

# How to be happy: eat pickles, have a ceilidh. Yes, really

**G**ardening is good physical exercise, but research is proving that it is so good for mental health that it should be counted as therapy. One study of mice found that a bacteria in soil ingested by gardeners activates neurons that produce the mood-regulating chemical serotonin — which is similar to the way antidepressants such as Prozac work.

Research has proved that gardening lowers stress-hormone levels and blood pressure, and now the Royal Horticultural Society (RHS) has embarked on its biggest scientific study into the effects of gardening on mood and wellbeing.

"There's good evidence that gardening improves mood, but does it match Prozac or counselling? My feeling is that it could, especially for mild depression," says Dr Ross Cameron at the University of Sheffield, who is leading the three-year RHS project.

Dr George MacKerron, a lecturer at Sussex University, has been tracking people's real-time happiness since 2010 with his smartphone app Mappiness. Users report what they're doing and how happy they're feeling and there have been 3.5 million responses. "We've found that the top activities are related to physical activity, and most are connected to the outdoors — gardening increases happiness by 7.8 per cent, which is just behind exercise and sports on 8.1 per cent," he says.

Here are six activities aside from gardening that research says could boost happiness and wellbeing.

## Eat more yoghurt and pickles

Three quarters of the body's neurotransmitters are made in the gut, as is almost 90 per cent of the body's serotonin, the hormone which maintains mood balance, so there is a direct link between gut and mood. For that reason, it's important to keep the gut microbiome diverse and numerous, which means cutting down on processed food (which destroys gut microbes) and increasing bacteria-containing probiotics, such as live yoghurt and fermented foods (pickled vegetables, soy, miso and kimchi).

## Take up Scottish dancing

According to research from Oxford University last year, dancing — especially energetic dancing — appears to prompt the brain to produce more endorphins than other types of exercise. Why? Studies suggest it is because dancing connects directly with the brain's emotional centres.

Dr Peter Lovatt, a psychologist at the University of Hertfordshire who studies dance, says: "I think the social element is important. We've done research where

improvement in mood, then they take home a DVD to practise, which produces no improvement in mood unless the researcher goes to the house to watch them practise."

Not all dancing is equal, though; rules-based dancing doesn't make you as happy as relaxed dancing with structure, such as Scottish country dancing, line dancing or Bollywood routines.

## Give to charity

Donating to charity stimulates the brain to produce dopamine in the same way as sex, chocolate and recreational drugs. "Experiments on people having an MRI scan while giving to charity have shown it's the same part of the brain that lights up — the front-mesolimbic," says Rhodri Davies, a programme leader at the Charities Aid Foundation, one of Europe's largest charitable foundations, and UK organisers of the Global Giving Tuesday campaign on November 29.

## Go for a walk in the woods

Walking reduces stress hormones because it releases endorphins. One experiment showed that walking doubled creative thinking. Scientists believe that this could be because walking doesn't require conscious effort, so our brains are freer to make creative connections. Strolling in green space lowers stress and increases happiness in a way that urban walking doesn't, concluded a study scanning walkers' brains at Stanford University. Walking in a forest is even better. The Japanese therapy of forest bathing, *shinrin-yoku* — or meandering in woodland — has been shown to reduce blood pressure and the production of stress hormones.

## Take up a team sport

The National Institute for Health and Care Excellence has officially sanctioned exercise as a treatment for mild to moderate depression. It recommends three 45 to 60-minute sessions a week for 10 to 14 weeks. Playing a team sport could be the best exercise for happiness: a study in Australia found that women who played netball regularly had greater life satisfaction and better mental health than those who went to the gym or walked alone.

## Get a dog (but not a cat)

People with pets are healthier, have higher self-esteem and are less lonely than those who don't, which are three of the key aspects of wellbeing. However, — cat owners look away now — almost all the positive research is associated with having a dog. This is probably because dog owners get extra wellbeing points because they are physically fitter than the general population and spend more time outside. That leads to improved sleep and a reduction in blood pressure and stress hormones. Stroking a dog can also stimulate the release of oxytocin, a hormone associated with