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YOUR HEALTH

How to Get the Benefits of Fasting With Less Deprivation

Reducing caloric intake for five days a month can improve metabolic markers associated with aging and diseases

A 'fasting mimicking' diet may have significant effects on reducing the risk factors for diabetes, cancer and cardiovascular disease. *PHOTO: ISTOCK*

By **SUMATI REDDY**

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What if you could trick your body into thinking it was fasting, receive the health benefits associated with calorie-restriction, but never actually stop eating?

This is what gerontologist Valter Longo and his lab at the University of Southern California have been researching for years, calling it the “fasting-mimicking diet.” The diet: reduce your caloric intake for just five days a month. The first day you eat 1,100 calories and the next four days about 750 calories, before returning to normal eating.

In their strongest human evidence to date, Dr. Longo and his colleagues found that such a diet, practiced for three months, improved a battery of metabolic markers associated with aging and diseases, such as fasting glucose, cholesterol and blood pressure.

Additionally, levels of insulin-like growth factor 1 (IGF-1), which is associated with cancer, and C-reactive protein, a risk factor for cardiovascular disease went down.

“It goes after the aging process by reducing markers and risk factors for disease,” said Dr. Longo who is director of the Longevity Institute at University of Southern California. People with poor baseline levels of such age and disease markers showed the greatest improvement.

Diets that require patients to sharply reduce their caloric intake on certain days or at certain times are a hot field of research in the antiaging world. They have been shown to extend longevity in animals and improve health in humans. But they are difficult in practice and can be dangerous if not done correctly.

Dr. Valter Longo at his lab at the University of Southern California. Dr. Longo has been studying for years the links between calorie restriction and aging and disease. *PHOTO: JOHN SKALICKY*

Dr. Longo’s study, published last week in the journal *Science Translational Medicine*, randomly assigned 100 healthy adults into a group assigned to the fasting-mimicking diet, and a control group.

The fasting-mimicking group had a prescribed food regimen five days a week for three months. The diet was high in unsaturated fats, and low in sugars and protein, consisting of mostly soups and vegetables.

Dr. Longo said based on animal studies he believes the diet helps organs remove damaged cells and replaces them with more functional system organ cells. Many of the effects are likely related to weight loss (the diet group lost an average of 5.7 pounds) but markers like the cancer-related IGF-1 level are unrelated to weight loss, said Dr. Longo.

The *Science Translational Medicine* study was funded with USC funding and the five-day diet was provided by L-Nutra, a Los-Angeles based company founded by Dr. Longo, which started selling a commercial version of the diet last year (Dr. Longo is chairman of the L-Nutra board but says he receives no financial benefit from the company as all of his shares will be donated to a nonprofit foundation he created). The diet is currently

being sold for \$299 for a five-day cycle and requires supervision from a doctor or dietitian.

Now, Dr. Longo's lab is starting or in the midst of clinical trials looking at the effects of the diet on diabetes patients, cancer patients and the immune response to the influenza vaccine. Dr. Longo's diet, expected to be done once every three months on average may be easier to adhere to than other calorie-restriction diets, such as the 5:2 diet in which individuals eat just 500 to 600 calories two days a week.

James Kirkland, director of the Kogod Center on Aging at the Mayo Clinic in Rochester, Minn., said it is always difficult to get patients to adapt to lifestyle intervention. "The advantage of this is people feel full, so it's not the same as intermittent fasting," he said of fasting-mimicking.

Satchidananda Panda, a professor at the Salk Institute for Biological Studies in San Diego, said the challenge with such diets is they benefit overweight people the most, but usually attract healthy people.

He is studying another type of a fasting diet called time-restricted feeding (TRF), where caloric intake doesn't have to change. Rather, eating is restricted to between eight and 12 hours a day.

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