

Use it or rapidly lose it: How to keep up strength training in lockdown

August 11 2021, by David Scott



Credit: Andrea Piacquadio from Pexels

If you're among the millions in lockdown, ask yourself: when was the last time you did some strength training?

Many of us are regularly going for walks or runs during lockdown but, with gyms closed in a lot of places it's more difficult to lift weights, and we may neglect bodyweight exercises like push-ups.

Unfortunately, when it comes to muscle mass, it's a case of use it or rapidly lose it.

Short- and long-term consequences

Research shows [periods](#) of muscle disuse can lead to staggeringly [rapid](#) and [significant](#) loss of muscle mass, even in young people.

Beyond the obvious decline in strength and function, loss of lean muscle mass can affect metabolism, increase type 2 diabetes and obesity risk and weaken your bones. In older people, it's associated with cardiovascular disease, osteoarthritis, cognitive impairment, depression, falls and fractures.

That's why it's so crucial to keep up your strength training and maintain muscle mass, even in lockdown. The good news is there is plenty of strength training exercises you can do at home, even without special equipment.

Try as best you can to match your usual [strength training](#) routine during this time or, if you don't have one, begin building it into your day.

Young people are not immune to muscle mass loss

Many think of muscle mass loss as a problem that mostly affects older people, but even people in their early 20s can experience rapid muscle loss under certain conditions.

One [study](#) of men in their early 20s found just one week of strict bed rest resulted in an average loss of around 1.4kg in whole-body lean mass.

Another [study](#), involving [young people](#) who had one leg immobilized by knee brace, observed muscle size decreased in the immobilized legs by approximately 5% over two weeks. Strength decreased by 10–20%.

Clearly, lockdowns do not enforce the same degree of muscle disuse as bed rest or immobilization.

Nonetheless, in [studies](#) where people decreased their usual physical activity levels, it took just two weeks or so for worrying changes in lean mass, insulin sensitivity and function to show up.

Decline can happen in fits and starts

People in my field of research talk a lot about "sarcopenia": the age-related loss of muscle mass and function that begins in your 30s and can accelerate as you age.

Traditionally, we've thought of sarcopenia as occurring in a largely linear fashion.

However, a newer idea suggests this decline may [not be so linear](#) after all. Perhaps it happens in fits and starts, where acute episodes of sedentary behavior (often due to illness or hospitalization) result in repeated short but severe declines in muscle mass. Researchers call this a "[catabolic crisis model](#)".

According to this idea, muscle mass recovers at the end of each acute episode, but never quite returns to its initial quantity. Over time, an accumulation of episodes results in substantial muscle loss and severely compromised physical function.

Of course, some people may be exercising more than usual during lockdown. That's great! But [sedentary behavior](#) can easily creep in. One [study](#) of people under lockdown found increases in walking and moderate physical activity were only around 10 minutes per day, whereas sedentary behavior increased by around 75 minutes per day.

And of [64 studies](#) exploring changes in activity related to COVID-19 lockdowns, most observed decreases in physical activity and increases in sedentary behavior.

Anything you can do to find ways to maintain activity and reduce sedentary time during lockdowns is likely to limit or prevent significant muscle loss.

How to build and maintain muscle at home

Resistance training is unequivocally the best way to build and strengthen muscle. This is any type of [exercise](#) that causes your muscles to contract against an external resistance.

The classic example of resistance training is using a weights machine but there are plenty of resistance exercises you can do at home with little or no equipment, including:

- "equipment-free" strengthening exercises such as push-ups, planks, triceps dips, lunges, squats, calf raises and sit-ups
- exercises using dumbbells or resistance bands if you've got them. If you don't, try lifting bricks, full milk bottles, or any heavy household item
- functional "power" exercises like climbing a flight of stairs as quickly (and safely) as you can or seeing how many times you can get up and sit down in a chair in 30 seconds. Try deadlifts with a heavy item, or pushing a loaded wheelbarrow outside.

Aim for at least 30 minutes per day of moderate to vigorous activity. Brisk walking, jogging, cycling or swimming is great. However, at least two days a week you should be doing resistance exercises to build and maintain muscle [mass](#).

If time is an issue, try splitting your exercise into short 5–10 minute "snacks" across the day. This "exercise snacking" is a great way to break up long periods of sedentary time during lockdown.

Try to integrate resistance exercises into your daily chores. If you need something from a lower drawer, for example, don't bend down to get it—do a squat. Do some single-legged squats and calf raises while washing up.

Need a video for guidance? [This](#) one and [this](#) one are pretty good for younger and fitter people. If you're older, or just getting into fitness, try [this](#) one or [this](#) one.

Start 'banking' muscle early in life

Through regular exercise, children, adolescents and young adults can accumulate and maintain higher amounts of [muscle mass](#). In doing so, they can likely avoid significant loss of independence in older age.

Just like superannuation, we need to start making "[muscle](#) deposits" early and often throughout life.

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