

### Pain Management with Stem Cells (Tuesday, June 26 Only)

**Dr. Harry Adelson** will be here from Utah to assist me and show me some new Stem Cell technique in working with joint (shoulder, knee, elbow, hip), back, muscle and arthritic pain. He has a very successful regenerative pain clinic in Utah.

Check out his website <http://www.docereclinics.com>. We will collect your stem cells and use them to improve your pain and function in your area of concern. We will need 6 patients and will offer a 50% discount to you or your loved one.

## Telomere Testing

### How to Live to 100 with TA-65 on MSNBC

#### What does Telomere Testing measure?

Telomeres are sections of genetic material at the end of each chromosome whose primary function is to prevent chromosomal "fraying" when a cell replicates. As a cell ages, its telomeres become shorter. Eventually, the telomeres become too short to allow cell replication, the cell stops dividing and will ultimately die - a normal biological process. SpectraCell's Telomere Test can determine the length of a patient's telomeres in relation to the patient's age.

#### How are the results reported?

The Patient Telomere Score is calculated based on the patient's telomere length on white blood cells (T-lymphocytes). This is the average compared to telomere length on lymphocytes from a sample of the American population in the same age range. The higher the telomere score, the "younger" the cells. A Telomere Score that is above the average line is desirable.

#### What do the results mean to the patient and the doctor?

Age adjusted telomere length is the best method to date to assess biological age using structural analysis of chromosomal change in the telomere. Serial evaluation of telomere length is an indicator of how rapidly one ages relative to a normal population. Therapies directed at slowing the loss of telomere length may slow aging and age-related diseases.

## What are the nutritional implications on telomere length and repair?

An inflammatory diet, or one that increases oxidative stress, will shorten telomeres faster. This includes refined carbohydrates, fast foods, processed foods, sodas, artificial sweeteners, trans fats and saturated fats. A diet with a large amount and variety of antioxidants that improves oxidative defense and reduces oxidative stress will slow telomere shortening. Consumption of 10 servings of fresh and relatively uncooked fruits and vegetables, mixed fiber, monounsaturated fats, omega-3 fatty acids, cold water fish, and high quality vegetable proteins will help preserve telomere length. In addition, it is advised to reduce total daily caloric intake and implement an exercise program. Fasting for 12 hours each night at least 4 days per week is recommended.

## What lifestyle modifications are likely to be helpful?

One should achieve ideal body weight and body composition with low body fat (less than 22 % for women and less than 16 % for men). Decreasing visceral fat is very important. Regular aerobic and resistance exercise for at least one hour per day, sleeping for at least 8 hours per night, stress reduction, discontinuation of all tobacco products are strongly recommended. Bioidentical hormone replacement therapy may decrease the rate of telomere loss.

## When should retesting be considered?

Testing should be done once per year to evaluate the rate of aging and make adjustments in nutrition, nutritional supplements, weight management, exercise and other lifestyle modifications known to influence telomere length.

## What role will nutritional supplements play in slowing telomere shortening?

Oxidative stress will shorten telomere length and cause aging in cellular tissue. Antioxidant supplements can potentially reduce oxidative stress very effectively, which will ultimately improve oxidative defenses, mitochondrial function, reduce inflammation and slow vascular aging. Targeted supplementation is key, as antioxidants work synergistically and must be balanced to work most effectively and avoid inducing a pro-oxidant effect. Increasing antioxidant capacity at the cellular level is critical to maintaining telomere length.

Recent evidence suggests that a high quality and balanced multivitamin will also help maintain telomere length. Specifically, studies have linked longer telomeres with levels of vitamin E, vitamin C, vitamin D, omega-3 fatty acids and the antioxidant resveratrol. In addition, homocysteine levels have been inversely associated with telomere length, suggesting that reducing homocysteine levels via folate and vitamin B supplementation may decrease the rate of telomere loss. Similarly, conditions such as cardiovascular disease, insulin resistance, diabetes, hypertension, atherosclerosis and even dementia affect telomere length. Correcting subclinical nutritional deficiencies that may contribute to such diseases is crucial for telomere maintenance.

## Overall recommendations to maintain telomere length

Some clinicians have recommended reducing all known coronary risk factors, inflammation, oxidative stress, ADMA levels and angiotensin II levels or its action. At the same time, therapy should increase nitric oxide levels and nitric oxide bioavailability, increase arginine ([ProArgi-9](#)), increase endothelial progenitor cells

(Stem Cells) , improve mitochondrial function and increase oxidative defenses. In addition, one should optimize hormone levels, exercise, sleep, nutrition and nutritional supplements. Fasting and caloric restriction should be part of the regimen as well.

## Telomerase Activation with TA-65

Telomerase Activation works on targeted cells in your body and can improve not only cell longevity but quality of life. A double-blind, placebo controlled study of TA-65 showed improvements in:

- immune system
- vision
- male sexual performance
- skin appearance
- and more

Learn more about the new world of telomerase activation as a method to intervene in the aging process. Understand how taking [TA-65](#) may improve your health and vitality. Find out your real biological age by [testing](#) your biomarkers of aging and measuring the length of your telomeres.

### Components:

Telomeres are sections of genetic material at the end of each chromosome whose primary function is to prevent chromosomal "fraying" when a cell replicates. As a cell ages, its telomeres become shorter. Eventually, the telomeres become too short to allow cell replication, the cell stops dividing and will ultimately die - a normal biological process. SpectraCell's Telomere Test can determine the length of a patient's telomeres in relation to the patient's age.

SpectraCell's Telomere Test analyzes:

- Lysis of Cells
- DNA Extraction
- Amplification

# Stem Cells

Stem Cells Offer New Hope for Millions

## L-Arginine

### Benefits of L-Arginine

- Supports cardiovascular health
- Enhances blood flow to vital organs
- Combats the negative effects of premature cardiovascular aging
- Sweetened with Xylitol to enhance oral health
- May aid in decreasing body fat
- Anti-aging benefits
- Supports healthy sexual performance

Maintains healthy blood sugar levels already in normal range  
May boost energy levels

## 22 Reasons to use L-Arginine

The nitric oxide derived from arginine is directly or indirectly implicated in practically every cellular response and health condition imaginable, from the cardiovascular system to the immune system, and hormone function to nerve function. Although an exhaustive list of possible applications for the amino acid is not included, the following are the primary scientifically backed reasons why anyone - even healthy people - should consider adding the arginine to their health and wellness regimen.

1. It is one thousand times more powerful than any naturally occurring antioxidant in the body. Arginine's antioxidant properties support various body systems and may protect against heart disease, stroke, cancer, and diabetes, as well as slowing premature aging. <sup>1, 2</sup>
2. It offers wide-ranging cardiovascular support, including controlling blood pressure <sup>3, 4</sup> and plaque formation. Nitric oxide keeps arteries relaxed and pliable for normal blood pressure, preventing hypertension and angina. <sup>5</sup>
3. It enhances memory, <sup>6</sup> particularly long-term memory, and may help to reverse the effects of dementia and Alzheimer's disease. <sup>7</sup>
4. It boosts human growth hormone (HGH) production, which has antiaging properties. <sup>8</sup>
5. It enhances communication of messenger cells between nerves and the brain. <sup>9</sup>
6. It may help improve immune function <sup>10</sup> and fight bacterial infections. <sup>11</sup>
7. It may help in the treatment and prevention of diabetes since many disease complications, including poor circulation and blindness, are vascular in nature. Arginine is also found to regulate insulin secretion in the pancreas. <sup>12, 13</sup>
8. It may inhibit the division and proliferation of cancer cells. <sup>14, 15</sup>
9. It helps with cholesterol control by lowering serum and LDL cholesterol levels. <sup>16</sup>
10. It enhances male sexual performance by treating vascular erectile dysfunction (ED). <sup>17</sup>
11. Its anticoagulant abilities reduce clotting to lower heart attack and stroke risk. <sup>18</sup>
12. It reduces pregnancy-related hypertension, a risk factor for both the expecting mother and the unborn child. <sup>19</sup>
13. It is useful in the treatment of asthma by opening pulmonary pathways for easier breathing and the treatment of lung disorders. <sup>20, 21</sup>
14. It relaxes hypertonic sphincter muscles, preventing and healing hemorrhoids. <sup>22</sup>
15. It boosts lean muscle mass and preserves bone density by encouraging HGH production, <sup>23</sup> which also leads to a reduction in fatty tissue. Because of these properties, it may be useful in weight management and strength training.
16. It can help offset cardiovascular and lung damage caused by tobacco use, <sup>24</sup> since nitric oxide levels in smokers are less than half of those found in nonsmokers. <sup>25</sup>
17. It helps to accelerate wound healing <sup>26</sup> and postsurgery recovery. <sup>27</sup> Research has shown it is useful in treating burn wounds <sup>28</sup> and stimulates wound healing in the elderly. <sup>29</sup>
18. It may be useful in enhancing athletic performance due to its ability to boost exercise tolerance, <sup>30</sup> its beneficial effect on the lungs, and its effect on HGH levels. Which helps with building lean muscle tissue.
19. It may be used to improve the function of the prostate. <sup>31</sup>
20. It may prevent and possibly reverse the effects of osteoporosis by positively affecting bone mass. <sup>32</sup>

21. It has been used in the treatment of irritable bowel syndrome<sup>33</sup> and to reduce the occurrence of ulcers - especially stress- related - without affecting gastric acid production.<sup>34, 35</sup>
22. It may improve renal function and slow the progression of renal disease and age-related chronic renal failure.<sup>36,37</sup> Arginine's protective effect on the kidneys may also benefit those with diabetes.

## *Join our 5-step wellness & preventative program*

After years of research and training, Dr. Vernon Williams has designed a comprehensive prevention & wellness program. Our objective is to help individuals achieve optimum quality of health and longevity of life by optimizing hormones and nutrition.

[Sign Up Today](#)

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