

Rajiv R says bodyweight moves can strengthen forearms, wrists, chest, and upper trunk

A TIGHT GRIP ON VITAL SIGNS

A sturdy hand grip is an effective indicator of cardiovascular health and muscle strength

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Are you in your late 40s with a sedentary lifestyle and an unhealthy diet? Do you often find it difficult to open tightly closed pickle jars or even give a firm handshake? If so, schedule a checkup with your doctor and consider a health screening, even if you are otherwise healthy. This is especially true if you have a history of fluctuating blood pressure, smoking or metabolic conditions like type 2 diabetes.

Research shows that weak hand grip strength is one of the earliest red flags for poor muscle health. This, in turn, can place additional strain on your heart as it pumps blood carrying oxygen to your organs.

HAND GRIP AND THE HEART

Hand grip strength is often used as a scientific yardstick to measure overall muscle strength because it is an indicator of the functional health of major muscle groups, not just the arms.

“A strong hand grip is a simple and inexpensive biomarker for heart health. A weak hand grip is an effective indicator of gradual onset of muscle loss and wastage, especially in older adults,” says Dr Haresh G Mehta, director, Interventional and Structural Cardiology, SL Raheja Hospital, Mahim, Mumbai.

Dr Mehta points out that poor muscle strength can trigger inflammation and oxidative stress in the blood vessels, leading to stiffened arteries, high blood pressure, and plaque buildup — all significant risk factors for cardiovascular disease. It also affects the endothelium, the inner lining of blood vessels, reducing its ability to relax and allow smooth blood flow. This forces the heart to pump harder, raising cardiovascular risk.

“Poor muscle strength is a risk factor for multiple cardiac emergencies including heart failure, heart attack and arrhythmias or irregular heart rate,” explains Dr Mehta.

However, this does not mean that everyone with a weak grip will develop heart problems. It just means that it is time for a prompt medical evaluation. A weak hand grip could also be a sign of poor nutrition and weak immunity.

AN OVERLOOKED HEALTH MARKER

Dr Vitull K Gupta, physician and former chairman (Punjab) of the Research Society for the Study of Diabetes in India (RSSDI), notes that a weak hand grip is even linked to increased cardiovascular disease-related mortality. A 2020 research article published in the *Annals of*

FUNCTIONAL EXERCISES FOR YOUR HEART

Medicine journal indicated much the same.

A 2015 study in the *American Journal of Preventive Medicine* that analysed the heart health of 4,221 participants above the age of 20 concluded that people with a strong hand grip had lower levels of systolic blood pressure, triglycerides, plasma insulin and glucose levels, as well as higher levels of HDL or “good” cholesterol.

Research also links low grip strength to sarcopenia (age-related muscle loss), type 2 diabetes, certain cancers, poor nutrition, and weakened immunity.

“Muscle wastage and low grip strength are considered risk factors for multiple cancer variants, including breast cancer,” says Dr Suvadip Chakrabarti, consultant, Surgical Oncology, Apollo Cancer Centre, Kolkata.

Despite strong evidence, hand grip strength is not regularly used in clinical practice.

TESTING YOUR GRIP

Doctors may use a dynamometer to assess hand grip strength. The pressure you exert when gripping the handle of the device is displayed on the needle gauge. It is similar to a gripper tool used to increase grip strength during workout sessions.

However, if you do not have access to a dynamometer, Dr Mehta suggests a home test: firmly squeeze a tennis ball or similar object and maintain the same pressure for a couple of minutes without pain.

Many of our daily functional activities require a good hand grip. For example, if you frequently struggle to open tightly closed containers, feel exhausted after carrying grocery bags, or have trouble reaching and opening doors or windows, you may have poor hand grip strength.

A 2021 study published in the

European Journal of Clinical Nutrition states that a grip strength below 25.5kg for men and 18kg for women may indicate a higher risk of developing muscle loss with age.

IMPROVING HAND GRIP

Dr Mehta points out that poor hand grip is a warning to start workouts and strengthen your muscles before you cross into late middle age and start losing muscle mass. “Having a weak grip strength should be seen as an early sign to change your lifestyle and become active,” he says. “Your workouts should be a combination of both cardio and strength training exercises to preserve muscle strength and avoid muscle loss.”

Those who train regularly have seen improvements. For instance, Annapurna Pradeep, 31, a senior database analyst from Bengaluru, decided to focus on keeping herself fit and began functional strength training after her delivery. Her muscle strength has improved, and she no longer relies on her domestic help to do household chores. Her fluctuating blood pressure levels have now become normal, thanks to her workouts.

Focusing solely on arm muscles is not enough to ensure better heart health, however. It is best to work out all your body’s muscle groups. Rajiv R, founder of No Limits Fitness Gym, Bengaluru, recommends compound bodyweight moves like push-ups, pull-ups, lunges, and dead hangs to strengthen the forearms, wrists and upper trunk muscles.

However, Dr Mehta has a word of caution:

People in their middle age should always consult their doctor before starting any new fitness routine. Regularly testing your hand grip strength and engaging in strength training can help detect health issues early and improve long-term well-being.

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SQUATS



PUSHUPS



PULLUPS



LUNGES



WALKING

