

half stuck to a similarly nutrient-rich diet providing 30 percent fewer calories. After 20 years, 80 percent of the calorie-restricted monkeys had survived, compared with 50 percent of monkeys in the control group. The monkeys consuming fewer calories were also about three times less likely to die from aging-related diseases, including cancer and heart disease.

"It's clear that calorie restriction is linked to disease prevention in animals, and there's emerging evidence that it may benefit people as well," says Mary Ann Johnson, Ph.D., a University of Georgia professor of foods and nutrition. Indeed, while most research so far has focused on rats and mice, two small studies published in 2006 found that people on long-term calorie-restricted diets (averaging about 1,800 calories daily) had better heart function and lower levels of inflammation than those who followed a standard Western diet (totaling up to 3,000 calories per day). Along with boasting an "extremely low" risk for heart disease and diabetes, calorie restriction adherents appear to have "younger, more efficient hearts," notes Luigi Fontana, M.D., Ph.D., coauthor of both studies.


But as more and more study findings pump up public interest in calorie restriction, some nutrition experts caution against poorly planned attempts at low-calorie living. "When you're restricting calories, it can be a challenge to get all the vitamins, minerals, and good fats you need to keep healthy," says Johnson. To that end, the Calorie Restriction Society (CR Society), a group dedicated to promoting calorie restriction, stresses the importance of carefully preparing meals and focusing on nutrient-dense vegetables, fruit, lean protein, and healthy fat sources like nuts and avocados. Still, Johnson urges those interested in calorie restriction to work with a dietitian to design a meal plan that safeguards against deficiencies (some of which can lead to diseases such as osteoporosis).

There may be good cause for concern over calorie restriction's negative health effects. After one year on a calorie-restricted diet, 19 participants in a 2006 study lost an average of 2.2 percent of their bone density in their lower spine and 2.2 percent at the hip (both high-risk fracture sites), most like-

ly due to weight-loss-induced changes to mechanical stress on the skeleton. The CR Society warns that long-term calorie restriction may trigger a number of other adverse effects, from depleted energy and menstrual irregularities to intense food cravings and increased sensitivity to cold. For people prone to disordered eating, calorie restriction could exacerbate an unhealthy obsession with food and weight, notes Johnson. And while there's a lack of research on calorie restriction and quality of life, she adds, it's possible that sticking to such a scaled-back diet—and perpetually snubbing the most deliciously rich foods—could sap some of the joy from social eating and celebration.

Some studies suggest that the risks of calorie restriction may outweigh the benefits. In preliminary research, investigators found that calorie restriction improved health in obese mice—but failed to increase longevity in lean animals. While Fontana says his findings on calorie restriction's heart-healthy effects are compelling, he points out that we don't know yet if calorie restriction will really lead to longer life.

However the research pans out, experts seem to agree that the calories we do consume should be of better quality. "We're living in an environment where too many people are overeating foods poor in nutrients," says Fontana. —Elizabeth Barker



Care for Caregivers
Each November, National Family Caregivers Month aims to support and empower the 50 million Americans who act as caregivers for chronically ill, disabled, or elderly family members or friends. "Caregivers are prone to anxiety and depression, so it's important for them to find ways to nurture their own health every day," says *Caring Questions* author Jennifer Antkowiak. To learn more advice for caregivers, visit thefamilycaregiver.org. —E.B.

HERBAL REMEDY



HERBAL RELIEF FOR ENDOMETRIOSIS

For women with endometriosis—a painful condition in which tissue lining the uterus grows in other areas in or beyond the pelvis—conventional treatments frequently trigger serious side effects and often do not prevent relapse. But in a recent review of two clinical trials, scientists found that Chinese herbal medicine may ease symptoms as effectively as hormonal drugs with fewer side effects.

Hormonal therapy (such as birth control pills) is a standard strategy for lessening endometriosis pain and lightening menstrual flow. "But many women find that the Pill just isn't right for their bodies," notes Juliette Aiyana, an herbalist and acupuncturist based in New York City. "Rather than suppress menstruation, Traditional Chinese Medicine uses herbs that help soothe and rebalance the reproductive system."

Herbal treatment typically takes three to six months to eliminate pain and regulate menstrual flow, according to Aiyana. While formulas are typically created based on each patient's unique needs, herbs commonly used for endometriosis include dan shen, dong quai, and red peony root. For further pain relief, Aiyana suggests performing self-massage on your abdomen at least once daily. —E.B.