

Fruit in your holiday stocking can help keep bones strong

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(Medical Xpress)—We know high-fat, high-sugar foods cause obesity and promote heart disease, but most people don't realize that sugar and fat also contribute to conditions like osteoporosis by weakening bones.

If this trend continues, this overlooked 'silent robber' will begin to cripple large numbers of at-risk baby boomers, say researchers at the University of Michigan and the Alberta Bone and Joint Health Institute.

While this high-fat, high-sugar diet trend and the subsequent risk of

osteoporosis are climbing frighteningly fast, there's hope, says Ron Zernicke, dean of U-M's School of [Kinesiology](#) and a professor of [orthopedic surgery](#) and [biomedical engineering](#). The [medical community](#) and the public can reverse this trend by confronting the problem head-on and immediately, through diet, exercise and, in some cases, medication.

Demographics in the U.S. demand action now, says Cy Frank, executive director of the Alberta Bone and Joint Health Institute and an [orthopedic surgeon](#) practicing in Calgary.

[Baby boomers](#), he says, were the first generation weaned on fast food, creating a dietary legacy of high fat and sugar. Today, about a quarter of America's two-to-five-year-olds and a third of its school-age children, including adolescents, are obese or overweight.

"Boomers themselves—the oldest now 66—have reached the stage in life when they're most susceptible to bone and joint disorders," Zernicke said.

Consider these sobering statistics: the U.S. [surgeon general](#) forecasts that by 2020, half of Americans over 50 will develop or be at risk for osteoporosis of the hip. This is particularly bad news for women, who develop osteoporosis at two-to-three times the rate of men.

"One in three women will break a hip due to osteoporosis by age of 85, and about 20 percent will die within a year of the fracture," Frank said. "Right now, roughly 12 million Americans over 50 have osteoporosis."

Sugar and fat weaken the bones in two ways. First, diets high in saturated fats and sugar block calcium absorption. Instead, calcium needed for healthy bones washes through the body in our urine. Second, saturated fats tend to form insoluble 'soaps,' which coat the intestines and can block necessary calcium from bones. Again, calcium passes through the

body unused.

The result? Excessive junk food layers fat onto a weakened skeleton that struggles to support the extra weight, Zernicke says. Osteoporosis, the so-called 'silent thief' because it shows no symptoms, robs bones of tissue and leaves thousands of tiny pores in the bones. Porous bones can break with little stress. Treating osteoporosis fractures costs approximately \$18 billion a year—a cost experts predict will double by 2025.

Diet and exercise are primary preventions against osteoporosis, Frank says. A growing child near puberty rapidly lays down new bone. Healthy foods and physical activity optimize bone growth and accumulation, which lowers the likelihood of osteoporosis fractures later in life.

The child's parents and grandparents are past the rapid bone-building stage, but secondary stages of prevention exist through middle and late adulthood. Again, healthy diet, exercise and medication to slow bone loss, if necessary, can reduce the likelihood of [osteoporosis](#) fractures. A healthy, balanced diet includes vegetables, fruit and whole grains, and limits saturated fats, salt and sugar.

But prevention goes beyond diet and exercise. It's critical to manage the environment that influences food choices. For instance, California banned trans fats in restaurants, and New York City requires restaurants to post calories and prices in the same font size on menu boards. Eliminating junk food from places charged with promoting healthy lifestyles—schools, recreational centers, hospitals—would also help.

"It's imperative that we change this tide, beginning today," Zernicke said. "Implementing measures and policies to protect our bones and our health can improve the quality of life for millions of people."

Provided by University of Michigan

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