000 deaths every year.<sup>6</sup>

And it's not just breast cancer you need to be concerned about. The radiation from CT scans can lead to a variety of cancers.

This applies to both men and women, but unfortunately, women get hit harder when it comes to radiation.

Research shows that a woman's cancer risk due to radiation exposure is 26% higher than a man's. Over a lifetime, women have a 50% higher cancer risk than men due to radiation.<sup>7</sup>

Today, I'll explain how CT scans lead to cancer and why so many doctors are putting their patients at risk for no reason. I'll also tell you what to do if your doctor says you need a scan.

## CT SCANS DAMAGE YOUR DNA

Like X-rays, CT scans use ionizing radiation, but at a much higher dose. This radiation causes damage to your DNA, and that can lead to the formation of tumors.

Each time your doctor scans a part of your body, you're exposed to 10 *millisieverts* (mSv) of radiation. To put this into context, one CT scan to the abdomen is equal to:<sup>8</sup>

- 500 chest X-rays
- 1,500 dental X-rays
- 200,000 airport screens

A whole-body scan uses 15 mSv for men and 21 mSv for women. A woman's denser body tissue and breasts requires a higher dose in order to get clearer images. This is the equivalent of more than 760 chest X-rays for a man and 100 for a woman.<sup>9</sup>

In 2013, a large study concluded that exposure to just **one** CT scan could be linked to developing cancer later in life.<sup>10</sup>

The researchers tracked patients from birth in the 1980s into early adulthood. (Because radiation-induced tumors can take decades to develop, the researchers decided to follow younger patients.)

Of the almost 11 million people they followed, over 680,000 had been given at least one CT scan. They compared the cancer rate of this group of patients with an equal number of people who had never undergone a CT scan.

The researchers were stunned by the results...

They found that the patients who had been exposed to a CT scan had a 24% increased risk for developing any cancer, compared with those who never had a scan.

They also found a person's cancer risk increased as the number of scans increased.

That risk remained elevated for years after the original scan was done. Compared to people who



HOW MUCH RADIATION YOU'RE REALLY GETTING

A chest CT scan delivers as much radiation as 200,000 trips through an airport scanner.

had not ever had a CT scan, researchers found that those who had undergone a scan had:

- 35% higher risk for cancer four years after the scan;
- 25% higher risk at five to nine years; and
- 14% higher risk at 10 to 14 years.

Even lower-dose scans have been shown to cause the DNA damage that leads to cancer. A recent study from Stanford University School of Medicine examined the blood of 67 patients who had cardiac CT scans.

It found an increase in DNA damage and cell death, as well as increased expression of genes involved in cell repair and death.

With so much evidence, why are doctors still ordering so many unnecessary scans? It boils down to money, laziness and ignorance.

### WHY IS YOUR DOCTOR PUTTING YOU AT RISK?

When the CT scan was invented in the 1970s, it was seen as a medical game-changer. Doctors could get a three-dimensional view inside a patient's body without having to cut them open in surgery. It was a less invasive way to diagnose injuries and disease.

But the new technology allowed doctors to get lazy. CT scans are a crutch. Instead of gathering detailed information about a patient's symptoms... instead of relying on their own diagnostic experience... they started sending patients for scans as a first response.

Today, if you go to an emergency room complaining of any head or stomach pain, you'll probably get a CT scan.

In a study published in the *New England Journal of Medicine*, researchers found that of the patients undergoing CT scans, 30% were on their third scan, 7% had five or more, and 4% had more than nine.<sup>11</sup>

But it's not just laziness that's led to the boom in CT scans over the past four decades...

Nearly 35% of imaging tests are ordered as a defense against medical malpractice lawsuits. *Not* because the patients really need them.<sup>12</sup>

Then there are the financial incentives. Medical imaging is a \$100 billion-a-year industry.<sup>13</sup>

A lot of doctors have money invested in radiology clinics. Some have even bought their own machines. These doctors order far more CT scans than those who don't have a financial stake.<sup>14</sup>

And according to a 2011 survey of doctors, 48% said they'll order a CT scan if a patient requests one. *Even if they KNOW it isn't necessary.*<sup>15</sup>

Another survey of more than 1,000 people found that fewer than one in six patients are told by their doctors about the risks of CT scans.

Unfortunately, that's because so many doctors in mainstream medicine are uninformed. In a 2012 study of 67 medical providers caring for patients undergoing abdominal CT, fewer than half knew that the scans could cause cancer.<sup>16</sup>

#### WHAT TO DO IF YOUR DOCTOR ORDERS A CT SCAN

Sometimes, CT scans can't be avoided. If your doctor tells you that you need to have a CT scan, make sure you really need it. Don't be afraid to speak up. After all, there's nothing more precious than your health.

Here's a list of questions to ask:

- 1. Is this CT scan necessary? Why?
- 2. What will happen if I don't have it?
- **3.** Is there a safer alternative? (Ultrasounds or MRIs can sometimes be used instead. They don't use radiation.)
- 4. Do you have a financial interest in the test?

- 5. What dose is right for me? (Smaller, thinner people need a lower dose.)
- 6. Can I show you a prior scan? (If you recently had an X-ray or a CT scan of the same area, ask if you can use that instead.)

If your doctor doesn't want to answer your questions, seems annoyed, or you don't like the answers you get, it's probably time for a second opinion.

#### PROTECT YOUR DNA NATURALLY

If you choose to go ahead with the scan, there are natural ways to minimize the damage to your DNA. Here are a few supplements I recommend to my patients. You should start taking them at least five days before your scan, but it's best to start as soon as you book your appointment. Keep taking the supplements for at least five days after.

**1. Eat this cancer-killing fruit.** Blueberries are loaded with antioxidants and flavonoids that prevent cell damage. In 2013, researchers at the Taipei Medical University Hospital found that one of the antioxidants in blueberries — called *pterostilbene* — prevent cell mutations caused by radiation.<sup>17</sup>

This little fruit is so powerful that NASA scientists are looking for ways to use blueberries to protect astronauts from the cosmic radiation they encounter in space.<sup>18</sup>

Blueberries are delicious, so it's easy to snack on them all day. But you'll want to really load up before a CT scan. That's why I recommend a blueberry extract. You can find it in capsule form online and in health food stores. Take 1,000 mg two to three times a day.

**2. Try this blue-green algae.** Spirulina is a potent superfood. And several studies have shown that it protects the body against the damaging effects of harmful radiation.

A 1989 study found that spirulina significantly reduced gamma radiation in the bone marrow of mice.<sup>19</sup> Another study found that a unique blue pigment in spirulina called *phycocyanin* binds with radioactive metals in the body and helps remove them.<sup>20</sup>

But the most impressive study happened after the Chernobyl nuclear disaster in 1986. Following that catastrophe, 160,000 children who lived in the area developed radiation poisoning. Soviet doctors gave some of the children 5 grams of spirulina a day for 45 days.<sup>21</sup>

The children who received the supplement had dramatic improvements:

- Bone marrow and blood cells regenerated;
- dangerously low white blood cell counts of 1,000 (typical of leukemia) rose to 3,000 in less than three weeks; and
- radioactivity levels in their urine were 50% lower after 20 days.

I recommend four to six 500 mg tablets spread throughout the day.

**3. Take high doses of this antioxidant.** Vitamin C is one of the best defenses against the effects of cell-damaging free radicals caused by radiation damage. And the best part is that it doesn't just protect you before a scheduled scan. It can repair DNA damage afterward.

A study of workers who cleaned up after Japan's Fukushima nuclear disaster proved this. Prior to starting clean-up work at the site, researchers gave some of the men 25,000 mg of vitamin C intravenously. These men continued to take vitamin C orally for the six weeks they worked in the contaminated areas.

Before and after the study, researchers tested participants' plasma DNA levels as well as 47 cancer-related gene expressions.

The men who received the vitamin C had *NO change* in their DNA or overall cancer risk.

But the workers who didn't receive the vitamin C treatment had a significantly increased cancer risk. However, their overall cancer risk scores returned to normal after they were given two months of vitamin C IV therapy following their exposure.<sup>22</sup>

If IV vitamin C therapy isn't an option, you can still benefit from taking vitamin C orally. Prior to your CT scan, I recommend taking up to 20,000 mg daily in divided doses. It's perfectly safe. But if it bothers your stomach, reduce the amount slightly or increase the number of doses.

#### References

1 Breast Cancer Cases Expected to Increase by as Much as 50 Percent by 2030. American Association of Cancer Research. U.S.

2 Institute of Medicine. Breast Cancer and The Environment: A Life Course Approach. The National Academies; 2011.

3 Semelka RC, Armao DM, Elias J, Jr., Huda W. Imaging strategies to reduce the risk of radiation in CT studies, including selective substitution with MRI. J Magn Reson Imaging. 2007 May;25(5):900-9.

4 Radiation-Emitting Products. FDA U.S. Food & Drug Administration. Appropriate Use.

5 Storrs C. Do CT scans cause cancer? Sci Am. 2013 Jul;309(1):30-2.

#### 6 Ibid.

7 The National Academies Press. Health Risks from Exposure to Low Levels of lonizing Radiation. BEIR VII Phase 2 (2006).

8 Improving the Safety of Medical Imaging. Testimony before the Subcommittee on Health. U.S. House of Representatives.

9 Ozner M. "Avoiding the Radiation Dangers of Cardiac CAT Scans." Life Extension. March 2008.

10 Matthews John et al. Cancer risk in 680 000 people exposed to computed tomography scans in childhood or adolescence: data linkage study of 11 million Australians. *BM.* 2013;346:f2360.

11 David J. Brenner, et al. Computed Tomography — An Increasing Source of Radiation Exposure. *N Engl J Med.* 2007; 357:2277-2284.

12 American Academy of Orthopedic Surgeons. Fear of Lawsuits May Be Leading to Extra Medical Tests. February 15, 2011. www.consumerhealthday.com.

13 Boodman, Sandra. Heavy Use Of CT Scans Raises Concerns About Patients' Exposure To Radiation. Kaiser Health News. January 6, 2017

14 "Many common medical tests and treatments are unnecessary: Learn when to say "Whoa!" to your doctor." Consumer Reports Magazine June 2012

15 Rau J. Doctors Admit Unnecessary Tests and Treatments. *Kaiser Health News*. May 3, 2011.

16 Puri, Savita et al. "Physician and Midlevel Providers' Awareness of Lifetime Radiation Attributable Cancer Risk from commonly performed CT scan and its relationship to their practice behavior." *AJR Am J Roentgenol.* 2012 Dec; 199(6): 1328–1336.

17 Lee, Chi-Ming et al. "Blueberry Isolate, Pterostilbene, Functions as a Potential Anticancer Stem Cell Agent in Suppressing Irradiation-Mediated Enrichment of Hepatoma Stem Cells." *Evid Based Complement Alternat Med.* 2013;258425.

18 National Aeronautics and Space Administration. Space Faring: The Radiation Challenge. www.nasa.gov. Accessed February 22, 2017.

19 Qishen P, Guo BJ, Kolman A Radioprotective effect of extract from Spirulina platensis in mouse bone marrow cells studied by using the micronucleus test. *Toxicol Lett.* 1989 Aug;48(2):165-9.

20 Nancy H. Kolodny, et al. Effect of Nitrogen Source on Cyanophycin Synthesis in Synechocystis sp. Strain PCC 6308. J Bacteriol. 2006 Feb; 188(3): 934–940.

21 Bill Bodri. *How to Help Support the Body's Healing After Intense Radioactive or Radiation Exposure.* Top Shape Publishing, LLC, Reno, Nevada.2004.

22 Yanagisawa A. Effect of Vitamin C and anti-oxidative nutrition on radiationinduced gene expression in Fukushima nuclear plant workers. *Orthomolecular Medicine News*. February 1, 2012.

## THE BIZARRE LINK BETWEEN OREOS AND HOT FLASHES

If you've ever eaten an Oreo cookie, you might have noticed how hard it was to eat just one.

Don't worry, it's not just you.

Research has found that Oreos are **more** addictive than cocaine or heroin.<sup>1</sup>

A big reason for that is the fact that Oreos are loaded with the artificial sweetener high-fructose corn syrup (HFCS).

A Canadian study found that HFCS can cause behavioral reactions similar to those produced by common street drugs.<sup>2</sup> Other research shows that HFCS and cocaine stimulate the same brain circuits.

I know what you're probably thinking at this point...

What does all this have to do with hot flashes?

Let me explain...

As you probably know, HFCS is in a lot of foods that make up the standard American diet. It's a big part of the reason we have an obesity epidemic in our country.

But HFCS does more than make you gain weight... it also causes fat to build up in your liver.

When that happens, you can end up with a condition called **fatty liver disease**.

Over the last 10 to 15 years, I've seen a sharp increase in the number of patients with fatty liver disease at my clinic... both men and women.

But for women, the symptoms of fatty liver disease can look a lot like menopause. Symptoms like night sweats, exhaustion, extra weight around the abdomen... and hot flashes.

#### How Does Fatty Liver Disease Lead to Hot Flashes?

Ancient Chinese medicine tells us that when the liver is overworked, it generates too much heat within itself.

And the liver is a very large organ. When it gets hot, the whole body overheats.

It also explains night sweats. The excess sweating is the body's reaction to the heat. It's your body's attempt to cool off.

That's why so many mainstream doctors miss this diagnosis. They write the symptoms off as "women's problems."

The truth is, you could have fatty liver disease and not even know it. Up to 30% of Americans do.

And unfortunately, it hits menopausal and postmenopausal women the hardest. I'll explain why in just a minute. But first I want to tell you more about how the modern food supply has caused this troubling epidemic.

#### FRUCTOSE DAMAGES YOUR LIVER JUST LIKE ALCOHOL

You may have heard of fatty liver disease before. Most people think only alcoholics get it.

In fact, that's what I was taught in medical school. That the damage to a patient's liver was due to long-term alcohol abuse. But many patients I'm seeing these days don't drink at all. And some are in their 30s and younger. When alcohol is not a factor, the disease is called **"non-alcoholic fatty liver disease" (NAFLD)**. It's one of the fastest-growing health epidemics in the world. And I put the blame squarely on our modern food supply. Here's why...

The liver is a vital part of your digestion. It metabolizes your food. It receives nutrients from the small intestines and processes them.

Bad fats, chemicals, preservatives and additives in our modern food supply are very difficult for your liver to fully metabolize. These "leftovers" hang around in your liver, making it fatty.

By far, the worst culprit is Big Agra's high-fructose corn syrup. Since 1980, cases of NAFLD have doubled, in lock-step with the rise of HFCS. It's now in everything from salad dressings to sodas to... yes, Oreos.

#### And just like alcohol, HFCS is toxic to the liver.

You see, fructose isn't like other sugars. Most of it goes straight to your liver instead of going into your muscles and tissues for energy. It promotes the formation of new fat molecules. It triggers your liver cells to store this fat where it doesn't belong. At the same time, it blocks the breakdown of old fats.

A study from the University of Florida found patients with fatty liver disease ate **two to three times more high fructose corn syrup**.<sup>3</sup> And just like alcohol, this cheap fructose is addictive. Once you start eating fructose, you crave sweets. You start eating them compulsively.

Patients tell me all the time that they've heard from doctors and even nutritionists that fructose is fine, and it's natural. After all, that's the kind of sugar that's found in fruit, right?

Here's the difference...

Natural fructose is locked inside the fiber of the fruit. That means it absorbs into your bloodstream slowly, giving your liver time to release it gradually as glucose, the sugar your body uses for energy.

Corn syrup floods your bloodstream, overwhelming your liver's processing capacity.

#### DON'T BE FOOLED BY BIG AGRA'S FALSE ADS

Many consumers have caught on to the health risks of high-fructose corn syrup. You probably already look out for it on food labels.

But the profits on this ingredient are astronomical. Big Agra wants to keep you hooked. They're fighting back. And they fight dirty.

The Corn Refiners Association has succeeded in getting the FDA to approve a name change for one type of HFCS called HFCS-90. They can now call it "fructose" or "fructose syrup."

They want to trick you into believing it's healthier than HFCS.

But this new compound has even HIGHER concentrations of harmful HFCS. In fact, regular HFCS contains either 42% or 55% fructose. This new form contains **90% fructose!** 

#### The Effects of NAFLD

A fatty liver wreaks havoc with your whole body. But these symptoms are so common most doctors wouldn't even suspect a liver problem.

Besides deadly liver damage, NAFLD can leave you with:

- fatigue and weakness
- low sex drive
- loss of appetite
- nausea
- abdominal pain
- weakened immune system
- spider-like blood vessels
- yellowing of the skin and eyes (jaundice)
- itching
- fluid build-up and swelling of the legs (edema) and abdomen (ascites)
- mental confusion

In other words, it's even a bigger health risk than regular HFCS. And that means even more fatty liver disease.

#### WHY NAFLD HITS WOMEN HARDER

Fatty liver disease is a sneaky disease. In the early stages, the only signs are some fatigue and maybe a dull pain in the right upper quadrant of your abdomen.

In time, the inflammation in your liver caused by the fatty cells can lead to more serious conditions like hepatitis, cirrhosis, liver cancer or liver failure.<sup>4</sup>

The symptoms in older women tend to be much harsher. Part of the reason has to do with hormones.

At the onset of menopause, your body's progesterone production falls to almost zero. But estrogen remains high because of all the toxic chemicals you're exposed to in the environment that mimic estrogen.

Your liver is responsible for excreting estrogen from your system. But when you have an overload, your liver can't keep up. It can't get rid of all of it. Especially if you have NAFLD, which makes your liver sluggish.

So the estrogen stays in your body where it's constantly recirculated. It keeps building up. And without enough progesterone, you end up with a drastic hormonal imbalance. It's called estrogen dominance.

This can lead to extreme menopause symptoms, fatigue, anxiety, weight gain, mood swings, thyroid dysfunction and more. (You can read more about estrogen dominance and how it affects menopausal women — plus what to do about it — right <u>here</u>.)

### 5 SIMPLE STEPS TO A HEALTHY LIVER

Mainstream medicine has no effective drug or other treatment for NAFLD. That means most doctors ignore it. But I check my patients for fatty liver disease with a simple blood test.

The liver releases the enzymes ALT and AST when there is inflammation. If you want to know if you are at risk, ask your doctor to check your blood for these elevated liver enzymes.

I also help my patients prevent and even reverse fatty liver disease with five simple, natural solutions.

**1. Eat a liver-friendly diet.** The best way to protect your family from NAFLD is to eat a primal diet. This is the same diet our ancestors ate before the rise of Big Agra. That means a diet high in protein and good fats, and low in refined carbs. It means avoiding processed foods, sodas, sports drinks, junk food and vegetable oils.

Especially avoid foods that contain HFCS. And remember, it can be disguised on food labels as fructose, fructose syrup, maize syrup, glucose syrup, glucose/fructose syrup, tapioca syrup, fruit fructose and crystalline fructose.

**2. Take this form of vitamin E.** Vitamin E is actually a family of eight vitamins — four tocotrienols and four tocopherols. Research shows that **tocotrienols** completely reverse non-alcoholic fatty liver disease and even improve deadly end-stage liver disease.

In a breakthrough study from Malaysia, researchers gave 30 patients tocotrienols supplements daily. After a year, 15 were completely cured of this "incurable disease." Another five showed significant improvement.<sup>5</sup> In other words an incredible **67% of otherwise non-treatable NAFLD cases improved with just vitamin E**.

In another amazing Ohio State University study, 50% of end-stage liver patients — those who never get better without a transplant — actually improved their condition by taking tocotrienols.<sup>6</sup>

You can add tocotrienols to your diet naturally. Try eating plenty of nuts, eggs, and dark-green leafy vegetables. Other excellent sources are annatto oil, palm oil and coconut oil. But most people don't get enough from their diet, so you can always supplement. But beware... most vitamin E supplements only include one form of the tocopherols. That's not enough. Look for one with "**mixed tocotrienols**." Try to get at least 400 IU a day. And stay away from any vitamin E labeled *d-alpha* or especially *dl-alpha tocopherol*. The "dl" means it's synthetic.

Just one word of caution...

Vitamin E is a natural blood thinner, so consult your doctor if you're on blood-thinning medication or have a bleeding disorder.

**3. Get more omega-3 fats.** Omega-3 fats are anti-inflammatory and help to heal the liver cell membranes. These healthy fats also suppress production of new liver fat cells and stimulate burning of fat cells. In one human study, 1,000 mg per day of omega-3s decreased serum markers of liver cell damage and levels of triglyceride fats.<sup>7</sup>

You can get omega-3 fats from wild oily fish like mackerel, herring, salmon, anchovies, sardines, trout and fresh tuna. Another good source is grass-fed beef.

But it's almost impossible to get enough omega-3s from your diet. I recommend krill oil and squid oil to my patients. It's purer than fish oil. Take 4,000 mg per day.

**4. Take the liver herb.** Milk thistle is also known as the "liver herb." It has an active compound called *silymarin*. In a placebocontrolled study of 100 patients, silymarin promoted a significant decline in liver enzyme markers. That indicated reversal of NAFLD with no serious side effects.<sup>8</sup>

**5. Try this "heart" supplement.** I've been recommending CoQ10 to my patients for decades for heart health. It's a powerful antioxidant and anti-inflammatory. But a study in the *Journal of the* 

*American College of Nutrition* proved that CoQ10 can also help treat NAFLD.<sup>9</sup>

The randomized, double-blind trial included 41 people with mild to moderate NAFLD. Researchers gave half the patients 100 mg of CoQ10 every day. The other half got a placebo. After 12 weeks, all of the signs of NAFLD were lower in the CoQ10 group. Four of the patients on CoQ10 even returned to normal liver function.

You can get CoQ10 from food, especially beef, sardines, mackerel, peanuts and organ meats like liver and kidney. But the amounts in food won't be enough to stop NAFLD. That's why I recommend taking a supplement.

Most CoQ10 supplements you find in the drugstore contain ubiquinone. But if you're over 40, you need the **ubiquinol** form of CoQ10. It may cost you a little more but it's almost three times as effective as ubiquinone. I recommend taking 100 to 300 mg of ubiquinol per day (divided into two doses).

#### References

1 Connecticut College News, October 15, 2013

2 Addiction to unhealthy foods could help explain the global obesity epidemic. EurekAlert! May 22, 2013.

3 Ouyang X, et al. "Fructose consumption as a risk factor for non-alcoholic fatty liver disease." *J Hepatol.* 2008;48(6):993-9.

4 Magosso E, Ansari M, Gopalan Y, et al. "Tocotrienols and Nonalcoholic Fatty Liver: a Clinical Experience. 61st Liver Meeting, American Association for the Study of Liver Diseases (AASLD)." *In Hepatology* 2010;52(4Supp):642.

5 Magosso E, Ansari MA, Gopalan Y, et al. "Tocotrienols and Nonalcoholic Fatty Liver: a Clinical Experience. 61st Liver Meeting, American Association for the Study of Liver Diseases (AASLD)." *Hepatology* 2010;52 (4Supp):642.

6 Patel V, et al. "Oral Tocotrienols Are Transported to Human Tissues and Delay the Progression of the Model for End-Stage Liver Disease Score in Patients." *J Nutr.* 2012;142(3):513-9.

7 Capanni M, Calella F, Biagini MR, et al. "Prolonged n-3 polyunsaturated fatty acid supplementation ameliorates hepatic steatosis in patients with nonalcoholic fatty liver disease: a pilot study." *Aliment Pharmacol Ther.* 2006 Apr 15;23(8):1143-51.

8 Hashemi et al, "A Placebo-Controlled Trial of Silymarin in Patients with Nonalcoholic Fatty Liver Disease." *Hepatitis Monthly*, December, 2011; Vol.9: 4 (265-270)

9 Farnaz Farsi et al. "Functions of Coenzyme Q10 Supplementation on Liver Enzymes, Markers of Systemic Inflammation, and Adipokines in Patients Affected by Nonalcoholic Fatty Liver Disease: A Double-Blind, Placebo-Controlled, Randomized Clinical Trial." *Journal of the American College of Nutrition* 2016; Volume 35, Issue 4, 346-353.

The information provided in this letter is for educational purposes only and any recommendations are not intended to replace the advice of your physician. You are encouraged to seek advice from a medical professional before acting on any recommendations in this publication.

## AL SEARS, MD

Al Sears, MD is America's #1 anti-aging doctor. He's made it his life's work to challenge conventional medical beliefs and bring his patients the latest breakthroughs in natural cures and remedies to diseases once thought to be "incurable."

Dr. Sears takes a fresh, novel approach to patient health and wellness. Our environment has changed for the worse — and it's affecting your health. He helps patients escape accelerated aging caused by modern toxins, chemicals and other hormonal threats you unknowingly face every day.

> Every year, he travels over 20,000 miles to the most remote regions of the world searching for natural healing secrets unknown or ignored by mainstream medicine.

> Since 1999, Dr. Sears has published 35 books and reports on health and wellness. He has millions of loyal readers spread over 163 countries.

Today he writes and publishes two monthly e-Newsletters, *Confidential Cures* and *Anti-Aging Confidential for Women*, and a daily email broadcast, *Doctor's House Call*, with more than 500,000 subscribers. He has also appeared on more than 50 national radio programs, ABC News, CNN and ESPN.

Dr. Sears was one of the first to be boardcertified by the American Academy of Anti-Aging Medicine (A4M). More than 25,000 patients travel from all around the world to visit him at the *Sears Institute for Anti-Aging Medicine* in beautiful Royal Palm Beach, Florida.

Recently, Dr. Sears proved you can affect the way you age by controlling the length of your telomeres. He made history as the first MD to introduce the Nobel prize-winning, anti-aging breakthrough of our time, telomere DNA therapy, to the general public. And now he's working with the leading scientists in the field of telomere biology to further define how this incredible technology will shape the future of anti-aging medicine.