

FITNESS

Strong
BONES,

Flat
BELLY

These research-proven two-for-one tips can strengthen your body and whittle your middle at the same time.

By **KAREN ASP**

Want a healthy, toned body and a flatter belly? Then it's time to stop focusing on the scale and start thinking about...your bones.

"People focus too much on weight and can become discouraged when it doesn't change. Investing some time and energy in your bone health instead will ultimately set you up for a longer, healthier life and a fitter, firmer body," says geriatrician Diane L. Schneider, author of *The Complete Book of Bone Health*, noting

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Do something active every day

"Your bones are constantly in flux, building up or breaking down, depending on the signals you send them," says Schneider. In fact, whether you squeeze in an evening walk or take in another episode of *Fixer Upper* can determine whether you build bone or pack on body fat. Here's why: Mesenchymal stem cells in bone marrow respond to exercise. If you're active, these stem cells make osteoblasts, the cells that build bone. If you're sedentary, they become fat cells instead. "You decide their fate by how much you move," says Schneider.

START NOW: Aim for at least 30 minutes of activity a day, 60 minutes if you're postmenopausal. "As we age, cells need more stimulation to jump into bone-building mode," says Schneider.

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that the same simple strategies that strengthen your skeleton can also help streamline your core.

Plus, the more you do now to build a strong structure, the more active and independent you'll be in the future. "Approximately half of all women over age 50 will break a bone, and 1 in 5 who fracture a hip will die within a year," Schneider says. "While aging is inevitable, there's a lot you can do to slow bone loss and maintain bone quality." Here are 16 ways to show your bones some TLC.



Super-size your strength

Challenging the meaty tissue under your skin will do wonders for your bones and your belly. "Strength training causes muscles to pull on bones, which activates bone-building cells

in your body," says Robyn Stuhr, a clinical exercise physiologist in San Diego. When postmenopausal women did two or three strength-training routines along with three cardio sessions each week, they increased the bone density in their legs and pelvises by up to 29% in 28 weeks, according to a study from Penn State University.

"Strength training also increases muscle mass, which turns your body into a fat-burning machine," says Wayne Westcott, director of exercise science at Quincy College.

START NOW: Aim for three full-body strength-training sessions each week, the optimal number for fat loss, says Westcott.

WALK (AT LEAST) 5,000 STEPS A DAY

Walking is one of the easiest ways to build a stronger, slimmer structure. "The repeated impact of your feet striking the ground is like strength training for your entire musculoskeletal system," says

Jordan Metz, a sports medicine physician at the Hospital for Special Surgery in New York City. In fact, 5,000 steps a day—about 2.5 miles—can preserve bone density in women ages 50 to 65, according to a study from Stanford University.

Ready to amp up the belly-firming benefits? Pick up your pace. Women who did three 30-minute fast-paced walks or

runs and two slower walks every week for 16 weeks lost significantly more belly fat than women who always went more slowly, according to research from the University of Virginia.



Eat flame-fighting foods

Chronic inflammation not only increases your risk of disease but can also harm your bones. "Inflammation negatively affects bone building by altering levels of cytokines, proteins released by cells that regulate bone remodeling," says Tonya Orchard, an assistant professor of human nutrition at Ohio State University in Columbus. Help quell your inner fire and slash belly fat by eating clean.

START NOW: Avoid foods that are high in added sugar or saturated fat, including pastries, cookies, and red meat, as well as sugar-sweetened beverages. Instead, opt for fruits and veggies, lean proteins, and whole grains, Orchard says.

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Take a plunge

If land-based exercises like running, strength training, or even brisk walking hurt your joints, move your workouts to the water. Research shows that water aerobics and swimming laps may reduce age-related bone loss and even increase bone mineral density in middle-aged and older women. "Water places some demands on bones by providing resistance," says Vini Simas, a sport scientist at Bond University in Australia.

Another benefit: The cardio aspect of water-based exercise increases heart rate, which in turn burns calories. Pushing against that H₂O also forces your muscles to work harder, helping you build more of the metabolism-revving tissue that stokes your fat-burning fire throughout the day.

START NOW: Swap a weekly walk or two with a splash in the pool. If you do water workouts only, aim for a minimum of three 60-minute sessions a week for the best bone-building results. (Many community pools and YMCAs offer classes.)



Jump 20 times a day

Every time you land after a jump, you put stress on your leg and hip bones, strengthening them over time, Stuhr says. Here's proof: In a study at Brigham Young University, doing 10 jumps twice a day, resting for 30 seconds after each jump, helped premenopausal women increase hip-bone density by 0.5% in 16 weeks, which researchers say is significant. (Meanwhile, those in a control group lost an average of 1.3% of their bone density.)

Each time you jump, you'll also ratchet up your heart rate and your metabolism, which leads to fat loss, says Michele Olson, an exercise physiologist and adjunct professor at Huntingdon College.

START NOW: Start by doing a few jumps a day, resting for 30 seconds after each one. "Without that rest, bones become desensitized," says Larry Tucker, a professor and director of health promotion at Brigham Young University. Eventually, build up to 2 sets of 20 jumps a day, resting for 30 seconds after each hop.



RETHINK THAT SECOND GLASS OF WINE

"Alcohol not only affects hormones that increase belly fat but also interferes with those that play a role in building bone," says Heidi Skolnik, a senior nutritionist at the Women's Sports Medicine Center at the Hospital for Special Surgery in New York City. Specifically, alcohol increases cortisol and parathyroid hormone and decreases estrogen, killing bone-forming osteoblasts, she says. A study in *BMJ Open* found that women who drank more than twice a week and consumed more than five glasses per sitting were four to six times more likely to have low bone mineral density than women who didn't drink. That effect can be even more detrimental once you're over 40, as alcohol can rapidly reduce density in aging bones, researchers say.

START NOW: The Office on Women's Health recommends limiting alcohol intake to no more than one drink a day.

GET ENOUGH CALCIUM

While guzzling milk won't give you bones of steel, consistently falling short of the recommended daily value of calcium accelerates bone loss and may increase your risk of fractures, says Schneider.

Another reason to keep adding yogurt to your morning smoothie: It could make weight loss easier. Several studies have suggested that adequate calcium levels may help the body burn fat, whereas low levels may increase fat storage.

START NOW: Aim for 1,000 mg of calcium daily (1,200 mg if you're over 50)

from foods. If you avoid dairy, reach for calcium-fortified foods, beans, nuts and seeds, and dark leafy greens.





Reach for red

Here's a compelling reason to toss a few tomatoes into your next salad: Research shows that tomatoes—along with other red fruits like watermelon and pink grapefruit—are rich in lycopene, an antioxidant that helps prevent bone loss by counteracting the negative effects of oxidative stress. Another plus: Lycopene has also been shown to help with weight loss.

START NOW: Aim to get 30 to 70 mg of lycopene twice a day. Cooked tomato products pack the biggest punch (1 cup of tomato sauce has 34 mg).

SQUEEZE IN A MINI YOGA SESSION

Getting on your mat a few times a week can add up to big gains for your bones. When postmenopausal women did 12 minutes of yoga poses such as Warrior II, Tree, and Triangle daily for 2 years, they increased the bone density in their spines, hips, and femurs, according to a study published in *Topics in Geriatric Rehabilitation*. Just make sure to treat yourself to Savasana, too: Research shows that deeply relaxing restorative poses help lower stress, which may reduce cortisol, a hormone linked to belly fat.

SCORE SOME SHUT-EYE

If you're among the third of Americans who don't get the recommended 7 to 9 hours of sleep, you could be harming your bones and padding your waistline. Chronic sleep deprivation ups the risk of inflammation, which wears away bone and raises the risk of osteoporosis, says Shankuan Zhu, a professor at Zhejiang University School of Public Health in China. Case in point: Women over age 45 who slept 6 or fewer hours had significantly lower bone mineral density than women who slept 8 hours, according to a study published in the journal *Bone*.

Too little sleep also throws your hunger hormones out of whack, which can amp up your desire to snack on high-fat, carbohydrate-rich foods, often resulting in weight gain, says sleep psychologist W. David Brown.

START NOW: If getting 8 to 9 hours seems impossible, start by trying for an extra hour and slowly increasing the time. To make the transition easier, find ways to make your bedtime ritual more enjoyable: Diffuse essential oils, treat your skin to your favorite moisturizer, or read a few pages of a calming book.



START NOW: Sign up for a local class or do a DVD or online video. And when you practice weight-bearing poses, aim to hold them for at least 30 seconds on each side for best results.

Soak up (a little) sunshine

Every tissue and cell in your body, including your bones, has a receptor for vitamin D, which bones need to stay strong and function properly. "Vitamin D enhances intestinal calcium and phosphate absorption, both of which are necessary for maintaining bone density," says Michael F. Hollick, a professor of medicine, physiology, and biophysics at Boston University Medical Center.

Keeping your levels in a healthy range may also slim your middle: Research shows that women who get enough vitamin D are less likely to pack on belly fat than women who are deficient.

START NOW: Aim to expose your arms, legs, back, and abdomen without sunscreen two or three times a week for 10 to 15 minutes between the hours of 10 AM and 3 PM. If you can't catch rays regularly, there's a chance you're deficient. Get your vitamin D level tested, then take a supplement if necessary (600 to 2,000 IU daily; those who are obese may need even more).



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Grow a green thumb

Gardeners tend to have even better bone density than women who walk, jog, swim, or do aerobics, according to a study in the *Journal of Women & Aging*. "Gardening requires activities, like digging holes and pulling weeds, that challenge and strengthen bones," says Lori W. Turner, a professor of health science at the University of Alabama in Tuscaloosa. Being outside in the sun also causes your skin to produce vitamin D, which bones need to absorb calcium.

Tending veggies can also help keep your tummy in check. A 150-pound person will burn 125 calories for every 30 minutes of light gardening, which may explain why research shows that women who spent time working in community gardens were 34% less likely than nongardening neighbors to be overweight or obese.

START NOW: Aim to do 2.5 hours of gardening a week, either in your own yard or at your local community garden.

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POWER UP WITH PRUNES

Think of this naturally sweet treat as a multivitamin for your bones: It packs a mix of skeleton-building nutrients, including vitamin K, potassium, magnesium, and polyphenols, into one small bite. That combination may explain why postmenopausal women who ate five or six prunes daily maintained bone mineral density, while those who ate none lost it, according to a study in *Osteoporosis International*.

START NOW: Nosh on several prunes a day, or add them to smoothies, cereal, or salads.

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Prunes also deliver hunger-staving fiber (2.5 g per serving), which can make weight loss easier. When women ate about 11 prunes a day for 12 weeks, they lost more weight and shed more inches from their waists than women who didn't pop prunes daily.

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Hoop it up

Want to feel like a kid *and* do your bones and belly a favor? Grab a hula hoop. The increasingly popular weight-bearing activity is a fun and gentle way to help counter the bone-harming effects of sitting. At the same time, you'll score a standing ab workout and torch some calories (about 7 per minute, similar to a boot camp or cardio class), says Amy Rogers, founder of the Hoop Movement in New York City.

START NOW:

Keep a hoop nearby, whether you're at home or the office, and use it as a break from sitting. Start with a larger hoop, about 40 to 42 inches in diameter, that weighs about 1.5 to 2 lb, says Rogers, since it rotates more slowly, making it easier to control.



AVOID A WORKOUT RUT

If you're already exercising regularly, make it a goal to vary your activity and intensity level throughout the week. When you do the same type of exercise every day, your bones adapt to the level of strain and don't become any stronger. "Once the routine feels like a routine, you need to change it up," Schneider says. Keeping your brain and body guessing can also help you shed body fat. "When a workout is no longer as challenging, your heart rate doesn't go as high, and you burn fewer calories," says Westcott.

START NOW: Aim to do a variety of cardio exercises throughout the week, such as walking or dancing, along with weight training and balance work.