

In Touch Newsletter

October 2023

How many steps do you do a day?

Walking is good for more than just getting around. Regular walking delivers a multitude of health benefits – but how many steps per days do we need to take? Is it the commonly recommended 10,000 steps a day right for you?

Adults can take anywhere between approximately 4,000 and 18,000 steps per day. Around 10,000 steps/day is thought to be a reasonable target for healthy adults

But not two individuals are alike, so how many steps should we be doing? One factor to consider is, what is your goal?

- How many steps for weight loss?
- How many steps for to increase fitness?
- How many steps to maintain your current fitness level?

Recommended steps according to age are as follows.

Age	Steps/Day: Minimum	Steps/Day: Active	Steps/Day: Highly Active
4-6yrs	6,000 steps	10,000 steps	14,500 steps
6-11yrs (f)	6,000 steps	11,000 steps	13,500 steps
6-11yrs (m)	6,000 steps	13,000 steps	15,500 steps
12-19yrs	6,000 steps	10,000 steps	12,500 steps
20-65yrs	3,000 steps	7,000 steps	11,500 steps

Every person has their own goals and their own health conditions to take into account. If you start walking in order to increase your activity level and get some exercise, remember to ease into it and take it slowly. You don't need to go for 10,000 on your first day. Set a modest goal that is obtainable and focus on improving your goal each day.

The important thing is that you're starting to do more than you have been. In other words, put your energy toward increasing movement throughout the day.

How can we easily add extra steps into our day?

There are loads of ways you can easily add some extra steps in your day, without having to go out for a two-hour walk. Here are some suggestions.

- Take the stairs instead of the lift or escalator.
- Park farther away from the door when running errands.
- Walk with a friend.
- Clean your house.
- Take a walk during breaks at work.
- Walk in the shopping centre if it's raining.

- Build in a daily walk. walking for 30 minutes plus each day should put you within striking distance of your step goal.
- Take mini walks. Divide your day into three short walks of about 10 to 15 minutes each (morning, afternoon, and evening) By the end of the day, you will have done some serious steps.
- Use the bathroom furthest away from you.
- Stop parking in the closest spot at the grocery store and park further back.
- Walk while waiting for appointments instead of sitting in the waiting room.
- Walk while you're on the phone.
- Walk during your children's or grandchildren's sporting practices or events instead of sitting and watching.

References:

<https://www.health.harvard.edu/staying-healthy/how-many-steps-should-i-take-each-day>
<https://firstquotehealth.com/health-insurance/news/recommended-steps-day>
<https://www.healthline.com/health/average-steps-per-day>

Common chemical linked to Parkinson's, cancer and heart disease

A common and widely used chemical may be fuelling the rise of the world's fastest growing neurological condition – Parkinson's disease.

For the past 100 years, trichloroethylene (TCE) has been used to decaffeinate coffee, degrease metal, and dry clean clothes. It contaminates the Marine Corps base Camp Lejeune, 15 toxic sites in Silicon Valley, and up to one-third of groundwater in the U.S.

TCE causes cancer, is linked to miscarriages and congenital heart disease, and is associated with a 500 percent increased risk of Parkinson's disease.

In a hypothesis paper in the *Journal of Parkinson's Disease*, an international team of researchers – including University of Rochester Medical Center (URMC) neurologists Ray Dorsey, MD, Ruth Schneider, MD, and Karl Kiebertz, MD – postulate that TCE may be an invisible cause of Parkinson's.

In the paper they detail the widespread use of the chemical, the evidence linking the toxicant to Parkinson's, and profile seven individuals, ranging from a former NBA basketball player to a Navy captain to a late U.S. Senator, who developed Parkinson's disease either after likely working with the chemical or being exposed to it in the environment.

A ubiquitous and widespread industrial pollutant

TCE was a widely used solvent employed in a number of industrial, consumer, military, and medical applications, including to remove paint, correct typewriting mistakes, clean engines, and anesthetize patients. Its use in the U.S. peaked in the 1970's, when more than 600 million pounds (272,155 kilos) of the chemical – or two pounds (0.9 kilos) per American – were manufactured annually.

Some 10 million Americans worked with the chemical or other similar industrial solvents. While domestic use has since fallen, TCE is still used for degreasing metal and spot dry cleaning.

TCE contaminates countless sites across the U.S. Half of the most toxic Environmental Protection Agency's Superfund sites contain TCE. Fifteen sites are in California's Silicon Valley where the chemicals were used to clean electronics and computer chips. TCE is found in numerous military bases, including Camp Lejeune in North Carolina.

From the 1950s to the 1980s a million Marines, their families, and civilians that worked or resided at the base were exposed to drinking water levels of TCE and perchloroethylene (PCE), a close chemical cousin, that were up to 280 times above what is considered safe levels.

TCE and Parkinson's disease

The connection between TCE and Parkinson's was first hinted at in case studies more than 50 years ago.

In the intervening years, research in mice and rats have shown that TCE readily enters the brain and body tissue and at high doses damages the energy-producing parts of cells known as mitochondria.

In animal studies, TCE causes selective loss of dopamine-producing nerve cells, a hallmark of Parkinson's disease in humans.

Individuals who worked directly with TCE have an elevated risk of developing Parkinson's. However, the authors warn that "...millions more encounter the chemical unknowingly through outdoor air, contaminated groundwater, and indoor air pollution."

The chemical can contaminate soil and groundwater leading to underground rivers, or plumes, that can extend over long distances and migrate over time. One such plume associated with an aerospace company on Long Island, New York, is over four miles long and two miles wide, and has contaminated the drinking water of thousands. Others are found everywhere from Shanghai, China, to Newport Beach, California.

Beyond their risks to water, the volatile TCE can readily evaporate and enter people's homes, schools, and workplaces – often undetected. Today, this vapor

intrusion is likely exposing millions who live, learn, and work near former dry cleaning, military, and industrial sites to toxic indoor air.

Vapor intrusion was first reported in the 1980s when radon was found to evaporate from soil and enter homes and increase the risk of lung cancer. Today millions of homes are tested for radon, but few are for the cancer-causing TCE.

Decades before symptoms appear

The piece profiles seven individuals where TCE may have contributed to their Parkinson's disease. While the evidence linking TCE exposure to Parkinson's disease in these individuals is circumstantial, their stories highlight the challenges of building the case against chemical. In these cases, decades have often passed between exposure to TCE and the onset of Parkinson's symptoms.

The case studies include the professional basketball player Brian Grant, who played for 12 years in the NBA, and was diagnosed with Parkinson's at age 36. Grant was likely exposed to TCE when he was three years old and his father, then a Marine, was stationed at Camp Lejeune. Grant has created a foundation to inspire and support people with the disease.

Amy Lindberg was similarly exposed to the contaminated drinking water at Camp Lejeune while serving as a young Navy captain and would go on to be diagnosed with Parkinson's disease 30 years later.

The piece details others whose exposure was the result of living close to a contaminated site or working with the chemical, including the late U.S. Senator Johnny Isakson, who stepped down from office after a Parkinson's diagnosis in 2015. Fifty years earlier, he served in the Georgia Air National Guard, which used TCE to degrease airplanes.

Addressing the threat to public health

The authors note that "...for more than a century, TCE has threatened workers, polluted the air we breathe – outside and inside – and contaminated the water we drink. Global use is waxing, not waning."

The authors proscribe a series of actions to address the public health threat posed by TCE. They note that contaminated sites can be successfully remediated and indoor air exposure can be mitigated by vapor remediation systems similar to those used for radon. However, the U.S. alone is home to thousands of contaminated sites and this process of cleaning and containment must be accelerated.

They argue for more research to better understand how TCE contributes to Parkinson's and other diseases. TCE levels in groundwater, drinking water, soil, and outdoor and indoor air require closer monitoring and this information needs to be shared with those who live and work near polluted sites.

In addition, the authors call for finally ending the use of these chemicals in the U.S. PCE is still widely used today in dry cleaning and TCE in vapor degreasing. Two states, Minnesota, and New York, have banned TCE, but the federal government has not, despite findings by the EPA as recently as 2022 that the chemicals pose "...an unreasonable risk to human health."

Sources

[The Brighter Side News](#)

[Journal of Parkinson's Disease](#)

Acknowledgements

Additional authors include the paper's co-first author, Maryam Zafar, now a student at the Harvard T.H. Chan School of Public Health, Samantha Lettenberger, Meghan Pawlik, and Dan Kinel with UPMC, Bastiaan Bloem and Myrthe Frissen with Radboud University Medical Centre in the Netherlands, Caroline Tanner and Samuel Goldman with the University of California-San Francisco, and Briana De Miranda with the University of Alabama at Birmingham.

Even 'normal' drinking comes with a risk

Drinking moderate amounts of alcohol each week may be linked to cognitive decline associated with Parkinson's and other neurodegenerative conditions, according to a new study

Led by researchers at the University of Oxford, UK, a new study has investigated data from over 20,000 primarily 'moderate drinkers' and found that consuming more than seven units of alcohol per week could lead to higher iron levels in the brain.

"Higher brain iron... is linked to poorer cognitive performance, such as executive function (problem-solving) and fluid intelligence (puzzle tasks)," said the study's lead author, Anya Topiwala. "Iron accumulation could underlie alcohol-related cognitive decline."

This accumulation in the brain has also been associated with the development of neurodegenerative conditions like Parkinson's.

Understanding the data

As part of their study, the researchers examined data from the UK Biobank – a large database that contains genetic information of approximately 500,000 people in Great Britain, recruited from 2006 to 2010.

They then recruited participants with a mean age of 54.8 who self-reported their alcohol consumption upon entering the study. Among these, 2.7 percent were non-drinkers and the average alcohol consumption was 17.7 units per week.

The team carried out MRI scans of participants' brains around 10 years after the start of the study. In addition, approximately 7,000 members of the group also underwent MRI scans of their livers. The scans helped to identify levels of iron in the body.

Cognitive tests were also carried out at the start of the study, followed by an online assessment approximately six years later.

The results revealed that consumption of more than seven units of alcohol per week was associated with higher iron levels in parts of the brain linked to movement, problem-solving and emotional regulation.

Among the participants, men who drank more than 11 units of alcohol per week and women who drank more than 17 units per week had significantly higher systemic iron levels, suggesting that alcohol consumption causes iron to accumulate everywhere in the body.

Implications for the population

According to the study authors, the findings suggest that moderate drinking – prevalent in the UK population – may be linked with the development of neurodegenerative conditions like Parkinson's.

Study co-author Klaus Ebmeier, a professor in the University of Oxford's Department of Psychiatry, said this was just one of a series of studies suggesting that "...even 'normal' drinking comes with a risk of faster ageing and impaired mental and physical brain health".

He added: "All who consume alcohol need to balance this against their potential enjoyment of having a drink."

Source:

<https://oxfordbrc.nihr.ac.uk/moderate-drinking-linked-to-brain-changes-and-cognitive-decline/>

Support Group Round-up

By Stacey Foster, Support Group Coordinator

Anytime I can visit with a Support Group or SGL either online or in person, I am happy! Thank you for having me, I enjoy meeting you all.

Between the end of August and September, I visited several Support Groups:

Castle Hill: vibrant and well-led by Melissa Fratzia. The Group likes to come together for a morning tea and chat, before settling in for the month's guest speaker. For August, that was me. I shared information about Parkinson's NSW services that

are available to all Group participants and enjoyed chatting with participants before and after the meeting. A big turnout – close to 40!

Chatswood: a friendly group that's very ably led by Cathie Rankin. They, too, enjoy gathering for an afternoon tea and chat at the café where they meet, before heading into their meeting room to hear from the guest speaker. For August, it was Dr Paul Silberstein speaking about Deep Brain Stimulation. The purpose of my visit was to support the leadership handover to Stephen Hand, who is taking on the role for the next five months while Cathie is enjoying a well-earned break. Thank you, Stephen for this commitment.

Chinatown: Our bilingual Support Group with participants from all over Sydney, who have a great leadership team who are dedicated to supporting each other and the Group. Thank you for the warm welcome! The Group start their meetings with exercises, facilitated by their leader Rosanna Ng. I was definitely put through my paces! Next, we heard from Dr. Eric Ho who spoke about high blood pressure. The meeting finished off with a light lunch, wonderfully homemade by participants of the Group – all of it delicious.

Lismore: Another big and busy group that's well led and supported by the leadership team. Marie and Brayden co-lead and Desley leads the Carers Group. They are well-resourced and offer a library for their participants. I spoke again about Parkinson's NSW services and brought with me some resources. Tim Ayers, Parkinson's Nurse, also attended and spent some one-on-one time with participants. It was great to see some of the participants playing pool while chatting, general socialising by others, and carers having their own space and time.

Milton-Ulladulla: It was lovely to visit this group on the beautiful south coast! The Group have been without a leader for quite some time, but it's great to see that they still see the value of coming together each month to socialise and learn from guest speakers. I shared Parkinson's NSW services and resources, and we spoke about the current challenges facing the Group. After communicating with them all year, I enjoyed meeting them face to face

Mid North Coast Parkinson's teams embark on medication awareness campaign

The Parkinson's and Movement Disorders Clinical Nurse teams in Coffs Clinical Network and Hastings Macleay Clinical Network are embarking on an education program for nursing staff across the Mid North Coast Local Health District (MNCLHD).

The education campaign, *On Time Every Time*, aims to raise awareness about time-critical Parkinson's medication.

Medication delays in patients with Parkinson's can significantly impact quality of life and increase length of stay in hospital.

The education campaign is timely with the recent introduction of the MNCLHD Parkinson's Clinical Guideline, which Health staff can access on sharepoint.com. The education opportunities for nurses throughout the LHD will be available until mid-December 2023.

Education sessions will be 'toolbox talk' style of 10 to 15 minutes in duration. There will be exciting competitions and prizes for the departments with the most attendance and improvements in medication timing. Further audits will be carried out every six months.

For further information, contact Parkinson's Clinical Nurse Consultant Jody Lloyd on 0428 088 756 or Parkinson's Clinical Nurse Consultant Vince Carroll 0428 726 717.

Source

[Mid North Coast Local Health District newsletter](#)

My [Parkinson's] Life – Marina Haralambous

Marina Haralambous is passionate about pickleball

One day, about seven years ago, Marina Haralambous was on her way to watch her grandson at soccer and she had a fall.

"I fell badly, and my foot gave me a lot of trouble after that," she explained. "I could not walk properly. Because my father and my two brothers all had Parkinson's, I was pretty sure that I had developed it too. I could see myself in them. Only my younger sister, Arti, has not been diagnosed with Parkinson's."

Arti was on a long trip overseas while Marina was first struggling with her foot and walking issues after diagnosis.

"I needed a walking stick and at times used a walking frame," Marina recalls. "When my sister returned from her trip, she took one look at me and said, 'you've got to learn to walk again.' I said that if she would walk every day with me, I'd do my best."

"At first, I could only walk 500 metres but within a month or two we were doing five kilometres. One day when my sister and I were out walking, we went past a site where a new basketball court was being put in."

"My sister went to the local council and requested that they also mark in two pickleball courts. I learned that pickleball is played with a paddle across a net, similar to tennis, but with a hollow plastic ball. It was developed in America and can be played indoors or outdoors."

“At first it was mainly popular with retired people, but now the average age of players is around 40.”

Marina credits pickleball for getting her moving again. She recalls when she started playing, she could barely lift her feet (she felt as if her feet were embedded in concrete). She persisted and now flits around the court like a bird. Marina plays four to six times a week when she can.

“Pickleball has done absolute wonders for me,” says Marina, who lives in Sydney.

“After a session of pickleball, my muscles loosen up and I feel like a different person. My balance has improved tremendously. I used to do PD Warrior classes until pickleball took over my life. Three of us started a pickleball group, and now there are 275 members.

“It’s such fun; you can have a long rally and then all burst out laughing. It’s companionable, and there are very nice people playing. Now I know so many people and have many friends.”

Marina has observed that playing pickleball helps you keep mobile and active and improves hand-eye coordination. Together, medication and pickleball slow the progression of Parkinson's.

Marina’s pickleball skills don’t just finish in having helped to establish a big group of players. To her neurologist’s surprise, Marina continues to improve physically. On one of her routine visits to her neurologist he remarked: “Do you know that you have a degenerative disease? Every time I see you, you look better than the time before.”

The proof is that in the past two years she has participated in three tournaments. Marina won a bronze medal in the 2022 NSW State Pickleball Championship in her age group. She won a silver medal in the 2023 NSW Pickleball Championship and in September won up a bronze medal in the National Championships!

“The last time I visited my neurologist I wore my medals around my neck to show them to him,” says Marina. “He asked me what I was wearing around my neck and I explained that I had won them in State tournaments. He was taken aback and remarked ‘do you mean that you competed and won against able-bodied players, not just people with Parkinson’s?’

“I had never won medals in my entire life; now, in my 70s, I’ve won four of them,” she explains.

“When I started playing, I found it hard to buy a pickleball paddle. A year later I started a business manufacturing, importing and selling pickleball equipment. My son and husband work with me in the business. Our mission in life is to make as many people as possible aware of the benefits of playing pickleball.”