# Five-minute daily strength training can significantly boost fitness and mental health for sedentary adults



There is a widespread belief that achieving one's health and fitness objectives necessitates hours spent in the gym; however, this perception is increasingly being challenged. As emerging research underscores, even brief bursts of exercise can create meaningful benefits. A recent study featured in the European Journal of Applied Physiology reveals that just five minutes of daily strength training over four weeks can lead to significant improvements in both physical fitness and mental health, especially among sedentary individuals.

This study, while not exhaustive, employed a straightforward routine that included variations of widely-practised bodyweight exercises: squats, press-ups, sit-ups, and calf raises. The key to effectiveness lies not in complex movements but in the progressive adaptation to intensified challenges and the consistency of practice. Participants, consisting of four men and eighteen women aged between 32 and 69, were tasked with completing ten repetitions of each exercise while maintaining a strict tempo—five seconds for the lowering phase and a quick lift. This method allowed individuals to gradually increase difficulty once they demonstrated competence, thus promoting a sense of accomplishment while minimising the risk of injury.

The impact of this approach resonates not only at an individual level but echoes wider research findings as well. Small amounts of exercise, as noted by Dr Richard Blagrove, a senior lecturer in physiology at Loughborough University, can synergistically improve health outcomes. He references a study from the British Journal of Sports Medicine that illustrates how burning an additional 500 calories each week—just 70 calories a day—can significantly lower mortality risks for those leading inactive lifestyles.

Similar sentiments are shared by fitness advocate Joe Wicks, who has been actively promoting movement across various workplaces. During his engagements, he observed a marked contrast between individuals who engaged in even minimal exercise and those who did not. “You’d see people that are really struggling...,” Wicks explains. “What I realised is there are usually two groups; one of them is not exercising, and one of them is finding a little bit of time to do some form of exercise.” This brief exercise can range from a short walk to a ten-minute workout, collectively fostering improved mental health and vitality.

The concept of “exercise snacking”—performing short bouts of activity throughout the day—is gaining traction in wellness discussions. Studies conducted by the University of Essex and the University of Suffolk reveal that merely 16 minutes of bodyweight exercises, separated across an eight-hour workday, can counteract the detrimental effects of prolonged sitting. These short, concentrated efforts can lead to improved strength and balance, proving that accumulating small activities can yield substantial benefits.

The principles underlying these mini workouts can be traced back to the SAID principle: Specific Adaptations to Imposed Demands. This theory asserts that the body will adapt positively to specific physical demands over time. The ramifications of this principle stretch into myriad aspects of daily life—those who sit for extended periods may find their ability to perform conventional physical tasks hindered, while regular cardiovascular and resistance training yields constructive physical adaptations.

That said, the real takeaway for beginners is the encouraging notion that it requires very little to kickstart a more physically active lifestyle. Small adjustments can pave the way for larger changes, and those who have previously been inactive may find that very minor increases in activity can evoke significant enhancements in overall well-being.

For those looking for tangible ways to integrate brief periods of exercise into their busy lives, a simple routine can be established around five fundamental movements: push, pull, hinge, squat, and carry. One can perform wall press-ups, bent-over rows with a rucksack, good mornings, chair sit-to-stands, or suitcase carries, adjusting repetitions and difficulty based on comfort levels.

In essence, when it comes to physical activity, the message is clear: a little exercise can go a long way, particularly for those just starting on their journey towards improved fitness and health.

## Reference Map:

* Paragraph 1 – [[1]](https://www.independent.co.uk/health-and-fitness/daily-body-weight-workout-fitness-mental-health-b2759751.html), [[2]](https://time.com/6242876/short-workouts-health-benefits/)
* Paragraph 2 – [[1]](https://www.independent.co.uk/health-and-fitness/daily-body-weight-workout-fitness-mental-health-b2759751.html), [[3]](https://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/strength-training/art-20046670), [[5]](https://professional.heart.org/en/healthy-living/fitness/fitness-basics/strength-and-resistance-training-exercise)
* Paragraph 3 – [[4]](https://www.mayoclinichealthsystem.org/hometown-health/speaking-of-health/can-quick-workout-boost-health-and-fitness), [[6]](https://wellness.ucdavis.edu/article/mini-workouts-10-movements-to-stay-fit-when-busy/), [[7]](https://www.abbott.com/corpnewsroom/nutrition-health-and-wellness/7-health-benefits-of-strength-training.html)

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## Bibliography

1. <https://www.independent.co.uk/health-and-fitness/daily-body-weight-workout-fitness-mental-health-b2759751.html> - Please view link - unable to able to access data
2. <https://time.com/6242876/short-workouts-health-benefits/> - This article discusses how even brief workouts can improve health. It highlights studies showing that short bursts of activity, such as three one-minute sessions daily, can extend life expectancy. These short exercises trigger physiological changes like increased blood flow and better blood-sugar regulation, potentially reducing risks for conditions such as diabetes, heart disease, and stroke. The piece also notes that breaking up sedentary time with short movement segments provides significant health benefits, though it may not yield dramatic results for weight loss or athletic training.
3. <https://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/strength-training/art-20046670> - This resource from the Mayo Clinic outlines the importance of strength training in overall fitness. It explains that strength training helps reduce body fat, increase lean muscle mass, and burn calories more efficiently. The article also discusses how strength training can develop strong bones, manage weight, enhance quality of life, manage chronic conditions, and sharpen thinking skills. It provides guidelines for incorporating strength training into a fitness routine, recommending at least two sessions per week targeting all major muscle groups.
4. <https://www.mayoclinichealthsystem.org/hometown-health/speaking-of-health/can-quick-workout-boost-health-and-fitness> - This article from the Mayo Clinic Health System emphasizes that short, frequent movements throughout the day can boost metabolism, enhance nutrient absorption, control blood pressure, increase blood flow to the brain for mental health benefits, lubricate joints, and engage muscles and ligaments. It highlights the importance of incorporating movement into daily routines, especially for those who sit for extended periods, to mitigate the negative effects of prolonged sedentary time.
5. <https://professional.heart.org/en/healthy-living/fitness/fitness-basics/strength-and-resistance-training-exercise> - The American Heart Association provides an overview of strength and resistance training exercises. It outlines the benefits of a well-rounded strength-training program, including increased strength of bones, muscles, and connective tissues, lower risk of injury, increased muscle mass aiding in calorie burning, and better quality of life. The article also offers recommendations for strength training, suggesting at least two sessions per week targeting all major muscle groups, with one set of eight to 12 repetitions per exercise.
6. <https://wellness.ucdavis.edu/article/mini-workouts-10-movements-to-stay-fit-when-busy/> - This article from UC Davis Health discusses the benefits of mini workouts for individuals with busy schedules. It highlights that short, frequent exercise sessions can improve overall health, enhance brain health and mood, and are easier to integrate into daily routines. The piece emphasizes that even brief periods of activity can contribute to better cardiovascular health, improved metabolic function, and reduced risk of chronic diseases, making it easier for individuals to adhere to an exercise routine.
7. <https://www.abbott.com/corpnewsroom/nutrition-health-and-wellness/7-health-benefits-of-strength-training.html> - This article from Abbott Newsroom outlines seven health benefits of strength training, including increased muscle strength, improved bone density, enhanced metabolic rate, better mental health, injury prevention, improved mobility, and better sleep quality. It emphasizes that strength training is crucial for individuals of all ages and can lead to significant improvements in overall health and well-being.