

Isometrics are exercises where your muscles tense up but don't actually move. Say what? Some fitness trends make it seem like getting in shape has to involve major movement: You have to bounce around, throw tires into the air, or leave a pool of sweat on the floor after every workout. But you can build serious strength without moving a muscle. Here's how. Share on Pinterest Fit Woman Doing Plank Exercise On Sports Ground

How isometric exercises work Chances are you've done an isometric exercise before. Press your hands together in a prayer position as hard as you can for 10 seconds. You'll feel tension in your chest and arms, but your arms won't move at all. There you just did an isometric exercise. Holding a plank is another example you're probably familiar with. And if you've ever taken a barre class, you know how hard it can be to simply hold still while your muscles are contracted. In positions like these, your muscle fibers are activated, but because equal forces are acting against each other, there's no movement. Compare this to picking up a 20-pound dumbbell to do biceps curls the force of the weight pushing down is less than the force you're using to lift the weight up. With isometrics, you can take a break from jumping onto boxes, lifting heavy weights, or doing endless crunches (your lower back will thank you).

Benefits of isometric exercises Isometric exercises have been found to have a range of health benefits. In a 2016 study, for example, researchers found that an 8-week isometric exercise program was linked to lower blood pressure. A 2014 study showed that older adults had a higher pain threshold after isometric exercises. And if you're into team sports, there's good news for you too: A 2016 research review concluded that lower-body isometric exercises improved jump height and kicking ability in soccer players. Besides all that, you don't need any equipment, and these exercises are actually fun! So if you're looking to take a break from yet another set of heavy lifting, chill out and stay home. Follow the tips below to get the most out of an isometrics workout.

Tips for isometric exercise Remember to squeeze Since you're not relying on movement to fatigue your muscles, you've gotta squeeze them and we mean hard. The technical term for this is "maximal voluntary contraction," which means you should tighten up your muscles as much as you can. Breathe correctly When doing isometric exercises, the natural tendency is to completely tense up and hold your breath. But if do that, you'll cut off the very thing you need to enhance your performance: oxygen. Plus, you'll get red in the face and totally freak out your roommate. Instead, try this. Place your right palm over your low belly and close your eyes. As you inhale, imagine you're filling up a balloon behind your belly button (your belly should get rounder). As you exhale, push air out through your nostrils. Notice how your low belly contracts. Keep inhaling and exhaling for 5 counts to get the hang of it. Feel your hand rise and fall with your breath. This is how to breathe during your isometric exercises. Maintain proper form You hear trainers talk about proper form all the time, since poor form can lead to injury. For example, if you're bench pressing 100 pounds with poor form, the extra weight can cause damage to your shoulders or low back. Form is very important in isometric exercises too. You

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don't have a ton of weight pushing against you, so it's difficult to get injured, but positioning is still important. There's also some research to suggest that testing out various angles can increase muscle strength. While the research is a bit older, it's still sound, so be sure to switch up your exercises. For example, when you place your arm at a 90-degree angle and tense up, you're strengthening the biceps muscle at one length. Try positioning your arm at a 120-degree or 45-degree angle and see how that benefits your upper-body strength. Mix it up Now that you know you can work out with, like, zero equipment, should you throw out your running shoes and let the dog use your resistance bands as chew toys? Tempting, but no way. Aerobics are still better than isometrics for improving overall cardiovascular health. And if you're looking for bigger muscles, lifting progressively heavier weights is the way to go. Think of isometrics as another tool to add to your toolbox to help you live a fitter, healthier life — not the whole kit and caboodle. We recommend you stick with a variety of forms of exercise so you'll hit each of your fitness goals.

Isometric exercises Ready to get started? Below are seven of our favorite isometric exercises to work your entire body.

1. Bent-over press against wall [Share on Pinterest](#) Muscles worked: shoulders Start in a low lunge position. Place hands on the wall at about chest level. Lean into the wall and push. The farther down you bend, the more the exercise will target your shoulders. The more you stay upright, the more the exercise will target your chest. Pro tip: Relax any tension stored in your face (like your brow and your jaw). Be sure to breathe throughout this exercise.
2. Prayer pose [Share on Pinterest](#) Muscles worked: chest Place palms together. Your elbows can be flaring out to your sides or pointed toward the floor. Press your hands together. The tighter you press, the harder it will be. Pro tip: Keep your shoulders level — raising them while you push can cause unnecessary strain.
3. High plank [Share on Pinterest](#) Muscles worked: core, back Get into push-up position, making sure your spine is in a straight line. Press the floor away from you, broadening across your chest. Engage your core and breathe deeply. Pro tip: Avoid lifting your butt too high or dropping your hips too low in this position.
4. Self-arm wrestling [Share on Pinterest](#) Muscles worked: biceps, triceps Bend your right arm at a 90-degree angle. Grab right hand with left hand. Push them together as hard as you can. While your right biceps prevents your arm from dropping, your left triceps is trying to push your right arm down. Repeat on the other side. Pro tip: People often tense their upper bodies in this position, so be sure

to ease up on your shoulders. 5. Triceps extension against wall Share on Pinterest Muscles worked: triceps Get into a lunge position with your fists on the wall at head level. Use your triceps to push fists into the wall. Pro tip: Avoid tensing your shoulders in this exercise. And don't forget to breathe deeply. 6. Forearm plank Share on Pinterest Muscles worked: abs Get into a forearm plank position. Keep spine in a straight line and tighten abs as much as you can. Normally, people try to just hold this position, but contracting your abs will provide even more benefit for your core. Pro tip: Instead of letting your butt fall down or hiking it too high, keep your shoulders, hips, knees, and ankles in line. 7. Low squat Share on Pinterest Muscles worked: glutes, quads, adductors Stand with feet about shoulder-width apart. Squat so your thighs are parallel to the floor. Instead of just holding this position, try to squeeze your feet together. This will force your inner thigh muscles to contract even more. Pro tip: One common mistake with this exercise is not sitting back far enough. To fix it, prevent your knees from going over your toes.

Reference

[Research-Based Strategies to Ignite Student Learning: Insights from a Neurologist and Classroom Teacher](#)

[100 Questions \(and Answers\) About Action Research \(SAGE 100 Questions and Answers Book 7\)](#)