



## Osteoarthritis May Signify Accelerated Biological Aging

A recent report suggests that osteoarthritis may be a sign of rapid biological aging, which is based on the measurement of certain biomarkers.<sup>7</sup>

Researchers examined 1,086 twins between the ages of 31 and 79. Each participant was x-rayed for osteoarthritis, and blood samples were analyzed to assess biological aging, as reflected by the shortening of telomeres in white blood cells. Telomeres shorten with time or insufficient repair of free-radical damage, and shortened telomeres are seen in numerous age-related diseases.

Advancing chronological age was associated with shorter telomeres in all participants. The 160 people with x-ray-confirmed osteoarthritis demonstrated markedly shorter telomere lengths, signifying increased biological aging. The degree of telomere shortening in those with arthritis was equivalent to the amount accumulated over 11 years of life in healthy individuals, and was also associated with severity of the disease.

—Dayna Dye

## Mediterranean Diet May Lower Alzheimer's Risk

Researchers at Columbia University Medical Center report that eating a Mediterranean-style diet may reduce the risk of Alzheimer's disease.<sup>8</sup>

The scientists analyzed the diets of 194 Alzheimer's sufferers and 1,790 people without dementia. Questionnaires on dietary intake during the previous year were used to score adherence to the Mediterranean diet on a scale of 0 to 9.

Close adherence to the diet was significantly associated with a lower incidence of Alzheimer's, reducing risk by 19-24% for each diet score point. Compared to subjects in the bottom third of diet scores,

those in the top third had a 68% lower risk, while those in the middle third had a 53% reduced risk. The association between the diet and Alzheimer's risk remained valid even when the researchers accounted for other vascular disease risk factors such as stroke, heart disease, and diabetes.



—Dayna Dye

## Progesterone Guards Against Disability Following Brain Injury

Administering progesterone to trauma victims following brain injury may reduce their risk of death and degree of disability, according to Emory University researchers.<sup>9</sup>

To qualify for this phase II clinical trial, prospective participants had to reach the hospital within 11 hours of a moderate to severe blunt traumatic brain injury. Seventy-seven of 100 subjects received intravenous progesterone, while the other 23 received a placebo. After 30 days, neurological function and disability level were rated.

Progesterone treatment was associated with a lower mortality rate: 30% of the placebo group died within the 30-day period, compared to only 13% of those given progesterone.

Severe traumatic brain injury survivors in both groups had poor 30-day neurological outcomes; however, moderate traumatic brain injury survivors who received progesterone were more likely to have moderate to good functional outcomes and disability ratings compared to those who received placebo.

—Dayna Dye



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