

Wellbeing

magazine

Edition #7



**LIVING LONGER & LIVING WELL
WHAT CAN WE LEARN FROM LONGEVITY
HOTSPOTS OR 'BLUE ZONES'?**

Dear Kinship Carers,

The Board of GPV/KCV takes the opportunity to thank you for your service to your own family and to Victoria's families in general.

This magazine, the seventh in the series, is our attempt to encourage you to look after yourselves. We hope you enjoy reading it and take its messages to heart.

The advice in the magazine has been derived from many different sources, and we hope you will find that it can be applied to your situation as a kinship carer.

We would be pleased to hear any feedback from you.

With warmest regards from the Board members:

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Jennifer Sullivan Board member

Naomi Whyley Board's Assistant

Sandie Harbison Board member

Kinship Carers Victoria
Phone: 0499 969 234
Email: admin@kinshipcarersvictoria.org
www.kinshipcarersvictoria.org



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*Cover photo of Okinawa by Finn on Unsplash.
Okinawa in Japan is one of the five 'Blue Zones'
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What are Blue Zones and where are they?

The length of the human lifespan is determined by a number of contributing factors: genetics, disease, behaviour; however, perhaps the most defining impact is lifestyle, including diet, daily activity and social connections.

The term 'Blue Zone' is a label that has been coined and refers to regions across the globe where inhabitants display lower levels of chronic disease and longer lifespans than average. There are five known and studied 'Blue Zones' across the world: Nicoya Peninsula, Costa Rica; Loma Linda, California; Ogliastra Region, Sardinia; Okinawa, Japan; and Ikaria, Greece. Although each Blue Zone is unique, there are common features that contribute to the healthy lives observed in these regions.



**Loma Linda
California**

**Sardinia
Italy**

**Nicoya
Costa Rica**



**Ikaria
Greece**

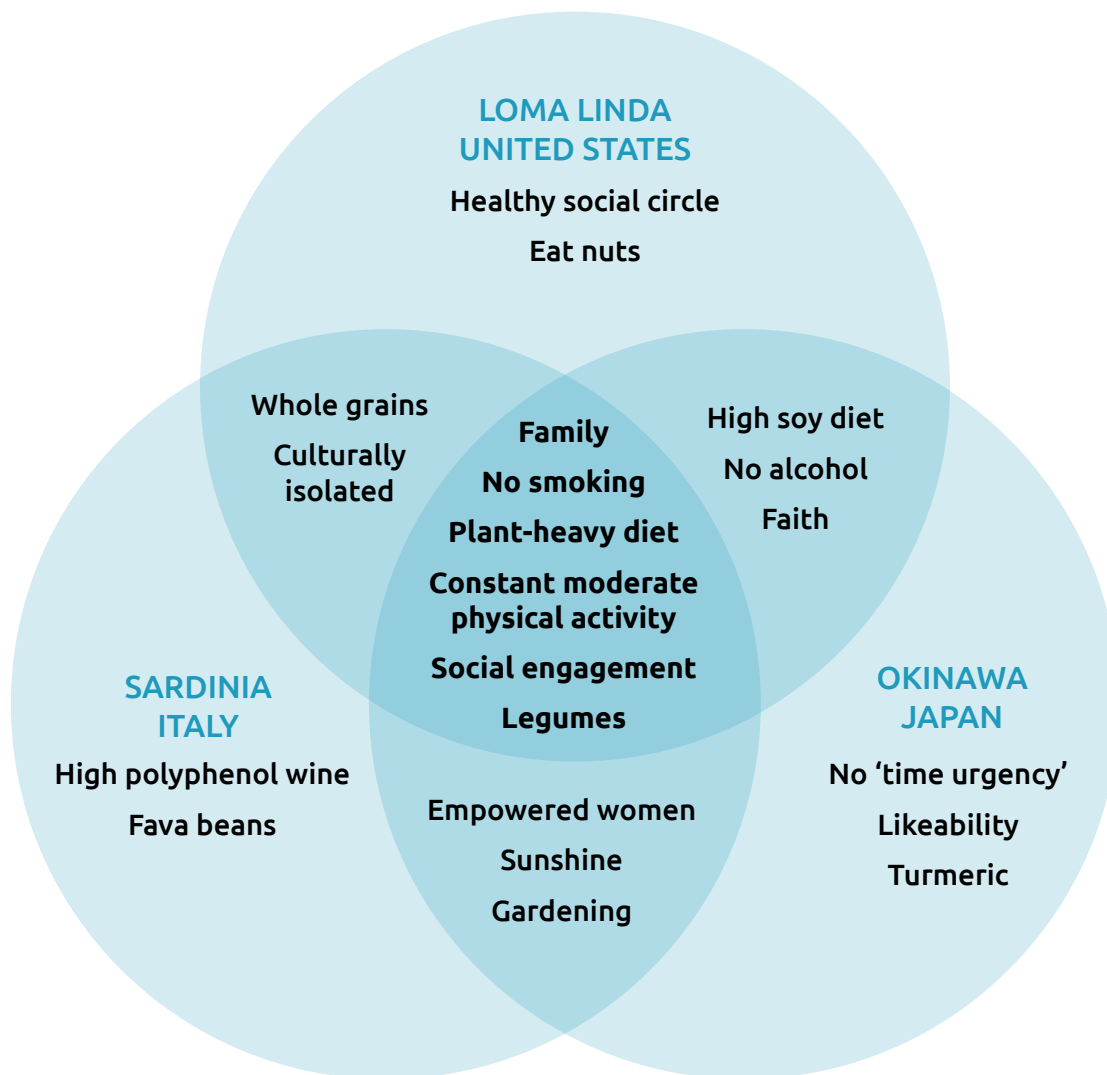
**Okinawa
Japan**

People who live in these Blue Zones commonly eat a plant-based diet incorporating a variety of fruit, vegetables and legumes with little meat consumption. Exercise is incorporated into daily activities, with consistent moderate movement involved in daily tasks such as walking gardening and physical labour. Alongside the aspects of physical health that keep these people fit and healthy, social and mental welling is equally as important. A sense of purpose and belonging is often established through close knit communities, religious groups and strong family connection.

Common features of a

Healthy Life

in three of the world's Blue Zones



Most Common

Family: Strong family values and connections are linked to lower rates of ill mental health

No smoking: Prevent smoking-linked diseases

Plant-heavy diet: High in nutrients and low in calories

Constant moderate physical activity: Active daily routine; walking, gardening, working etc.

Social engagement: Sharing values and supporting habits is linked to increased wellbeing

Moderately Common

Whole grains: Rich in fibre, reduce blood pressure

Cultural isolation: Fosters the longevity of this traditional and healthy lifestyle

Empowered women: Gender equality promotes greater autonomy and positive health outcomes for women

Sunshine: Enables the body to produce Vitamin D, promoting strong bones

Gardening: A source of daily physical activity and stress relief

High soy diet: Products such as tofu and miso soup may protect the heart and reduce cancer

No alcohol: Reduces the risk of cardiovascular disease, no alcohol is the healthiest amount

Common

Healthy social circle: Providing meaningful connections and support networks

Eating nuts: Great source of unsaturated fats and fibre

High polyphenol wine: 1-2 glasses per day provide a good source of antioxidants

Fava beans: Loaded with vitamins, minerals, fibre and proteins

No 'time urgency': Decreasing stress and improving psychological wellbeing

Likeability: Enhancing the quality of relationships and life satisfaction

Turmeric: Anti-cancer, anti-inflammatory and anti-ageing properties

Blue Zone dietary elements

Turmeric

Benefits

- Improves digestion
- Fights inflammation
- Lowers cholesterol
- Boosts brain function
- Immunity
- Promotes healthy skin

Uses

- In turmeric tea and coffee
- As a spice in cooking
- Turmeric supplements
- In juices



Legumes



Benefits

- High quality protein
- High fibre
- Source of antioxidants
- Low fat, low GI
- Support healthy blood pressure
- High in vitamins and minerals

Sources:

- Chickpeas
- Lentils
- Kidney beans
- Adzuki beans
- Green peas
- Fava beans
- Black-eyed peas

Plant-heavy diet

Benefits

- Anti-inflammatory
- Low in calories
- Lowers cholesterol
- Low in saturated fats
- Support healthy blood pressure

Sources:

- Green leafy vegetables
- Yellow vegetables
- Orange vegetables
- Fruits



Whole grains*



Benefits

- High fibre
- Source of antioxidants
- Low GI
- Supports healthy blood pressure

Sources:

- Oatmeal
- Brown and wild rice
- Quinoa
- Buckwheat
- Barley
- Whole rye

** Some whole grains are not appropriate for people with celiac disease and gluten sensitivity*

High-soy diet

Benefits

- High quality protein
- High fibre
- Cholesterol free
- Lactose free
- Source of anti-oxidants
- Source of omega-3 fatty acids

Sources:

- Soy beans
- Tofu
- Miso
- Tempeh
- Soy sauce
- Soy milk



Blue Zone lifestyle/ activities



Social and family connections/engagement

Benefits

- Lower rates of poor mental health
- Provide support networks
- Intellectual stimulation
- Help maintain brain health, slow cognitive decline

Constant moderate physical activity

Benefits:

- Boosts energy
- Promotes a healthy heart
- Improves mood and sleep
- Weight control

Types of activities:

- Walking
- Gardening
- Climbing stairs
- Cleaning
- Jogging



No time urgency

Benefits:

- Decreases stress, anxiety
- Improves psychological wellbeing
- Increased focus on the 'now'



Gardening



Benefits:

- Time outside means good vitamin D levels
- Builds strength
- Improves mood and sleep
- Calming/lowers stress
- Provides a sense of agency/self-determination
- Connects to nature

Empowered women

Benefits:

- Greater autonomy for women
- Positive physical and mental health outcomes for women
- Improved social structures
- Improved financial health for women
- Reduction in gender-based violence
- Political equality



Exactly how to nap like the longest-living people in the world

Taken from an original article by Erica Slone, published 3 Nov 2022 on [wellandgood.com](https://www.wellandgood.com)

To plot a roadmap for longevity, you might look to the ways in which people in the Blue Zones – aka regions of the world where folks tend to live the longest, healthiest lives – tend to spend their waking hours, like by gardening, going on regular walks, or communing with loved ones. But given what science has demonstrated time and again about the importance of sleep for health, you'd be remiss not to consider how these folks are spending their sleeping hours, too, and specifically, the ways in which sleep and napping play into their daily routines for longevity.

According to Dan Buettner, the *National Geographic* journalist who first uncovered the longevity hotspots of the Blue Zones, afternoon napping is common across all Blue Zones. But perhaps the most routine Blue Zone nappers are the residents of Ikaria, Greece, whose sleep schedule uniquely accommodates for the Mediterranean climate, as well as local food and eating practices.

'Most people in Ikaria grow a lot of their own food, so they have to work outside, tending to a garden in the morning, and will typically wake up with the sun to do that,' says Buettner. 'Then, they come home when the sun is at its strongest and will have their largest meal of the day for lunch. And after that, they'll take a short nap to feel restored for the evening and often tend to stay up a bit

later, too, doing activities when the heat of the sun has died down.'

THE LONGEVITY BENEFITS OF NAPPING AMONG PEOPLE IN THE BLUE ZONES

Though a nap is just one element among many daily rituals of these long-living Grecians, some research points explicitly to the benefits of napping for longevity (by way of its potential ability to mitigate heart disease).

A 2007 longitudinal study that followed more than 20,000 Greek people over a six-year period found that after controlling for other factors that affect cardiovascular health (like physical activity, diet and age), those people who reported taking regular midday naps of about 30 minutes had a 37 percent lower risk of dying from heart disease.

Indeed, other research has shown that taking a nap can not only decrease cortisol levels (thereby mitigating feelings of stress) but may also increase positive mood, improve emotional control (making you less impulsive and more tolerant of frustration) and boost focus. And any of the above napping benefits could have downstream positive effects for your day-to-day functioning and, in turn, your longevity.

All of that said, a nap is also not a panacea nor a replacement for clocking sufficient quality sleep – that is, seven to eight hours per night – on a

regular basis, which is key for long-term mental and physical health. And if you're napping every day in order to make up for sleep deprivation, you're going to be missing out on important deep stages of sleep, including REM sleep, that you can only get when you're asleep for an extended period of time.

Not to mention, the benefits of napping may have an upper limit. A 2019 longitudinal study that followed nearly 3,500 Swiss people for five years found that those who reported napping one to two times weekly demonstrated a significantly lower risk of experiencing cardiovascular disease – but that benefit disappeared in people who napped six to seven times weekly. And a 2015 meta-analysis on studies of napping and mortality found that napping for more than 45 minutes a day may actually be associated with greater all-cause mortality, perhaps due to underlying issues causing certain people to nap too often, for too long.

HOW TO NAP LIKE THE LONGEST-LIVING PEOPLE DO, AS PART OF A ROUTINE FOR LONGEVITY

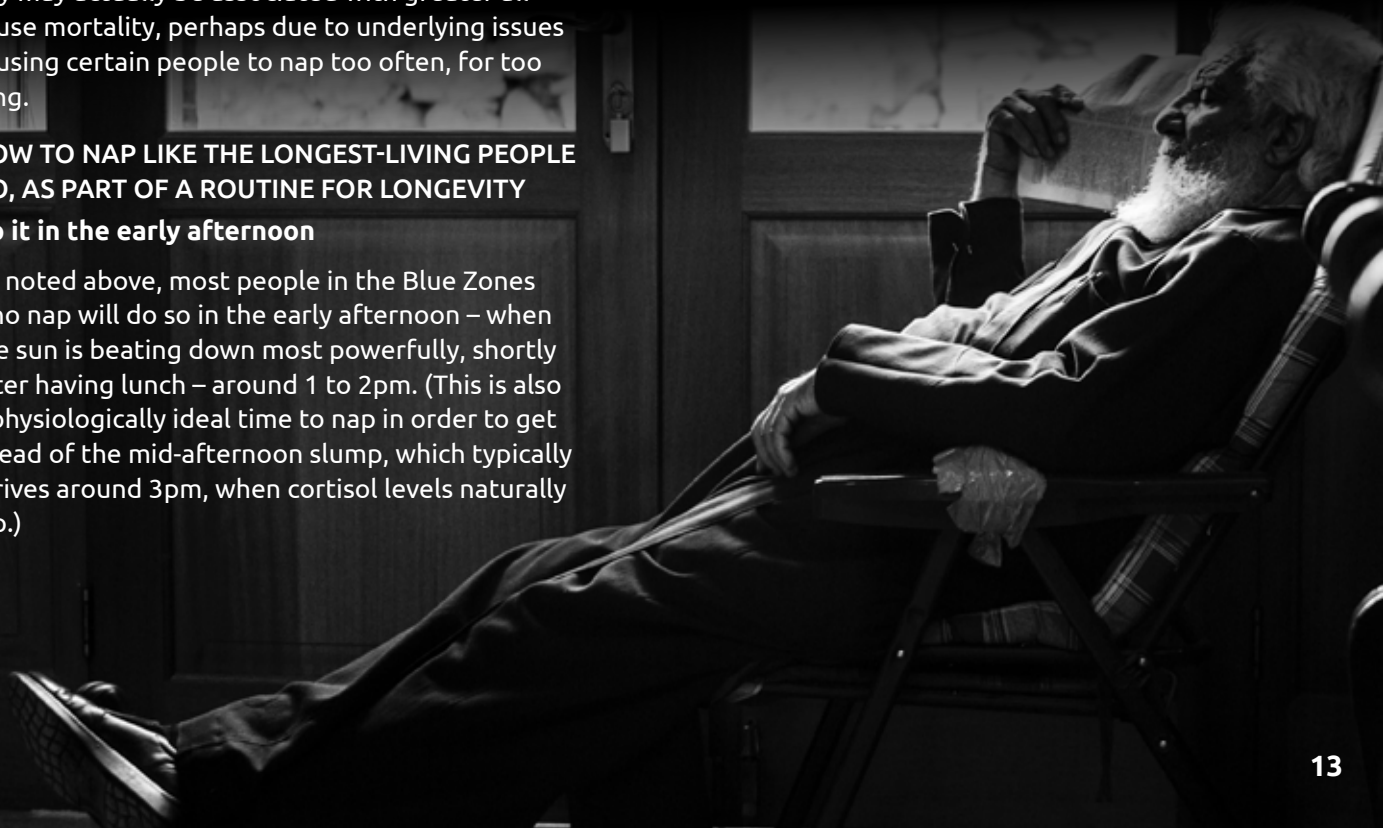
Do it in the early afternoon


As noted above, most people in the Blue Zones who nap will do so in the early afternoon – when the sun is beating down most powerfully, shortly after having lunch – around 1 to 2pm. (This is also a physiologically ideal time to nap in order to get ahead of the mid-afternoon slump, which typically arrives around 3pm, when cortisol levels naturally dip.)

Ensuring that your nap happens during this period of time can also keep it from interfering with your sleep, whereas later naps can reduce your overall sleep drive too close to bedtime, making it tougher to doze off.

Keep it short

Twenty minutes is the sweet spot for a functional power nap. Any longer, and you risk dipping into the deeper stages of sleep, from which it's harder to wake back up. In that case, when your alarm goes off, you're bound to feel groggy, as your body readjusts to the fact that your long nap was not, in fact, a full night of sleep. For this reason, micro naps tend to be the most effective in providing all the aforementioned benefits without the slog of getting back up.





The American Heart Association found that consuming coffee, both caffeinated and decaf, was associated with a lower risk of total mortality.

Four morning habits of the longest-living people in the world

By Francesca Krempa. Originally published on [wellandgood.com](https://www.wellandgood.com) 15 May 2023

Four morning habits for longevity, inspired by the Blue Zones

1. FIND YOUR 'IKIGAI'

When you wake up in the morning, what gets you out of bed? What's your drive? Finding whatever that is and embracing it fully is one of the habits embraced by the residents of at least one of the blue zones.

The Japanese concept of *ikigai* is about discovering what sparks your soul and leading life with purpose. According to the Blue Zones, having a purpose is linked to longevity; it literally gives you a reason to get out of bed in the morning as you age.

If you're not sure where to begin, Ken Mogi, a neuroscientist and author of *Awakening Your Ikigai*, previously told Well+Good how to tap into that inner magic. The process, Mogi says, usually starts by embracing five pillars: starting small, accepting yourself, connecting with others and the planet, finding joy in little things, and being present.

2. DON'T SKIP A HEALTHY BREAKFAST

Unsurprisingly, a healthy diet is an important part of becoming a centenarian. Buettner says that sticking to nutritious eating plans, like a plant-based diet or the Mediterranean diet, can help fuel a long, healthy life. A part of this includes the most important meal of the day: eating breakfast.

One woman – a 105-year-old living in Loma Linda, California – swears by starting her day with a hearty bowl of slow-cooked oatmeal. Topped with fibre-friendly dates, wholesome walnuts, and a splash of protein-packed soy milk, it's a super easy meal to make in the morning. Buettner says she follows each bowl with a 'prune juice shooter' that helps to get things moving while reducing blood pressure and cholesterol.

3. ENJOY A CUP OF MORNING COFFEE

People who live in each of the five Blue Zones savour their morning cup of joe. '[People in these areas] drink up to two or three cups of black coffee per day,' according to Buettner's findings. 'The American Heart Association found that consuming coffee, both caffeinated and decaf, was associated with a lower risk of total mortality.'

Now, that doesn't mean you should go loading up your cup with sweet cream lattes or six packets of sugar. Instead, opt for a splash of milk in your coffee with a teaspoon of sugar or a plant-based milk alternative and natural sweetener, like oat milk and agave. Or swap out your morning coffee with a cup of tea, another staple throughout the blue zones. 'To really Blue Zones your coffee or tea routine, make coffee or afternoon tea dates with friends or family to chat, laugh, and get that


face-to-face time that's so important to health and happiness,' says Blue Zones.

4. SAY SOMETHING NICE TO THE FIRST PERSON YOU SEE

Sarah Wilson, an Australian journalist and author of *First, We Make The Beast Beautiful: A New Story on Anxiety*, once asked Buettner for his own morning routine. In addition to eating a healthy breakfast (full of fruits and grains) and completing 20-minutes of exercise (usually yoga or a bike ride to work), Buettner starts each morning by literally complimenting others.

'Say something nice to the first person we meet,' he wrote in an email to Wilson. 'A Harvard study shows that behaviours are contagious so if you do it to your neighbour, it's likely to come back to you.'

Considering how important connection to community and meaningful human relationships are in Blue Zones, it's likely Buettner picked up this morning habit up from his research. In addition to sparking this emotional ripple effect, find your community and cultivate a healthy social life. Whether it's first thing in the morning or throughout the day, human connection leads to happier, longer lives.



Blue Zones food guidelines

Originally published on the [bluezones.com](https://www.bluezones.com) website

The Blue Zones people have distilled more than 150 dietary surveys of the world's longest-lived people to discover the secrets of a longevity diet.

These 11 simple guidelines reflect how the world's longest-lived people ate for most of their lives. By adopting some of the healthy eating principles into your daily life, you too can live better, longer.

FOOD GUIDELINES

MONTHLY

Retreat from meat: Blue zones centenarians eat about 56g or less about 5x per month

Reduce dairy

WEEKLY

Slash sugar: Consume only 7 teaspoons of added sugar daily

Eliminate eggs:
No more than 3 per week

Go easy on fish:
Fewer than 85g, up to 3 times weekly

DAILY

Snack on nuts:
About 1–2 handfuls a day

Drink mostly water: About 7 glasses/day; coffee, tea and wine in moderation

Daily dose of beans: Half-cup to one cup/day

Go wholly whole: Single-ingredient, raw, cooked, ground or fermented, and not highly processed

95–100% plant-based



SEE THAT YOUR DIET IS 95–100 PERCENT PLANT-BASED

People in the Blue Zones eat an impressive variety of garden vegetables when the vegetables are in season, and then they pickle or dry the surplus to enjoy during the off-season. The best-of-the-best longevity foods are leafy greens such as spinach, kale, beet and turnip tops, chard, and collards. Combinations of seasonal fruits and vegetables, whole grains, and beans dominate blue zones meals all year long.

Many oils derive from plants, and they are all preferable to animal-based fats. We cannot say that olive oil is the only healthy plant-based oil, but it is the one most often used in the blue zones. Evidence shows that olive oil consumption increases good cholesterol and lowers bad cholesterol. In Ikaria, we found that for middle-aged people, about six tablespoons of olive oil daily seemed to cut the risk of dying in half.

People in four of the five Blue Zones consume meat, but they do so sparingly, using it as a celebratory food, a small side, or a way to flavour dishes. Research suggests that 30-year-old vegetarian Adventists will likely outlive their meat-eating counterparts by as many as eight years. At the same time, increasing the amount of plant-based foods in your meals has many salutary effects. Beans, greens, yams and sweet potatoes, fruits, nuts, and seeds should all be favoured. Whole grains are okay too. Try a variety of fruits and vegetables; know which ones you like, and keep your kitchen stocked with them.



RETREAT FROM MEAT

Averaging out consumption in Blue Zones, we found that people eat about 56g or less of meat about five times per month. And we don't know if they live longer despite eating meat.

The Adventist Health Study 2, which has been following 96,000 Americans since 2002, has found that the people who live the longest are vegans or pesco vegetarians, who eat a plant-based diet that includes a small amount of fish.

So, while you may want to celebrate from time to time with chicken, pork or beef, we don't recommend it as part of a blue zones diet. Okinawans probably offer the best meat substitute: extra-firm tofu, high in protein and cancer-fighting phytoestrogens.

GO EASY ON FISH

If you must eat fish, do so in amounts less than 85g, up to three times weekly. In most Blue Zones, people eat some fish but less than you might think – up to three small servings a week. There are other ethical and health considerations involved in including fish in your diet. In the world's Blue Zones, in most cases, the fish being eaten are small, relatively inexpensive fish, such as sardines, anchovies, and cod – middle-of-the-food-chain species that are not exposed to the high levels of mercury or other chemicals like PCBs that pollute our gourmet fish supply today.

People in the Blue Zones don't overfish the waters like corporate fisheries that threaten to deplete entire species. Blue Zones fisherpeople cannot afford to wreak havoc on the ecosystems they depend on.

REDUCE DAIRY

Arguments against milk often focus on its high fat and sugar content. The number of people who (often unknowingly) have some difficulty digesting lactose may be as high as 60 percent. Goat and sheep milk products figure into the Ikarian and Sardinian Blue Zones.

We don't know if it's the goats milk or sheeps milk that makes people healthier or if it's the fact that they climb up and down the same hilly terrain as the goats do. Although goats milk contains lactose, it also contains lactase, an enzyme that helps the body digest lactose.

ELIMINATE EGGS

People in all of the Blue Zones eat eggs about two to four times per week. Usually they eat just one as a side dish with a whole-grain or plant-based dish. Nicoyans fry an egg to fold into a corn tortilla with a side of beans. Okinawans boil an egg in their soup. People in the Mediterranean Blue Zones fry an egg as a side dish with bread, almonds, and olives for breakfast. Blue Zones eggs come from chickens that range freely, eat a wide variety of natural foods, and don't receive hormones or antibiotics. Slowly matured eggs are naturally higher in omega-3 fatty acids.

People with diabetes should be cautious about eating egg yolks. Consumption of eggs has been correlated to higher rates of prostate cancer for men and exacerbated kidney problems for women. Some people with heart or circulatory problems choose to forgo eggs. Again, eggs aren't necessary for living a long life, but if you must eat them eat no more than three eggs per week.

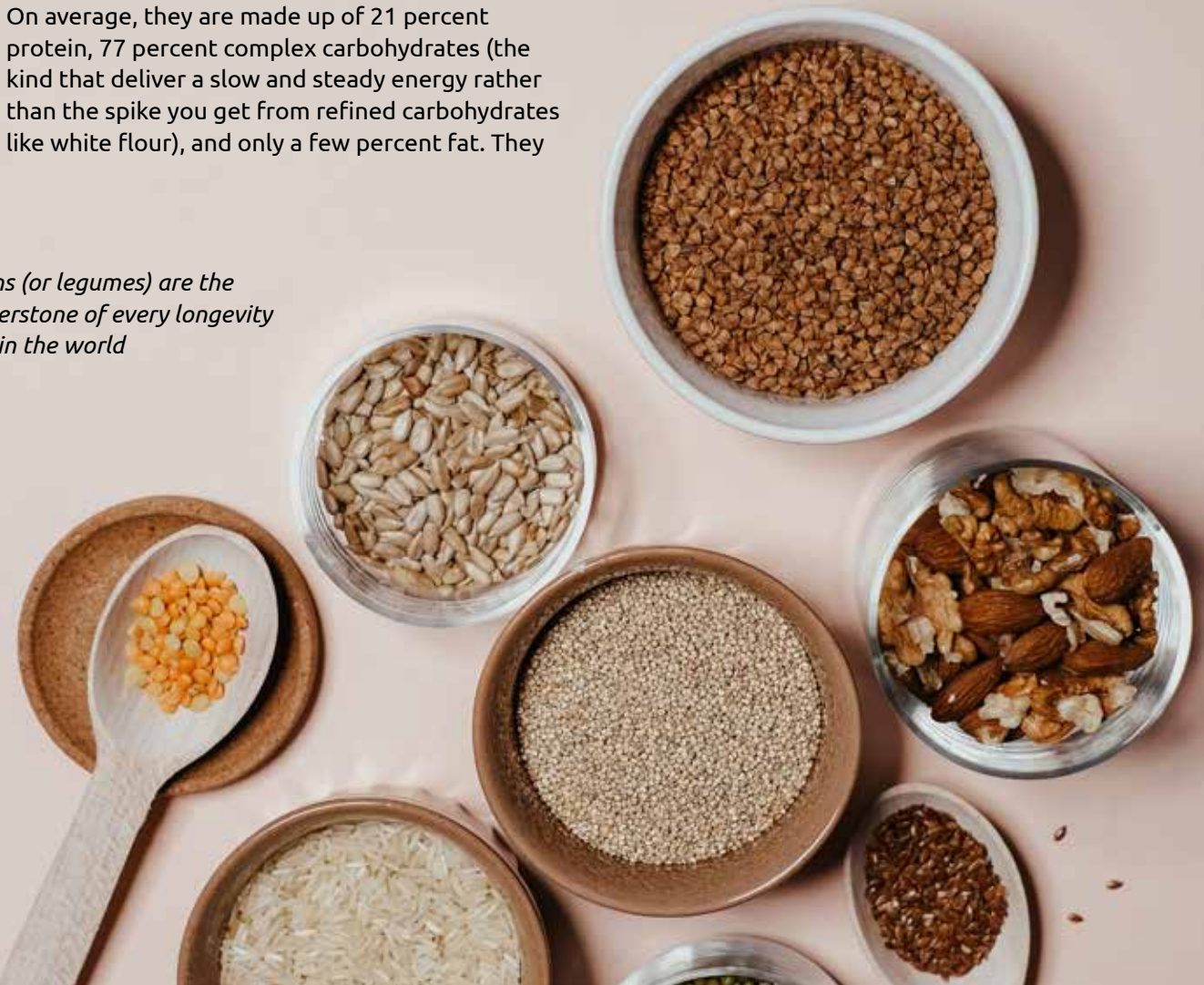
DAILY DOSE OF BEANS

Eat at least a half cup of cooked beans daily. Beans reign supreme in Blue Zones. They're the cornerstone of every longevity diet in the world: black beans in Nicoya; lentils, garbanzo, and white beans in the Mediterranean; and soybeans in Okinawa. People in the Blue Zones eat at least four times as many beans as Americans do on average.

The fact is, beans are the consummate superfood. On average, they are made up of 21 percent protein, 77 percent complex carbohydrates (the kind that deliver a slow and steady energy rather than the spike you get from refined carbohydrates like white flour), and only a few percent fat. They

are also an excellent source of fibre. They're cheap and versatile, come in a variety of textures, and are packed with more nutrients per gram than any other food on Earth. Beans are a meal staple in all five of the Blue Zones – with a dietary average of at least a half-cup per day, which provides most of the vitamins and minerals you need. And because beans are so hearty and satisfying, they'll likely push less healthy foods out of your diet.

Beans (or legumes) are the cornerstone of every longevity diet in the world



SLASH SUGAR

Consume only 35g (7 teaspoons) of added sugar daily. People in the Blue Zones eat sugar intentionally, not by habit or accident. They consume about the same amount of naturally occurring sugars as North Americans do, but only about a fifth as much added sugar – no more than seven teaspoons of sugar a day. It's hard to avoid sugar. It occurs naturally in fruits, vegetables, and even milk. But that's not the problem.

Between 1970 and 2000, the amount of added sugar in the American food supply rose by 25 percent. This adds up to about 22 teaspoons of added sugar each of us consumes daily – insidious, hidden sugars mixed into soda, yogurt, and sauces. Too much sugar in our diet has been shown to suppress the immune system. It also spikes insulin levels, which can lead to diabetes and lower fertility, make you fat, and even shorten your life.

Our advice: If you must eat sweets, save cookies, candy, and bakery items for special occasions, ideally as part of a meal. Limit sugar added to coffee, tea, or other foods to no more than four teaspoons per day. Skip any product that lists sugar among its first five ingredients.

Pistachio nuts: a regular part of the diet for residents of Blue Zone Nicoya in Costa Rica

SNACK ON NUTS

Eat two handfuls of nuts per day. A handful of nuts weighs about 56g, the average amount that blue zones centenarians consume – almonds in Ikaria and Sardinia, pistachios in Nicoya, and all nuts with the Adventists. The Adventist Health Study 2 found that nut eaters outlive non-nut eaters by an average of two to three years.

The optimal mix of nuts: almonds (high in vitamin E and magnesium), peanuts (high in protein and folate, a B vitamin), Brazil nuts (high in selenium, a mineral found effective in protecting against prostate cancer), cashews (high in magnesium), and walnuts (high in alpha-linoleic acid, the only omega-3 fat found in a plant-based food). Walnuts, peanuts, and almonds are the nuts most likely to lower your cholesterol.



SOUR ON BREAD

Eat only sourdough or 100 percent whole wheat. Blue Zones bread is unlike the bread most Americans buy. Most commercially available breads start with bleached white flour, which metabolises quickly into sugar and spikes insulin levels. But bread from the Blue Zones is either whole grain or sourdough, each with its own healthful characteristics. In Ikaria and Sardinia, breads are made from a variety of whole grains such as wheat, rye or barley, each of which offers a wide spectrum of nutrients, such as tryptophan, an amino acid, and the minerals selenium and magnesium.

Whole grains also have higher levels of fibre than most commonly used wheat flours. Some

traditional Blue Zones breads are made with naturally occurring bacteria called lactobacilli, which 'digest' the starches and glutes while making the bread rise. The process also creates an acid – the 'sour' in sourdough. The result is bread with less gluten even than breads labeled 'gluten free', with a longer shelf life and a pleasantly sour taste that most people like. Traditional sourdough breads actually lower the glycemic load of meals, making your entire meal healthier, slower burning, easier on your pancreas, and more likely to make calories available as energy than stored as fat.



GO WHOLLY WHOLE

Choose foods that are recognisable. People in Blue Zones traditionally eat the whole food. They don't throw the yolk away to make an egg-white omelet, or spin the fat out of their yogurt, or juice the fibre-rich pulp out of their fruits. They also don't enrich or add extra ingredients to change the nutritional profile of their foods. Instead of taking vitamins or other supplements, they get everything they need from nutrient-dense, fibre-rich whole foods.

A good definition of a 'whole food' would be one that is made of a single ingredient, raw, cooked, ground, or fermented, and not highly processed. Tofu is minimally processed, for example, while cheese-flavored corn puffs are highly processed. Blue Zones dishes typically contain a half dozen or so ingredients, simply blended together. Almost all of the foods consumed by centenarians in the Blue Zones grow within a 16-kilometre radius of their homes. They eat raw fruits and vegetables; they grind whole grains themselves and then cook them slowly. They use fermentation – an ancient way to make nutrients bio-available – in the tofu, sourdough bread, wine, and pickled vegetables they eat. And they rarely ingest artificial preservatives.

DRINK MOSTLY WATER

Never drink soft drinks (including diet soda). With very few exceptions, people in Blue Zones

drank coffee, tea, water, and wine. Period. (Soft drinks, which account for about half of Americans' sugar intake, were unknown to most Blue Zones centenarians.) There is a strong rationale for each.

WATER Adventists recommend seven glasses of water daily. They point to studies that show that being hydrated facilitates blood flow and lessens the chance of a blood clot.

COFFEE Sardinians, Ikarians, and Nicoyans all drink copious amounts of coffee.

Research associates coffee drinking with lower rates of dementia and Parkinson's disease.

TEA People in all the blue zones drink tea. Okinawans nurse green tea all day. Green tea has been shown to lower the risk of heart disease and several cancers. Ikarians drink brews of rosemary, wild sage, and dandelion – all herbs known to have anti-inflammatory properties.

RED WINE People who drink – in moderation – tend to outlive those who don't. (This doesn't mean you should start drinking if you don't drink now.) People in most Blue Zones drink one to three small glasses of red wine per day, often with a meal and with friends.

Green tea has been shown to lower the risk of heart disease and several cancers



Strength training can protect brain from degeneration in those at risk of Alzheimer's disease

Originally posted 11 Feb 2020 on abc.net.au

Australian researchers have for the first time shown that weights training can protect the parts of the brain vulnerable to Alzheimer's disease.

The University of Sydney study, published in the *Neuroimage: Clinical* journal, showed that six months of strength training slowed, and even halted, the degeneration in the hippocampus and its subregions a year after the exercise.

The study consisted of 100 participants at high risk of Alzheimer's disease due to mild cognitive impairment (a decline in memory and other thinking skills despite intact daily skills).

They were randomly split into four groups and given tasks including computerised brain training, strength training, a combination of the two and a control group.

The participants doing strength exercises completed 90 minutes of supervised strength training (using dumbbells, weights or machines) each week for six months, according to senior author of the study Michael Valenzuela.

'They did that for 45 minutes, twice a week, for six months and then we waited for 12 months and that's when we saw these really strong effects,' he said.

Professor Valenzuela, from the Brain and Mind Centre, said it was the first time that any medical or lifestyle intervention had been shown to slow or halt degeneration in the brain over such a period.



According to the study author, resistance exercise, or weight training, needs to become part of dementia risk-reduction approaches.

'What we saw was a difference in terms of decline,' he said.

'In the control group, those sub-parts of the hippocampus were shrinking at an expected level of around 3 to 4 per cent.

'In those doing weight training, we saw much less, so 1 to 2 per cent, and in some areas none at all.'

RESULTS SHOW A 'CLEAR DIFFERENCE'

Professor Valenzuela said he was surprised by how clear the results were.

'There was no grey zone about these results,' he said.

'There was a clear difference in terms of brain anatomy and, linked to that, those people doing strength exercises had far better cognitive outcomes than otherwise.

'These are not just structural changes, which are interesting for their own sake, they have a functional consequence.

'I do think it's very important and it's really pointing to the message that people hopefully have heard that exercise is good for the brain and the body but part of that exercise mix really should be strength training and lifting weights.'

Professor Valenzuela said there were two competing ideas of why the strength training improved the cognitive performance.

'One is the chemical cocktail idea, which is pumping weights and doing exercise releases a whole myriad of chemicals into the bloodstream which are good for the body, good for anti-diabetes, they're good for anti-inflammatory,' he said.

'Some might get into the brain and promote plasticity.

'The other idea is a central nervous system idea, which is that doing exercise repetitively stimulates almost electrically these memory parts of the hippocampus.

'We know this from rodents, we're not sure if this happens in humans.'

Professor Valenzuela said there was a clear message that 'resistance exercise needs to become a standard part of dementia risk-reduction strategies'.

- **The study showed a clear difference for the participants doing strength exercises**
- **Senior author Michael Valenzuela said it was the first intervention that slowed or halted degeneration**
- **He said it was clear that strength training needed to be part of dementia reduction strategies**

Challenge your brain! **Eight suggestions** for brain-boosting exercises

Originally published by the Alzheimer Society of Canada on alzheimer.ca/en, 16 January 2023

What does it mean to ‘challenge your brain’? Here are some suggestions! They may help you in keeping your brain fit, healthy and as protected as possible against the risk of dementia.

There are many ways to reduce your risk of dementia, including physical and social activities that can protect your brain and are easy to try out. These activities include engaging with your friends, family and community, and finding a quick workout routine you love and can do regularly. But what about engaging your brain, and working it out?

Studies show that exercising your brain daily and keeping it stimulated can be critical to reducing your risk of dementia. Giving your brain a challenge forces it to engage in new or rarely-used mental pathways that can prevent or slow the onset of cognitive decline that can lead to dementia such as Alzheimer’s. When it comes to boosting your brain, there are a variety of exercises you can try – some simple and some more challenging!

1. RATHER TRY SOMETHING SIMPLE? TAKE UP A NEW HOBBY

It’s never too late to try something new! Constantly learning new things throughout your life can help you build your cognitive reserve.

Whether it’s cooking a new meal every week, taking up painting or figuring out how to fix something around the house, adding another regular activity to your repertoire is a great and easy way to challenge your brain. You may find a new passion or end up unlocking a hidden talent, too!

2. LOOKING FOR A CHALLENGE? LEARN A NEW LANGUAGE

Looking for something even more challenging? Try learning a new language! While more time-intensive, learning a new language is a great way to exercise your brain because you will need to practise regularly to become skilled.

There are many types of languages too! How about computer language, like learning how to code? Or sign language? You can even try learning an instrument – it’s the language of music! Anything that needs regular practice will help you and your brain.

3. RATHER TRY SOMETHING SIMPLE? PLAY GAMES THAT INVOLVE YOUR MIND

Games are not only fun, they require you to pay attention, think strategically and test your memory, which are all excellent ways to keep your brain exercised. Examples of brain-challenging games can include chess, tabletop games, video



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games, word and number puzzles, jigsaws, crosswords, sudoku and memory games.

For games on your computer, your tablet or your phone, find games where you can play and interact with other people to get that social bonus in!

4. LOOKING FOR A CHALLENGE? CROSS-TRAIN YOUR BRAIN

What's something you're not good at doing? What can you do to improve it? It may be tough, but if you work at what you're inexperienced at, you can give yourself and your brain some flexibility. You may surprise yourself with how capable you are!

You can also try a variety of challenges instead of sticking to one particular area. Instead of learning how to set up a tent, for example, why not learn more about all the things you need to do to go on a well-planned backcountry camping trip?

5. RATHER TRY SOMETHING SIMPLE? BREAK YOUR ROUTINE

It's never too late to try something new! A small challenge to try is changing up how you normally live your day. Take a different route to the shops or change the order of your morning routine.

It may be more difficult than you think at first, but trying out different routines can help you feel more prepared and ready to take on other challenges.

6. LOOKING FOR A CHALLENGE? TAKE A CLASS

Lifelong learning is vital to exercising your brain. When something is above your expertise, don't be discouraged; ask for help and get professional education and training so you can pursue what you want to learn about.

Class discussions and assignments may help your analytical and thinking abilities and help you get past longstanding obstacles. Learning in a group environment, even if it's an online class, can add another flavour of social interaction to your week!

7. FEELING TIRED OR FRUSTRATED? SLEEP ON IT, OR TRY SOMETHING ELSE

Just as it's tough to work out when you're feeling exhausted, it's not effective to exercise your brain when it's running on empty. Get plenty of sleep! You need at least seven hours of sleep per night. Otherwise, sleep deprivation can significantly impair your memory, mood and function.

And if a task ends up being too challenging, don't be afraid to ask for help ... or just find something else to do. There's no need to give yourself unnecessary stress that can work against your brain health.

8. CHECK WITH YOUR ALZHEIMER SOCIETY FOR MORE TIPS AND CHALLENGES

Looking for more suggestions to challenge your brain? Contact the Alzheimer Society that's nearest to you. We are happy to provide brain-boosting resources and tips to anyone who is interested in their brain health, whether you live with dementia or are interested in reducing your risk.

Alzheimer's Association - Australia

alz.org/au/dementia-alzheimers-australia.asp

Dementia Australia - Victorian Office

Phone: 03 9816 5799

Email: vic.admin@dementia.org.au

How Social Connections Keep Seniors Healthy

As we age, we tend to shed family and friends – which can hurt our mental and physical health. How can we design communities for seniors that facilitate social connections?

By Jill Suttie. Originally published online at greatergood.berkeley.edu 14 March 2014

Vonda is an energetic 73-year-old woman with a friendly smile and a sharp wit. For the last two decades she's been living in an intentional farming community called 'Potluck Farm' with other individuals and families on 170 acres in rural North Carolina.

But recently, she realised something: She's getting older. Though she loves the farm, living far apart on separate six-acre parcels means that neighbours don't see each other that often and can't easily help each other in a pinch. Caring for the large piece of property is getting tougher, too.

So she and some friends have begun building a new community – smaller and adjacent to the old – where houses will be built closer together, more activities will be shared, and neighbours will grow food and maintain their lifestyle, while caring for one another.

'The most important thing in a community like this is having people around to support and engage you,' says Vonda. 'Taking care of each other keeps you alive and healthy.'

It turns out that Vonda and her friends are on to

something. Researchers have long known about the health benefits of 'social capital' – the ties that build trust, connection, and participation. But this link may be particularly important for seniors, precisely because both our health and our social capital tend to decline as we age. We retire from jobs, lose friends and spouses to death and illness, and see family members move out of the area – all of which can sharply reduce daily social contacts and stimulation, which in turn has a direct impact on mental and physical health.

Fortunately, there are solutions: More and more studies are discovering how senior communities can be designed to maximise sharing, friendship, health, and happiness in our later years.

SOCIAL CAPITAL FOR SENIORS

Yvonne Michael, an epidemiologist from the Drexel University School of Public Health, studies the effects of social capital on seniors. To measure community social capital, thousands of individuals living in different neighbourhoods are asked to respond to questions like, 'Are your neighbours willing to help each other with routine

maintenance?’ or, ‘Can you trust your neighbours?’ From these answers, Michael can gauge the connections between health, behavior, and social capital.

In one study, Michael analysed data from a large health survey of nearly 14,000 adults in Southeastern Pennsylvania. After measuring the levels of mobility among the seniors living in those neighbourhoods, Michael found that those living in areas with greater social capital had significantly higher physical mobility scores than those living in lower social capital neighbourhoods.

‘These results are not too surprising,’ says Michael. ‘Living in a place with greater social capital – where there is more trust and more helpful neighbours – you will feel more comfortable walking around to get to places you need to go, which helps you stay mobile.’

In another study, Michael looked at how social capital related to positive health-seeking behavior – specifically getting recommended cancer screenings. Although this study was not focused only on the elderly, she found that in neighbourhoods with higher levels of social capital, adults were 10–22 percent more likely to get screened at the recommended ages, suggesting earlier diagnoses and treatment for serious diseases.

‘People who live in neighbourhoods high in social capital have better health information diffusion and enforcement of norms,’ says Michael. ‘When the norms are healthy – like getting health screenings, not smoking, or walking around the neighborhood – they will be enforced throughout the population.’

A community with higher social capital may also be able to offer more assistance to seniors who need help with routine maintenance tasks, she says. For example, if you are elderly and you need to replace shingles on your roof or you need to shovel snow off your footpath, it’s more likely you’ll find a helpful hand in a neighbourhood high in social capital.

‘In that kind of place, there’s a level of connection that allows older people to age in place,’ she adds.

HOW SOCIAL CONNECTIONS SAVE LIVES

Higher levels of social interaction – even peripheral interactions – can have a high payoff for elderly folks, says Bryan James, an epidemiologist at the Rush Alzheimer’s Disease Center in Chicago. Although he doesn’t study social capital the way Michael does – as an overall community trait – James does study the impact of greater social activity levels in individuals and its impact on health.

‘In one study ... the rate of cognitive decline was 70 percent less in people with frequent social contact than those with low social activity.’



In one study, James looked at how social activity affected cognitive decline. Over 1100 seniors without dementia at baseline were measured on their social activity levels and then tested periodically on their cognitive functioning over a 12-year period. The rate of cognitive decline was 70 percent less in people with frequent social contact than those with low social activity.

‘When you use your brain and body the way it was intended – as it evolved – you age better,’ says James. ‘We just aren’t meant to be disengaged from one another.’

In another study, James looked at a community-based cohort of older people free of dementia and measured social activity levels and their disability levels – in terms of their ability to care for themselves. Findings showed that those with more frequent social activity maintained lower levels of disability in several areas, suggesting that they would be able to live independently longer than their less social counterparts.

‘The predominant theory is use it or lose it,’ says James. ‘Social activity is related to motor function, just like physical exercise is related. We can’t determine which is most important – they each contribute a piece of the puzzle.’

His results are truly dramatic. Even when he and his colleagues statistically control for risk factors like smoking or a history of disease, they still find that someone with high levels of social activity has 43 percent less disability than someone who has low levels of social activity, and about half the rate of cognitive decline.

Communities high in social capital offer a lot to seniors, because they can augment

opportunities for seniors to have those kinds of social connections. ‘If you are in a more cohesive neighbourhood, you will more likely engage with others in your neighbourhood,’ says Michael, and that can bring great benefits socially and otherwise.

DESIGNING NEIGHBORHOODS FOR SOCIAL CAPITAL

But not all people benefit from social capital in the same way, says researcher Spencer Moore at Queen’s University in Ontario.

According to Moore, some seniors don’t benefit as much from having high social capital in their communities, in part because they have strong social networks outside of their neighbourhoods and ready access to them, which makes neighbourhood support less central. Also, low-income seniors tend to live in communities that are more homogenous and don’t provide as many opportunities for stimulation or for diverse social ties, which are both important for health.

‘We really need to foster public policies that will support programs that create opportunities for low-income elderly to get outside of their neighbourhoods, to have more diverse connections,’ says Moore.

Despite the proposed benefits of social capital, though, many communities lack those things that foster better connection, like public places to gather or opportunities to engage in meaningful work. Or worse, they suffer from high crime rates. A senior who finds no welcoming place in the community may end up alone at home watching TV most days. And that can spell disaster for their physical and emotional health.

So what can one do to increase social capital? Creating a community like Vonda's is ideal; but many elderly can't afford to move, nor would they necessarily want to. Still, some are taking notice of the findings from social capital research to do what they can to make their communities cater more to seniors.

For example, one organisation, Vital Aging Network (VAN), located in Minnesota, is helping seniors to become social change agents in their communities. VAN trains seniors in community organising, giving them the skills to assess what their neighbourhood needs, gather resources, and start new programs. Projects initiated through VAN training have included things like creating walking paths for seniors, bringing a 'balance exercise program' to a community to decrease falls among seniors, and initiating a program to befriend isolated seniors, among many others.

'Often seniors are seen as people who need services instead of people who have a lot to offer,' says Julie Roles, a program director at VAN. 'We focus on community-based development, where seniors have the freedom to determine what they need and how to get it.'

Helping seniors to stay engaged with their community and to continue to make positive contributions, according to James, is invaluable. The health benefits of volunteerism are well documented, including its impact on increasing longevity, he says – but it's even more powerful when your efforts give you a sense of purpose in life.

'People who have the strongest sense of purpose are much less likely to become depressed, have

neuroticism, or get Alzheimer's,' says James.

Vonda feels the same way. Her community has plans to keep themselves connected socially and actively involved with each other's welfare, while still maintaining ties to their surrounding community. They will have a central community space open to other groups to use, and will be inviting seniors to teach each other new skills – like gardening or blacksmithing – that are useful to farm living.

'We plan to have people doing real work, instead of being taken to the mall or asking them to engage in invented, frivolous time-occupiers,' says Vonda.

She believes that physical exercise, coupled with deep social connections and a commitment to taking care of one another, will keep members of her community healthier and prevent their needing to move into some other, less interactive environment, like a nursing home. She and her friends are adamant about doing all they can to age not just gracefully, but with vitality.

'I kind of refuse to grow old,' she says.



Regular exercise can help increase your chances of living a longer, healthier life

How long can Australians live?

Summary of a report by the Australian Institute of Health and Welfare, published on 11 July 2023

On average, Australians are living longer than ever before. Life expectancy has been steadily increasing, and this is matched by increases in the proportion of deaths that occur at older ages and in the median age at death. However, the oldest age at death (often referred to as maximum age at death) has fluctuated from year to year and shown minimal increases over time. While improvements in life expectancy are resulting in an ageing population and growth in the population of centenarians, few Australians die at ages higher than 110. This suggests that mortality is being

compressed into older ages and may be slowly converging towards a maximum age at death rather than a situation where maximum life span is increasing along with average life expectancy.

SUSTAINED INCREASES IN SOME MEASURES OF LONGEVITY

Life expectancy in Australia has increased by 13.7 years for males and 11.2 years for females since the 1960s. People born in 2019–2021 can expect to live to more than 81 years (81.3 years for males and 85.4 for females).

The median age at death (the age by which half of all deaths have occurred) has also increased over time. Between 1964 and 2021, the median age at death increased by 11.5 years for males (from 68.1 to 79.6 years) and 10.9 years for females (from 74.0 to 84.9 years).

MORE AUSTRALIANS ARE DYING BEYOND 100 YEARS, BUT FEW PAST 110

The number of centenarian deaths (those aged 100 and over) has been rapidly increasing. In 2021, 1 in 72 deaths in Australia were of people aged 100 or more (2,247 deaths). This is an increase from 1 in 1,214 in 1964 (83 deaths). Over the period 1964–2021, most (94%) of these deaths occurred between the ages of 100 and 104 years. Over the same period, deaths at extreme old ages (110 years and above) remained rare.

MAXIMUM AGE AT DEATH HAS NOT INCREASED LIKE OTHER MEASURES OF LONGEVITY

While we have seen significant gains in life expectancy in Australia over time, this is not matched by changes in the maximum age at death. The average age of the 10 most elderly deaths in the 1960s ranged from 101.6 to 104.4 years for males and 103.5 to 105.8 years for females. In the most recent decade to 2021, the range was 104.7 to 107.3 years for males and 107.8 to 109.9 years for females. The single oldest age at death in Australia shows considerable year to year fluctuation, and is 114 years for females (occurring in 1983, 2002 and 2017) and 111 for males (occurring in 1991, 1997, 2002, 2003, 2020 and 2021).

WHY ARE PEOPLE LIVING LONGER BUT THERE IS ONLY MINIMAL IMPROVEMENT IN THE LONGEST LIVING INDIVIDUALS?

There are many reasons behind increased life expectancy in Australia, largely related to improved medical knowledge and technology, the widespread availability of antibiotics and vaccines, healthcare availability and access, improved living conditions and overall increasing wealth in Australia. Better disease treatment led to reductions in infant mortality. Improvements in sanitation, food quality and health education have contributed to lowering death rates and increasing life expectancy in people of all ages.

Improvements in life expectancy due to the above factors have resulted in an ageing population and a rising centenarian population. However, few people are living past 110.

WHAT MORE DO WE NEED TO LEARN?

While centenarian deaths are increasing, these events are still relatively rare. The population of centenarians is growing but remains a very small portion of the overall population. Accurate and complete data on this group are vital to understanding mortality and population trajectories. More rigorous validation of deaths at extreme ages in Australia, coupled with linked births and deaths data, and more detailed population statistics, could enhance the precision of information on Australian longevity. This would enable more accurate assessment of the potential impacts of current trends in maximum life span on Australian society.



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