Healthy Aging

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Geriatrician, Public Health and Preventive Medicine Physician
Age

- https://www.youtube.com/watch?v=G43AmXs32Ds
What is Healthy Aging?
Charles Eugster - 96 years young!
Stanislaw Kowalski – 104 at European Masters Athletics Championships
Primary Aging – The number of years you have lived.

Secondary Aging – The accumulated effects of your environment, diseases, and injuries on your life.
Shifting the curve to the right

- Better life curve shapes – more years to life and life to years
- Modern medical care kicks in

- Health decline today
- Age
- Vitality

- Increasing
- Death
- 73 Average Life Expectancy
- 85 Average Life Span
- 120 Maximum Life Potential
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<thead>
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<th>Number of Deaths</th>
<th>Rate per 100,000 Population in the Age Group</th>
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Burden of Diseases, Injuries, and Risk Factors 1990-2010 (JAMA 2013)
How would you self-rate your health?

• A - Amazing – I’m a picture of perfect health
• B – Very good – I make a big effort to do what I can, most of the time
• C – OK – I’m doing healthy things when I can
• D – I’m overweight but trying to do a few things
• E – I’m a MI waiting to happen
I currently...

• A – Exercise >150 min per week moderate intensity, or 75min/week high intensity
• B - Exercise 150 min per week moderate intensity, or 75min/week high intensity
• C - Exercise 150 min per week moderate intensity, or 75min/week high intensity + 2 days strength + 3 days/week balance
• D – I exercise but less..
• E – I don’t exercise
As a PCP - how successful are you in helping patients make lifestyle changes?

- A – Very successful
- B – Most of the time
- C - Sometimes
- D – Once and a while
- E – I don’t bother, it doesn’t work
What is your keystone habit
What is your Kryptonite?
Insanity is doing the same thing and over and over again and expecting different results.

*Albert Einstein*
Factors that Affect Health

Socioeconomic Factors

Changing the Context to make individuals’ default decisions healthy

Long-lasting Protective Interventions

Clinical Interventions

Counseling & Education

Examples

Smallest Impact

Eating healthy, be physically active
 Rx for high blood pressure, high cholesterol, diabetes
Immunizations, brief intervention, cessation treatment, colonoscopy
Fluoridation, 0g trans fat, iodization, smoke-free laws, tobacco tax
Poverty, education, housing, inequality

Largest Impact
Environmental factors linked to human behavior and risk factors for CVD

Chow et Int J Epidemiol 2009;38:1580
Live Longer in the BLUE ZONES

Top 5 geographic areas where people live measurably longer lives.

Loma Linda, California
Sardinia, Italy
Icaria, Greece
Okinawa, Japan
Nicoya, Costa Rica
Identification of a geographic area characterized by extreme longevity in the Sardinia island: the AKEA study

Michel Poulain\textsuperscript{a,\ast}, Giovanni Mario Pes\textsuperscript{b}, Claude Grasland\textsuperscript{c}, Ciriacò Carru\textsuperscript{d}, Luigi Ferrucci\textsuperscript{d,e}, Giovannella Baggio\textsuperscript{f}, Claudio Franceschi\textsuperscript{g}, Luca Deiana\textsuperscript{b}

NIA Scientific Director
SMOOTHED DISTRIBUTION OF CENTENARIANS

Average number of centenarians for 1000 births in a gaussian neighbourhood (span 15 km)

- 4.2
- 3.2
- 2.2 = mean value
- 1.2
- 0.2

Areas with significant positive deviation to mean value of Sardinia (prob >HO)

- 5%
- 1%
- 0.1%

Compared Characteristics
Extended Blue Zone, Restricted Blue Zone, Sardinia

<table>
<thead>
<tr>
<th></th>
<th>Restricted Blue Zone</th>
<th>Extended Blue Zone</th>
<th>Non Blue Zone</th>
<th>Sardinia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pop. 2001</td>
<td>42,113</td>
<td>432,475</td>
<td>1,199,405</td>
<td>1,631,880</td>
</tr>
<tr>
<td>Pop. Density</td>
<td>27.0</td>
<td>33.4</td>
<td>107.7</td>
<td>67.7</td>
</tr>
<tr>
<td>Average altitude</td>
<td>588</td>
<td>417</td>
<td>142</td>
<td>280</td>
</tr>
<tr>
<td>Centenarians (1880 – 1900)</td>
<td>90</td>
<td>635</td>
<td>497</td>
<td>1132</td>
</tr>
<tr>
<td>Extreme Longevity Index</td>
<td>509</td>
<td>264</td>
<td>181</td>
<td>219</td>
</tr>
<tr>
<td>Sex ratio Centenarians (1880 – 1900)</td>
<td>0.936</td>
<td>1.346</td>
<td>2.432</td>
<td>1.728</td>
</tr>
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Why is Sardinia a Blue Zone?

• Genetic pooling
• Sex difference
• Lean, plant based diet, accented with meats
• Pencorino cheese (omega 3)
• Goats milk
• Strong family values
• Role of elders
• Walking – shepherds
• Cannonau wine – high in flavonoids
• Sardonic humor – laughing with friends
1. Move Naturally

Right Outlook
2. Know your purpose
3. Down shift

Eat Wisely
4. 80% rule
5. Plant slant
6. Wine@5

Belong
7. Family first
8. Belong
9. Right tribe
Baltimore Longitudinal Study of Aging

- People who sociable, generous, goal orientated – higher levels of happiness and lower rates of depression
- People involved in hobbies and leisure activities – lower risk for some health problems
- Diet rich in vegetables, fruit, low in saturated fat – decreased CVD and mortality
- Benefits of Exercise
The North Karelia Project

MORTALITY RATES OF ISCHAEMIC HEART DISEASE AMONG MEN IN SELECTED COUNTRIES

CHD mortality per 100,000 men in 1973

Finnland, USA, Australia, England, Canada, Czechoslovakia, Norway, Hungary, Denmark, BRD, Austria, Holland, Sweden, Italy, Portugal, France, Japan
The North Karelia Project
The North Karelia Project

Pekka Puska
The North Karelia Project

Change in age-adjusted mortality rates
Finland, males aged 35–64 (per 100 000 population)

Coronary heart disease

Gain of some 10 healthy years in Finnish population

<table>
<thead>
<tr>
<th>Rate per 100 000</th>
<th>1969-1971</th>
<th>2006</th>
<th>Change from 1969-1971 to 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>All causes</td>
<td>1328</td>
<td>583</td>
<td>-56%</td>
</tr>
<tr>
<td>All cardiovascular</td>
<td>680</td>
<td>172</td>
<td>-75%</td>
</tr>
<tr>
<td>Coronary heart disease</td>
<td>489</td>
<td>103</td>
<td>-79%</td>
</tr>
<tr>
<td>All cancers</td>
<td>262</td>
<td>124</td>
<td>-53%</td>
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Making it practical in the clinic

“We all have busy schedules, Mr. Murdoch, but you need to plan for either one hour of exercise a day or 24 hours of being dead.”
ANNUAL WELLNESS VISIT TOOLKIT

Patient Education Materials

- Alcohol Use in Older Adults [250KB]
- Balance Basics [1.6MB]
- Depression Age Page [106KB]
- Dietary Supplements Age Page [115KB]
- Driving Age Page [324KB]
- Exercise Brochure Order Form (FPCE) [324KB]
- Forgetfulness Age Page [180KB]
- Healthy Eating Age Page [229KB]
- Medicine Age Page [131KB]
- NIA Exercise and Physical Activity English [7.7MB]
- NIA Exercise and Physical Activity Spanish [7.5MB]
- Ordering additional NIA educational materials [33KB]
- Pain Age Page [131KB]
- Physical Activity Age page [131KB]
- Prescription Medication Disposal flyer [74KB]

http://www.ocagingservicescollaborative.org/annual-wellness-visit-toolkit
HEALTHY EATING PLATE

Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.

The more veggies – and the greater the variety – the better. Potatoes and French fries don’t count.

Eat plenty of fruits of all colors.

Drink water, tea, or coffee (with little or no sugar). Limit milk/dairy (1-2 servings/day) and juice (1 small glass/day). Avoid sugary drinks.

Eat a variety of whole grains (like whole-wheat bread, whole-grain pasta, and brown rice). Limit refined grains (like white rice and white bread).

Choose fish, poultry, beans, and nuts; limit red meat and cheese; avoid bacon, cold cuts, and other processed meats.

STAY ACTIVE!

© Harvard University
Okinawa Diet

Cut down on...

2 - 3 times a week:

3 - 5 times a week:

Everyday:
Measuring...
Move..

- Moving naturally
- Morning routine
- Workplace, daily environment
- Balance, Strength, Fitness
- Microhabits
- Being specific, training journals
- Power of consistency
- Using groups
Robert “Raven” Kraft – 40 years of running 8 miles every day.
Eat..

- Plant based diet
- Removing processed foods
- Drink water.
- Recommitment: grocery list
- Clean, uncluttered kitchen
- Healthy precut options in fridge
- Bring own lunch, water
- Workplace environment
Sleep..

- Good sleep hygiene
- Same routine
- Exercise in morning
- No caffeine after 2pm
- Last meal 2 hours before sleeping
- Removing blue light after 6pm
- No TV, electronics in bed
- Relaxation, bath routine
- Bedroom set up
- Use of melatonin
Purpose, People, downshift

• Having a purpose for living
Purpose, People, downshift

• Having a purpose for living
• Connecting with people – family, friends, others
• Enjoying environment
• Positivity – self, others
• Taking time out
• Mediate, self time
Doing the doing..

• Micro-habits
• Pre-commitment
• 100% commitment
• Recommitment
• Measure
Five Ways – Bring Healthy Aging into Clinic
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1. Changing environment + Habits
Five Ways – Bring Healthy Aging into Clinic

1. Changing environment + Habits
2. Eat – Whole Foods, Mainly Plants
Five Ways – Bring Healthy Aging into Clinic

1. Changing environment + Habits
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3. Move - Naturally
Five Ways – Bring Healthy Aging into Clinic

1. Changing environment + Habits
2. Eat – Whole Foods, Mainly Plants
   Move - Naturally
3. Sleep - Hygiene
Five Ways – Bring Healthy Aging into Clinic

1. Changing environment + Habits
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3. Having Purpose and Socializing
Five Ways – Bring Healthy Aging into Clinic

1. Changing environment + Habits
2. Eat – Whole Foods, Mainly Plants
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   Sleep - Hygiene
3. Having Purpose and Socializing
4. Optimize Annual Wellness Visit
Five Ways – Bring Healthy Aging into Clinic

1. Changing environment + Habits
2. Eat – Whole Foods, Mainly Plants
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5. Leverage Community Resources
Five Ways – Bring Healthy Aging into Clinic

1. Changing environment + Habits
2. Eat – Whole Foods, Mainly Plants
   Move - Naturally
   Sleep - Hygiene
3. Having Purpose and Socializing
4. Optimize Annual Wellness Visit
5. Leverage Community Resources
Take home points

• Aim to change patients environment and habits vs. behavior and motivation
• Install Keystone habits, remove kryptonite
• Lessons from Blue Zones – Move naturally, Right outlook, eat wisely, Belong
• Plant based diet
Worlds oldest person: Emma Monoro Born Nov 12, 1899 Age 117

“Never used drugs, eats three eggs a day, drinks a glass of homemade brandy, and enjoys a chocolate sometimes, but, above all, she thinks positively about the future”.

“Credits her long life to her diet of raw eggs and being single”
Still lives in own home

117th birthday with family
Useful Book References
Questions
Healthy Aging

Xaviour Walker MD, MPH, DTMH
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