

May 31, 2005

Printer Friendly

In this issue

Life Extension Update Exclusive:

Calorie quality more important than quantity?

Protocol:

Calorie restriction

Featured Products:

DHEA Complete

PGX Soluble Fiber Blend

Life Extension

Blood test sale ends June 1!

Life Extension Update Exclusive

Calorie quality more important than quantity?

The results of a study published in volume 3, issue 7 of *PLoS* (Public Library of Science) *Biology* indicated that reductions in the type of calories consumed might be more important than amount in extending life span. Although the finding was observed in fruit flies and may not necessarily hold true for higher species, it could be an indication that there are other ways of restricting the diet to extend lifespan that do not involve severe calorie restriction.

Researchers at the Centre for Research on Ageing at University College in London gave fruit flies a standard diet consisting of yeast and sugar in water, or diets modified to restrict yeast (which provides protein and fat) or sugar, (which provides carbohydrates), both which contain the same amount of calories per gram. An additional group received diets in which both components were restricted.

Reduction of both dietary components, which resulted in the fewest calories consumed, extended the flies' lives to the greatest extent compared with those on normal diets. In flies that received diets in which either the amount of yeast or sugar was lowered but contained the same number of calories, there was a significant difference in life span. Those whose diets contained lower amounts of yeast lived significantly longer than those whose sugar intake was restricted, and their life spans approached those of flies restricted in both yeast and sugar, whose calorie intake was the least. When flies on normal diets were switched at the age of 25 days to diets in which yeast was restricted, they were no more likely to die after 48 hours on the diet than those who were maintained on yeast restricted diets throughout adulthood. Flies fed non-restricted diets that were switched to sugar-restricted diets at 25 days died at the same rate as the non-restricted flies.

The authors suggest that yeast and sugar trigger different metabolic pathways with different effects on life span. They note that dietary yeast and egg production in fruit flies are correlated, and that increased reproduction has been demonstrated to reduce life span in a variety of species, however, although the response to dietary restriction in males is less than that of females, males still live longer in the regimen.

"Our results suggest that it may be possible to obtain the full extension of life span by dietary restriction by reducing critical nutrients in the food without any reduction in overall calorie intake," they conclude.

Protocol

Calorie restriction

Claims that various nutritional interventions can extend life span are manifold, but some have greater credibility than others. Gerontologists agree that Caloric Restriction with Optimal Nutrition (CRON) offers the greatest likelihood of succeeding.

The concept of restricting calories to improve health was first introduced in the early 1900s, but the theory was advanced (1930s) when it was found that calorie-restricted rats lived longer than those allowed to eat *ad libitum*.

Calorie restriction has been shown to increase longevity in organisms ranging from yeast to mammals (Bluher et al. 2003). These remarkable effects that result from restricting food intake 50% to 70% of normal may occur through three mechanisms: (1) reduction in oxidative damage; (2) modulation of glycemia and insulinemia; and (3) hormesis (a beneficial biological action from a small dose of an agent generally toxic at higher doses. Extension of life span by dietary restriction (small doses of food) is an example of hormesis (Masoro 1998, 2000).

Until potent and practical medicines are found to enhance longevity, many useful natural options still offer significant benefits (alternatives that the Life Extension Foundation has recommended to members for decades). The *Journal of the American Medical Association (JAMA)* reported that underfed animals (consuming 50% less food) live up to 50% longer, perhaps because of higher levels of dehydroepiandrosterone (DHEA), lower body temperature, and lower insulin levels (*JAMA* 2002).

<http://www.lef.org/protocols/prtcl-160.shtml>

Featured Products

DHEA Complete

It has been shown that the hormone DHEA often declines 40.8-72.8% by age 70 or later, leading to hormonal imbalances that can affect one's quality of life. Peak blood levels of DHEA occur at approximately age 25, decreasing progressively thereafter. Thus, scientists have been looking at ways of restoring DHEA to youthful levels, and are now discovering mechanisms by which this hormone protects against age-related decline.

Since 1981, several hundred studies have been published on DHEA's possible benefits.

<http://www.lef.org/newshop/items/item00850.html>



PGX Soluble Fiber Blend

High-glycemic index foods cause weight gain by inducing the overproduction of insulin. A fiber blend called PGX™ helps to limit the absorption of dietary sugars into the bloodstream, thereby reducing the release of insulin by as much as 40%! Only small amounts are required to help maintain healthy blood glucose and insulin levels.

By taking just three grams of this new soluble fiber blend before ingesting high-glycemic foods, the amount of glucose absorbed can be reduced by as much as 23% and the ensuing insulin surge cut by 40%.

<http://www.lef.org/newshop/items/item00673.html>



Blood test sale ends June 1!

June 1, 2005 is the final day of Life Extension's blood test sale. If you haven't already done so, now is the time to order your blood tests to receive the lowest prices of the year. When you place your order, you will be sent by mail a list of blood drawing stations in your area along with a requisition form. NY and NJ residents will receive a blood draw kit due to state law (additional local draw fee may be incurred). After your blood is drawn, the final test results will be mailed directly to you.

Annual blood screening is the key component for preventing degenerative disease. By providing a comprehensive snapshot of your current state of health, blood screening can catch potential health problems in their early stages when they can be managed most effectively.

<http://www.lef.org/bloodtest>

If you have questions or comments concerning this issue or past issues of Life Extension Update, send them to ddy@lifeextension.com or call 954 202 7716.

For longer life,

Dayna Dye
Editor, Life Extension Update
ddye@lifeextension.com
LifeExtension.com
1100 West Commercial Boulevard
Fort Lauderdale FL 33309
954 766 8433 extension 7716

Sign up for Life Extension Update at <http://mycart.lef.org/subscribe.asp>

Help spread the good news about living longer and healthier. Forward this email to a friend!

View previous issues of Life Extension Update in the Newsletter Archive.

All Contents Copyright © 1995-2009 Life Extension Foundation All rights reserved.

LifeExtension®

These statements have not been evaluated by the FDA. These products are not intended to diagnose, treat, cure or prevent any disease. The information provided on this site is for informational purposes only and is not intended as a substitute for advice from your physician or other health care professional or any information contained on or in any product label or packaging. You should not use the information on this site for diagnosis or treatment of any health problem or for prescription of any medication or other treatment. You should consult with a healthcare professional before starting any diet, exercise or supplementation program, before taking any medication, or if you have or suspect you might have a health problem. You should not stop taking any medication without first consulting your physician.