

Anti-aging therapies: Youth in a bottle?

You feel 25, but your body keeps reminding you you are not! You tire easily. Your knees hurt. The only part of you that is thinning is your hair.

You wonder about those anti-aging products you see advertised. Can they really slow down or even stop the aging process? When evaluating claims made about such remedies, some old advice is good advice if it sounds too good to be true, it probably is.

Anti-aging hype
People have been searching for the fountain of youth for ages. And the lure of advertisements for anti-aging products can be hard to resist. Who would not want to look and feel years younger simply by taking a pill?

But researchers have learned that aging is an intricate, complex process that involves many areas of your body. It is unlikely that a product, pill or potion could cure all of the ills age can bring.

Certain strategies can help. These include:

- 1. Exercising your mind
 - 1. Exercising your body
 - 1. Following a healthy diet
 - 1. Maintaining a healthy weight
 - 1. Taking good care of yourself
 - 1. Seeking prompt treatment when you are ill or injured
 - 1. Using sunscreen
 - 1. Not smoking
 - 1. Avoiding secondhand smoke
- If you smoke, quitting can be your most valuable ally in the fight against aging. Smoking damages

your body in multiple ways. Not only can it cut your life short by harming your heart, lungs and blood vessels, but it can also increase wrinkles and tend to make you look older along the way. Leading a smoke-free existence may be the most effective way you can prevent premature aging and death.

If you want healthy-looking skin, don't spend long periods of time in the sun without covering up or wearing sunscreen. Sun exposure causes wrinkles and age spots. It can also cause life-threatening melanoma and other skin cancers.

But what about all of the anti-aging remedies advertised today? Here is an overview of some of the most popular products.

Antioxidants
Antioxidants are certain vitamins, minerals and enzymes that protect your body by neutralising free radicals. Free radicals are byproducts of your cells' normal metabolism. They are believed to contribute to age-related changes and certain diseases.

Antioxidant supplements touted to fight age-related diseases include:

Vitamin A and beta carotene: Supplements of beta carotene, which is converted into vitamin A in your body, likely offer no protection against cardiovascular disease. And if you smoke, taking beta carotene supplements may

increase your risk of lung cancer. If you are interested in increasing your intake of vitamin A or beta carotene, you are probably better off eating more red and yellow vegetables than taking supplements. Too much can increase your risk of osteoporosis.

Vitamin C: Studies have shown that people who eat diets high in vitamin C, found mainly in citrus fruits, have lower rates of cancer and heart disease. However, it is unclear whether taking vitamin C supplements has similar benefits. Eating more citrus fruits and drinking more citrus juices may be a more reasonable approach than taking supplements.

Vitamin E: Vitamin E may protect against cancer, infertility and cataracts and slow the progression of Alzheimer's disease.

Selenium: This antioxidant mineral is found primarily in seafood and liver. It may help prevent cancer. However, excessive amounts may cause hair and nail loss. More research is needed.

Coenzyme Q-10: This antioxidant is produced by your body. It has many dietary sources, including meat and seafood. Claims that it can slow aging and stop the spread of cancer are unproved. However, it may hold promise as a treatment for congestive heart failure.

Certain B complex vitamins: Vitamins B-6, B-12 and folic acid

have been shown to work together to reduce blood levels of homocysteine, an amino acid normally found in your body that, in excess levels, has been linked to an increased risk of cardiovascular disease. Work is under way to determine if lowering your homocysteine level will lower your risk of heart attack, stroke and related diseases.

In addition to these antioxidants, you may also hear claims about the benefits of coral calcium. Coral calcium is a fossilised coral mineral powder harvested from coral reef mineral beds. It is also sold as a calcium and mineral supplement. No medical evidence supports any health claims made about coral calcium.

Although studies of some antioxidants are promising, use caution. It is not clear yet if taking antioxidant supplements is safe in the long term. For now, a better alternative is to eat more antioxidant-rich foods, such as fresh fruits and vegetables.

Hormones
Hormones are chemicals made by your body to regulate the activities of vital organs. Because hormone levels decline with age, some scientists speculate that hormones may play a role in the aging process. According to proponents of hormone products, you can set back your body's clock by restoring your hormone levels to those of your youth. Supplements include:

Testosterone: Declining levels of this male sex hormone have been linked with common complaints of aging, such as decreased energy and sex drive. Anti-aging enthusiasts say increasing your level of testosterone by prescription often beyond the normal range of testosterone in your body will improve your energy, well-being, complexion and sex drive. Such claims remain unproved. In high doses testosterone can result in prostate problems, elevated cholesterol and fertility problems.

Melatonin: This hormone is produced in the brain. It helps regulate sleep and holds promise as a remedy for insomnia and jet lag. But claims that melatonin, also a type of antioxidant, can slow or reverse aging, fight cancer and enhance sexuality are far from proved. Supplements sold in stores typically contain many times the melatonin produced by your body. If taken improperly, melatonin can actually disrupt your sleep cycle.

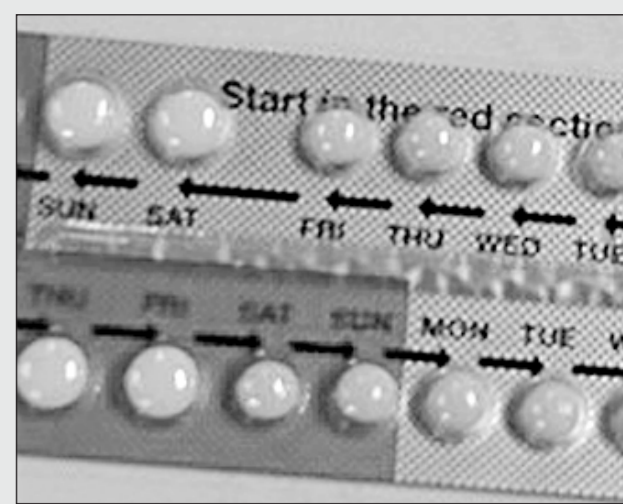
Human growth hormone (HGH): This hormone, responsible for growth spurts in children, tapers off after adolescence. Proponents say injections of HGH, available by prescription, burn fat, build muscle and renew energy. Some studies do suggest some benefit from HGH. However, these studies have been small, and most doctors say it is too early to draw solid conclusions from them. Possible side effects include fluid retention, joint pain and high blood pressure.

Hormone replacement therapy: For women, hormone replacement therapy (HRT) may slow bone loss, restore vaginal lubrication and maintain skin tone. But HRT may also increase your risk of blood clots, heart disease, heart attack and breast cancer.

Safety not guaranteed
The safety of anti-aging supplements is not guaranteed. In addition, you cannot be sure of product purity or the amount of active ingredient in any given supplement even from one package to the next of the same product. The bottom line is buyer beware.

No short cut
Despite tempting claims, no product is proved to prevent or reverse aging. In addition, many have potentially dangerous side effects. If you are considering an anti-aging product or you are concerned that you may have a hormone deficiency, talk to your doctor. He or she can help you decide whether the potential benefits of a product outweigh any risks.

Source: <http://www.cnn.com>



Birth control pills lower risk of arthritis

The use of birth control pills, but not estrogen therapy, lowers the risk of developing rheumatoid arthritis, according to a new report. The findings suggest a dose-related effect, as estrogen drugs are typically one-sixth as potent as birth control pills.

Although previous reports suggest a role for sex hormones in the development and progression of rheumatoid arthritis (RA), the authors explain in the February issue of *The Journal of Rheumatology*, studies investigating the influence of estrogen drugs on the development of RA have yielded conflicting results.

Scientists investigated whether exposure to either birth control pills or estrogen therapy influenced the devel-

opment of rheumatoid arthritis in women. The researchers used data from The Rochester Epidemiology Project.

Women who ever used birth control pills had a 43 percent lower risk of having RA, the authors report, though there was no association between the current use of such pills and RA.

In contrast, exposure to estrogen therapy did not influence the development of RA, the researchers found.

The investigators calculate that the number of women who develop RA could drop by about 38.6 percent if the entire female population of Rochester were exposed to birth control pills.

Source: *Journal of Rheumatology*, February 2004

Test may be safer way to detect fetal problems

A new technique could make it possible to detect fetal abnormalities with a sample of the mother's blood, instead of invasive procedures which can put the pregnancy at risk, researchers reported on Tuesday.

The new laboratory test uses formaldehyde to stabilise membranes in the blood cells of samples collected from the mother, thus increasing the amount of fetal DNA that can be examined.

Without such stabilisation the DNA samples are often destroyed during collection, handling and processing, a problem that has limited the use of maternal blood samples to identify abnormalities such as Down Syndrome or spina bifida.

Invasive prenatal tests with such techniques as amniocentesis or umbilical blood sampling are highly reliable, but carry a risk for loss of the pregnancy, the study said. As a result women who would otherwise be candidates for a

diagnosis, such as those over age 35, decline them, the authors said.

In one part of its test, free fetal DNA in untreated blood samples averaged 7.7 percent compared to more than 20 percent in the treated samples, the company said.

A high percentage of free fetal DNA makes it easier to diagnose chromosomal abnormalities, the report said, and suggests that the technique could provide "a solid foundation for the development of a noninvasive prenatal diagnostic test."

With prospective studies focusing on clinical applications of these findings, profound clinical implications could emerge for prenatal diagnosis and cancer surveillance. It could mean that leukemia, for example, could be monitored with a blood test instead of having to take a bone marrow sample.

Source: <http://www.reuters.com>

Conquering everyday aches and pains!

Are you destined to hurt just because you have passed a certain age? Actually you are not! Here are some simple tips to help you reduce the aches and pains of everyday life.

Why do so many people in their 40s, 50s and older wake up feeling stiff and sore?

There are probably a lot of reasons. A common contributor to stiffness is that few people get enough sleep. Sleep studies show that most people need, on average, eight to nine hours of sleep a night. Some need more. A few need less. Most people in their older age lack from two to

three hours from sleep. So get a good night's sleep.

What other factors contribute to the development of aches and pains?

If you are not scheduling enough time for sleep, you are usually scheduling too many other things instead. You are constantly in fight-or-flight mode. People tend to ache from too much stress because they are constantly tensing their muscles.

More and more people are spending their days sitting in front of computers. They are tensing their muscles and leaning into the screen to see if that will make the computer work faster. Doing that every day can make the muscles in your neck and back ache.

It is basic poor muscle hygiene. You need to get enough rest, exercise regularly, use good posture and take time to relax.

What role does exercise play?
Most of us tend to have two exercise settings: too much or none. When people are advised to start exercising, those who have never exercised in their life go at it for two hours. Then they hurt, and they use that as an excuse to stop exercising.

Another problem is that people who exercise regularly tend to do one, two or three exercises without variation. Our ancestors did different activities all the time. People generally do not choose exercises that simulate the kind of movements involved in everyday activities. Lifting weights is

not much like lifting groceries, the normal kind of lifting you do in everyday life. It is not a natural use of your muscle.

Are you saying that weightlifting is bad for people?

In this condition you are repetitively doing an unnatural thing. Take leg extensions to build the thigh muscles. Leg extension exercises can actually damage a surgical repair, especially in people who have hurt their knee's anterior cruciate ligament.

Do people normally go around lifting things that way?

No. It is recommend that exercises that activate the thigh muscles and the hamstrings, while keeping the knee aligned, lunges and squats, for example. Yoga and tai chi are other good activities that even older people can tolerate well.

Are there activities or exercises people should avoid?
Playing any kind of sport too aggressively can be harmful. Most sports injuries occur when you fall or hit something, or when you are playing with all your might, really trying to beat someone.

Soreness that follows 24 hours after exercise is normal and means that muscles are growing stronger. The response to this should be rest followed by continued moderate exercise. On the other hand, pain during exercise is a warning sign of impending injury and should prompt you to correct your form, reduce the

workload, or adopt a different form of exercise.

Do your mattress and pillow make a difference in how you feel?

It used to be thought that people with back problems required a firm mattress, but a recent study indicates that they may sleep even better on a medium-firm mattress. This may be because very firm mattresses are hard on bony areas, like your knees and hips, and that makes it more difficult to sleep on your side.

Conversely, you do not want too soft a mattress because they can sag. Although no one has proved it, it makes sense that a sagging mattress will not hold the spine in alignment.

Regarding neck support, research is lacking. No single pillow is better than others, because you move around when you sleep, and you need the pillow to be in a different position when you are on your back than when you are on your side or stomach. Cervical pillows are available for neck pain, and some people swear by them. Try them out. If any pillow makes you feel worse, though, it is not working.

What do you recommend for self-care for everyday aches and pains?

At least for a little while, go to bed early. Also, use ice for the first few hours after an injury. Not only does it keep down swelling, but it also affects your nerves, slowing the transmission of the pain

signal. It takes about 10 to 30 minutes to work and lasts a couple of hours. Then you have to use it again. The same is true of heat. Heat tends to result in muscle relaxation. Although it can relieve pain, it can increase swelling, so it's not recommended soon after an injury.

Massage is as effective or more effective than heat or ice. Corn oil or sesame oil from your cupboard can be as effective as a special oil or cream designated for massage. When you rub on a mentholated cream, it is probably the massage more than the cream that gives most of the relief. Over-the-counter pain pills and anti-inflammatory medications are safe for most people, if taken as directed.

When should you go to the doctor?

If your pain persists for longer than two weeks, or gets worse, it may be time to seek medical advice especially if the pain does not respond to heat, ice or over-the-counter pain medicine. You also may want to see a doctor if you find a lump, or if your sore spot gets more red and swollen over time. Pain that keeps you up at night or impairs your ability to work also may be a warning sign of something more serious.

Source: <http://www.cnn.com>

Stomach size alone affects food intake!

Although bigger people tend to have bigger appetites, the size of the stomach—and not just the size of the body—appears to affect the feeling of fullness, or satiation, during and after a meal, new research shows.

The findings suggest that factors that control stomach volume, independent of body size, are potential targets in fighting obesity, according to researchers.

The investigators found that compared with normal-weight adults, those who

were overweight or obese took longer to feel satiated at mealtime. Similarly, those whose empty stomachs were larger needed more calories to feel completely full.

It was not, however, merely a matter of bigger people having bigger stomachs, according to findings published in the journal *Gastroenterology*.

The researchers found that both body mass index (BMI) and fasting gastric volume were independently linked to the time it took

participants to become full.

The fact that BMI and stomach size did not go hand-in-hand is "somewhat surprising," study author Dr. Michael Camilleri told and illustrates that stomach volume is determined by more than mere body size.

Moreover, according to Camilleri, the study suggests that factors governing stomach volume might help predispose people to obesity and could serve as targets for weight-control tactics.

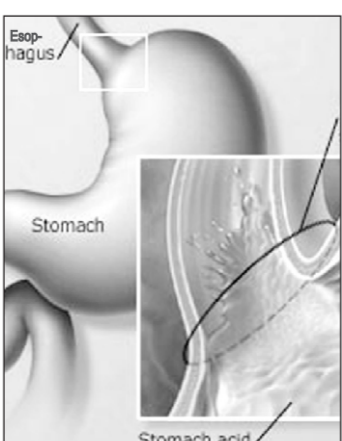
These control mechanisms could range from eating patterns—such as whether a person eats small meals throughout the day or tends to binge—to hormones, to the nerves that control stomach contraction and relaxation, Camilleri noted.

Addressing these factors might then alter how long it takes a person to feel full. For example, Camilleri explained, changes in diet or patterns of food intake might do the job, as could

medications that act on the nerves or hormones that control stomach volume, or other procedures or devices that change gastric volume.

Before any of this becomes reality, he noted, further research is needed to pinpoint the critical controls involved in determining stomach volume.

Source: *Gastroenterology*, February 2004.



New fertility hope for women cancer patients

Young cancer patients left infertile by their treatment have been given new hope of having children as scientists announce they have produced the first human embryo from frozen ovarian tissue.

Researchers at the New York Presbyterian Hospital/Weill Cornell Medical Center in the United States restored the fertility of a 36-year-old woman who had suffered from breast cancer by transplanting previously frozen ovarian tissue beneath the skin of her abdomen.

Three months after the transplant, her fertility was restored. The woman had several cycles of in-vitro fertilisation (IVF) and although she did not become pregnant, the scientists said the prospect of restoring fertility to patients with frozen ovarian tissue and enabling them to become mothers is now more promising. "In humans this is definitely the first embryo (from an ovarian transplant)," Dr. Kutluk Oktay, who headed the research team told.

"It creates a potentially viable option (to have children) for hundreds of thousands of cancer patients of reproductive age around the world."

The research, reported online by *The Lancet* medical journal, shows that women can preserve their fertility by freezing their ovarian tissue and that pregnancy may be possible even after the tissue remains frozen for a long

time. The tissue from the woman had been frozen six years earlier.

The research is significant because cancer treatments such as radiotherapy, chemotherapy and radical surgery can cause premature menopause and infertility in hundreds of thousands of young cancer patients each year.

By removing and freezing ovarian tissue before treatment, scientists hope to enable these women to give birth to children using their own eggs. The technique has been used successfully in sheep to produce live animals.

"It (the tissue transplant) is likely to give years of function which would be sufficient to generate a baby and that is the goal," Oktay said.

Fertility centers are already freezing ovarian tissue and eggs from women before undergoing cancer treatment. But freezing can damage eggs, which are very fragile and few survive the freezing and thawing process.

Transplanting the ovarian tissue back into the patients is also difficult and there is the danger that the tissue may contain cancerous cells. But putting the transplant beneath the skin of the abdomen reduces the health risks and it can be easily removed if necessary.

Source: <http://www.reuters.com>