



## What's your **fitness age?**

You may be 'fit as' on the outside... but what about the inside? A simple test can help you find out

**S**o, your actual age is 31. Your mental age is 17 (your crush on Harry Styles sees to that). But what about your fitness age? Do you get puffed out running for the bus? Or can you run a marathon without breaking a sweat? In short, what is the internal state of your body?

New research is proving that how well our bodies function physically compared with how well they *should* function is a strong indication of how long we'll live. In fact, a test has been developed by researchers at the Norwegian University of Science and Technology to help you discover if your body is similar to that of a sprightly 20-year-old or a past-its-prime 50-year-old.

The results are based on five measurements: your waist circumference, resting heart rate, frequency and intensity of exercise, age and gender. All of these factors combine to affect your VO<sub>2</sub> max (how well your body delivers oxygen to your cells). We tested three women in their early thirties to discover just how fit they are, then asked personal trainers Joslyn Thompson Rule ([fitgirlabouttown.com](http://fitgirlabouttown.com)) and Cheryl Nankoo ([thenankoo.com](http://thenankoo.com)) for their take on the results.

## A GOOD FIT?

### SARAH KILVINGTON

**Age:** 33  
**Height:** 5ft 6ins  
**Weight:** 166lbs

**Maximum Heart Rate:** 190

**Waistline:** 30ins

**Resting Pulse (number of beats per minute):** 69

**VO<sub>2</sub> Max:** 39

**Fitness Age:** 36

**Sarah says:** 'I have two small children so only have time to exercise once a week. I usually go for a walk that lasts less than half an hour. I take it easy - I don't breathe hard or sweat.'

**What the PTs say:** 'If Sarah reduced her fitness age by a few years, this would give her more energy for her children,' says Joslyn. Cheryl agrees that Sarah should try to exercise more often. 'It doesn't have to be for long - even adding 15-minute body weight circuits at home two to three times a week will help increase her fitness level,' says Cheryl. 'There's a lot you can do in your own home without any equipment: press-ups, burpees, squats, lunges, dips, planks and sit-ups.' Joslyn suggests that Sarah take advantage of the children's naptime by doing one short section of a fitness DVD or app. 'This would improve her resting pulse rate, which is above average,' she says. Cheryl adds that fitness is also about nutrition, so encourages Sarah to ensure she's making healthy food choices with lots of lean proteins and nutrient-dense vegetables.

## EAT SMART TO TURN BACK THE NUTRITIONAL CLOCK

Pizza and chips be gone! Tuck into these amazing age-defying nutrition boosters for a longer and healthier life



'Accelerated ageing occurs due to oxidative stress, which causes a deterioration in cell renewal,' says nutritionist Helen Money ([helenmoneynutrition.com](http://helenmoneynutrition.com)).

'Diets that are high in antioxidants can help to prevent cell damage and, in doing so, help to slow the ageing process.' Helen suggests eating the following nutritious fare.

**1 OYSTERS** Zinc is vital for cell renewal, and oysters have the highest zinc content of any food. Lamb and pumpkin seeds are other good sources.

**2 CHILLI PEPPERS** Vitamin C is needed to maintain collagen in the skin. Chilli peppers are a good source of vitamin C and a great low-calorie way to add flavour to a whole host of meals.

**3 CHICKEN** As we age, muscle mass reduces, but including sufficient protein in the diet can slow this process. Good low-fat sources of protein include fish and chicken. Chicken also contains coenzyme Q10, which is used by mitochondria in cells to create energy for renewal.

**4 BLUEBERRIES** Research suggests that blueberries can help memory due to the high level of antioxidants found in them. These antioxidants can prevent oxidative damage to the nerves in the brain.

**5 WHOLEGRAINS** What gives the impression of youthfulness more than vitality? Wholegrains are complex carbohydrates that provide energy that lasts for several hours. Wholegrains also contain the nutrients needed to convert carbohydrates to energy - B vitamins, magnesium and iron. So get your grain on with brown rice, quinoa and barley.

**6 OATS** The risk of high cholesterol increases with age. Oats have been scientifically proven to reduce cholesterol.



**7 SAUERKRAUT** Our gut is important for health. Not only does our gut bacteria affect the absorption of nutrients, but imbalances of bacteria can also trigger the immune system to cause an inflammatory reaction and cell damage. Sauerkraut and live yoghurt contain probiotics - the good bacteria.



**8 WATERCRESS** The mix of vitamins, minerals and phytonutrients in watercress make it fantastic for the skin. It's even been shown to reduce fine lines.

**9 GREEN LEAFY VEGETABLES** Osteoporosis (brittle bones) is common in older women. Sufficient calcium intake is vital for high-bone density and strong teeth, so drink plenty of milk, and eat green leafy vegetables such as kale, spinach and cabbage.

**10 OILY FISH** There is a positive relationship between the intake of omega-3 and decreased onset of brain diseases like dementia. Eat oily fish such as salmon, sardines, trout, mackerel and fresh tuna.



**'Research is proving that the way our bodies function physically, compared with the way they *should* function, is a strong indication of how long we'll live'**



## CHARLOTTE POLLARD

**Age:** 33  
**Height:** 5ft 5ins  
**Weight:** 128lbs

**Maximum Heart Rate:** 190  
**Waistline:** 32ins  
**Resting Pulse (number of beats per minute):** 72  
**VO2 Max:** 40

**Fitness Age:** 32

**Charlotte says:** 'I work out two to three times a week – I do Pilates and Zumba during the winter, and cycling and running in the summer. I have asthma and get bronchitis easily, so try to keep my exercise calmer (and indoors) in the wet, cold months.'

**What the PTs say:** 'Charlotte should be proud that her fitness age is younger than her actual age,' praises Cheryl. 'It's a great achievement, no matter how small the gap.' Joslyn concurs, saying, 'Charlotte does well to adapt her exercise around her asthma and bronchitis.' However, Cheryl suggests that Charlotte could try adding a couple of weight-training sessions into her regime. Joslyn agrees: 'Weight work would make her training more balanced, and wouldn't affect her asthma.' Finally, Cheryl adds, 'Increasing and maintaining adequate muscle mass is one of the best ways to keep body fat at bay and to improve overall fitness.'



## LIZZIE BELSEY

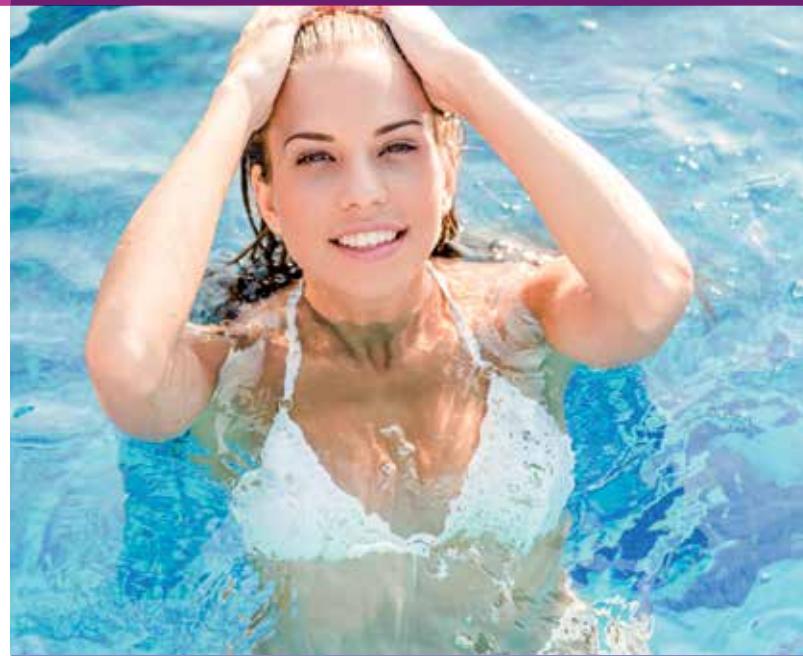
**Age:** 32  
**Height:** 5ft 4ins  
**Weight:** 139lbs

**Maximum Heart Rate:** 190  
**Waistline:** 27ins  
**Resting Pulse (number of beats per minute):** 65  
**VO2 Max:** 48

**Fitness Age:** Under 20

**Lizzie says:** 'I exercise two to three times a week – spin classes, running and road cycling. I'm currently training for the L'Étape du Tour cycle event, which is one stage of the Tour de France, so every weekend I cycle about 40-50 miles.'

**What the PTs say:** 'Wow! Lizzie has an amazing fitness age,' enthuses Cheryl. Joslyn says, 'Lizzie's fitness age and resting pulse rate are reflective of the cardiovascular training she's doing.' However, Cheryl warns that, with the long bike rides she's doing, Lizzie needs to ensure she's eating properly prior to training with good fats and carbohydrates. She emphasises that Lizzie needs to drink plenty of water to keep her body well hydrated. 'I would also recommend Pilates to help stretch, develop core strength and improve balance, which is great for bike handling,' advises Cheryl. 'She should also treat herself to a sports massage once a month to help release tight muscles.' ☀



## AGE-PROOF EXERCISES

Whether you're 16 or 60, personal trainer Joslyn Thompson Rule recommends you try these wondrous workouts

**1 WALKING** is so basic, and an extremely effective form of exercise. Not only is it weight-bearing, it also has a very positive mental effect, too. Taking time out to go for a walk, even for just 15 minutes a day, is beneficial for both body and mind.

shoulders. To nail it, lie face down and push your upper body off the floor, straightening your arms as much as is comfortable. Tilt your chin up and lift your chest toward the ceiling. A gentler form of this movement is resting on the elbows rather than on straight arms.

**2 SQUATTING** is important for everyone, as you use it to get by in everyday life. Sitting down on a chair is a simple squat. At the most complex end, you can squat with a weighted barbell in a gym. To start squatting, practise sitting down then standing up from a chair, keeping your weight central. Try not to use your arms to assist you when you stand up and do this for two sets of 10 repetitions.

**4 LUNGING** is a great way to ensure you stay strong through your hips and legs. While it requires balance, coordination and strength, even taking the stairs is a form of a lunge, just with less range of movement. So if a full lunge isn't possible, take the stairs whenever you can: great for the muscles and the heart!

**3 THE YOGA COBRA POSE** is particularly beneficial if you spend a lot of time sitting down, as this can cause the muscles at the front of your body to tighten up. The cobra pose stretches the muscles on the front of the torso and strengthens the arms and

**5 SWIMMING** is a non-weight-bearing exercise that opens up your lungs and exercises our muscles in a gentle way. For experienced swimmers, the intensity can be taken up a notch by adding some intervals to your sessions, but for those who are less confident or less fit, gentle lap swimming is of great benefit.

## CALCULATE YOUR FITNESS AGE

Ready to reveal the truth about your fitness level? Fill out the following information about yourself, then enter your info at [ntnu.edu/cerg/vo2max](http://ntnu.edu/cerg/) and answer the other quick questions.

**Height:** ..... ft \_\_\_\_ ins  
**Waistline:** ..... ins

**Weight:** ..... lbs  
**Resting Pulse:** .... beats per minute