

People with Strong Chest and Back Muscles Less Likely to Have a Heart Attack

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September 18, 2026

STORY AT-A-GLANCE

- › People with healthier chest and back muscles had a significantly lower risk of both heart attack and early death over the next 10 years, suggesting that muscle quality may be an important marker of long-term heart health
- › The condition of the muscles mattered more than their size; muscles with less fat trapped inside the fibers were linked to better cardiovascular outcomes than simply having larger muscles
- › Strong chest and back muscles remained associated with a lower heart attack risk even after researchers accounted for age, sex, and calcium buildup in the arteries, suggesting muscle quality provides important information beyond conventional heart risk factors
- › You don't need to become a bodybuilder to improve the muscles linked to heart health; consistent activities such as resistance training, rowing exercises, cycling, Pilates, brisk walking, and wall pushups all help strengthen the muscle groups identified in the study
- › Building healthier muscles requires more than exercise alone; adequate recovery and enough protein, collagen, and healthy carbohydrates work together to support stronger muscle tissue and better long-term cardiovascular health

When doctors order a heart scan, they're looking for blocked arteries. But what if those same images contained a clue about your future heart health that almost everyone has been ignoring? A team of researchers decided to look beyond the arteries and examine

the muscles, bones, fat, and organs captured in routine chest scans, and what they found in the muscles of the chest and back surprised them.

Most conversations about heart disease focus on clogged arteries, cholesterol, or blood pressure. But a team of researchers wondered whether routine heart scans were capturing something important that almost everyone was overlooking. They used artificial intelligence to examine not just the arteries but the muscles, bones, fat, and organs visible in standard chest imaging, and one finding stood out above the rest.

The muscles of the chest and back turned out to be among the strongest predictors of who would go on to suffer a heart attack or die over the next decade, pointing to a strong relationship between healthier muscle tissue and long-term survival that conventional risk factors alone didn't fully explain.

The study also challenges a common assumption about strength. The size of the muscles didn't predict better outcomes; their internal composition did. It was the internal composition of the muscle — how much fat had infiltrated the fibers — that separated people with better outcomes from those with worse ones. That means you do not have to look like a bodybuilder to improve an important marker of cardiovascular health.

Strong Chest and Back Muscles Were Linked to Fewer Heart Attacks

For the study, published in *Radiology*, researchers analyzed coronary CT angiography scans — a detailed chest scan typically used to check for blocked arteries — from 1,722 adults to determine whether hidden body characteristics were linked to future heart attacks and death.¹

Instead of focusing only on blocked coronary arteries, the researchers examined muscles, fat, bones, and organs throughout the upper body. Among everything they measured, the quality of the chest and back muscles emerged as one of the strongest predictors of who went on to suffer a [heart attack](#) or die during the next 10 years.

- **People with healthier chest and back muscles were far less likely to experience a heart attack** — Participants with denser skeletal muscle had a substantially lower risk of future cardiovascular events.

For every 10-unit increase in muscle density on the scan, the risk of a heart attack fell by 31%, while the risk of death during the following decade fell by 39%. In contrast, people whose muscle quality ranked below the median faced an 85% higher risk of dying and a 58% higher risk of having a heart attack than those with healthier muscles.

- **Muscle quality mattered much more than muscle size** — The researchers found that simply having larger muscles didn't predict better heart health. Instead, the key factor was how healthy the muscle tissue was on the inside. Muscles with less fat mixed between the muscle fibers appeared denser on CT scans and were associated with better long-term outcomes.

Think of it like comparing a lean cut of steak with one heavily marbled with fat; both may weigh the same, but their internal composition is very different.

- **Strong chest and back muscles remained important even after accounting for conventional heart risk factors** — Researchers adjusted the results for age, sex, and coronary artery calcium, which measures hardened plaque inside the arteries. Even after those adjustments, skeletal muscle quality continued to predict future heart attacks, while several other body measurements lost their significance.

That means your chest and back muscles provided important information about your heart health that conventional risk markers alone didn't fully capture.

- **Everyday exercise that strengthens your upper body could improve the muscles linked to heart health** — The researchers explained that the protective finding wasn't limited to weightlifting. Activities that strengthen your chest, back, and core muscles, such as resistance training, cycling, Pilates, and brisk walking, all have the potential to improve muscle quality.²

The goal isn't to build the biggest muscles possible but to develop healthier, leaner muscle tissue with less fat inside it, which was the characteristic linked to a lower risk of heart attack.

- **The findings suggest that your muscles reflect more than your strength** – The researchers suggested that heart scans could eventually identify people whose poorer muscle quality places them at greater cardiovascular risk before a heart attack occurs.

While additional research is needed to determine exactly how improvements in muscle quality affect heart attack risk, this study suggests one point: Healthier chest and back muscles are closely linked to better long-term heart health and deserve the same attention as many conventional cardiovascular risk factors.

Taken together, these findings suggest a meaningful connection between the condition of your chest and back muscles and your cardiovascular future, though more research is needed to confirm exactly how the two are linked. The encouraging part is that unlike your age or family history, muscle quality is something you can actively influence.

While this study tracked outcomes rather than testing a specific exercise program, the researchers noted that physical activities known to strengthen these muscle groups are also associated with the kind of leaner, denser tissue linked to better results.

Build Better Muscle to Support Your Heart Health

The research points to a practical goal you can start working toward today: Improve the quality of your chest and back muscles. According to the study, healthier muscle, not simply bigger muscle, was linked to a lower risk of heart attack and early death. Think of these muscles as part of your heart-health toolkit, alongside healthy eating, regular movement, and the other factors you're likely already working on. The good news is you don't need a complicated workout plan to get started.

1. Strengthen your back with rowing movements — Upper back muscles were among the muscles linked to better long-term heart health in the study. A simple bent-over row is an excellent place to begin.³ Stand with your feet about hip-width apart and soften your knees slightly. Push your hips backward while keeping your back flat, allowing a pair of light dumbbells to hang below your shoulders.

Pull the weights toward your lower ribs while gently squeezing your shoulder blades together, then lower them slowly. If you're just getting started, perform one or two sets of eight to 12 repetitions with a weight you control comfortably.

2. Train your chest with presses and wall pushups — Chest muscles also appeared in the heart scans analyzed by the researchers, making them another worthwhile target. If you have dumbbells, lie on your back with your feet flat on the floor, lower the weights until your elbows lightly touch the floor, then press them upward until your arms almost meet above your chest.

If dumbbells aren't available, start with wall pushups. Place your hands on a wall at chest height, keep your body in a straight line from head to heels, lower your chest toward the wall, and press back.⁴ As you become stronger, progress to pushups against a sturdy bench or countertop before working toward floor pushups.

3. Target your back and shoulders from different angles — Single-arm rowing exercises improve your back while also challenging your balance and core. Step one foot behind you into a comfortable lunge, rest your front hand on your front thigh for support, and hold a dumbbell in your other hand. Pull the weight toward your lower ribs, pause briefly, and lower it under control before repeating. Finish one side before switching to the other.

Another valuable exercise is the reverse fly. Hinge forward at your hips with a light dumbbell in each hand, maintain a slight bend in your elbows, and raise your arms out to your sides until they reach shoulder height before lowering them slowly.⁵ Both exercises strengthen the muscles that stabilize your shoulders and upper back.

- 4. Make consistency your goal instead of intensity** — You don't need marathon workouts to improve muscle quality. I recommend two strength sessions each week, along with regular walking, cycling, or other activities you enjoy. Track your progress by adding one repetition, using a slightly heavier weight, or improving your technique every couple of weeks. Those small victories keep you motivated and build stronger muscle over time.
- 5. Fuel your muscles so they recover and grow stronger** — Exercise is only part of the equation. Your muscles also need adequate nutrition to repair themselves after each workout. Distribute high-quality protein across your meals throughout the day rather than concentrating it in one sitting. Aim for about 0.8 grams per pound (or 1.76 grams per kilogram) of lean body mass, with one-third coming from collagen-rich sources like slow-cooked meats or bone broth.

Pair your meals with healthy carbohydrate sources such as whole fruit, root vegetables, and white rice to replenish muscle energy and support recovery.

Stronger muscles develop through the combination of regular training, adequate recovery, and consistent nutrition, not from exercise alone.

This article is for informational purposes only and does not constitute medical advice. Consult a qualified healthcare provider before making changes to your health regimen.

FAQs About Chest and Back Muscles and Heart Attack Risk

Q: Does having bigger muscles reduce your risk of a heart attack?

A: No. The study found that muscle quality mattered much more than muscle size. People whose chest and back muscles contained less fat and appeared denser on heart scans had a lower risk of heart attack and death over the next 10 years.

Q: Which muscles were linked to better heart health?

A: Researchers found that the muscles in the chest, back, and between the ribs were strongly associated with future heart health. Healthier muscle in these areas was linked to a lower likelihood of experiencing a heart attack.

Q: What types of exercise help strengthen these muscles?

A: Exercises that target your chest, back, and core are good places to start. Bent-over rows, chest presses, wall pushups, reverse flies, Pilates, cycling, resistance training, and brisk walking all help improve the muscles highlighted in the study.

Q: Why does muscle quality matter more than muscle size?

A: Healthy muscle contains less fat within the muscle fibers. Even if two people have muscles that appear to be the same size, the person with leaner, denser muscle had better long-term heart outcomes in this study.

Q: Besides exercise, what else helps build healthier muscles?

A: Recovery is just as important as training. Eating enough high-quality protein, including collagen-rich foods, along with healthy carbohydrate sources such as whole fruit, root vegetables, and white rice helps supply your muscles with the nutrients and energy they need to recover and become stronger over time.

Sources and References

- ¹ [Radiology 2026 Jun;319\(3\):e251821](#)
- ² [News Medical June 30, 2026](#)
- ^{3, 4, 5} [The Independent September 12, 2026](#)