

# An Introduction to Anti-Aging Medicine

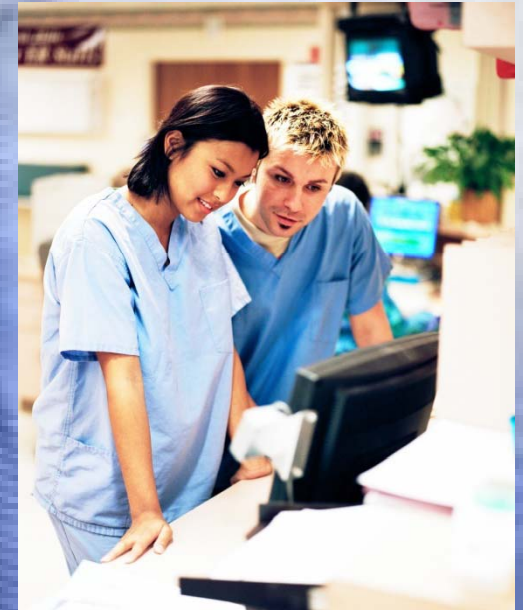
# Definition of Anti-Aging Medicine

Anti-aging medicine is a medical specialty founded on the application of advanced scientific and medical technologies for the early detection, prevention, treatment, and reversal of age-related dysfunction, disorders, and diseases .

It is a healthcare model promoting innovative science and research to prolong the healthy human lifespan.

As such, anti-aging medicine is based on principles of sound and responsible medical care that are consistent with those applied in other preventive health specialties.

The phrase "anti-aging" is, as such, a euphemism for the application of advanced biomedical technologies focused on the early detection, prevention, and treatment of aging-related disease.



# Definition of “Regenerative Medicine”

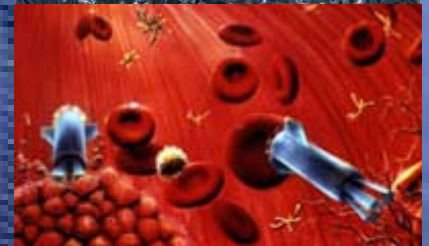
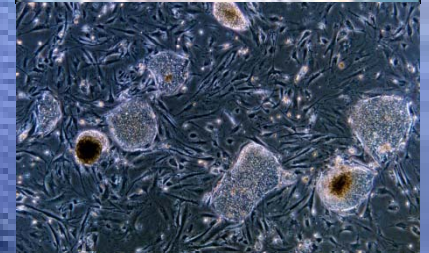


**Regenerative medicine** is a medical specialty that applies advanced biomedical technologies for the purposes of renewing body tissues with the goal of maintaining the human body in normal-to-peak function for a prolonged period of time.



Key subjects in regenerative medicine include:

- ***Stem cell therapeutics***
- ***Therapeutic cloning***
- ***Genetic engineering and genomics***
- ***Nanotechnology***



Taken collectively, the advancements offered by anti-aging and regenerative medicine to improve the quality of, and/or extend the length of, the human lifespan, are the single most potent emerging biomedical technologies today.

# Anti-Aging Medical Headlines

## Adult Stem Cells May Help Repair Muscle Cells Damaged by Heart Attack [Dec. 09]

Rush University Medical Center (USA) completes Phase I study showing that stem cells from donor bone marrow appear to help heart attack patients recover better by growing new blood vessels to bring more oxygen to the heart.

<http://content.onlinejacc.org/cgi/content/abstract/54/24/2277?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&fulltext=schaer&searchid=1&FIRSTINDEX=0&volume=54&issue=24&resourcetype=HWCIT>

## Nerve Fiber Regeneration Holds Promise for Brain & Spinal Cord Injuries [Dec. 09]

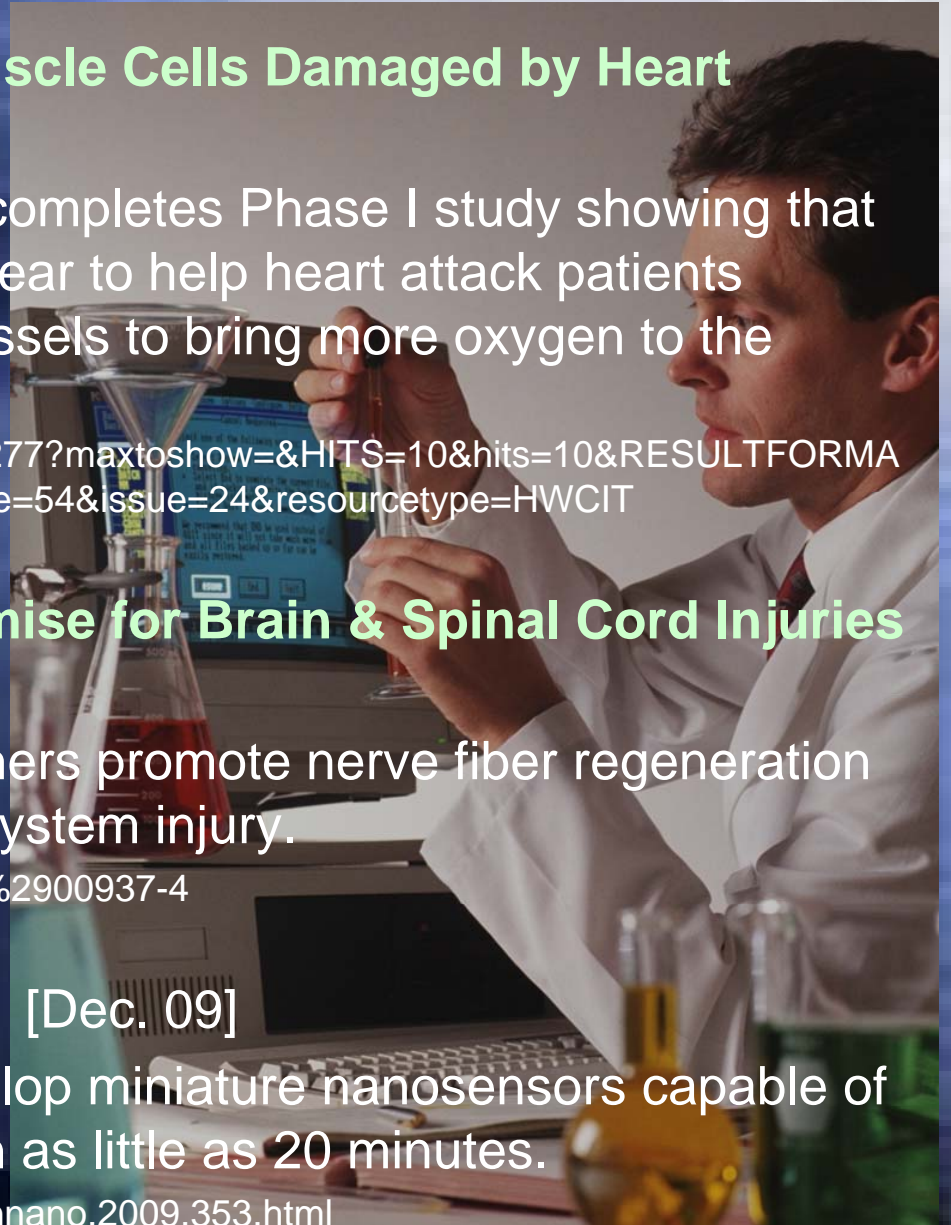
Harvard Medical School (USA) researchers promote nerve fiber regeneration in lab animal model of central nervous system injury.

<http://www.cell.com/neuron/abstract/S0896-6273%2809%2900937-4>

## Nanosensors Able to Detect Cancers [Dec. 09]

Yale University (USA) researchers develop miniature nanosensors capable of detecting cancers via a blood sample, in as little as 20 minutes.

<http://www.nature.com/nnano/journal/vaop/ncurrent/abs/nnano.2009.353.html>



# Anti-Aging Medical Headlines

## Progesterone as Treatment Option for Head Trauma, Central Nervous System Injuries [Jan. 2010]

Citing 100 preclinical studies and two clinical trials showing the beneficial effects of progesterone treatment for central nervous system injuries including traumatic brain injury, Emory University (USA) team proposes that injected or infused progesterone be considered as a treatment option for head trauma and central nervous system injuries. <http://www.ajronline.org/cgi/content/full/194/1/20>

## Vitamin C Boosts the Reprogramming of Adult Cells into Stem Cells [Dec. 09]

Chinese Academy of Sciences (China) scientists added vitamin C to accelerate gene expression changes and enhance induced pluripotent stem cell (iPSC) generation in both a mouse model as well as human cells.

<http://www.cell.com/cell-stem-cell/abstract/S1934-5909%2809%2900624-9>

## Vitamin D Deficiency May Raise Risk of Stroke, Heart Disease, and Death [Nov. 09]

Study involving nearly 28,000 American men and women ages 50+ affirms that inadequate levels of Vitamin D may increase the risk of cardiovascular incidents and death. [http://circ.ahajournals.org/cgi/content/meeting\\_abstract/120/18\\_MeetingAbstracts/S455-b?maxtoshow=&HITS=10&hits=](http://circ.ahajournals.org/cgi/content/meeting_abstract/120/18_MeetingAbstracts/S455-b?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&fulltext=muhlestein&searchid=1&FIRSTINDEX=0&sortspec=date&resourceType=HWCIT)

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# Anti-Aging Medical Headlines

## Physical Activity Promotes Longevity, Regardless of Age [Sept. 09]

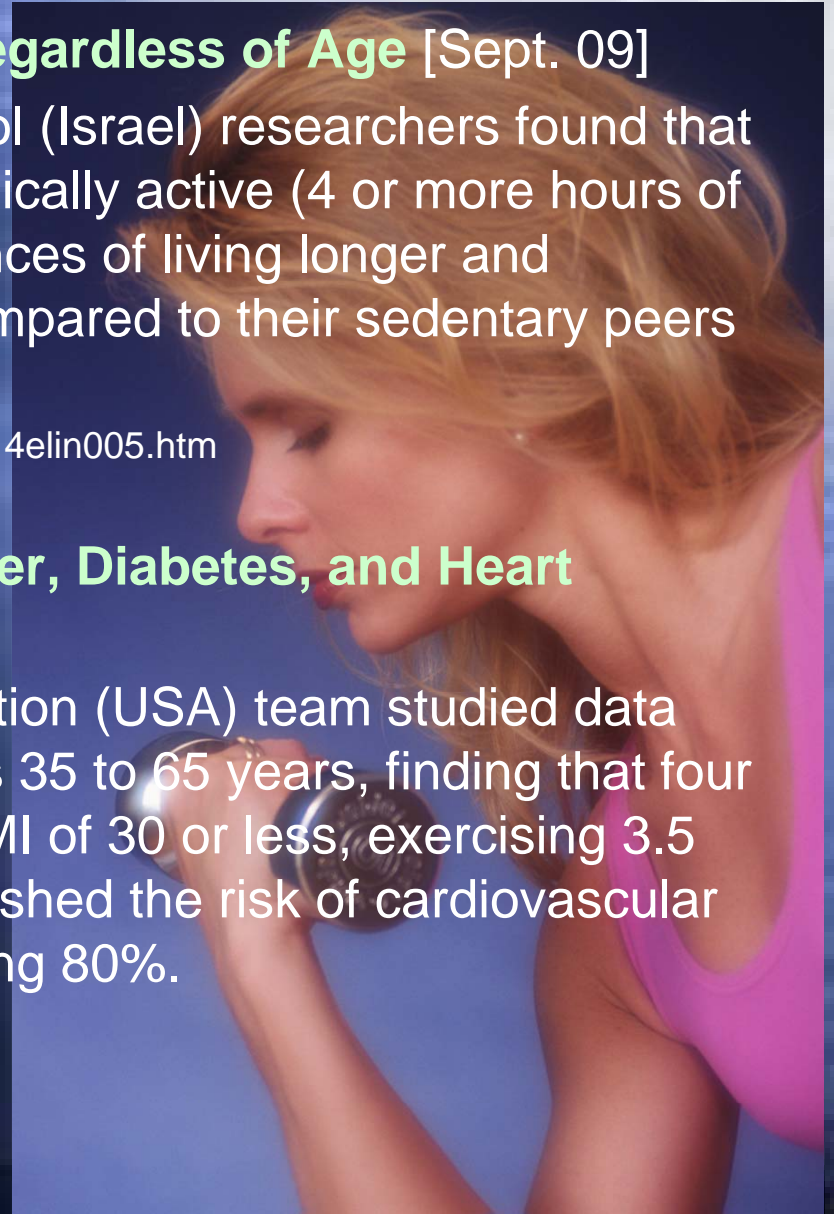
Hebrew University Hadassah Medical School (Israel) researchers found that those elderly men and women who are physically active (4 or more hours of physical activity per day) increase their chances of living longer and maintaining functional independence, as compared to their sedentary peers (less than 4 hours physical activity daily).

[www.reutershealth.com/archive/2009/09/14/eline/links/20090914elin005.htm](http://www.reutershealth.com/archive/2009/09/14/eline/links/20090914elin005.htm)

## Healthy Lifestyle Key to Preventing Cancer, Diabetes, and Heart Disease [Aug. 09]

US Centers for Disease Control and Prevention (USA) team studied data from 23,153 German men and women, ages 35 to 65 years, finding that four lifestyle factors -- namely never smoking, BMI of 30 or less, exercising 3.5 hours a week and eating a healthy diet -- slashed the risk of cardiovascular disease, diabetes, and cancer by a staggering 80%.

<http://archinte.ama-assn.org/cgi/content/abstract/169/15/1355>



# Ideal Models of 'Aging Seniors': A Paradigm Shift in 40 Years

Gerontological  
Vision



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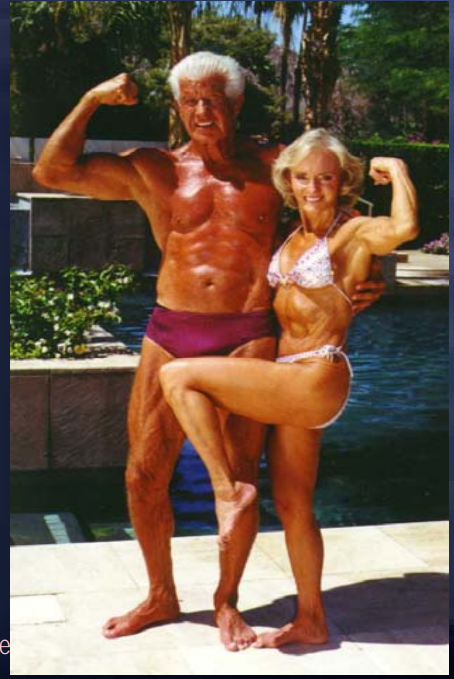


Photo courtesy Bob Delmontique