

Magic Bullet or Snake Oil?

Three Questionable Anti-Aging Treatments – and One with Potential

ADVERTISEMENTS ARE ALL OVER THE WEB, PROMISING YOUTH IN A pill bottle with pitches like “Breakthrough Aging Cure!” and “Want to Stay Young?” Unfortunately, there is little science to back them up, says Boston University geriatrician Thomas Perls, M.D., MPH. “The anti-aging industry claims they have things like growth hormones and anabolic steroids that stop or reverse aging. That’s just outright quackery. It’s costing a lot of people money – and in some cases their health.” Be cautious of claims made for these age-defying prescriptions.

DHEA – A natural hormone precursor to both testosterone and estrogen, DHEA reaches its peak production in our 20s, then declines. Because this drop coincides with aging changes such as loss of muscle mass and bone density, some have argued that taking DHEA supplements could slow the process. Short-term studies showed some promise, but a long-term study that appeared in the *New England Journal of Medicine* in 2006 found no benefits to DHEA supplementation.

Human Growth Hormone – Produced in the pituitary gland at the base of the brain, human growth hormone is crucial to childhood growth and to maintaining tissues

and organs as time passes. Like DHEA, production declines with age, prompting speculation that synthetic versions could reverse aging. Studies show that it does increase muscle mass, but not strength – and that weight training brings better results for less money. Additionally, side effects include swelling and joint and muscle pain.

Caloric Restriction – Several research studies have shown that sharply restricting caloric intake (eating up to 25 percent less than the body needs to maintain its current weight) may increase lifespan, but it is extremely difficult to stick to such diets. Additionally, researchers have identified several risks, including reduced bone density, loss of muscle mass and depression.

Resveratrol – An antioxidant found in red wine, resveratrol seems to offer many of the benefits of caloric restriction without the side effects – and the hunger. A growing body of research from human trials indicates that resveratrol may reduce the risk of obesity, diabetes, heart disease and even some types of cancer. But more work needs to be done, experts say. Resveratrol supplements on the market contain widely varying quantities, and the effective – and safe – dosages are still unknown. Unforeseen side effects are also a concern.



experiences and expand your mind.” People who already have mild memory complaints can use special techniques to recover what they have lost, he notes.

- **WATCH YOUR DIET** – “The healthy heart diet is also the healthy brain diet,” says Dr. Small. “That is, the Mediterranean diet that substitutes fish for red meat, fresh fruits and vegetables for processed foods and includes lots of water.”
- **TAKE ADVANTAGE OF MODERN MEDICINE** – New pharmaceuticals and procedures, from statin drugs to laparoscopic surgery, can rapidly improve quality of life, Dr. Small notes. “Medicines and supplements are important. There’s no longevity pill, but if you have high blood pressure or high cholesterol and you take your medicine, you’re going to live longer.”

Emerging research holds out some exciting prospects. Scientists at both UCLA and the Mayo Clinic are using positron-emission technology (PET) imaging to scan

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 ✎ Maintaining friendships and social ties is an important element in aging well.



the brains of people at risk for Alzheimer’s disease. Eventually, when such scans reveal the initial buildup of plaques and tangles that signify the advance of the disease, physicians may be able to prescribe a drug to stop or even reverse the buildup. Trials of several such drugs are under way now, says Dr. Small.

- **SKIP THE STRESS** – “Humans injected with the stress hormone cortisol have impaired memory, which improves if you take the cortisol away,” says Dr. Small. “So we encourage people to try different stress relievers, from yoga to meditation to breathing exercises.”
- **STAY CONNECTED** – Maintaining friendships and other social bonds is a common characteristic of centenarians and Blue Zone communities around the world. In fact, Blue Zones are virtual mirrors of the healthy habits Dr. Small and other aging researchers recommend.

Remember Loma Linda? The secret of the California town is that it is home to a large number of members of a Christian sect with strict dietary guidelines and strong communal bonds. “Their average life expectancy is 88 years, and it’s probably because of the health habits their religion dictates,” says Dr. Perls. “They are vegetarians, they regularly exercise, they don’t smoke and they spend quite a bit of time with family and religion, which may help them manage their stress better. If we have all those habits, I think most of us should be able to live almost 30 years beyond the age of 60 in good health.” ❖

POINTS OF CONTACT

- » Learn more about the fascinating findings of the New England Centenarian Study at www.bumc.bu.edu/centenarian.
- » Investigate the world’s Blue Zones at www.bluezones.com.
- » Try some brain-boosting games at www.gamesforthebrain.com.