

Free - Take One!

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Pump It Up!

Because Strength Training Is For Everyone



Building muscle mass is about more than just looking buff or opening jars. Whether you refer to this process as strength training, resistance training, or weight lifting, the [benefits are surprisingly wide-ranging](#):

- **Reduced amounts of abdominal fat.** Strength training helps prevent weight gain by burning calories, increasing lean muscle mass, and revving up the metabolism.
- **Improved cardiovascular health and reduced cancer risk.** Abdominal fat causes inflammation that damages blood vessels and increases blood pressure. This type of fat also pumps out a particular protein that can trigger cancer. Less abdominal fat = lower cardiovascular and cancer risk.
- **Better blood sugar control.** Not only does resistance training build muscle, but it also makes muscles better able to take in and use glucose (blood sugar). This lowers blood sugar levels.
- **Reduce the chance of injuries.** Being stronger improves movement, balance, and coordination. Weak muscles can also stress their connecting tendons and cause tendonitis.
- **Better flexibility and mobility.** Lifting weights builds muscles and takes joints through their full range of motion. With time, muscles get stronger and joints get more flexible.
- **Prevention and management of osteoporosis.** Weight-bearing exercise strengthens bones and muscles. Each time muscles contract, it causes cells in the bone to absorb minerals, and bone density increases.
- **Better management of chronic conditions.** Strength training can reduce the impact of many conditions, such as arthritis, back pain, obesity, heart disease, diabetes, and depression.

- **Improved brain health.** This can happen for all age groups but can be especially noticeable in older adults, especially those with mild cognitive impairment. This benefit may come from the increased flow of blood, oxygen, and nutrients to the brain.
- **Stronger mental health.** Resistance training not only makes muscles and bones stronger, but it also improves the symptoms of depression and anxiety while it increases mental resilience.
- **Improved body image.** Watching yourself become stronger and more accomplished helps you feel better about your body.
- **A longer life- and healthspan.** Getting stronger helps people to live longer lives, and they're healthier for more of that time.

When the body is building muscle, [three factors come into play](#): mechanical tension, muscle damage, and metabolic response. First, increasing weight or resistance overloads the muscle tissues. This overload then causes small tears in the muscle fibers. This injury leads to growth factors being released, causing the muscle fibers to heal and grow. With proper rest and nutrition, the cycle begins again, and muscles get a little stronger each time.

How can something as simple as consistently lifting heavy things have all these benefits? Our bodies are in a constant process of [renewing and recycling](#) the chemicals of which we're made, including the protein building blocks (amino acids) that make up our muscles. If our bodies remove more protein than they add, we lose muscle. [Sarcopenia](#) (age-related loss of muscle mass and strength) is a result of this process. However, if our bodies add more protein than they remove, muscle mass grows. Strength training slows down, and can even reverse, sarcopenia.

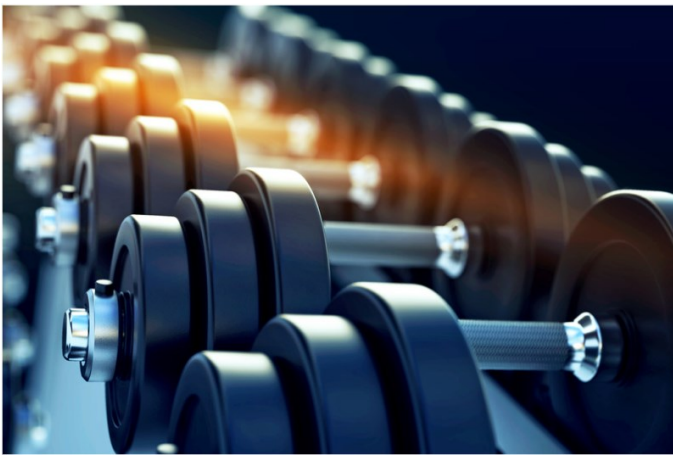
[It's never too late to start!](#)

Taking care of ourselves can take a lot of support.

Ask a nurse or provider if you'd like to talk.

We're here to help!

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Steps To Building & Maintaining Muscle Mass

- 1. If you have a chronic condition or are over 40,** talk [with your healthcare provider](#) before you begin strength training. They can help you to get started safely.
- 2. Warm up.** Do some light aerobic activity (walking, biking) for 5-10 minutes. Warm muscles are less likely to get injured.
- 3. Experiment with weight or resistance level.** Find the amount that you can do comfortably (and with proper form) for 10 -15 repetitions.
- 4. Then do two more sets. Or not. It's your call.** Some recommendations are for 3 sets of 10 -15 repetitions, while other research indicates that [a single set](#) can be just as effective. What really matters is the following. ↓
- 5. Lift to "fatigue,"** meaning lift until your muscles are so tired that they can't complete another repetition while holding the correct form. This is the sweet spot where the muscle-building magic happens: overload, then damage, then growth.
- 6. Rest up.** Muscle fibers need time to repair before the tear-down/build-up cycle starts again. Give any muscle group that you stress 48 hours to recover, i.e. focus one day on the muscles of the upper body and then the next day focus on the lower body, or lift both on the same day and then skip lifting the next day. Work out muscle groups 2 or 3 times a week. The alternating days are a perfect time for aerobic activity. Aim for at least 150 minutes of moderate-intensity activity or 75 minutes of vigorous-intensity activity each week.
- 7. Listen to your body.** The discomfort that comes from exertion is one thing, but pain is another. If you ever feel pain, STOP, figure out what happened, and let yourself heal. Your body will also tell you when it's time to add more weight or resistance. When what you're doing is no longer enough to reach fatigue with good form, it's time to add either more repetitions or more weight.

Feed Your Muscles Well

While high-quality food sources of carbohydrates, fat, and protein provide the building blocks you need for the renew/recycle process to work optimally, it's protein that takes center stage in discussions about building muscle mass. There's no shortage of powders and potions that promise to help you build stronger muscles. Be wary though- [they can contain hidden dangers](#).

These protein boosters come from plants (soybean, peas, potatoes, hemp...), eggs, or milk (casein or whey). They are highly processed and often include other ingredients such as flavorings, thickeners, vitamins/minerals, excess sodium, and sweeteners. Some protein powders contain as much as 23 grams of sugar per scoop. That's 5.5 teaspoons! Many are also contaminated with heavy metals, bisphenol-A, and pesticides.

[Depending on how the manufacturer markets it](#), some of these items are considered foods, while others are considered supplements. Remember: [for supplements, there is no FDA oversight](#) to ensure actual effectiveness, manufacturing safety, or accuracy of labeling. How do you tell if you're buying a food or supplement? Check the label. It will have either a "Nutrition Facts" or "Supplement Facts" panel.

Another potential problem is [protein overload](#). Your body can only effectively use about 25 - 30 grams of protein at one meal. If a person has any kidney damage, too much protein in a day can cause waste to build up in the blood. For people 65 and over, it's estimated that almost 40% of them have chronic kidney disease, and 90% of those people don't know it.

Curious about creatine?

[Creatine](#) is a naturally occurring amino acid and a popular dietary supplement. It's stored in the muscles as phosphocreatine and used for energy. Because of this, people primarily take it to improve athletic performance and increase muscle mass. When taken at recommended dosages, it's generally considered safe, with [some caveats](#). It's probably okay to take for up to 5 years, but more research is needed for a longer duration than that. It looks to be most useful for short-duration, high-intensity, intermittent exercise, but not for other types. It shouldn't be used by people with preexisting kidney problems, and caffeine use can decrease its efficacy. *Keep in mind - buying & using supplements wisely means being a savvy shopper. For tips, read "[Supplemental Insurance](#)," in our November 2020 Topic of the Month newsletter.*

Here's a DIY [food-based protein drink](#) that puts you in control of ingredients! To a blender add 2 frozen bananas; 1 cup frozen strawberries; 12 oz. soft tofu, drained; 2 cups soy or cow's milk; ¼ cup tahini; and 2 tablespoons cocoa powder. Blend on high until smooth. Add ice to thin as necessary. Makes 4 servings. Enjoy!