

## Drastic diet may extend human life, study finds

by Bend\_Weekly\_News\_Sources

Eating little may help people live longer, a study has found, offering support for an idea that has tantalized scientists for decades. Researchers have long known that cutting an individual's food supply to near-starvation levels gives them "for reasons still unclear" longer lives and healthier old age. Studies have found that in humans, too, sharply reduced eating is associated with healthier aging, as long as nutritionally balanced diet is maintained.

But whether this practice could actually lengthen our lives has remained uncertain. Some scientists have argued that it's doubtful, because humans already live unusually long. Only one small past study in humans offered evidence that people eating less lived longer, according to its authors, who were also involved in the new research. The new study is the first to probe the claim by comparing human populations, wrote the American and Japanese scientists in a report on their findings. Moreover, they added, it's the first study that has shown extended average and maximum life span in a human population that is potentially due to reduced eating. The practice is known as caloric restriction. The researchers studied residents of the Japanese island of Okinawa, known through much of the last century both for exceptionally long-lived inhabitants and for very spare, though balanced diets. The investigators said they found evidence that the two things are at least partially related. Although that conclusion might seem obvious to some "given the past research" the scientists wrote that to reach it, they had to account for some factors that had hampered systematic analysis. For one, Okinawan diets have changed, becoming richer since about the end of the 1960s. Also, it was not clear how to best assess historical dietary intake and compare it to that of other populations. The findings, by Bradley Willcox of the Pacific Health Research Institute and John A. Burns School of Medicine in Honolulu and colleagues, appear in the November issue of the research journal *Annals of the New York Academy of Sciences*. Animal tests have found that the extreme dieting of caloric restriction extends some 40 percent of calories to get the strongest life-extending effects. Animals placed on such regimens live up to 40 percent longer than normal, as long as the diet remains nutritionally balanced. (Some scientists propose "a gain based mostly on an animal test" that taking a substance called resveratrol may replicate caloric restriction's benefits, without the unpleasantness.) Willcox and colleagues found that at least from the mid-20th century through the 1960s, the Okinawan diet was about 11 percent short of what would normally be recommended to maintain body weight. As of 1995, the average Okinawan lived about five years longer than the average American, and about 18 months more than the average Japanese. The islanders' "sparing" diets may have been a legacy of "epidemic crop failures that occurred in Okinawa in the early 20th century and a long history of marginal food supply," the researchers wrote. The study had some weaknesses, they added; for instance, it couldn't rule out that Okinawans lived longer because of the types of nutrients they ate, rather than the amount. Nonetheless, the findings fit with a broad array of animal studies, and point to a need for still more research, Willcox and colleagues wrote.

Courtesy World Science staff

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