

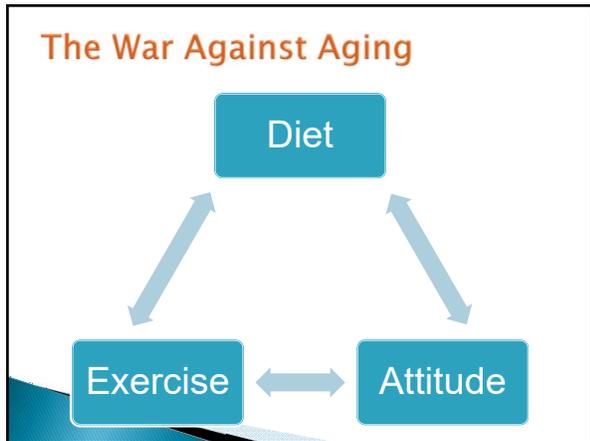
Age-Proof Your Body

How to Slow, Stop and Even Reverse the Aging Process

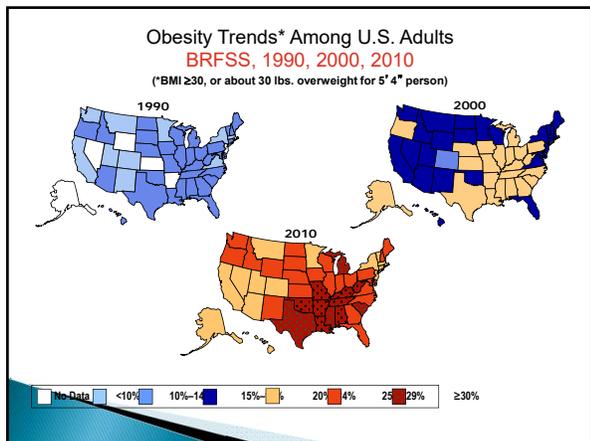
Elizabeth Somer, M.A., R.D.

All Assumptions About Aging Are False

- Age spots and wrinkles
- Middle-age spread
- Heart disease, cancer, diabetes, hypertension
- Reduced immune function
- Cataracts
- Frailty, feebleness, loss of independence
- Memory loss, senility, dementia, Alzheimers



The Obesity Epidemic



Prevalence of Obesity: 2015

- No state had a prevalence of obesity less than 20%.
- In 6 states (California, Colorado, Hawaii, Massachusetts, Montana, and Utah) and the District of Columbia, obesity ranged from 20% to less than 25%.
- 19 states and Puerto Rico had a prevalence of obesity between 25% and less than 30%.
- Obesity prevalence in 21 states and Guam was 30% to less than 35%.
- Four states (Alabama, Louisiana, Mississippi, and West Virginia) had an obesity prevalence of 35% or greater.
- The South had the highest prevalence of obesity (31.2%), followed by the Midwest (30.7%), the Northeast (26.4%), and the West (25.2%).

YIKES!

- ▶ Today: ~ 38% of US adults are obese.
- ▶ Today: 8% of US adults are super obese.
- ▶ In 1974: 105 million obese adults worldwide.
- ▶ In 2017: >2 billion overweight or obese – 4 million deaths last year. (N Eng J Med 2017;June)

Feet, Forks & Fingers

- ▶ 10 factors account for almost all age-related disease.
 - Top 3 (80%) JAMA 1993;270:2207-12 / JAMA. 2004;291:1238-45
- ▶ From UK to US: How many fruits, veggies, whole grains? 80% again. Arch Intern Med. 2009;169(15):1355-62/ Arch Intern Med. 2010;170:711-8 / Cancer Epidemiol Biomarkers Prev. 2011;20:1089-97
- ▶ 4 of 5 heart attacks in men prevented. J Am Coll Cardiol. 2014 64(13):1299-306.
- ▶ 4 of 5 in women BMC Med. 2014;12(1):168.
- ▶ Healthy lifestyle in the primordial prevention of cardiovascular disease among young women. J Am Coll Cardiol. 2015;65(1):43-51

Age-related Disease & Obesity

- ❖ Obesity: the canary in the coal mine of disease
- ❖ Toll is greater than thought: Fat kids
- ❖ Feet & Forks: 80% HD, 90% DM, 60% CA



Want to Live to be 200?

*The Difference Between
Life Span
&
Life Expectancy*

"Calorie restriction is the only manipulation known in animals to improve both life expectancy and lifespan."

Dr. George Roth, Chief of the Molecular Physiology and Genetics section of the National Institute of Aging in Baltimore, Maryland

The Antioxidant Theory of Aging

- ▶ What are free radicals or oxidants?
 - Where do they come from?
 - Why do they escalate as we age?
- ▶ Thank heavens for antioxidants!

Calorie Restriction

The Only Way to Extend Lifespan

- ✓ Every mammal shows a two-fold increase in lifespan.
- ✓ Undernutrition, not malnutrition.
- ✓ All age-related diseases vanish.
- ✓ Cancer risk is cut in half.
- ✓ Stress hormone levels drop.
- ✓ Benefits are seen at all ages.



Calorie Restriction Without Pain

- ▶ Focus on minimally-processed foods
- ▶ Cut back on added sugar
- ▶ Choose 100% whole grains
- ▶ Eat more beans
 - In soups, stews, casseroles & salads
- ▶ Load the plate w/ produce



Antioxidant-Rich Foods

Reduce inflammation, rid the body of oxidants and increase the body's production of antioxidant enzymes, thus they:

- ▶ Play a leading role in the prevention of age-related diseases
 - Stimulate the immune system
 - Protect the nervous system & brain
- ▶ Function at the foundation of the body's biological clock – increasing life expectancy

A Few Recent Studies

1. The Karolinska Institute: The more antioxidant-rich foods women ate, the lower their risk for stroke.
(Stroke 2012;43:335-340.)
2. A study from Delhi, India: Vitamin E might help prevent noise-related hearing loss.
(Noise & Health 2011;13:452-458.)
3. A study from Melbourne: A multi w/ antioxidants might help put you in a better mood.
(Hum Psychopharm 2011;November 16th.)
4. University of Paris: Antioxidant supplements improve memory.
(Am J Clin N 2011;July 20th.)

The Phytochemicals

- ▶ Lutein: Lowers risk for ARMD
 - Spinach
- ▶ Sulforaphane: Lowers cancer risk
 - Brussels sprouts, broccoli
- ▶ Limonene: Enhances enzyme activity
 - Citrus
- ▶ Garlic Compounds: Improve immunity, lower heart disease & cancer
 - Garlic, leeks, onions
- ▶ Lycopene: Lowers heart disease & prostate cancer risk
 - Tomatoes, pink grapefruit, watermelon
- ▶ Proanthocyanidins: Urinary tract infections, cancer, & heart disease
 - Berries
- ▶ Polyphenols: Lower heart disease & cancer risk
 - Red wine, chocolate, tea



Sneak Vegetables Into Your Diet

- ▶ **THE #1 most important anti-aging habit:**
 - 2 fruits &/or vegetables at every meal & at least 1 at every snack
- ▶ Add vegetables to favorite dishes
- ▶ Drink your vegetables: Juice, smoothies
- ▶ Mix fruit into tossed salads
- ▶ Make fruit your dessert

The Brain Myth

- Your brain is not destined to get fuzzy
- 66% of brain aging is within your control
- Your brain is amazingly resilient & “plastic”
- It is only as good as what you feed it. Eat junk...
 - 16-fold increase in Alzheimer’s risk
 - 5% decline in memory every decade after your 20s

*** The problem is not so much that the mind fails, but that we fail to keep our minds engaged & nourished.**

Inflammation & Your Brain

- Latin for “Set on fire”
- 2 forms of inflammation: Acute & chronic
- Eicosanoids: Hormone-like cpds
 - **Promoters:** Saturated & trans fats, omega-6 fats, refined grains, sugar, potatoes, sodium, processed meats (nitrates), fried foods, palm oil, pastries
 - **Inhibitors:** Fish, produce, olive oil, nuts, mushrooms, tea, whole grains & certain spices (turmeric & ginger)

Bad Fats!

- ▶ The research on saturated fats
 - ❖ Heart disease, colon cancer, maybe breast cancer
- ▶ The research on trans fats
 - ❖ What are trans fats?
 - ❖ The link between trans fat intake & heart disease risk is linear & corresponds to 10s of 1000s of premature deaths in the U.S. alone (Harvard)
 - ❖ U.S.: #1 in consumption
 - ❖ Palm & coconut oil as a replacement?



Hey Fat Head!

- ▶ Brain is 60% fat
- ▶ Omega-3s are fluid
- ▶ 97% of omega-3s in brain are DHA
- ▶ Low DHA = depression, memory loss, Alzheimer’s
- ▶ 3 omega-3s: DHA, EPA & ALA
- ▶ How much do you need?



Other Good Fats

Mono-unsaturates

- Nuts – ↓ heart disease, diabetes, weight
 - Is it the fat? The vitamins? The phytochemicals?
- Olive oil
 - Is it the fat? The phytochemicals?



Look 15 Years Younger!

Food is loaded with skin essentials

- Water makes up 70% of skin
- Protein comprises 25% of skin
- Healthy fats comprise 5% of skin
- Skin also loves an antioxidant orgy
 - Vitamin C: 72 hours
 - Rub it on, too!
 - Vitamin E: Collagenase
 - Beta carotene: ½ cup carrots
 - Lycopene: Reduces skin cancer

Eat Authentic

People look like their shopping carts!

The 75% rule

Hydrate

Exercise

The 8 Anti-Aging Guidelines

- ☑ 8 + Fruits & vegetables
- ☑ Focus on real foods
- ☑ Less red meat, more beans, fatty fish & lean meats
- ☑ Include only (or at least mostly) healthy fats: Nuts, olive oil, fatty fish
- ☑ 3 Calcium-rich foods
- ☑ 8 Glasses of water
- ☑ Graze, don't gorge
- ☑ Supplement responsibly



The 4-Step Supplement Program

- ▶ Choose a Broad-Range Multiple
 - 100% of the Daily Value
 - Vitamins AND Minerals
- ▶ Calcium & Magnesium
 - The 2:1 Ratio
- ▶ Omega 3s: DHA & EPA
- ▶ Lutein & zeaxanthin

What Will Happen if... You Don't Exercise?

People Lose 1%-2% of Muscle Every Year After Their 30s

- Lowered Metabolism
- Weight Gain → Hypertension, Heart Disease, Diabetes
- Bone Loss → Osteoporosis
- Increased Cholesterol → Heart Disease
- Elevated Glucose → Diabetes
- Increased Insulin Resistance → Diabetes
- Muscle Weakness → Frailty, Feebleness

It's not that exercise is good for us.

**It's that when we DON'T move
that the system begins to breakdown.**

You Must Exercise to Stay Young

Compared to an inactive person, a 70-year-old exerciser has

Lower
blood
pressure

Lower
blood
cholesterol

Higher
HDL-
cholesterol

40% lower
risk of
developing
or dying
from heart
disease

You Must Exercise to Stay Young

Exercisers have:

- 1) Lower body weight
- 2) Lower body fat
- 3) Improved insulin resistance
- 4) A lower risk of developing diabetes, colon cancer, stroke, back injuries, osteoporosis...



You Must Exercise to Stay Young

- Exercisers are 25% less likely to injure themselves or fall.
- Exercisers are happier, more satisfied with their lives, feel friskier, enjoy better sex at all ages, & are less prone to depression, anxiety, & stress.
- Exercisers live longer & look up to 20 years younger.

It's Never Too Late

- A 12-week strength-training program: 227% increase in muscle strength in 60 to 72-year-olds.
- 96-year-olds showed a 200% improvement in strength.
- The more calories you expend in exercise, the longer you are likely to live disease-free.

The Anti-Aging Fitness Guidelines

Move Every Day for at Least 45 Minutes

- Aerobic Activity: Walking, Swimming, Cycling, Jogging for at least 4 hours a week.
- Strength Training: Weight Lifting at least twice a week
- Warm Up & Cool Down for Flexibility

Set goals & make it fun!



Assignment:
Looking Back to the Future

Imagine it is your 100th birthday. You are fit, healthy, full of life and wisdom

Looking back, what did you do all those years to help you reach this goal?

- ❖ What did you eat?
- ❖ What and how much did you exercise?
- ❖ With whom did you spend your time?
- ❖ What relationships did you nurture?
- ❖ What were your hobbies?
- ❖ At what fulfilling job did you work?
- ❖ What healthy challenges did you embrace?