

**HFMA, SDN & ONF
Eastern Branch
annual conference
'Strength behind the
numbers' 22 Feb 2023**

**Health Wellbeing the
science**

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GP CEO Intelligent Health
Chair Active Essex
MRCGP MBE



There were 2.1 million A&E attendances in England in Nov 2022

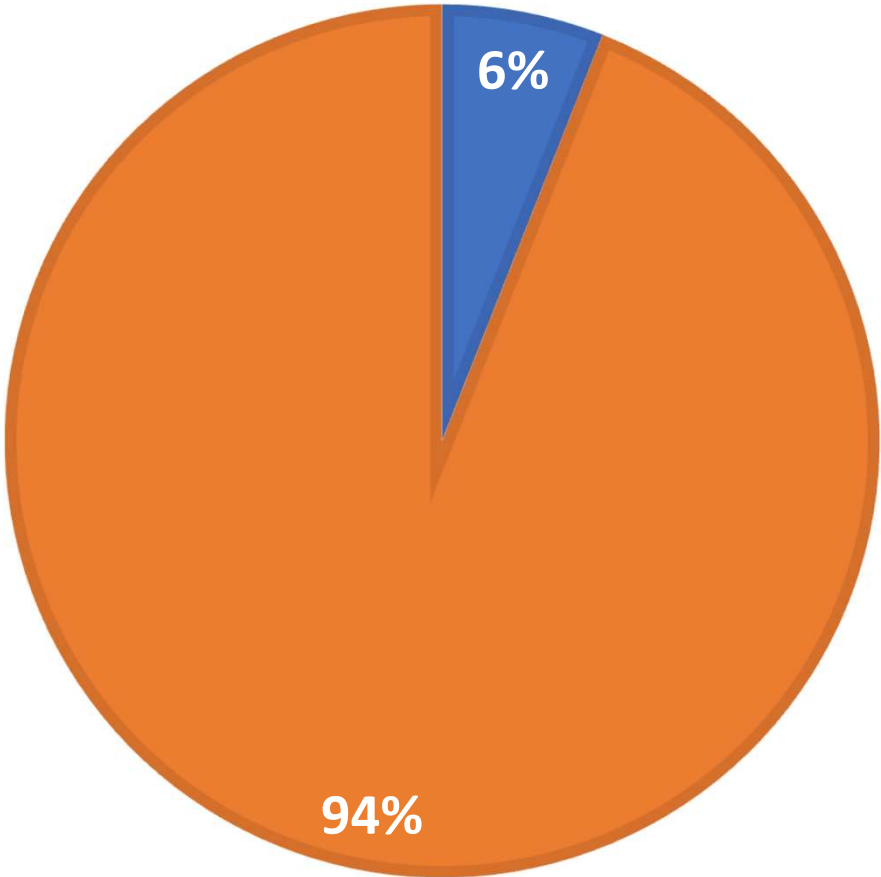
- How many GP consultations were there in the same month?
- 1 million
- 2 million
- 5 million
- 10 million
- 30 million



There were 33 Million GP consultations in Nov 2022

ATTENDANCE NOV 2022
2.1 MILLION (A&E) 33 MILLION (GP)

■ A&E ■ GP



What **Makes** Us Healthy



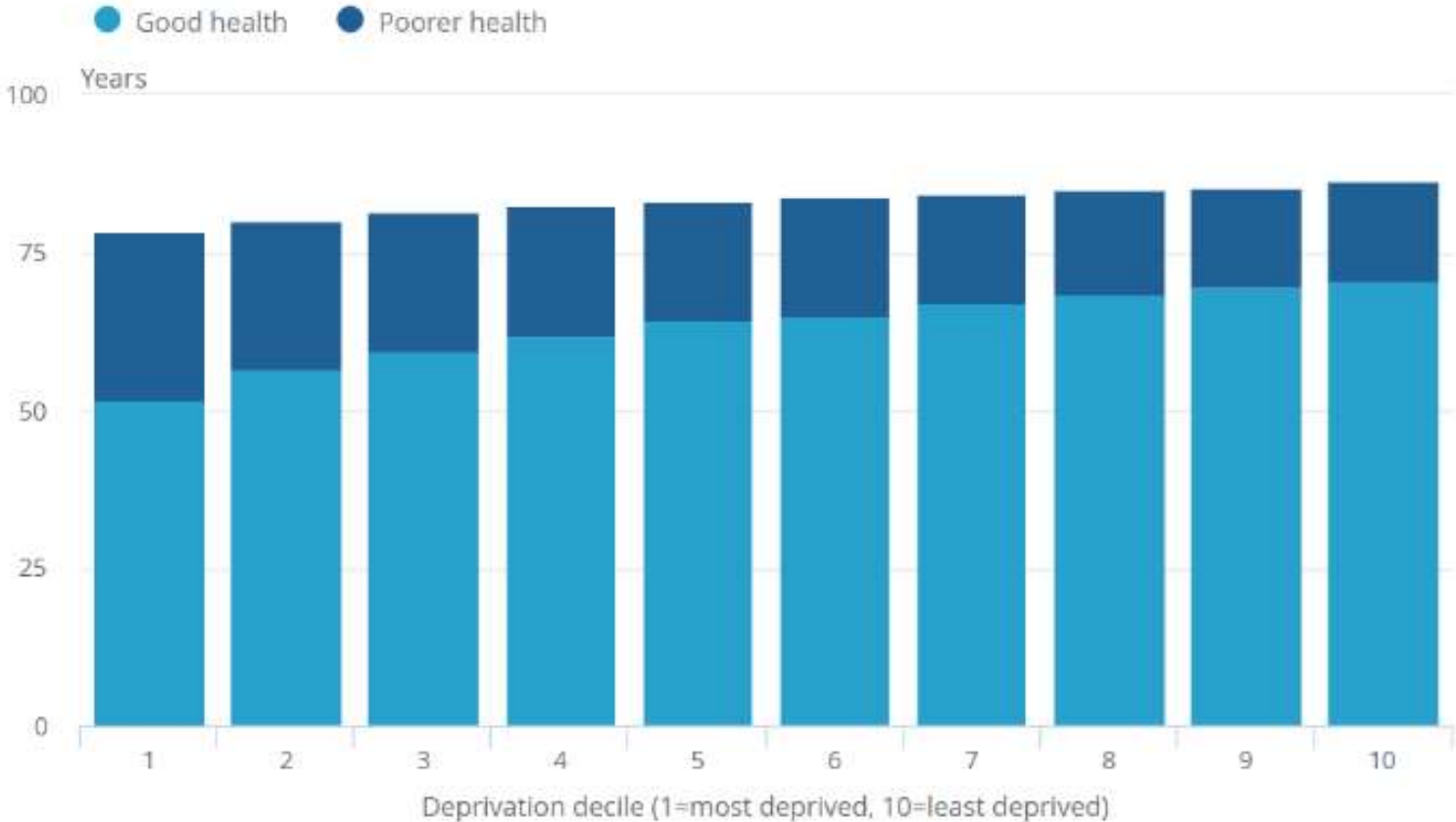
What We **Spend** On Being Healthy



We are generating years of poor health

Figure 4: Females living in the most deprived areas were expected to live less than two-thirds of their lives in good general health

Healthy life expectancy at birth, England, 2018 to 2020



What is the basis of Health

People



Place



Purpose



Belong

Safe

Valued

This is the lived experience



Feeling Safe



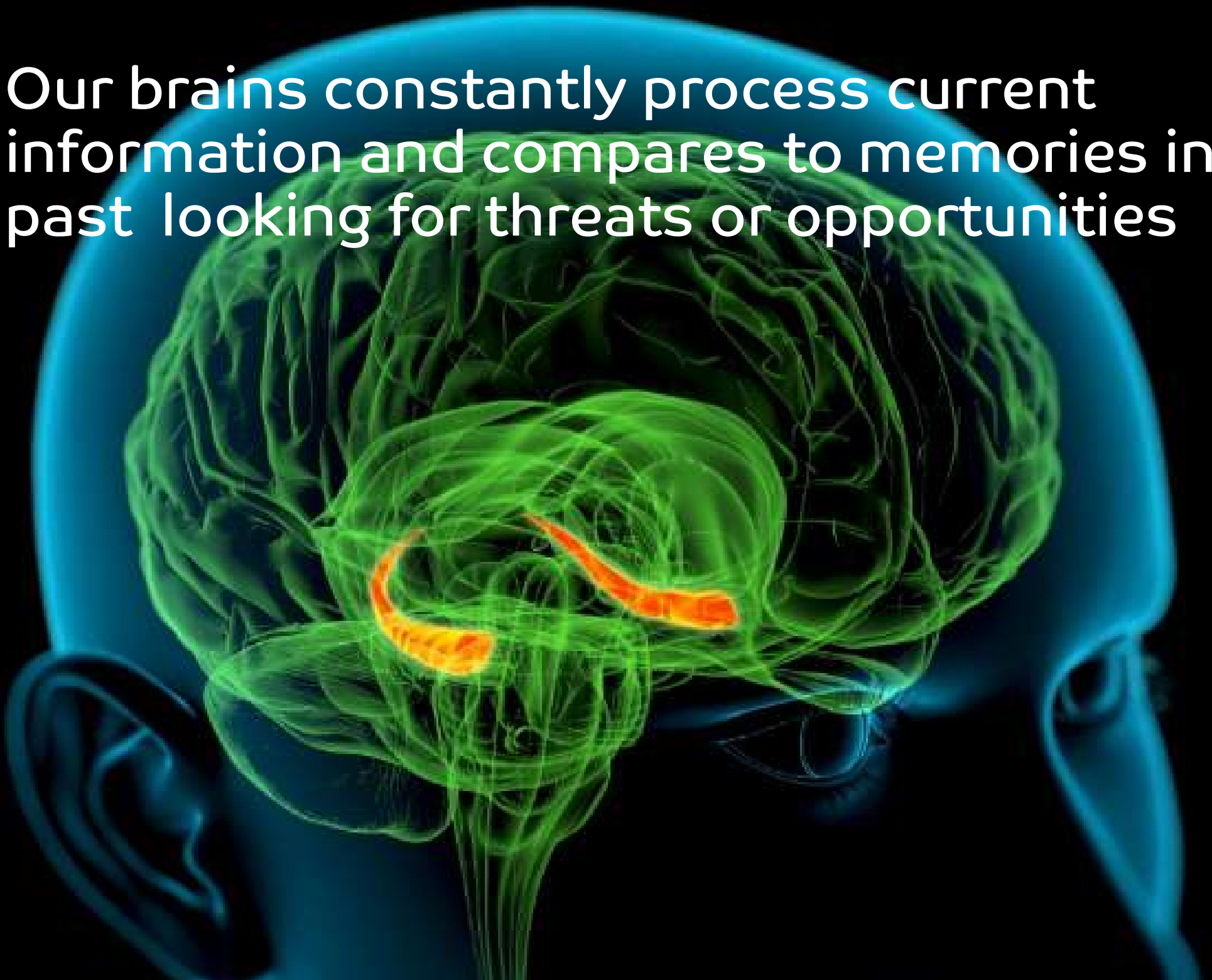
We need to belong



Feeling Valued



Our brains constantly process current information and compares to memories in past looking for threats or opportunities



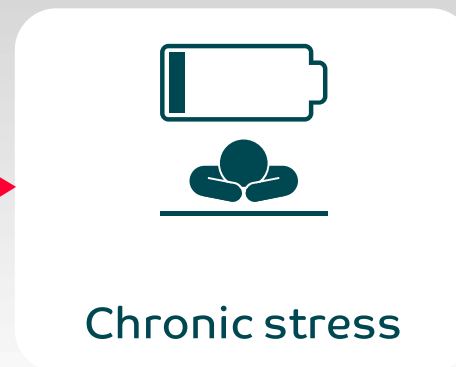
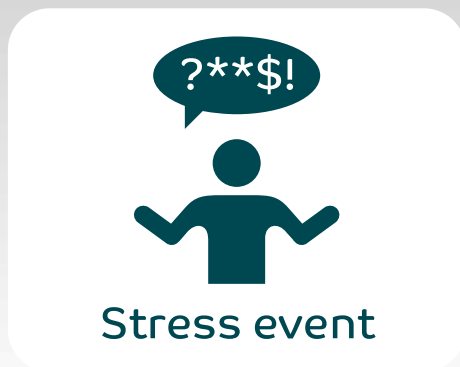


Resilience

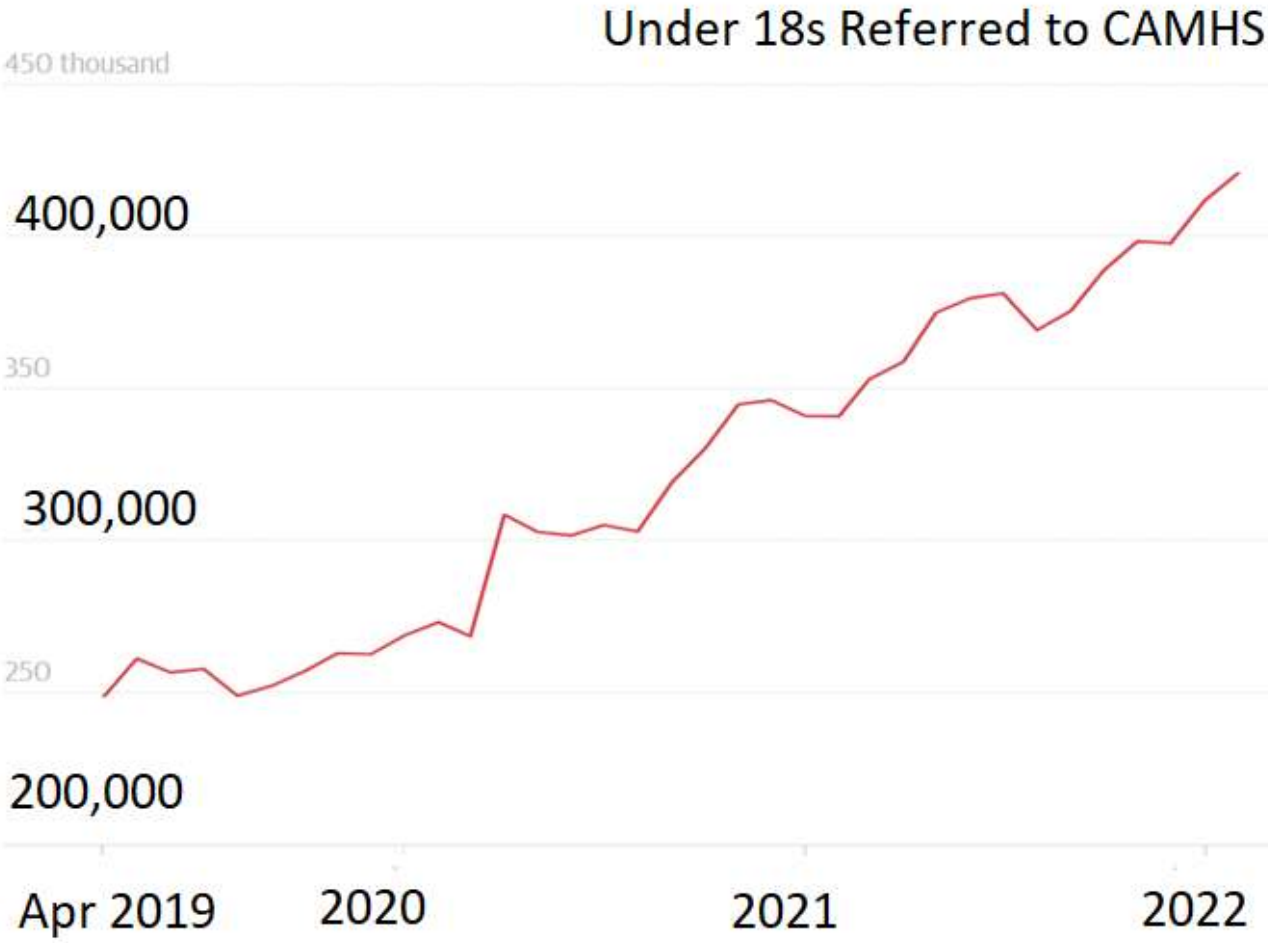




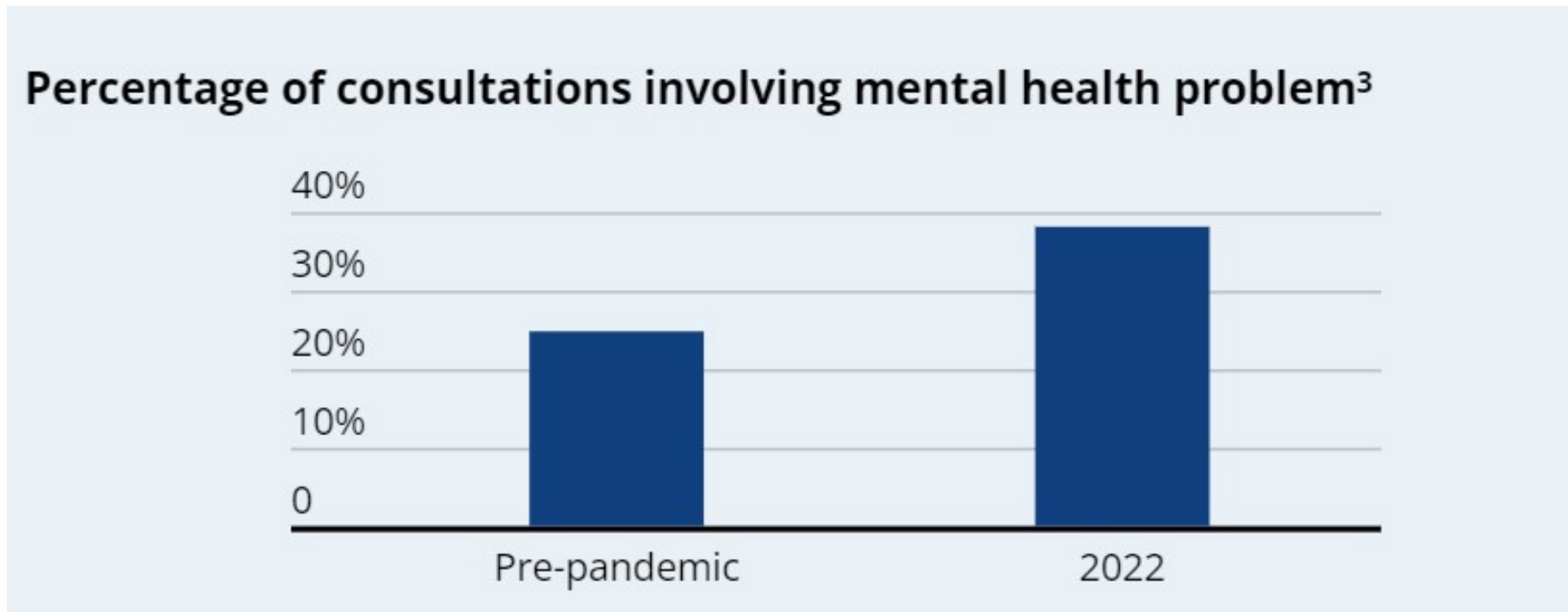
Poor resilience



The rise of poor Mental Health in children



GP Consultations (Pulse Survey May 2022)

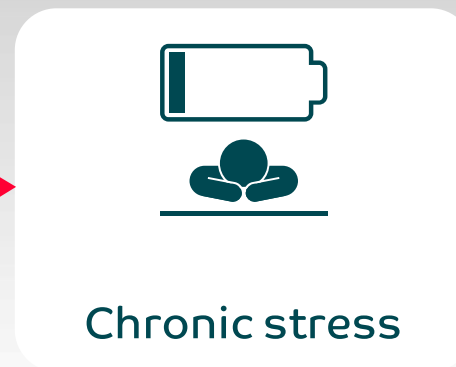
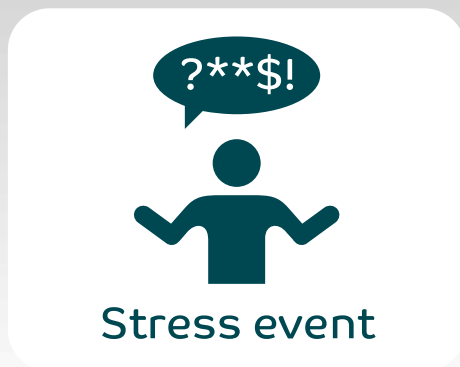


GPs see approximately 1 million patients a day





Poor resilience



Resilience



Emotions



Stress Hormones

Actions



Obesity Unhealthy Gut Biome

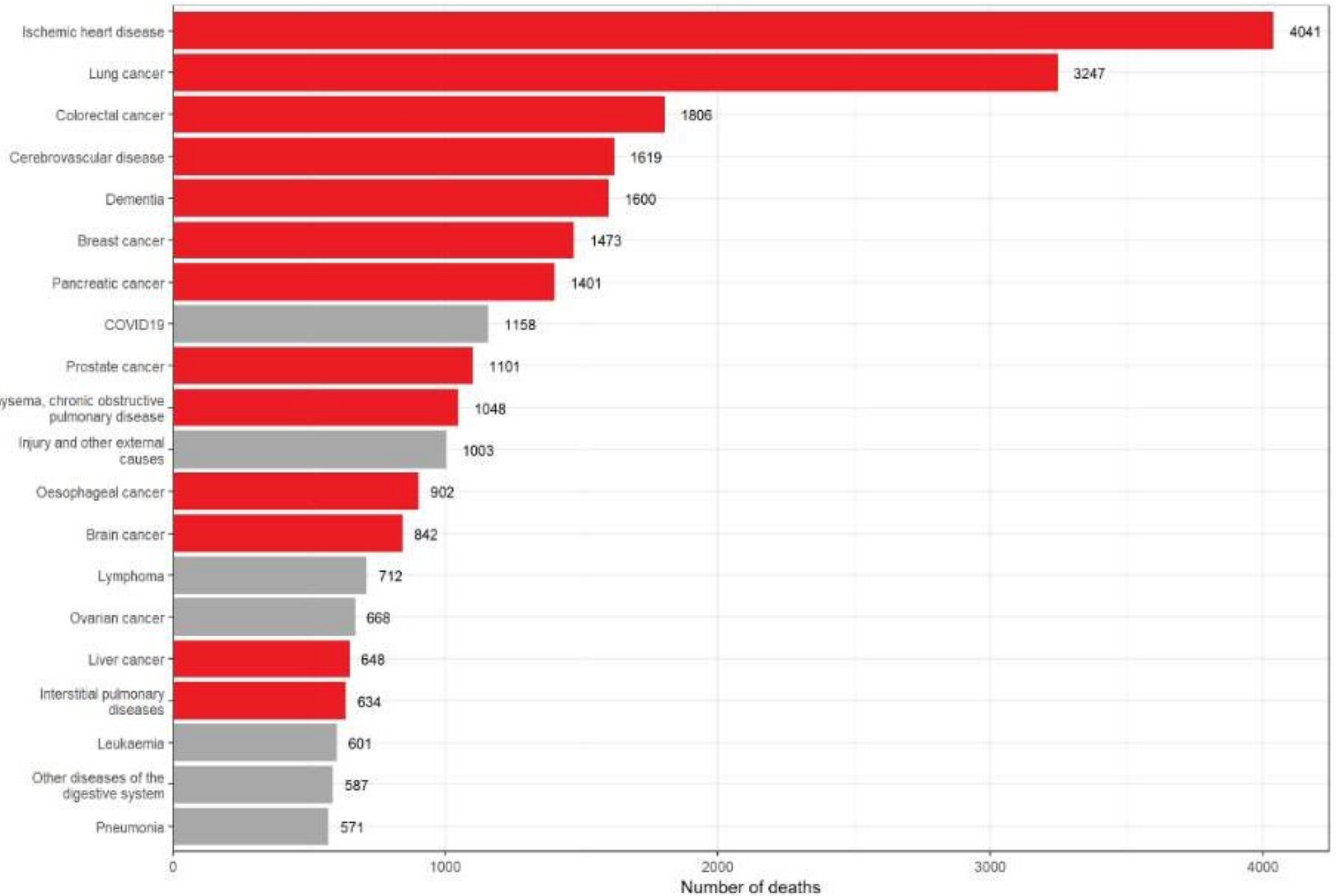
Physiology



Many diseases have an inflammatory origin

- Diabetes
- Heart disease
- Depression
- Anxiety
- Dementia
- Arthritis
- Frailty
- Most cancers
- Parkinson's disease
- Bowel disease
- Osteoporosis
- COPD

Deaths caused by inflammatory diseases (Red)

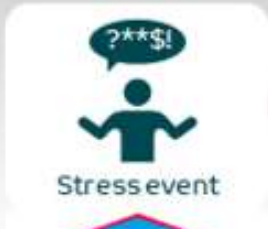


Resilience



Poor resilience

Emotions



Actions



Visceral fat, unhealthy gut biome

Diabetes

Heart Disease

Depression

Anxiety

CVD

Cancers

Chronic Inflammation
Telomere Shortening
Oxidative Stress

Premature Ageing

Fatigue



The Resilience Matrix.

The deep blue are more core attributes that have big impact. Public services have more influence on the Green areas

	Purpose	People	Place
Safe	Meaning Belief	Love Relationships	Refuge Secure
Valued	Autonomy Worth	Friends Family	Wonder Respect
Belong	Cause Team	Community Tribe	Home Attachment



The Resilience Matrix

	Purpose	People	Place
Safe	Meaning Belief	Love Relationships	Refuge Secure
Valued	Autonomy Worth	Friends Family	Wonder Respect
Belong	Cause Team	Community Tribe	Home Attachment



Safe/Purpose: Meaning, Belief and Hope

- Meaning is a main factor in common with the Blue Zones adding up to seven years of extra life expectancy.
- Meaning is made up of three principles

Coherence, Purpose & Significance.



“Meaning comes from serving a cause bigger than ourselves”



Blue Zones

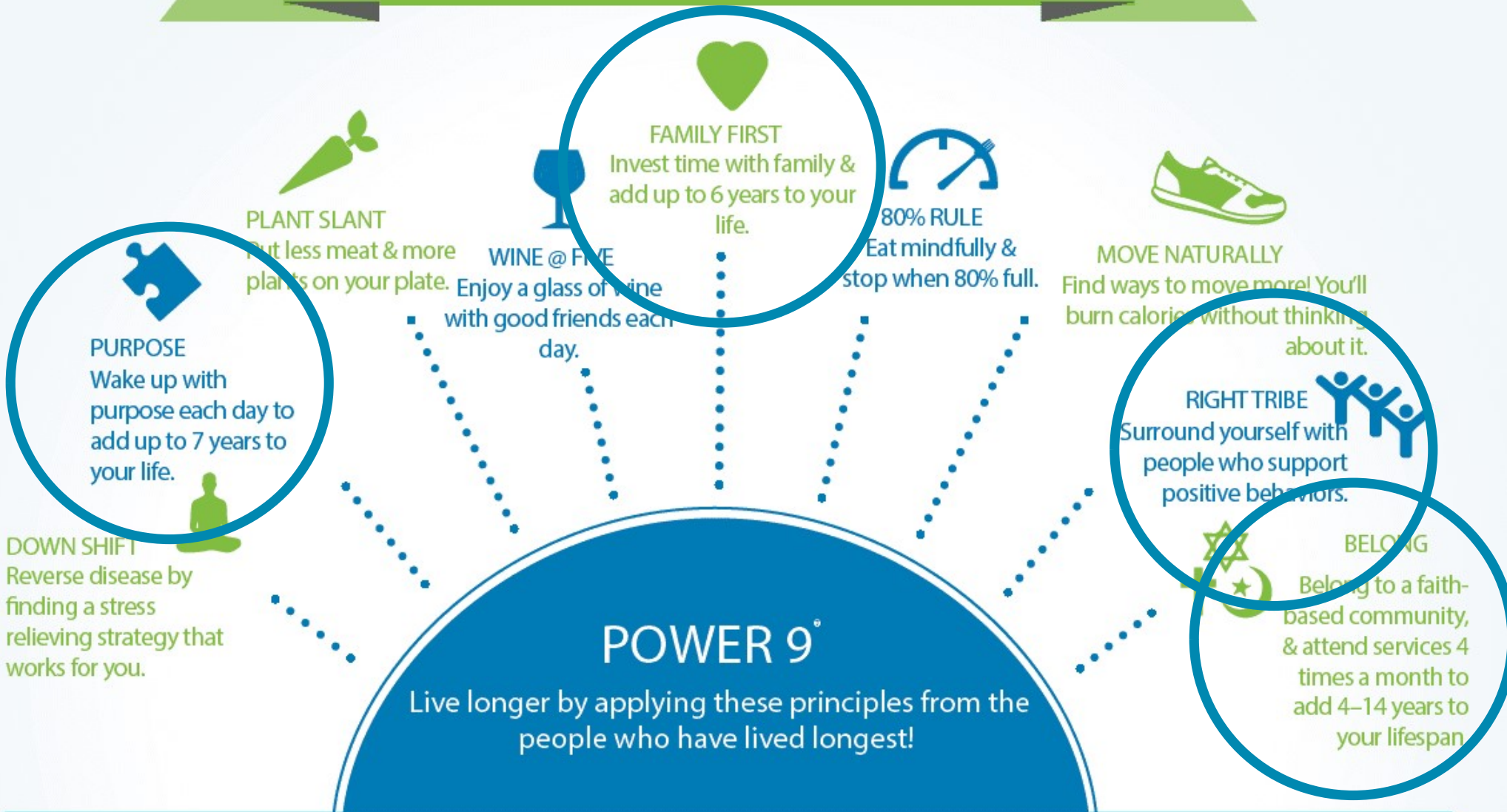


EXPERIENCE

BLUE ZONES PROJECT[®]

START CREATING A HEALTHIER, HAPPIER LIFE, TODAY.

Be a part of transforming well-being so the healthy choices become easy choices for you and your community.

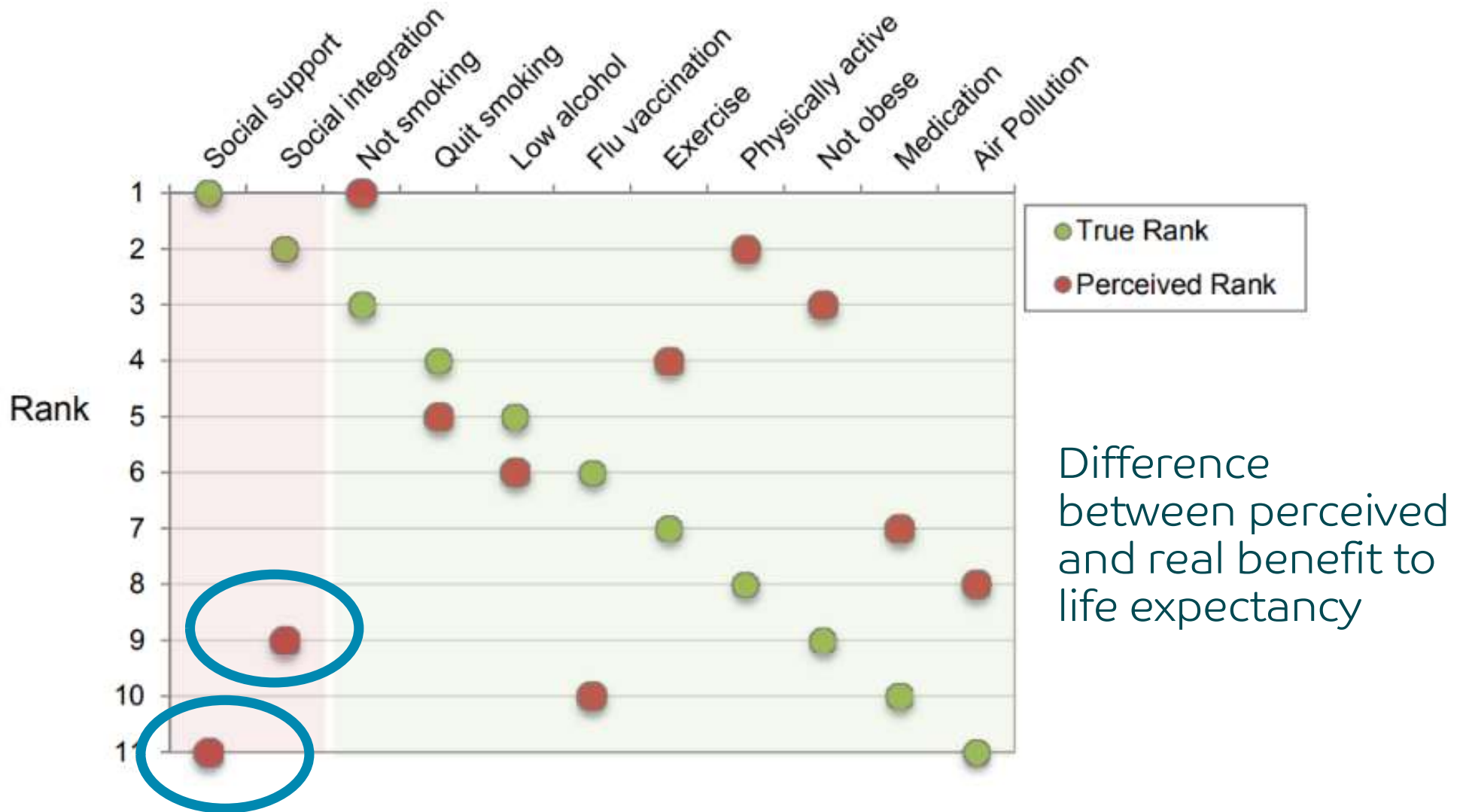


The Resilience Matrix

	Purpose	People	Place
Safe	Meaning Belief	Love Relationships	Refuge Secure
Valued	Autonomy Worth	Friends Family	Wonder Respect
Belong	Cause Team	Community Tribe	Home Attachment



4. Prioritise relationships and friends



Holt-L



Safe/People: Intimacy

- The intimate connection to another person particularly parent child is a key factor for resilience
- Loneliness has a greater risk of early mortality than any other risk factor including smoking
- Social isolation activates the same area of the brain as physical pain.



The Resilience Matrix

	Purpose	People	Place
Safe	Meaning Belief	Love Relationships	Refuge Secure
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Valued/Purpose: Autonomy and self worth

- Autonomy is about having agency and mastery of our lives
- Achieving and accomplishment leading to self-worth
- Facing and understanding our emotions
- Valuing our body: (Physical activity, diet, sleep, appearance, skills and challenges)
- Listening and understanding



The Resilience Matrix

	Purpose	People	Place
Safe	Meaning Belief	Love Relationships	Refuge Secure
Valued	Autonomy Worth	Friends Family	Wonder Respect
Belong	Cause Team	Community Tribe	Home Attachment



Safe/Place: Refuge

- Home is the most important safe place. We should feel secure to be ourselves, think and reflect.
- For neighbourhood its feeling safe in public spaces and outdoors.
- For work it is feeling psychologically safe.



The Resilience Matrix

	Purpose	People	Place
Safe	Meaning Belief	Love Relationships	Refuge Secure
Valued	Autonomy Worth	Friends Family	Wonder Respect
Belong	Cause Team	Community Tribe	Home Attachment



Valued/People: Friends and Family

- Friends and wider family are those who you can turn to if in trouble.
- We have “mirror neurons” that copy others actions and feels others pain. Basis of Empathy.
- Volunteering and giving to those in greater need creates greater resilience for the giver than the receiver



The Resilience Matrix

	Purpose	People	Place
Safe	Meaning Belief	Love Relationships	Refuge Secure
Valued	Autonomy Worth	Friends Family	Wonder Peace
Belong	Cause Team	Community Tribe	Home Attachment



Belong/Purpose: Cause, Team

- Belonging to a group with a similar cause is part of purpose and therapies are based on this (self help groups). Examples are:
- Community groups such as sports team, choir, band etc
- Volunteering
- A social movement (politics, environmental injustice)
- Faith based



The Resilience Matrix

	Purpose	People	Place
Safe	Meaning Belief	Love Relationships	Refuge Secure
Valued	Autonomy Worth	Friends Family	Wonder Respect
Belong	Cause Team	Community Tribe	Home Familiar



Valued/Place: Wonder Respect



A sense of wonder and peace in nature, or a place with culture and history.

People/Belong: Community Tribe



Place/Belong: Home Familiar



10 ways to increase your resilience

Find your meaning

Face negative motions

Be more optimistic and generous

Prioritise relationships and friends

Keep moving

Be in nature

Keep learning and doing

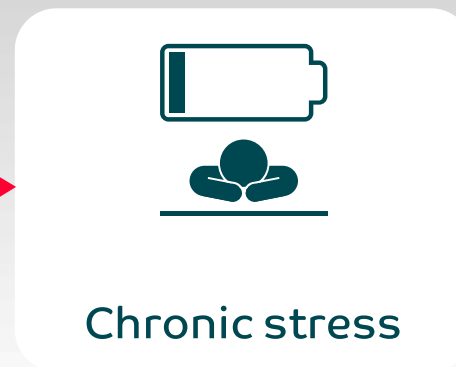
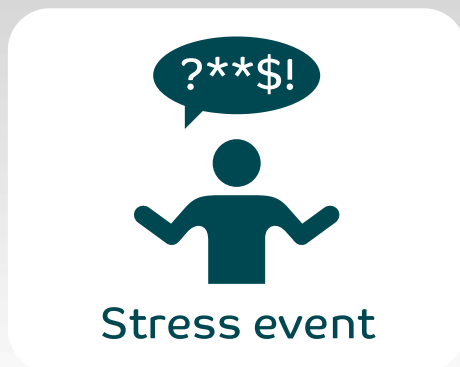
Where is your safe place?

Push yourself a bit more

Enjoy the present (Mindfulness)



Poor resilience



Being active reduces inflammation by...

1.
Reducing
visceral fat

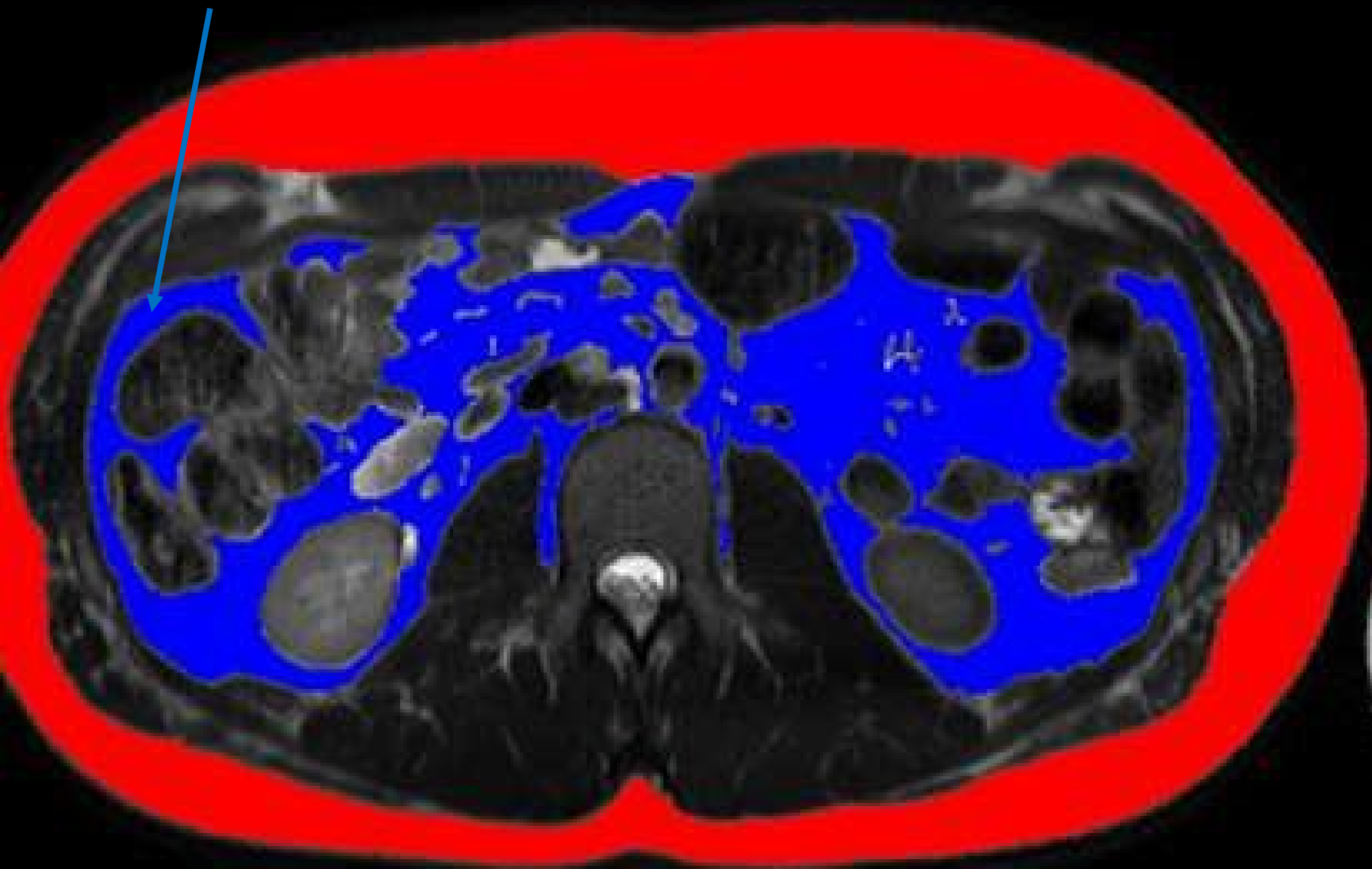
2.
Increasing anti-
inflammatories

3.
Improving
Mitochondria
function



Visceral Fat

Subcutaneous Fat



Visceral fat reduction with exercise

Fat loss after 13 weeks of walking 60 mins a day and **no weight loss**



Lee S et al. J Appl Physiol 2005;99:1220-1225

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Being active reduces inflammation

1.

Decreases
visceral fat

2.

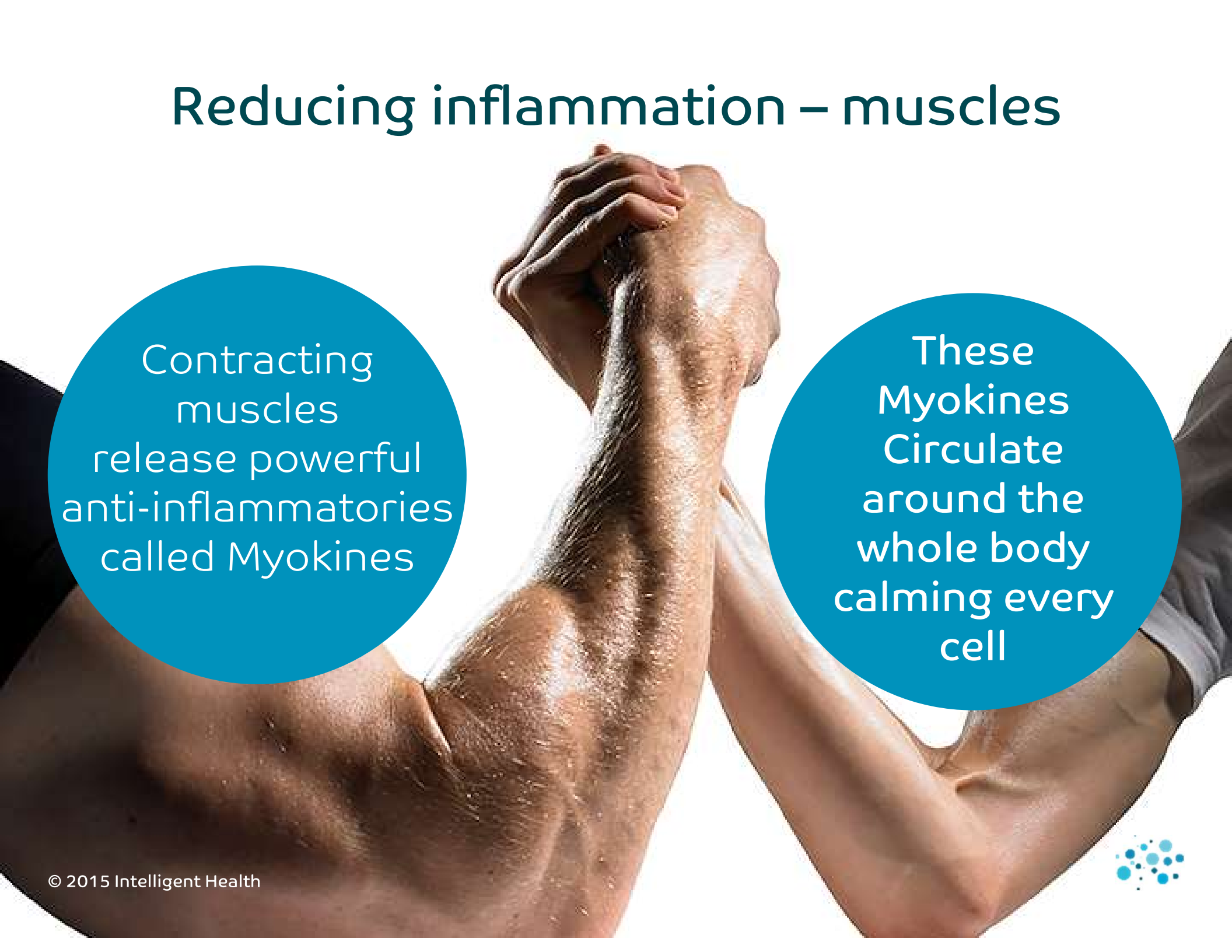
Increases anti-
inflammatories

3.

Preserves
healthy cells



Reducing inflammation – muscles



Contracting muscles release powerful anti-inflammatories called Myokines

These Myokines Circulate around the whole body calming every cell



Being active reduces inflammation by...

1.

Decreases
visceral fat

2.

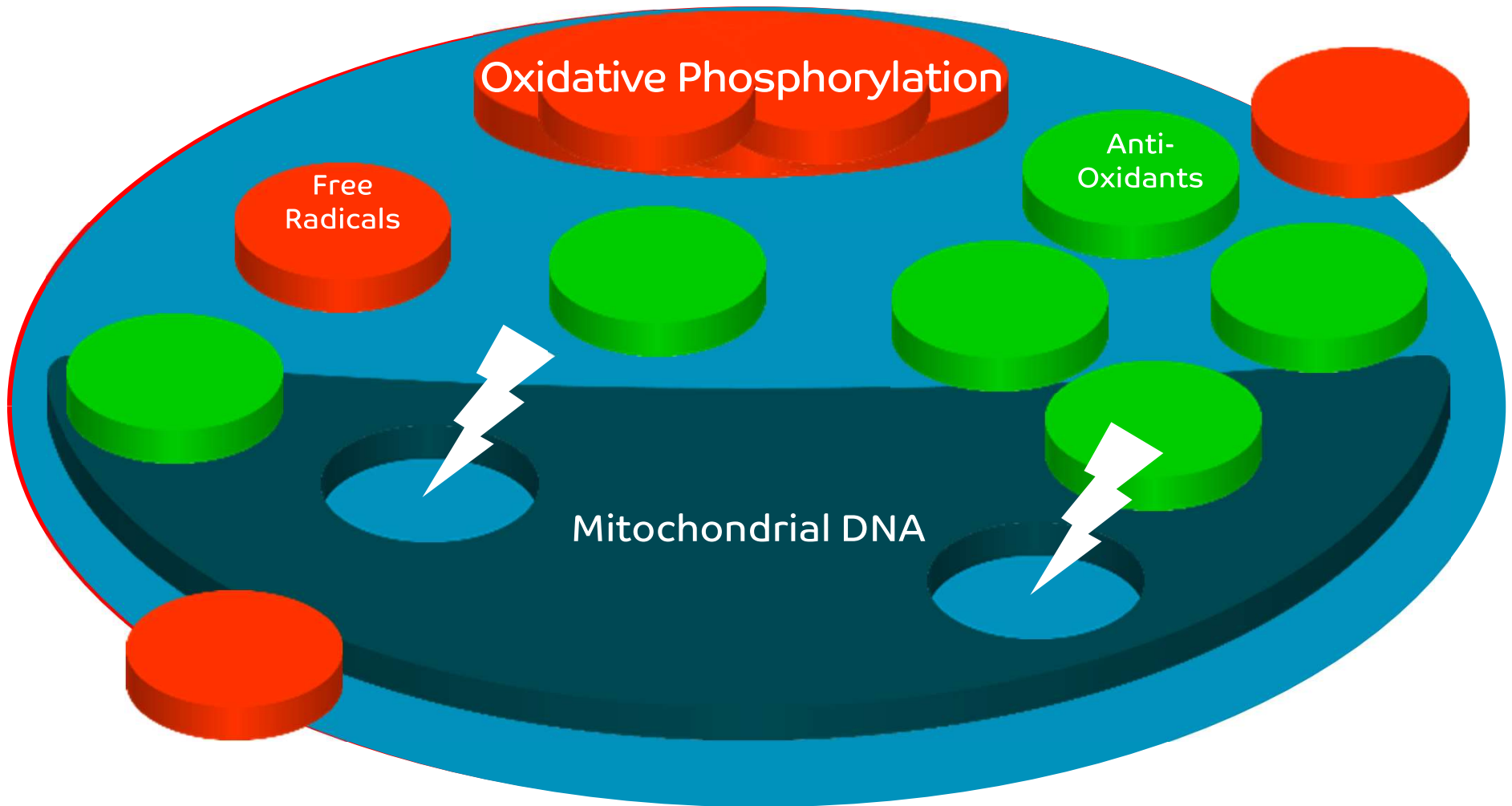
Reduces anti-
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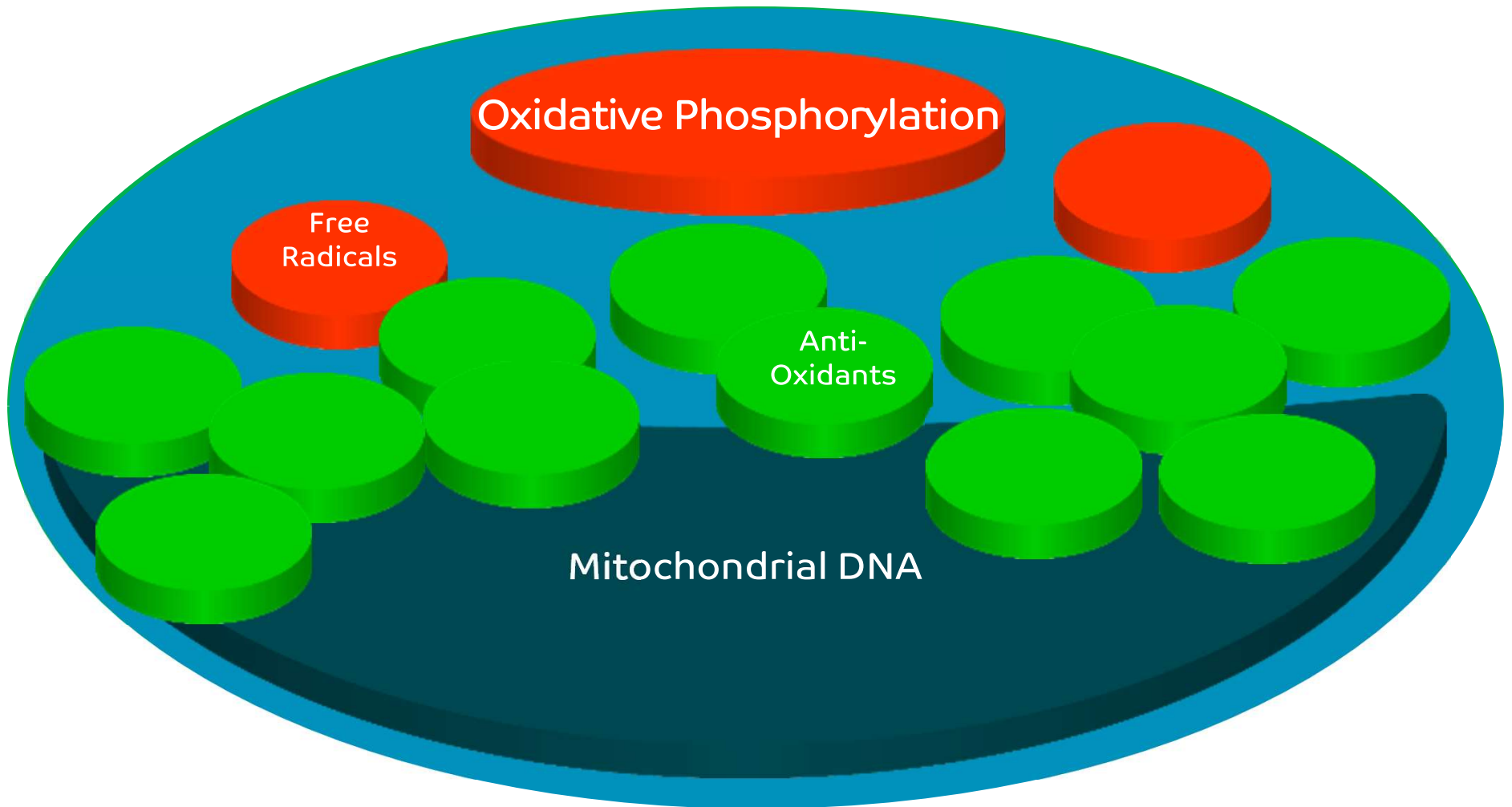
Being inactive charges up the mitochondria that then leaks free radicals



Mitochondria



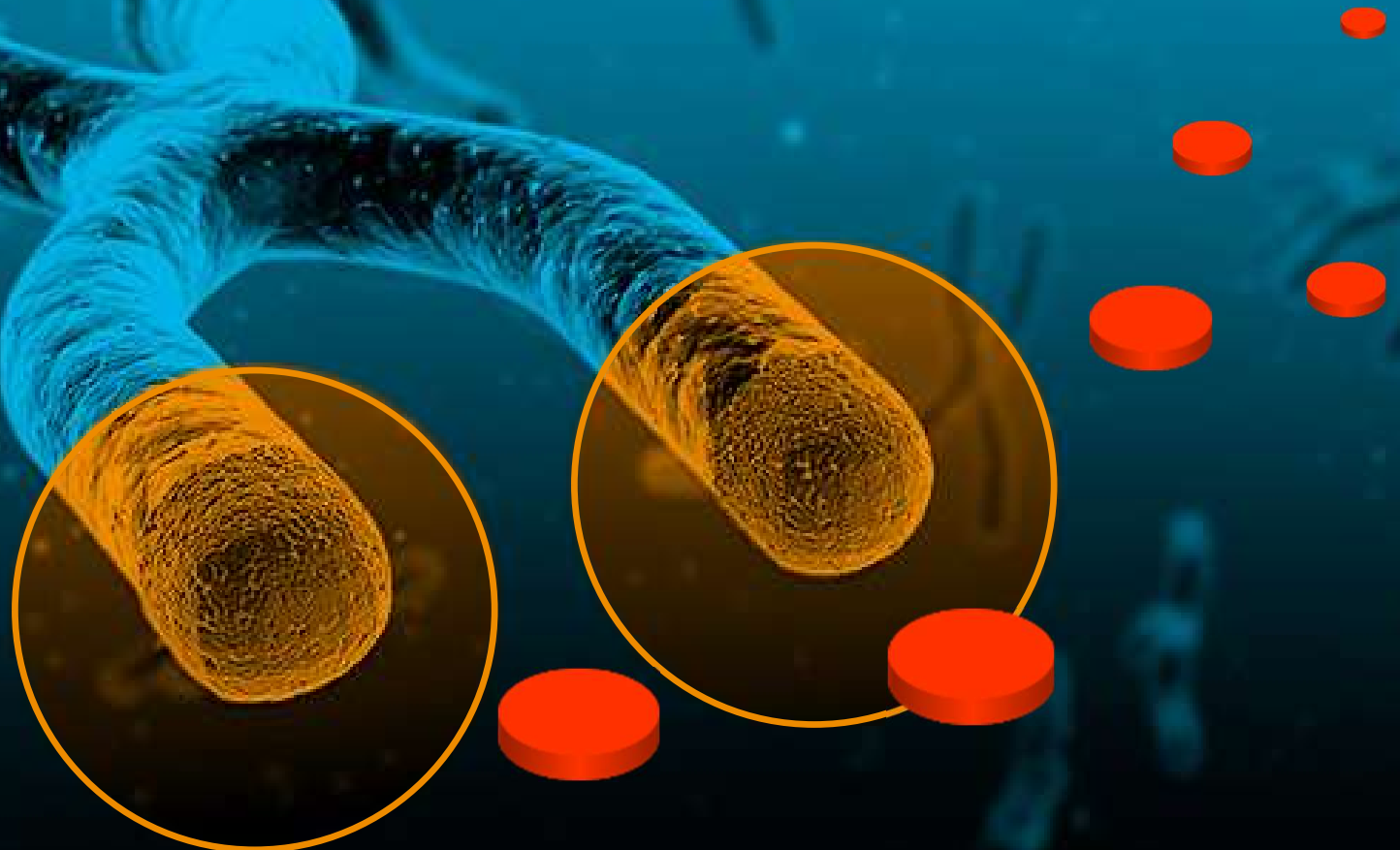
Being active reduces the potential difference so few free radicals are released



Mitochondria



Free Radicals leak out of the mitochondria and shortens the telomeres



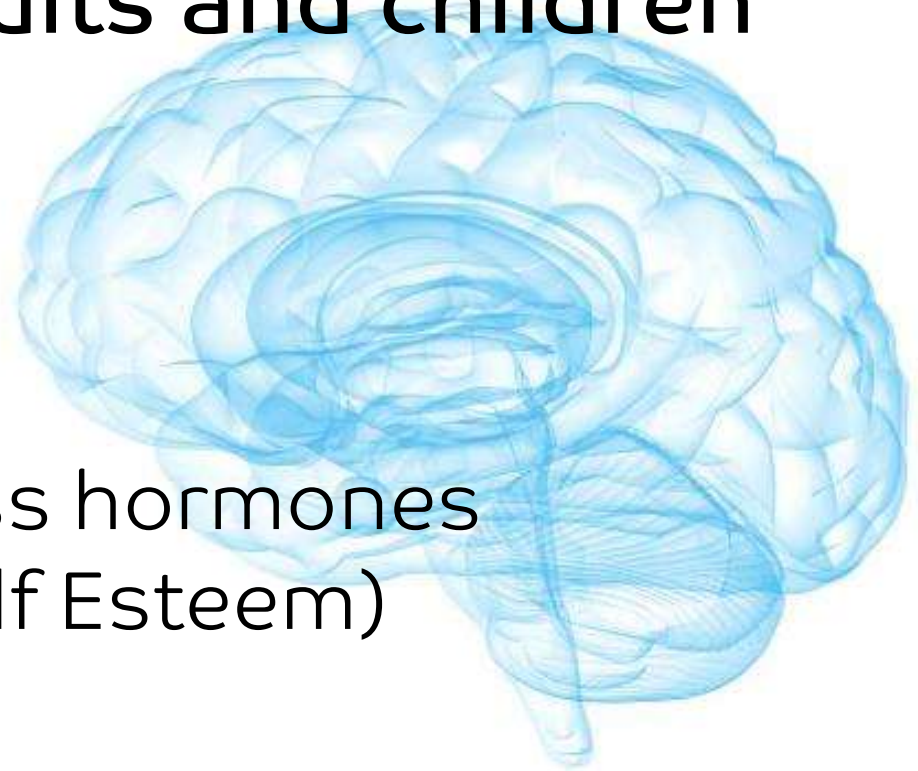
Venturelli, M., Morgan, G.R., Donato, A.J., Reese, V., Bottura, R., Tarperi, C., Milanese, C., Schena, F., Reggiani, C., Naro, F. and Cawthon, R.M., 2014. Cellular aging of skeletal muscle: telomeric and free radical evidence that physical inactivity is responsible and not age. *Clinical science*, 127(6), pp.415-421.



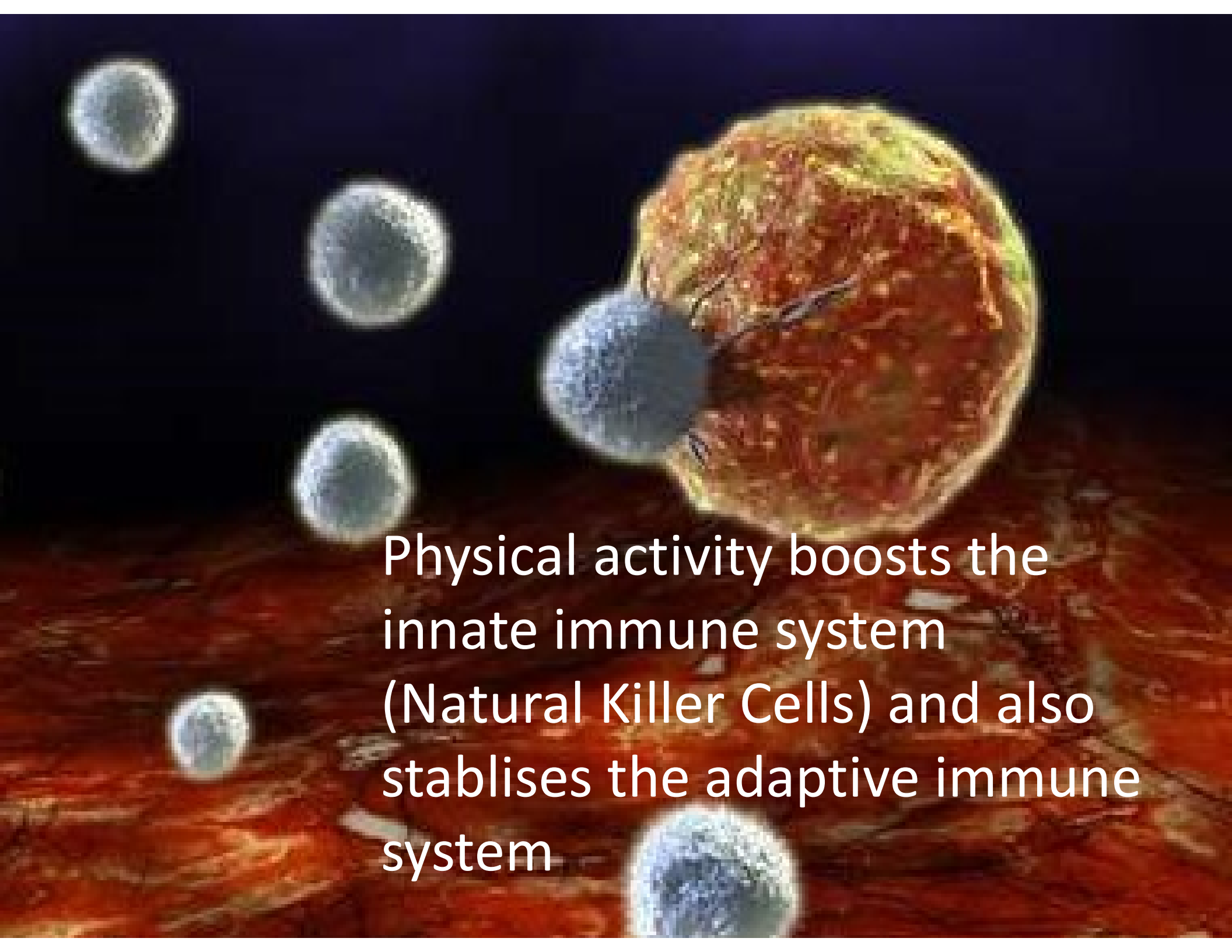
Physical Activity reduces the risk of developing depression, treats it and prevents relapse in adults and children

This is due to ...

- 1) Increasing BDNF
- 2) Anti-inflammatory
- 3) Reduces impact of stress hormones
- 4) Increases resilience (Self Esteem)



Phillips, C., 2017. Brain-derived neurotrophic factor, depression, and physical activity: making the neuroplastic connection. *Neural plasticity*, 2017.

A microscopic image showing a large, textured, reddish-brown cell on the right, which appears to be a target or pathogen. Several smaller, blue, spherical cells are positioned around it, with one blue cell in direct contact with the larger cell, suggesting an immune response. The background is dark with some reddish-brown fibers or structures.

Physical activity boosts the innate immune system (Natural Killer Cells) and also stabilises the adaptive immune system

“Green exercise is associated with better cell-ageing profiles with increased telomerase compared to indoor gym-based activity”



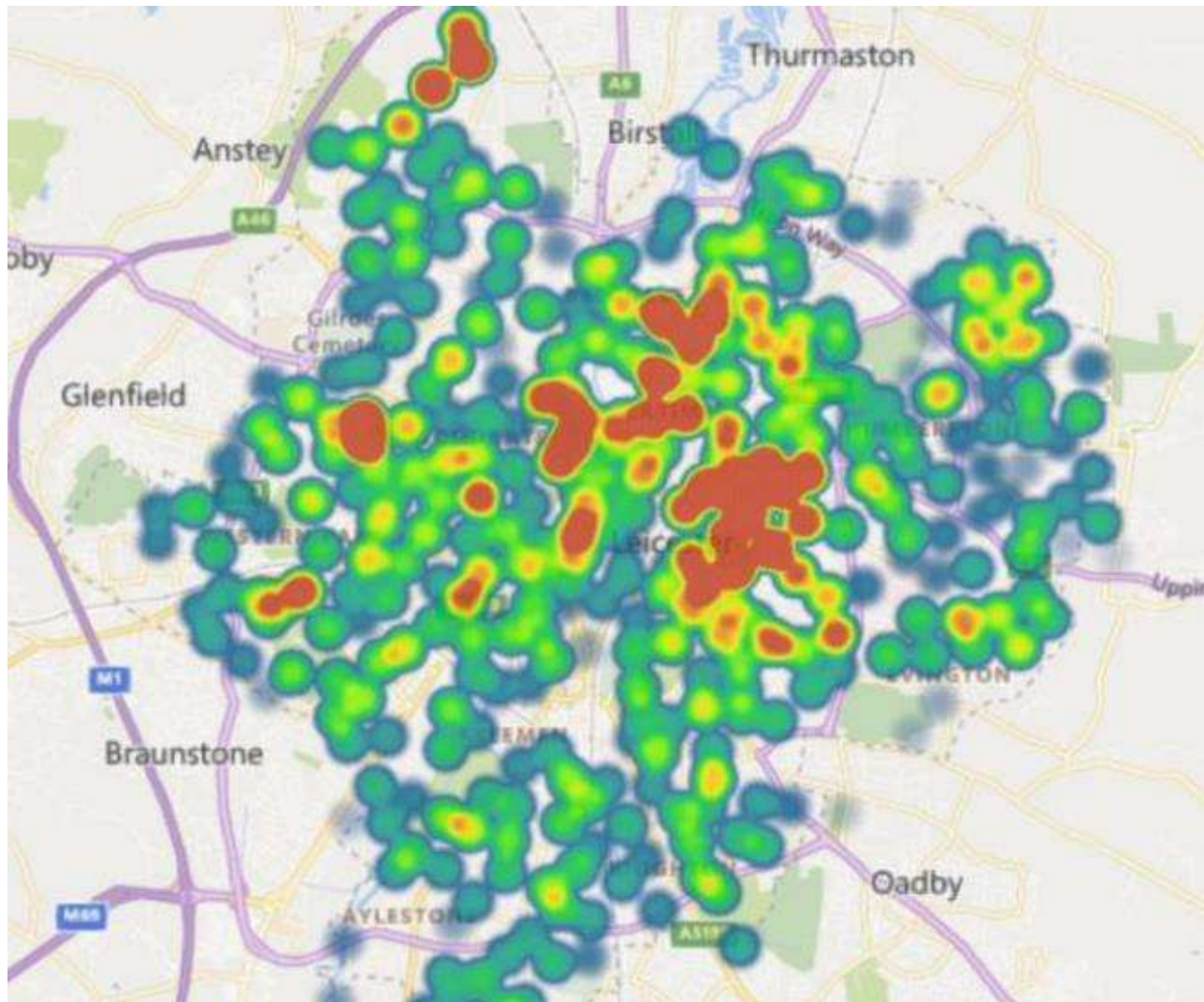
G Olafsdottir, P Cloke, E Epel, J Lin, Z van Dyck, B Thorleifsdottir, T Eysteinnsson, M Gudjonsdottir, C Vögele; Green exercise is associated with better cell ageing profiles: Gunnthora Olafsdottir, *European Journal of Public Health*, Volume 26, Issue suppl_1, 1 November 2016

A group of young children, mostly girls, are playing in a grassy park area. They are smiling and laughing, suggesting a joyful and active environment. The children are dressed in casual summer clothing like dresses and t-shirts. The background shows trees and a paved path, indicating a public green space.

Children aged 5-7yrs: Longer time spent
in public green spaces was associated
with longer telomeres

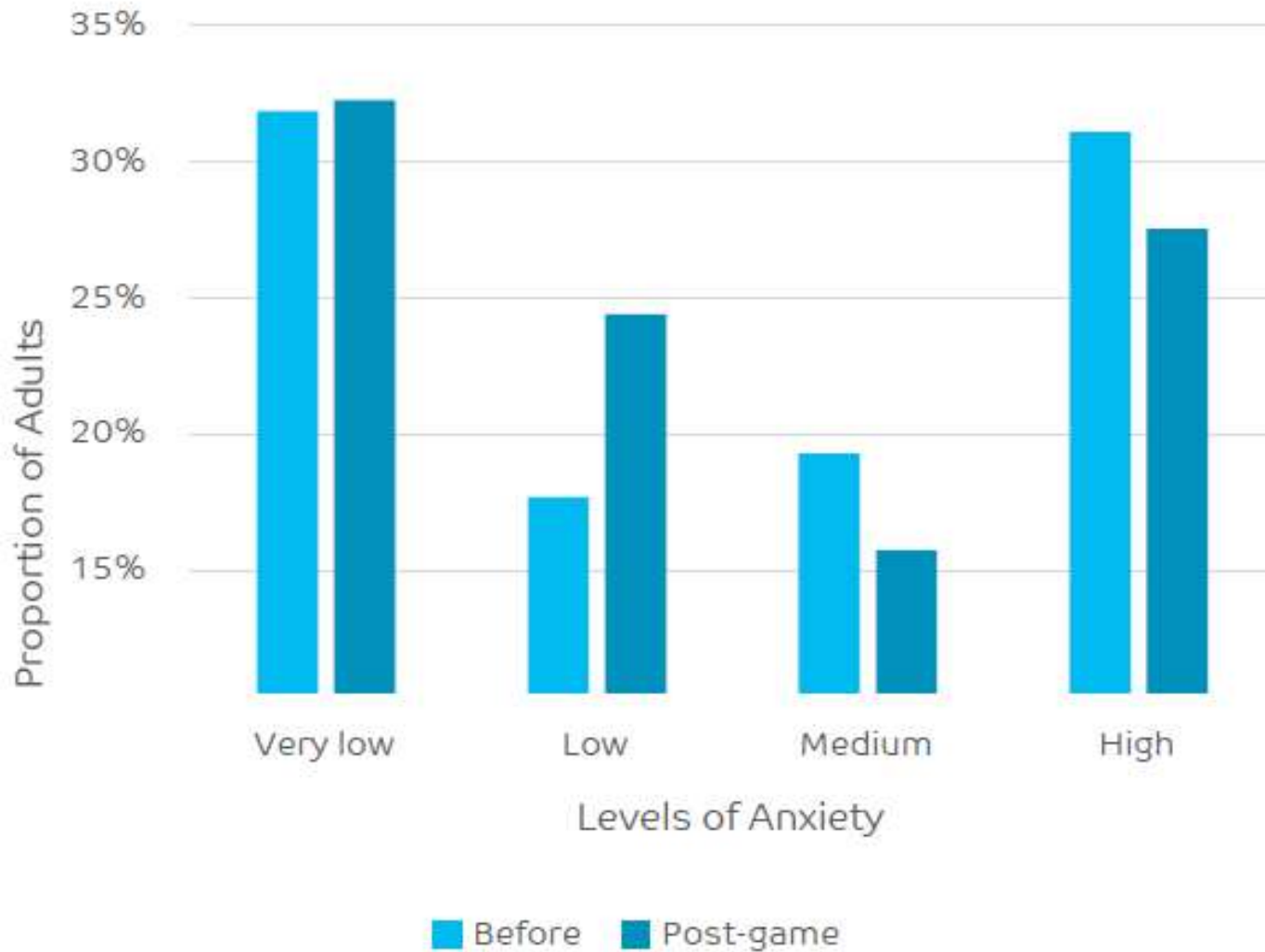
Miri, M., de Prado-Bert, P., Alahabadi, A., Najafi, M.L., Rad, A., Moslem, A., Aval, H.E., Ehrampoush, M.H., Bustamante, M., Sakhvidi, M.J.Z. and Nawrot, T., 2020. Association of greenspace exposure with telomere length in preschool children. *Environmental Pollution*, p.115228.

Leicester Beat the Street






Beat the Street Wolverhampton Anxiety



Funds are the wrong way round.

- Resilience is about feeling safe, belonging and feeling valued.
- Most Disease comes from chronic stress and defensive lifestyles and emotions.
- Health resides in early years, safe green space, community groups and buildings, volunteering, training, education, family support and good transport. Invest here first.
- Then lifestyle interventions
- Then primary and social care
- Then secondary care!





Thank You
Any Questions
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