

# How Many Push-Ups You Can Do Could Predict Your Risk of Heart Disease and Wellness

Scientists have identified what they think could be a simple, practical test to predict people's heart health, and it's about as quick as saying, "Drop and give me 40".

In a new study led by Harvard University, researchers found that men's ability to do more than 40 push-ups was linked with significantly reduced risk of [serious heart problems](#) over the next 10 years – in some cases slashing risk by as much as 96 percent.

"Our findings provide evidence that push-up capacity could be an easy, no-cost method to help assess cardiovascular disease risk in almost any setting," [says occupational medicine resident Justin Yang](#) from the Harvard T.H. Chan School of Public Health.

"Surprisingly, push-up capacity was more strongly associated with cardiovascular disease risk than the results of submaximal treadmill tests."

Of course, the ability to do 40 push-ups in the first place is generally indicative of a high level of physical fitness – especially among middle-aged men, which is what the group the researchers were studying.

So it's not exactly news that being physically fit reduces your [risk of cardiovascular disease](#) (CVD) events – such as heart attacks and developing coronary artery disease.

But what's new and useful here is the ability to predict these kinds of health problems with such a simple, universal test – and with what looks to be greater accuracy than expensive equipment like treadmills.

Not that the results we have now necessarily apply to everyone. In the study, Yang and his team studied a relatively niche cohort: 1,104 active male firefighters, with an average age of 39.6 at the beginning of the study. These participants were observed over the space of a decade.

During the 10-year study, 37 of these men experienced CVD-related outcomes, such as heart failure, sudden cardiac death, or receiving a diagnosis of coronary artery disease.

What's interesting, though, is that of all those 37 men, all but one were participants who weren't able to complete over 40 push-ups in their baseline physical exam at the outset of the study.

Broadly speaking, the team observed lower CVD risks in all groups with higher push-up capacity, but if you could do above 40 push-ups (out of a maximum 80 in the baseline test), the results put you in a much healthier place compared to those whose capacity is low.

"Participants able to complete more than 40 push-ups had a 96 percent reduction in incident CVD events compared with those completing fewer than 10 push-ups," [the authors write in their paper](#).

It's worth noting that male firefighters aren't representative of other segments of society as a whole, so the results seen here wouldn't necessarily be reproduced in other people, which the researchers acknowledge.

But it's still a finding that bears further consideration in follow-up studies, especially since gauging push-up capacity is such a relatively easy clinical test for health professionals to conduct with patients who are physically able to undergo it.

"The push-up examination requires no special equipment, is low cost or no cost, can easily be performed in almost any setting within 2 minutes, and provides an objective estimate of functional status," [the authors explain](#).

"It is a quantitative measurement that is easily understood by both the clinician and the patient."

If clinicians adopt the findings, it could be a simple adjustment to physical examinations of patients that are already testing fitness levels.

The adjustment may be simple – and the science may be obvious – but that doesn't mean the takeaways wouldn't potentially be life-saving.

"Push-up capacity is positively correlated with aerobic capacity and physical fitness," senior author of the study and CVD specialist, Stefanos Kales, [told Inverse](#).

"These types of objective functional markers are generally good predictors of mortality."

The findings are reported in [JAMA Network Open](#).

# Push Up Test at Home

| [Sit Up](#) | [Squat](#) | [Step](#) | [Vertical Jump](#) | [Sit & Reach](#)

You can easily test your upper body strength yourself at home using this simple test. How many push-ups can you do?

## Technique

Men should use the standard "military style" pushup position with only the hands and the toes touching the floor in the starting position. Women have the additional option of using the "bent knee" position. To do this, kneel on the floor, hands on either side of the chest and keep your back straight. Lower the chest down towards the floor, always to the same level each time, either till your elbows are at right angles or your chest touches the ground.

Do as many push-ups as possible until exhaustion. Count the total number of pushups performed. Use the chart below to find out how you rate.



## HOW DID YOU GO?

Compare your results to the table below. Remember, these scores are based on doing the tests as described, and may not be accurate if the test is modified at all. Don't worry too much about how you rate - just try and improve your own score, and keep doing them the same way each time.

**Table: Push Up Test norms for MEN**

Age	17-19	20-29	30-39	40-49	50-59	60-65
Excellent	> 56	> 47	> 41	> 34	> 31	> 30
Good	47-56	39-47	34-41	28-34	25-31	24-30
Above average	35-46	30-39	25-33	21-28	18-24	17-23
Average	19-34	17-29	13-24	11-20	9-17	6-16
Below average	11-18	10-16	8-12	6-10	5-8	3-5
Poor	4-10	4-9	2-7	1-5	1-4	1-2
Very Poor	< 4	< 4	< 2	0	0	0

**Table: Push Up Test norms for WOMEN**

Age	17-19	20-29	30-39	40-49	50-59	60-65
Excellent	> 35	> 36	> 37	> 31	> 25	> 23
Good	27-35	30-36	30-37	25-31	21-25	19-23
Above Average	21-27	23-29	22-30	18-24	15-20	13-18
Average	11-20	12-22	10-21	8-17	7-14	5-12
Below average	6-10	7-11	5-9	4-7	3-6	2-4

Poor	2-5	2-6	1-4	1-3	1-2	1
Very Poor	0-1	0-1	0	0	0	0

\* Source: adapted from Golding, et al. (1986). *The Y's way to physical fitness* (3rd ed.)