
SUPER
WELLNESS
Healthy Ageing
Uncover key science & practical ideas for how to live a vibrant life in your latter years

AGENDA

- **Quick quiz –** myths of ageing
- **What does it mean to age?**
- **How does science measure ageing?**
- **Learnings from the Blue Zones**
- **Key factors to focus on for healthy ageing**
- **8-Point plan**

Myths of ageing…quick quiz

1. Which of these does science suggest helps us age well?

a). Supplements

b). Exercise

c). Some alcohol

2. What % do our genes affect our longevity?

a). 20%

b.) 30%

c). 40%

3. Is life expectancy currently increasing or decreasing?

Decreasing - US & UK 2023 studies

What does it mean to age?

Why is old age not embraced in the Western World?

Could our later years be the best years of our life?

Oldest people in world living well into their 100s

Lifespan v Healthspan

Lifespan v Healthspan

LIFESPAN

The total number of years you are alive. While lifespan has increased over the decades, healthspan has not - and may even be decreasing.

HEALTHSPAN

The years of your life that you spend in good health and free from chronic disease.

LONGEVITY

How does science measure ageing?
‘Hallmarks of ageing’

- **Molecular Level**
  - Genomic instability
  - Loss of proteostasis
  - Telomere shortening
  - Compromised autophagy
  - Mitochondrial dysfunction
- **Cellular Level**
  - Cellular senescence
  - Stem cell exhaustion
  - Altered intracellular communication
- **Systemic Level**
  - Nutritional dysregulation

Could science prevent ageing?

- **Genomic instability** - damaged DNA
- **Cellular senescence** - build-up of senescent (old) cells
- **Mitochondrial dysfunction** - ‘organelles’ within our cells that generate the energy to power biochemical reactions.

‘Hallmarks of ageing’ - in real terms…

Age related diseases

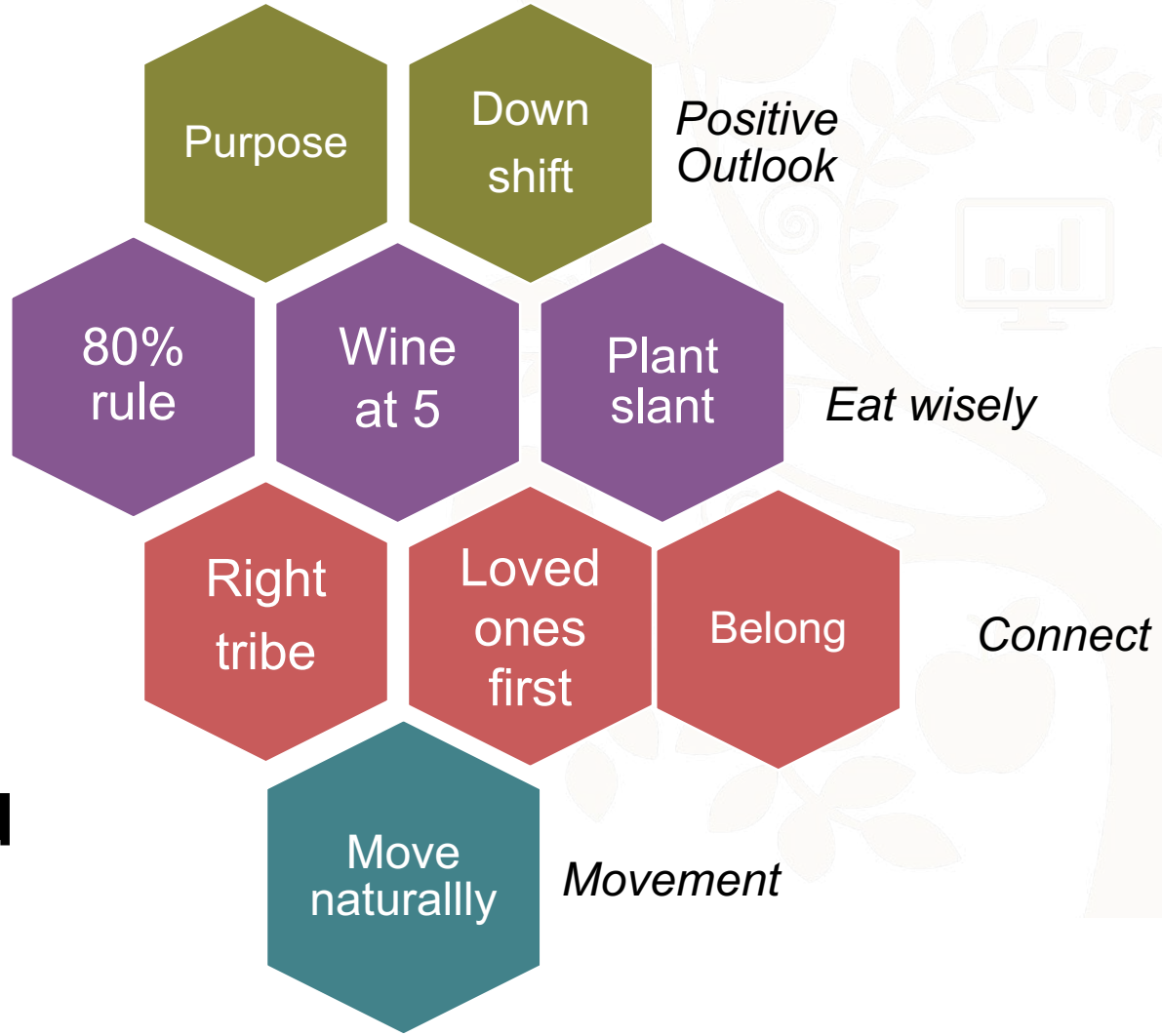
- Alzheimer’s disease
- Parkinson’s disease
- Heart disease
- Non-Alcoholic Fatty Liver Disease (NAFLD)
- Type 2 Diabetes
- Osteoporosis
- Cancer

Age related issues

- Age related macular degeneration (AMD)
- Age related hearing loss
- Osteoarthritis

What can we learn from the Blue Zones?

- **5 key countries**
  - Ikaria, Greece
  - Loma Linda, California
  - Sardinia, Italy
  - Okinawa, Japan
  - Nicoya, Costa Rica
- **Highest number of centenarians in the world!**
- **9 commonalities discovered**



What has changed?

- Less manual more desk work
- Towns/cities more sprawling requiring cars to get around
- Supermarkets replaced local shops
- Online shopping/working from home
- Reduced communities
- Less religion

What can we do now?

- **Genes and DNA - 20%-30%**
- **Epigenetics - 80%**
- **Lifestyle - essential**
- **Relationships - critical**
- **Environment - important**
- **Socio-economic status - relevant**
- **Magic bullet - not yet!**
- **Some luck - helps!**

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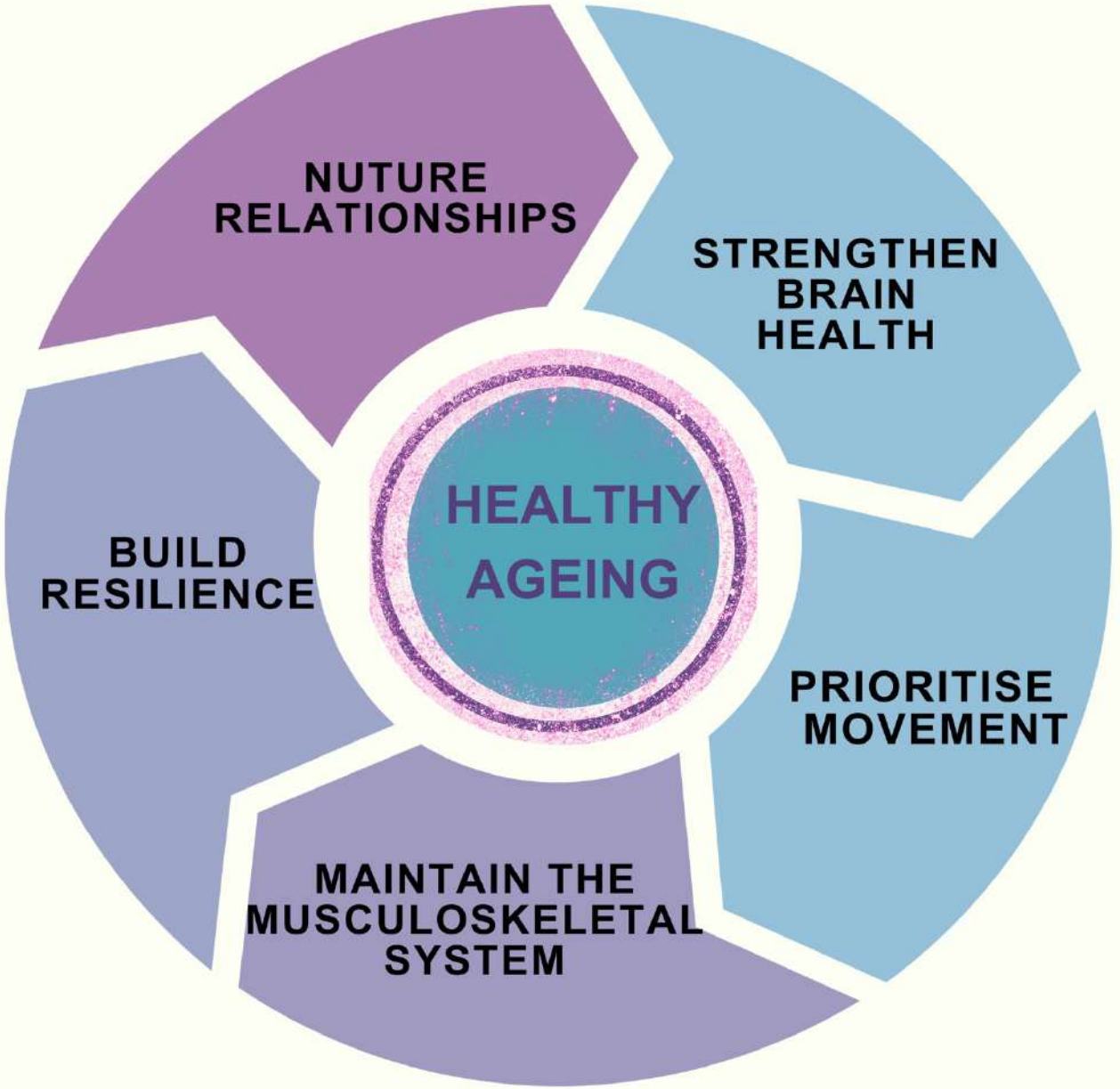
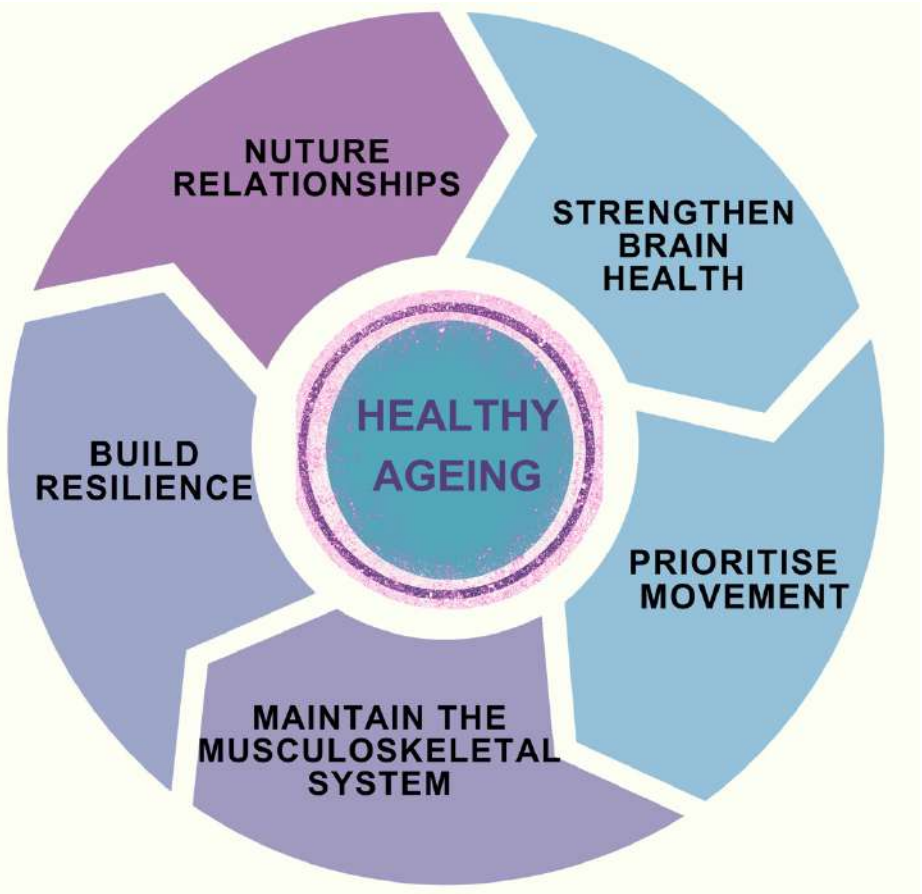
Key areas to focus on…



Key areas ‘for you’ to focus on…



1. **Nurture relationships** - overarching benefits to wellbeing and preventing ill health
2. **Strengthen brain health** - reduce risk of cognitive impairment (Alzheimer’s, dementia) and mood disorders (depression)
3. **Prioritse movement** – unwavering research shows importance in disease prevention and longevity
4. **Maintain the musculoskeletal system** (MSK) - age causes wear and tear so essential to focus on joints, tissues, bones and muscles
5. **Build resilience** - improve stress response (nervous system balance), improve energy (mitochondria) and nurture sleep for recovery

8-point plan

Ideas to support key areas

1. Get your health checks

Find out key information:

- Blood sugars
- Cholesterol
- Triglycerides
- Blood pressure
- Liver Function Test
- Vitamin D levels
- Cancer screening

Check visceral fat

- BCT test
- Waist height ratio

- **Attend hearing & sight tests**

1.2 Health measurements – desired ranges

	Measure	UK	US	Europe*
Blood sugars	HbA1c	<42mmol/mol	<5.7%	<7%
Blood lipids:	Triglycerides	<150mg/dL or 1.7mmol/L	150mg/dL	<1.7mmol/L
	Total Cholesterol	<5mmol/L	<150mg/dL	
	Cholesterol (LDL)	<3mmol/L	100mg/dL	<3mmol/L
	Cholesterol (HDL) (Women)	>1.0mmol/L	40mg/dL	
	Cholesterol (HDL) (Men)	>1.2mmol/L	50mg/dL	
	Cholesterol ratio (TC:HDL)	<6		
Blood pressure	Diastolic	60-80mmHg	<80mmHg	<90mmHg
	Systolic	90-120mmHg	<120mmHg	<140mmHg
Vitamin D	Serum 25[OH]D	>50nmol/L	>20ng/ml	>50nmol/L^

*from European Society of Cardiology except ^ from EFSA

2. Nurture relationships and build connections

- Strong relationships impart a **50% increase in longevity**
- **Positive impact:** increases self-esteem, improves assertiveness, encourages communication & trust, builds engagement, improves productivity & networks, supports emotional resilience and more…

Supports brain health, builds resilience and fights disease.

2.1 Get connected – what resonates with you?

Work full or part time

Try a new hobby

Virtual groups / share your interests online

Reconnect to old friends

Group exercise classes

Chat to neighbours

Volunteer / Mentor

Follow a sports team

Host more

3. Movement - essential for overall health

- **Cardio -** for lifelong fitness
- **Resistance -** for muscle health
- **NEAT -** supports metabolism
- **Flexibility -** reduces risk of injury
- **Balance -** prevent falls

Supports brain health and MSK, builds resilience and fights disease.

3.1 Vigorous physical activity

- Cumulative time spent in **'vigorous' physical activity** lowers mortality risk
  - ➢ Jogging, running, cycling fast, swimming laps, hiking with a backpack/weights, heavy gardening or skipping
- **VO2 Max** - maximum amount of oxygen a person can utilise during exercise
- **The 'talk' test** - can you talk or sing during your exercise
- **Rate of Perceived Exertion (RPE)** - work gradually over time to improve your level of intensity

!WARNING! Think about where you are now. What injuries you may have or health issues and then gradually aim to improve your exercise intensity.

3.2 Muscle health for longevity

Essential for:

- Bone health
- Joint health
- Fighting muscle loss
- Improving mitochondria
- Reducing sarcopenia risk

Strength peaks around age 25

Muscle mass decreases approximately 3-8% after age 35

- ***Start slowly and build up with correct posture and form***
- ***Handgrip strength (HGS) -*** *indicator of overall health. Examples to improve grip strength include; farmers walk with weights, band exercises, deadlifts and plate pinch.*

4. Musculoskeletal - take care of joints

- **Foot health** – pedicures/foot health checks and flexible, supportive shoes e.g. minimalist footwear
- **Posture** – yoga, pilates, strength training
- **Flexibility** – stretching, yoga, pilates, stretching, tai chi
- **Balance** – single-leg balance, weight shifts, yoga, tai chi
- **Eat well** – Nutrition 101

Supports brain health, MSK, builds resilience and fights disease.

5. Aim to avoid injury and falls

- Start new exercise slowly
- Don’t forget to warm up and cool down
- Regular stretching
- Consider using a personal trainer
- Invest in good shoes
- Careful of overtraining
- Look after your musculoskeletal system

Supports MSK and builds resilience.

6. Build resilience – manage stress & support sleep

- Ring fence ‘me time’ each day
- **Mindfulness and/or breathing techniques**
- Gentle yoga **(hatha, yin)**
- **Walks in nature**
- Practice a **gratitude** diary
- **Yoga Nidra** (body scan meditation)
- Have a laugh
- Tune into music
- Epsom salts bath
- Sleep routine
- Cuddles! Pets or loved ones!

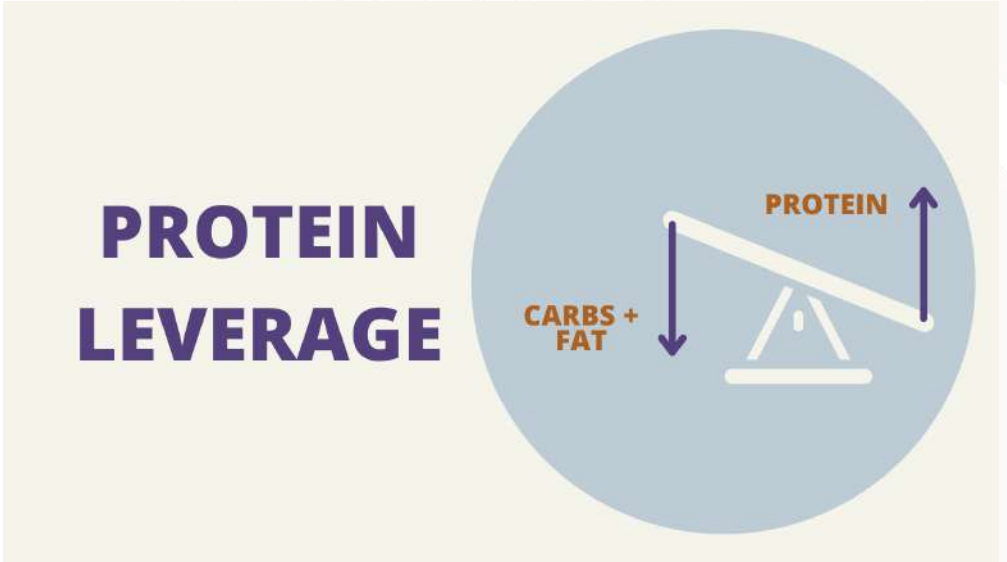
Supports brain health and MSK, builds resilience and fights disease

7. Nutrition 101

- Invest in time preparing meals
- Reduce your meat intake across the week - include some plant-based days
- Find some meals that you love and can cook!

7.1 The question of protein

- Essential as we age to **support** muscle loss and function, immune health, skin, hair, nails and bone health
- Helps **maintain** and **repair** cells, tissues and organs
- **Regulates** metabolic health including blood sugar balancing and appetite
- **Variety** is key
- Plant based eating can make it difficult to get enough



7.2 How much protein should I have?

Different approaches

- As a % of daily calorie intake: Average diet gets about 15-17% (Aim for between 10% – 35%)
- According to individual body weight: 1.2g – 1.6g per kg of body weight (up to 2g per kg if high intensity exercising)
- Meal threshold to meet RDI: 20 – 30g of protein per main meal
- It is recommended not to go higher than 2g per kg of body weight/per day

50+ years - Min of 1.2g/kg/day (higher protein needs due to sarcopenia)

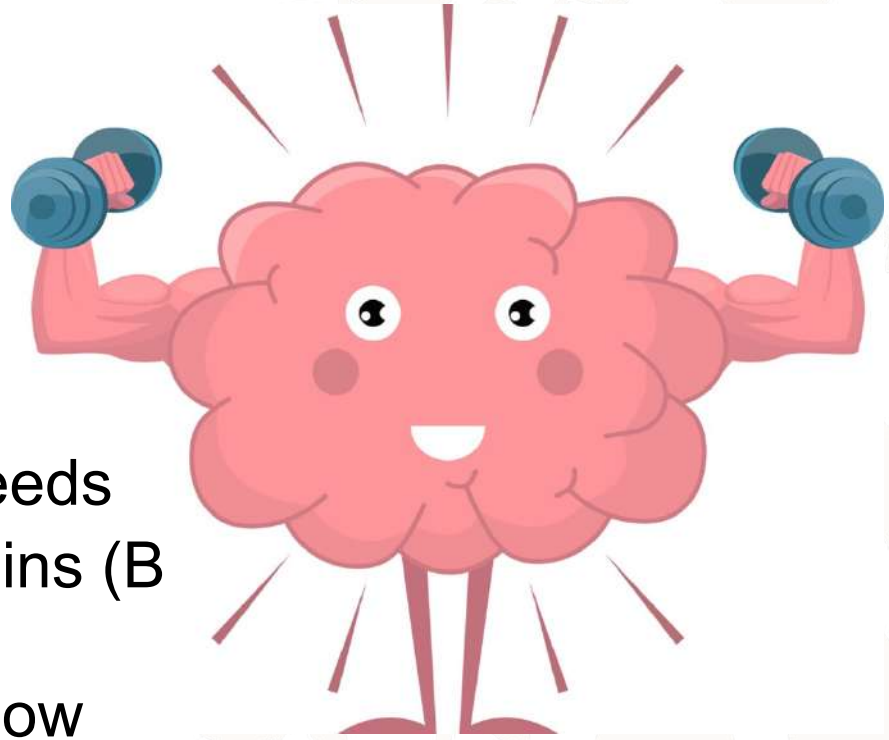
7.3 To fast or not to fast

- Encourages autophagy
- Improvements seen in brain health via BDNF
- Increases insulin sensitivty
- Supports improvements in blood glucose
- Improves cholesterol levels

- Can be difficult to maintain
- Possible muscle loss
- Risk of metabolic adaptation
- Can increase stress on the body
- Unsuitable with health issues
- Women need to be careful due to hormonal pressures

Long term research not available – quality of diet is key

8. Strengthen brain health



Food for the brain

- **Omega 3** – oily fish
- **Probiotic rich foods** – kimchi, kefir, kraut
- **Healthy fats** – avocadoes, olive oil, nuts, seeds
- **Nutrient boost** - green leafy veg, whole grains (B vitamins and fibre)
- **Antioxidants** – berries, herbs, spices, rainbow foods

8.1 Strengthen brain health

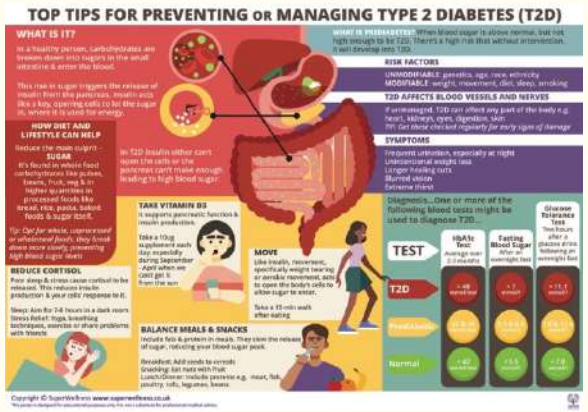
Engage in activities that challenge and stimulate the brain

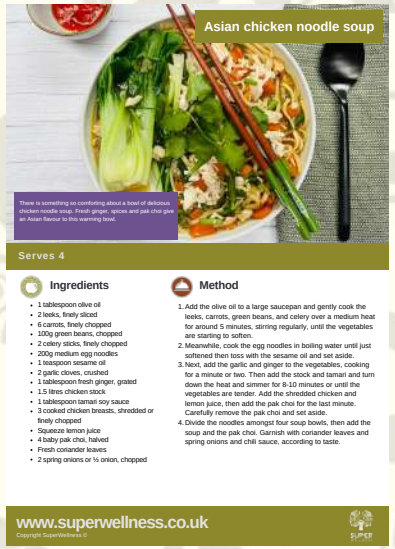
- **Explore nature and stimulating environments**
- **Challenge yourself**
  - Continue education and learning
- **Learn something new**
  - Try arts, crafts and DIY projects
  - A new sport or hobby
- **Keep your brain active**
  - Try brain teasers and riddles
  - Play games e.g. video, board, quizzes, memory and trivia

What changes could you make?

- Find some healthy recipes you can cook regularly
- Introduce ‘movement snacks’ in your day?
- Book a GP appointment
- Ring an old friend or family member
- Try to include resistance training
- Start an evening routine to benefit sleep

Additional Resources





Resources

Books

Outlive: The Science and Art of Longevity by Peter Attia

Age Proof: The New Science of Living a Longer and Healthier Life The No 1 – Professor Rose Ann Kenny

The Alzheimer's Solution by Dean Sherzai and Ayesha Sherzai: Written by neurologists.

How to Build a Better Brain by Kimberley Wilson

Keep Sharp: Build a Better Brain at Any Age by Sanjay Gupta

Podcasts

Drive – Peter Attia
Live Better Feel More – Dr Rangan Chatterjee

Th Menopause Coach podcast by Adele Johnston

Huberman Lab – Andrew Huberman

Websites

SuperWellness Exercise Demos
https://www.youtube.com/watch?v=SZUnIgKqbCM

Food for the Brain
https://foodforthebrain.org/

Minimalist shoes
https://www.vivobarefoot.com/uk/

Ask

Your doctor about health checks, especially if you have cancer or heart disease in your direct family.

Brain Training Apps

BrainHQ: improve cognitive functions such as memory, attention, and reasoning.

Lumosity: Brain games and puzzles to challenge cognitive skills and improve brain health.

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- Rangan Chatterjee (2017)*The 4 Pillar Plan: how to relax, eat, move and sleep your way to a longer, healthier life*. Penguin UK.

- The Doctors Kitchen Podcast (2021) *Beat Ageing* with Dr Andrew Steele

- Dan Buettner, Blue Zones, 'Empowering Everyone Everywhere to Live Better and Live Longer' https://www.bluezones.com

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Q & A