

is possible to decrease the risk



Clockwise from far left: Jeanette Walker is working on ways to prevent falling as often; Gary Khor demonstrates prevention techniques; Diana Olsberg in the home lift she had installed; and a Buckingham Palace guard perfects postural sway. Photos: Eddie Jim, Janie Barrett, Sitthixay Dittthavong, AP



is becoming more fragile. “What we do find is that people who have heart failure start to become increasingly frail and consequently have a fall,” says Leong.

At any age, people will lose condition if they’re stuck in bed for a long time, but in old age the drop-off is fast and can make a person more susceptible to an infection such as pneumonia. Comedian Barry Humphries died in 2023 at 89 from complications from hip surgery after falling two months earlier.

What can you do if you’re about to fall?

At NeuRA’s lab in Sydney, Stephen Lord has a “trip and slip walkway” to help people with limited balance – because of, say, Parkinson’s or multiple sclerosis – test their recovery skills and learn how not to fall.

Key to avoiding any fall is our ability to take a reactive step – a reflex that requires mental and physical training. If, for example, someone were to gently push us in the back, most of us would take a

step forward to stop ourselves toppling over. Lord has found that over four sessions on the walkway, people with balance difficulties showed a 40 per cent improvement in their reaction. “The idea is, once they learn that in the lab, that will transfer to everyday life.”

Lord has also trialled people playing the 1990s arcade games Dance Dance Revolution and Tetris on a step mat to train accurate stepping and better decision-making.

When it comes to the moment of falling, martial arts have a trove of advice. People could use their arms to absorb some of the impact and then rotate other points of the body to bear their weight too. Or, if they are moving at a brisk walking pace, they can roll and use the momentum to protect themselves.

Tai chi grandmaster Gary Khor was a research adviser for falls prevention to the NSW government in 2000. Today, he’s 77 and has had two knee replacements and several falls, “when somebody knocked into me, or I was shopping at the supermarket and there was

water on the floor”. He teaches that stopping a fall is like learning defensive driving. “If at any time we lean in any direction, your weight falls outside your base and that means you’re already inclined to fall,” he says. “There’s no way to prevent every fall, so the strategy is to break the fall.”

Khor has a solution for when we fall forward or to the side: tuck your tailbone under yourself to recalibrate your centre of mass. He narrows it down to three movements. Spread the legs, tuck the bottom in and brace the legs. He says if people brace and have enough leg strength, they give themselves a better chance of stopping the fall. “You brace, pressing against the ground with your legs,” he says. “People need to practise these three moves, but at the same time learn to strengthen the legs.”

How do you prevent falls?

Jeanette Walker is working on ways to stop another fall, above all because she wants to stay in the home she’s lived in for half a

century. “I’m staying here forever,” she says. “That’s why I try desperately to look after myself physically and mentally.” Since her most recent fall, she’s been attending a six-week exercise program. The sessions go for an hour and she does weights, steps over mini-hurdles, walks between cones and holds an object while trying to balance.

Exercise with a balance component is the No. 1 way to prevent falls, reducing the risk by up to 40 per cent in older people, studies show. The key ingredients in these exercises are balance control, functional strength, co-ordination and reaction time. The federal government recommends people 65 or older do at least 30 minutes of moderate physical activity on most days.

To be effective, a program needs to be tailored to the person, says senior physiotherapist Stephanie Ng at Eastern Health’s falls and balance clinic in Melbourne. “The most helpful thing would probably be someone practising getting on and off the floor. That’s the main factor,” she says. Weaknesses in our glutes and poor flexibility make it harder for people to get up with age. Lower and upper body strength training is crucial as we age.

Ng will prescribe tasks people can do at home. She might get people to stand on one leg, or if that’s not possible, to stand with one foot behind the other. She might also get them to close their eyes, or to stand on pillows to create uneven surfaces. “But most people can’t do that.” Digital solutions are also emerging to help older adults build balance at home. One such program, StandingTall, is a research-backed app that guides users through progressive balance exercises without needing supervision.

The key to any balance exercise is that it safely pushes people to the threshold of their balance. In other words, they feel slightly unbalanced. Says Ng: “It’s finding that fine line so that you know they’re not unsafe when they’re practising at home, but at the same time, it’s challenging them enough so that their brain can adapt and help with their balance reaction.”

Tai chi, a 17th-century martial art, also shows promising results, says Kim Delbaere at NeuRA. “It’s kind of moving slowly towards the edges of your base of support – to really challenge your balance right out. And that kind of thing is good for falls prevention.”

Gary Khor says tai chi both tests strength and trains us to relax and understand our centre of mass. “If you exhale and relax more, your body weight is on your leg muscles. So you’re loading your body weight onto your legs. That’s the same as resistance training in the gym, but you’re using your body weight instead.” Tai chi also gives people more awareness of their own body in motion. “You’re aware of your body, how it feels, the muscles, the pain, everything in there,” Khor

says. “When you want to take evasive action, you want your body to react faster, so you train this body-mind connection.”

Modifying your house can help. People aged between 65 and 74 are much more likely to fall outdoors, whereas over 74, falls become more likely in the home. Clearing trip hazards – securing carpets and mats, removing clutter and loose cords – are relatively easy solutions, and minor renovations such as shower and toilet grab rails, non-slip mats and sensor lighting for late-night toilet visits can help avoid calamity.

Diana Olsberg, 83, has lived in her apartment near the sea in Sydney for 50 years and is hoping to keep it that way. As an adjunct associate professor at UNSW, she has researched the social impacts of ageing. “You want to remain independent as long as you can. Preventing a fall is a very important issue in terms of you maintaining that independence.”

‘It’s just a fact of getting older, which gives me the irrits.’

Jeanette Walker

She does two exercise classes a week and one hydrotherapy session. She has installed a small lift to ensure she doesn’t need to navigate the stairs, where the injuries from a fall could be severe. “It’s a real ‘beam me up, Scotty’ lift. It fits in the well of the stairs. And here I am still in my flat.”

Olsberg’s partner died seven years ago and her adult children live interstate. “So I’m totally alone, and a lot of people are totally alone. The number of older people living alone is increasing. We’re living longer but more at risk.”

She had a fall three years ago in her lounge room. She wasn’t injured but wasn’t able to get back up without wriggling to the next room to use a chair. “I was very fortunate, I didn’t do any damage to myself at all. But it really alerted me very much to the fact that I have to be very careful.”

She now has a plan in case she falls: she carries her phone at all times, and has a device she can wear around her neck that she can use to alert neighbours if she needs help and pinpoint her location using GPS (several smartwatches also have options to alert emergency contacts if the wearer has fallen).

For Jeanette Walker, the most important thing is spending time in her garden. She also walks her two kelpies, and never leaves the house without a hiking pole, which she prefers to a walking stick as it makes her stand upright. “I have excellent neighbours, I have an excellent family, I’m out and about,” she says of life at 79. “But it is limiting, I’m always afraid of falling over.”

NATAGE A033