



Healthy Living: Learning from the Blue Zones

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Blue Zone factors

- Moderate, regular physical activity as part of daily life
- Plant-based diet
- Moderate calorie intake
- Life purpose
- Engagement in family life
- Engagement in social life
- Stress reduction
- Moderate alcohol consumption, especially wine
- Engagement in spirituality or religion

Bloomberg 2017 Healthiest Country Index

Rank	Country	Health grade	Health score	Health risk penalties	Rank	Country	Health grade	Health score	Health risk penalties
1	Italy	93.11	97.44	-4.33	26	Belgium	80.96	86.03	-5.07
2	Iceland	91.21	96.20	-4.99	27	Slovenia	80.81	86.65	-5.83
3	Switzerland	90.75	94.96	-4.21	28	Denmark	80.36	85.02	-4.66
4	Singapore	90.23	94.11	-3.88	29	Chile	77.18	82.53	-5.35
5	Australia	89.24	93.88	-4.64	30	Czech Rep.	75.76	81.82	-6.06
6	Spain	89.19	94.14	-4.95	31	Cuba	74.23	79.13	-4.90
7	Japan	89.15	93.69	-4.54	32	Lebanon	74.03	79.55	-5.51
8	Sweden	88.92	93.78	-4.85	33	Costa Rica	73.14	77.16	-4.01
9	Israel	88.14	92.47	-4.33	34	U.S.	73.05	78.25	-5.21
10	Luxembourg	87.87	92.90	-5.03	35	Croatia	72.88	78.16	-5.28
11	Norway	86.81	91.61	-4.81	36	Qatar	71.78	77.33	-5.55
12	Austria	86.34	90.78	-4.44	37	Brunei	70.21	75.14	-4.92
13	Netherlands	85.83	89.94	-4.11	38	Estonia	69.24	75.67	-6.43
14	France	85.59	90.93	-5.34	39	Poland	68.92	75.34	-6.42
15	Finland	84.80	89.58	-4.78	40	Bahrain	68.73	74.20	-5.46
16	Germany	84.78	89.40	-4.62	41	Maldives	67.90	71.82	-3.92
17	Canada	84.57	89.53	-4.96	42	Bosnia & H.	67.83	72.91	-5.08
18	Cyprus	84.52	89.17	-4.65	43	U.A.E.	67.30	73.56	-6.26
19	New Zealand	84.48	89.95	-5.47	44	Macedonia	65.64	69.96	-4.32
20	Greece	84.28	88.17	-3.89	45	Uruguay	65.40	70.86	-5.45
21	Portugal	82.97	88.24	-5.27	46	Slovakia	65.10	70.54	-5.44
22	Ireland	82.52	88.53	-6.01	47	Barbados	64.14	68.55	-4.41
23	U.K.	82.28	87.21	-4.94	48	Oman	62.89	67.79	-4.90
24	S. Korea	82.06	87.67	-5.61	49	Panama	62.39	67.13	-4.73
25	Malta	81.27	86.42	-5.15	50	Albania	62.01	66.72	-4.71

Sources: World Health Organization, United Nations Population Division, World Bank

Note: Health grade (X) = Health score (A) - Health risk penalties (B)

A: Health score metrics: 1. mortality by communicable, non-communicable diseases and injuries; 2. life expectancy at the defining age of birth, childhood, youth and retirement; 3. probability to survive neonatal, into young adulthood and retirement stages; B: Health risk penalties: 1. behavioral/endogenous factors such as high incidences of population with elevated level of blood pressure, blood glucose and cholesterol, prevalence of overweight, tobacco use, alcohol consumption, physical inactivity and childhood malnutrition, as well as mental health and basic vaccination coverage; 2. environmental/exogenous factors such as greenhouse gas emissions per capita and percentage of population with access to improved drinking water.

Most recent data used. Of the more than 200 countries and regions evaluated, 163 had enough data to be included in the final outcome; The top 50 are displayed.



Aging and the Mediterranean Diet



Mediterranean Diet

- Fresh fruits and vegetables- at least 5 colors daily
- Whole grains, legumes
- Fish and occasional chicken breast
- Healthy fats such as olive oil, avocados, nuts (almonds and walnuts best), seeds (sunflower, flax, etc)
- Almost no red meat, dairy fat (low fat Greek yogurt OK), sugar
- One glass of wine daily MAX



Strengthening research

- Proven health benefits to reduce cardiovascular, cerebrovascular, cancer deaths; reduce development of dementia
- New data presented at this conference:
 - Reduce the risk of needing diabetes medication in people newly diagnosed with diabetes
 - **Reduce the risk of new-onset frailty by 70%**
 - Reduce pain and increase quality of life for those with osteoarthritis
 - Increase psychological resilience

A word on Microbiome

- Our gut bacteria (“microbiome”) play a huge role in health
- There is a “gut-brain” pathway that means our gut microbiome influences brain activity- anxiety, depression, maybe dementia
- Our microbiome has a “mid-life crisis” that may make us more vulnerable to inflammation and other negative aging factors
- PREBIOTICS such as garlic may help lessen this midlife crisis
- The Mediterranean diet alters our gut microbiome favorably within just 2-3 weeks!
- <https://www.nature.com/articles/s41380-019-0425-1>

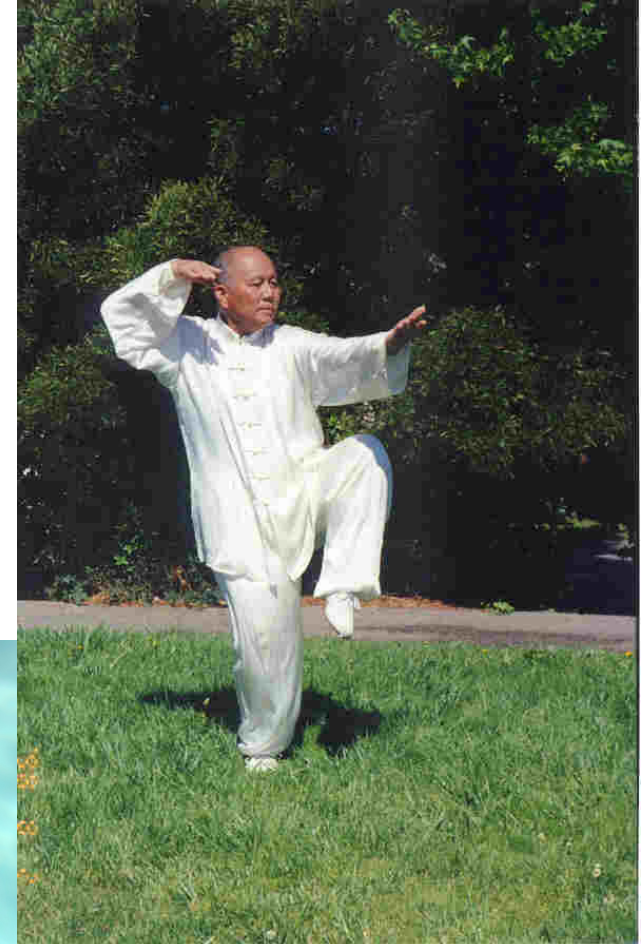
Nuoro Province Blue Zone

- Purpose
- Engagement
- Movement



Elizabeth's Exercise Prescription

- Aerobic Exercise for 30 minutes daily (swimming, brisk walking)
- Balance exercise like tai chi for one hour 3 days per week
- Strength training twice per week (also improves cognition in women 65-74!)





Japanese Blue Zone

- Low calorie, plant based diet high in soy, turmeric, ginger
- Everyone gardens!
- Moai: Lifelong circle of friends that supports people into old age
- Ikigai: Strong sense of purpose gets them up every morning
- Tatami mats ensure old people can get up and down from the ground



Okinawans say: “Don’t worry. Take care of yourself. Eat your vegetables, have a positive outlook, be kind to people, and smile”

“Centenarians tend to be decisive. They know what they want and then stay on course. But when life circumstances force them to adapt, they become flexible thinkers, able to embrace the change. And they are likeable.”



*Hara Hachi bu:
Eat until you are 80% full*

Sweden- best place in the world to grow old (not a blue zone but I had to mention it!)

- Life expectancy 79.9 for men and 83.7 for women (second only to Japan).
- **Health has improved in the older population over the last few decades, so care needs have decreased overall.**
- 94% of people over 65 live at home, receive in home assistance when needed. 4% of all care (health care or home care) is paid for by the elders themselves.
- Special municipal “fixers” who come in and hang curtains or change lightbulbs (and other similar chores) to help reduce falls in older adults.



What have I learned from all of this (Blue Zone Plus)?



- Lifestyle
 - All encompassing way of life, not just 20 minutes of exercise or a short diet
- Community
 - Engagement
 - Purpose
- Policy
 - Positive framing
 - Directed taxation
- Technology
 - In the health care system
 - Data driven care
 - Older adult access to web-based resources



What you can do now

- Move! Encourage your friends to move with you
- Follow the Mediterranean diet
- Stop eating when you are 80% full
- Form your Moai
- Make social activities brain-stimulating
- Volunteer with young people to promote intergenerational mentoring

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REVISED EDITION



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Questions?

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