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Can Just 10 Squats Undo One Hour of Sitting? Science Says Yes

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We've all heard the warnings: **"Sitting is the new smoking."**

(<https://www.betterhealth.vic.gov.au/health/healthyliving/the-dangers-of-sitting>)

Research has repeatedly shown that prolonged sitting can contribute to a range of

health problems, including obesity, heart disease, and poor blood sugar control. But realistically, most of us spend a significant portion of our day sitting—whether at work, in the car, or relaxing at home.

The big question is: **How much movement does it actually take to counteract these negative effects?** A new study

(https://onlinelibrary.wiley.com/doi/full/10.1111/sms.14628?saml_referrer=) has found a surprisingly simple answer—**just 10 bodyweight squats every 45 minutes** can significantly reduce blood sugar spikes and improve metabolic health.

Why Squats May Be Better Than a Walk

Walking is often recommended as a way to break up long periods of sitting, and for good reason—it improves circulation, burns calories, and promotes cardiovascular health. However, this recent study suggests that short bursts of **squatting** may be even more effective than a **30-minute walk** when it comes to blood sugar regulation.

The secret lies in a **metabolic powerhouse: lactate**.

Lactate is often misunderstood as a simple byproduct of exercise, but it actually plays a **critical role in energy metabolism**. When you perform squats, your muscles produce lactate, which **signals muscle cells to bring GLUT4 transporters to their surface**. These transporters pull glucose from the bloodstream into the muscles, helping regulate blood sugar.

The Study: Squats vs. Sitting vs. Walking

To determine the most effective way to counteract prolonged sitting, researchers tested four different activity patterns:

- 1 SIT** – Sitting uninterrupted for 8.5 hours
- 2 ONE** – A single 30-minute walk
- 3 WALK** – 3-minute walks every 45 minutes
- 4 SQUAT** – 10 bodyweight squats every 45 minutes

At the end of the study, both the WALK and SQUAT groups showed a **21% reduction in blood sugar spikes** compared to the uninterrupted sitting group. That's nearly **twice the glucose-lowering benefit** of the single 30-minute walk.

Why Squats Are So Effective



The key to squats' success lies in **muscle activation patterns**. Squatting engages some of the body's **largest muscle groups**, including the quadriceps and glutes. These muscles require more energy than the smaller muscles used during walking, which means they **pull more glucose from the bloodstream**.

The Power of Muscle Activation


The study found that the **greater the muscle activation, the stronger the glucose-lowering effect**. Short, frequent bursts of movement—such as 10 squats every 45 minutes—result in:


- ✅ **Increased muscle engagement**, leading to better glucose clearance
Higher lactate production, enhancing metabolic activity
- ✅ **Long-lasting effects**, with benefits lasting up to **48 hours**


Interestingly, the study also found that neither squats nor walking significantly activated the **hamstrings**, suggesting that incorporating additional movements—like lunges or hamstring bridges—might provide even greater metabolic benefits.


Beyond Blood Sugar: More Reasons to Squat

While the study focused on blood sugar control, squats offer **a wide range of health benefits**, including:

 **Improved lower-body strength** – Stronger legs mean better mobility, balance, and a reduced risk of falls.

 **Boosted metabolism** – Engaging large muscle groups helps burn more calories throughout the day.

 **Stronger bones** – Weight-bearing exercises like squats support bone density, reducing the risk of osteoporosis.

 **Better brain function** – Exercise has been shown to improve cognitive function, mood, and focus.

How to Incorporate Squats Into Your Day


The best part about this approach? **It's easy to do, requires no equipment, and fits into any routine.**

Try This Simple Plan:

 **Set a timer** to remind yourself to move every 45 minutes.

 **Perform 10 bodyweight squats**, focusing on proper form:

- Keep your feet shoulder-width apart.
- Lower your hips as if sitting in a chair.
- Keep your chest up and your knees tracking over your toes.
- Push through your heels to return to standing.

 **Reap the benefits** of better blood sugar regulation and improved overall health—without needing a gym or fancy equipment.

Final Takeaway: Move Smarter, Not Just More

If you want to **combat the negative effects of sitting**, it's not just about moving more—it's about **moving smarter**.

While long walks and regular workouts are still beneficial, **short, intense movement breaks**—like 10 squats every 45 minutes—can be a **game-changer** for blood sugar control and metabolic health. So, the next time you feel stuck at your desk, don't just sit there—**drop into a squat and let your muscles do the work!**

Read more.

9 Types of Squats for a Boosted Booty and Leaner Legs

(<https://primewomen.com/wellness/fitness/types-of-squats/>)

Video: How Prime Women do Squats without Knee

(<https://primewomen.com/wellness/fitness/squats-without-knee-pain/>) Pain

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Strengthening Exercises to Boost Your Back End

(<https://primewomen.com/wellness/fitness/strengthening-exercises-to-target-your-gluteus-medius/>)

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