

Unlike a user-friendly treadmill, a barbell is intimidating—over six feet long and weighing 35 to 45 pounds without plates. It's also risky: Lifting heavy loads with incorrect form can lead to back sprains and strains. rotator cuff tears, patellar tendon tears, and other serious injuries. Plus, weight rooms seem like breeding grounds for toxic masculinity. (Research indicates that women tend to perceive weight lifting as a more masculine activity and cardio exercise as more feminine, says Andrea Mercurio, PhD, a Boston University psychologist who studies the social factors that affect young women's exercise choices.)

I inquired about alternatives.

"Do you want to get really good at exercising, or do you want to get strong?" boomed Fitness Jesus, whose real name is Michael Hulcher and who directs Gym Jones's programming.

"I want to get toned," I clarified.

He sighed. "Women use that word all the time. Lean and fit is usually what they mean. But if you really want to change your body, you need to put on a little bit of muscle."

Muscle, he explained, is what gives your body shape and creates definition. It helps with weight loss. too, in a subtle vet profound way. The more lean muscle you have, the higher your BMR (basal metabolic rate), which is the energy your body uses while doing nothing except staying alive. "You probably burn an extra 5 to 10 calories per day for every pound of muscle you put on. So if you add five pounds of muscle, you may

change your BMR by 25 to 50 calories per day," says Andy Galpin, PhD, director of the Biochemistry and Molecular Exercise Physiology Lab at California State University, Fullerton. "Over the course of a few months, that could add up to the loss of a pound or two."

I was even more intrigued by the idea of becoming stronger at a time when I felt control over my body slipping away. I knew that estrogen generally declines when women reach menopause, affecting everything from our mood to our midsection. I'd been told by my former fertility doctor that my levels were already relatively low, which could explain why I felt tired and meh all the time. And I'd read that each decade after 40, women lose an estimated 8 percent of muscle, which is often replaced by fat. With my writer-nerd posture, a fragile lower back, and an anxiety hangover from fertility treatments and career uncertainty, it seemed like I was aging at hyperspeed.

"Skeletal muscle is the fountain of youth," says Vonda Wright, MD, an orthopedic surgeon in Atlanta and author of Fitness After 40, 50, 60 and Beyond. A 2015 study she coauthored focused on "master athletes" ages 40 to 81 and suggested that years of consistent exercise preserves lean muscle mass and strength, which commonly decline in sedentary aging adults. Another reason Wright favors lifting is that it can stimulate production of a somewhat-mysterious protein called Klotho. "What we

## Ladies Who Lift

There's a dearth of research surrounding resistance training and middle-aged women. "For a long time, exercise science was dominated by men. So that's who they studied," says exercise scientist Andy Galpin, PhD. It's also difficult to isolate the effects of exercise on midlife women whose hormones are all over the place. Yet, says Robert Morton, PhD, a postdoc at the Population Health Research Institute who studies the biology of aging, the head-to-toe benefits of weight lifting are relevant during every life stage—especially perimenopause.

know is that Klotho affects mitochondrial function, and mitochondria are one of the main reasons we have enough energy to age well," Wright says. "Gaining muscle has so many metabolic advantages, especially as we age, that there's no reason not to do it."

Research also supports a mindmuscle connection: A 2018 study examined the results of 33 trials with more than 1,800 subjects and found that moderately depressed people who strength-trained two or more days per week saw their symptoms subside. A 2017 meta-analysis of 16 studies concluded that healthy people and those with mental illness who participated in moderateintensity resistance training reported a decrease in anxiety symptoms. Researchers point to the social aspect of lifting (always have a spotter!), which can help ease stress, and also suggest that resistance training may stimulate the release of dopamine and serotonin, which both impact mood.

Over the next five months, I devoted four days of each week to a "functional fitness" class and learned how to safely perform five classic lifts: dead lift, strict press, front squat, back squat, and bench press. As I progressed to heavier loads, I noticed something: When you face off against a loaded barbell for a one-rep max (the most weight you can lift at one time), either you pick it up or it stays on the ground; there is no "good try!" Pushing a significant amount of weight over my skull thrilled me in a way I just can't replicate by cycling to Beyoncé while staring at an instructor on a screen.

Under the bar, I was strong and calm (even when my legs were quivering). My biceps swelled, my backside unsagged, and a pair of jeans I hadn't worn in years slipped on like sweatpants. My posture improved dramatically, probably because my lats were stronger, but also maybe because I had developed a spine-straightening confidence that comes with knowing that if I had to, I could pick up a 285pound person. And when times got tough, I could pick myself up, too.

Fitness Jesus tells me I don't just look like a different person, I am one: more confident, happier, and less shy around full-body mirrors. Learning how to use a barbell became my therapy. But after I walk out of a session, I'm not only unburdened and spent; my arms look pretty awesome, too.