The Compelling Case For:

- Why The Cleveland Clinic Started A Clinical Wellness Institute When All Other Academic Health Institutions Hadn't or Didn't
- Some Fun Understandings That Helped CC Caregivers (& Could Help YOU) Make & Sustain Healthful Behavior Changes

What's New (2015-6) & Key For Your Getting Younger:

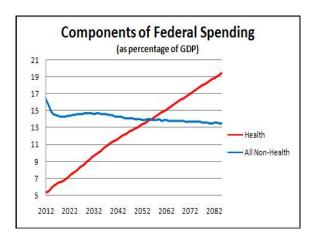
- TMAO Means (non-Italian) EVOO Key If You Want to Eat Red Meat or Egg Yolks
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Wellness - Clinical & CC Employee Programs Center for Lifestyle & Integrative Medicine (CLIM) Department of Preventive Medicine (Executive Health) Research Support for Clinical Programs CC Employee Wellness CC Employee Wellness

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4





Type2Diabetic Prevalence In USA

- 1974: 2.2 million of 211 million = 11/1000
- 1983: 4.6 million of 235 m = 24/1000
- 1994: 6.8 m of 260 m = 30/1000
- 2004: 15.0 m of 292 m = 55/1000
- 2014: 29.0 m of 320 m = 91/1000
- 2050: Predicted 120-180 m (CDC incr predictn for 2050 to 220 m on 9 15 15 = 500/1000

Total Hip & Knee Arthroplasties in USA

- 1974: 0.067million of 211 million= 0.003/1000
- 1990: 0.327 million of 235 m = 0.13/1000
- 2006: 0.675 m of 292 m = 0.02/1000
- 2010: 1.05 m of 320 m = 0.03/1000
- 2050: Predicted 6.33 m (4.17 K & 1.86 H) = 0.2/1000

Diabetes in 2050 Uses >15% of GDP

- 2050: Predicted Diabetics 120-180m uses over 15% without any new therapies or increased age of population
- So Does Osteoarthritis Care
- So Does Dementia Care Use >15%
- So Does Cancer & Post Cancer Care
- So Does Post Heart Attack & Stroke Care
- What's Left 4 Urol or Sports Med or Peds
- What's Left 4 Defense, or Education, or Social Programs, or Res, or Manufacturing

Average Annual Worker and Employer Contributions to Premiums and Total Premiums for Family Coverage, 1999-2015 \$4,247 \$5,791 1999 \$1,543 **2000** \$1,619 \$6,438* \$5,274* \$7,061* 2001 \$1,787* 2002 \$2,137* \$8,003* \$9,068* \$2,412* \$2,661* \$9,950 \$7.289* \$10,880 \$11,480* \$2,973* \$12,106* \$3,281* \$12,680* \$13,375* \$3,515 \$9,860* \$13,770* 2011 \$4,129 \$15,745* 2012 \$16,351* \$16,834* 2014 \$4,823 \$12,011 -HRET SOURCE: Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 1999-2015.

In Just 15 yrs to 2015

- Amt Spent By Indiv Increased \$3422
- Amt Spent By Employer For Indiv Increased By \$8344
- For 15 Yrs All Productivity Gains Plus of Amer Worker Gobbled Up By Med Costs
- A Larger Percentage of Lower Income Employees is Used For Their Med Expenses..that is \$17545 is 12.5% of 140,000; But 43.8% of 40,000 Person's Take Home Pay...Med Expenses Are A Major Cause of Inc Income Inequality

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Care Cost w/9.5%/yr Inc At CC For Employees +

• 2008: \$305 pmpm

• 2009: \$334 projected num here & below

2010: \$366

2011: \$401

2012: \$439

2013: \$481

2014: \$526

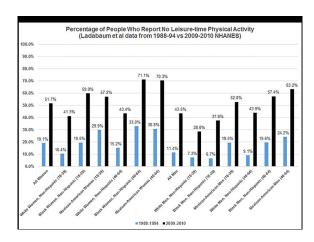
2015: \$576

• 2016: \$631 An additional \$395 million

-

Chronic Disease Management	
Causes 84% of all Costs & 67% of	
Costs are in under 65 Year Olds	
(2012 data)	
Tobacco	
Food Choices & Portion Size	
Physical Inactivity	
Unmanaged Stress	
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Can You Change The Health Of A Population? At What ROI?

Every Country & Most Every
Population Now Has America's
Problem: Don't Manage Stress, Eat
Too Much Inexpensive Addicting Food,
Do Too Little Physical Activity

 And Reduced Standard of Living Due to Increased Medical Costs

What Really Matters to Chronic Disease

- If Do 5 Behaviors Have Only 10-20 % of Risk of All Others For CV & Cancer --Only 4% Did 5 Behaviors (88+K Nurses Health Study, NEJM, 2000 & 2015)
- Swedish Men: 1% did 5 (35+K EHPJ, 2014)
- 96-97% Enter Medicare With A Chronic Disease (JAMA & NEJM, 2000)

What Really Matters to Chronic Disease

If Do 5 Behaviors or Have 5 Normals Have
 Only 10-20 % Risk For CV & Cancer:

Behavior:

1. Tobacco Free No Cotenine In Urine

2. Waist ½ Height or BMI <27.1

3. 30 min Phys Act/day FBS<110 & HgbA1C<5.8

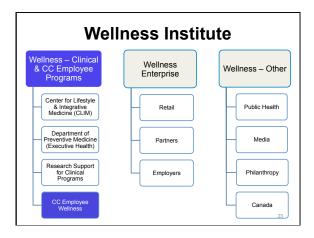
4. Met Diet LDL<130 or <100

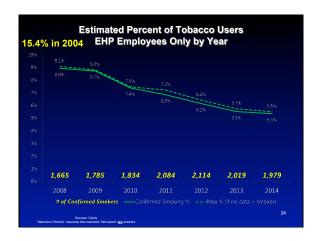
5. Only A Little Alcohol BP<125/85

Managa Strace

What Really Matters to Chronic Disease If Do 5 Behaviors Have Only 10-20 % of Risk of All Others For CV & Cancer -Only 4% Did 5 Behaviors (88+K Nurses Health Study, NEJM, 2000 & 2015) Swedish Men: Same Result 1% did 5 (35+K EHPJ, 2014) How Do We Get Many More To Do 5 Healthy Behaviors ???? The Biggest & Most

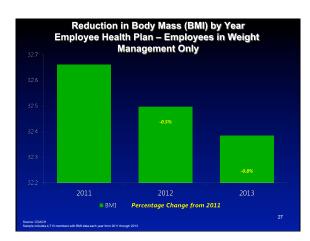
Important Question in Health Today.

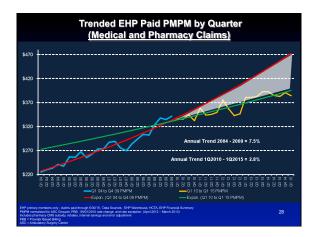








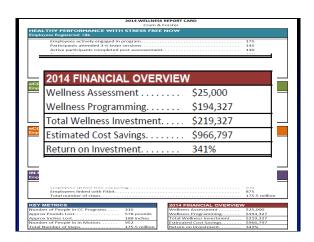




Care Cost Include Welness & Admin w/ 9.5% / yr Inc At CC For Employees + = 101,000 2008: \$305 pmpm 2009: \$334 but became 328 2010: \$366 but became 346 2011: \$401 but became 359 2012: \$439 but became 368 2013: \$481 but became 395 2014: \$526 but became 399 2015: \$576 but became 395? ? Saving \$243 million/y (or \$159 m/y @ 7.5%)

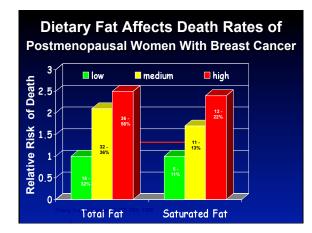
Lessons Learned To Foster Sustained Healthful Behavior Change Culture Change First & Repeatedly Message Ah-Ha Moments Knock Down Barriers—Make It Free Make It The Easiest Choice Incent It Big Time Offer Multiple Programs That Work

What's New (2015-6) & Key For Your Getting Younger:
 The Six Keys For Getting & Sustaining A Healthier
Population





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Care Cost At CC For Employees + About 10% In USA Without Chronic Disease Develop It Every Yr After Age 45	
 Age 47: 50% Chronic Disease 50% Not Age 48: 55% Chronic Dis; 45% Not 	
 Age 49: 59.5% Chronic Dis; 40.5% Not 	
 Age 50: 63.6% Chronic Dis; 36.4% Not Age 51: 67.2% Chronic Dis; 32.8% Not 	
• Age etc	
• Age 65: 96-97% Chronic Dis; 3-4% Not	





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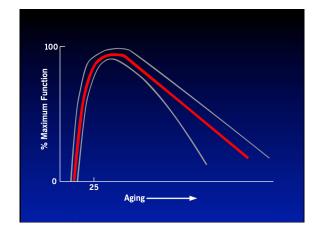
Shared Medical Appointments: Key For Affordability

- Trim Life: For Relationship with Food,
 Waist & Weight Control For Obesity; BP,
 T2DM,Choice & Portion Control
- Chronic Pain; Another for MS
- Brain Health & Wellness
- Breast, Prostate, & Cancer Post Rx For Health & Wellness
- Joint Health & Wellness Post Rx



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But First:

- You Can Get Younger
- Not Just Prevention, But Reversing Aging Too

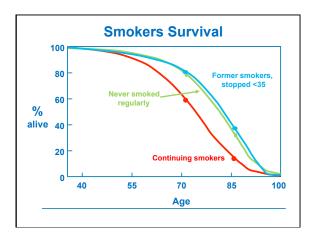
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46	
Is A Do-Over For YOU as An Individual & For America Possible?	
•YES	
	•
You Can Control Your Genetic	
Inheritance	
 All genes do is make proteins or watch other genes 	
 Which genes are on or off appears largely under YOUR control 	
Control	

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But Second:

- You Can Get Younger!
- How Much Younger?



Your RealAge Is Actual Age of Your Body

- Disability Risk and Mortality Risk
- Typical 1 ppd Smoker Dies 10 yrs earlier than non-smoker
- Typical 1 ppd Smoker Has 18 yrs more disability than non-smoker
- Largest Cause of Disability
 Payments in USA: Smoking related

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3 Types Of Choices • 1. Things Going From Top Left To Bottom Right Like Debt: Less Makes You Younger:			
Cigarettes &			
Tobacco			
Red Meat			
Egg Yolks			
 Simple Carbs 			
Sugar, Syrups			
 Periodontal Dise 	ease; STI's; Viral Infections		
Roque Cells	Cleveland Clinic		

What's New (2015-6) & Key For Your **Getting Younger:** • TMAO Means (non-Italian) EVOO Key If You Want to Eat Red Meat or Egg Yolks • Grip Strength Predicts Disability & Death; 40 Jumps for Spine Strength Each Serving A Week of Tomato Products & 5 min/ day Walk Decreases Severe Prostate Cancers 7% • 2 Baby Aspirins Not 1; Coffee For Fast Metabolizers Avoid Antibiotic & Alcohol Mouth Washes • The Six Keys For Getting & Sustaining A Healthier Population 5 Day/Mo Periodic Calorie Reduction Regenerates Your **Stem Cells—The Holy Grail of Aging** What's New (2015-6) & Key For Your **Getting Younger:** . The Six Keys For Getting & Sustaining A Healthier Population • TMAO Means (non-Italian) EVOO Key If You Want to Eat **Red Meat or Egg Yolks** Cleveland Clinic **Limit Red Meat Consumption** Carnitine, Lecithin, Choline In More Than 96 Gm Of Red Meat/Yolks In A Week...or 200 Gm of Pork Changes Your Bacteria (In Your Gut) To Produce TMA or Butyl Betaine; Goes to **Liver to Produce TMAO TMAO Causes Inflammation In Your** Body---that Kills Your Kidneys & You

(Slowly) & Ruins America

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Is Saturated Fat Okay?

- Most —Like Red Meat, Egg Yolks, Come
 With "Amino-Acids" or "Proteins" that
 Change Your Microbiome To Produce
 Substances That Cause Inflammation In YOU
- Some—Like Butter, Palm Oil, Coconut Oil— Change How Barriers Like Your Blood Brain Barrier Block Things, or How Your Genes Function—In a Way That Promotes Inflammation In Key Spots, Like Your Brain.

What Is Best Fruit For A 55 + Y.O. Man?

And What Is It Named After??

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61	
3 Types Of Choices	
3. Things That Go From Bottom Left To	
Upper Right Like You Hope Investments	
Do : More Makes You Younger:	
Veggies & Tomatoes	
• Education	
• Filtered Coffee	
• Nuts (Walnuts)	
Chocolate (2/3oz/h)	
• Friendship	
• Mutually Monogamous Sex; Humor ^{Cleveland Clinic}	
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Population	
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Avoid Antibiotic & Alcohol Mouth Washes	
Cleveland Clinic	

Eat Leafy Greens & Beets, & Avoid **Antibiotic & Alcohol Mouth Wash** You Want NO in Your Blood Vessels • Nitrates From Leafy Greens & Beets Have Nitrates That After You Get To Your Intestine Goes Into Your Blood & Is Concentrated In Your Salivary Gland...When U Eat Again, Bacteria in Your Mouth (If You Have Them) **Convert This Nitrate To Nitrite** • That Nitrite Is Absorbed & Becomes NO In Your Cleveland Clinic **Blood Vessels** 3 Types Of Choices • 2. Things Where More or Less Make You Older (Like # of Investments) & There Is An Ideal Amount To Makes You Youngest: 4 Components **Of Phys Activity** Stress Sleep Calories & Fiber Alcohol & Watermelon Exposure to Dirt, Bacteria, Viruses & Infections Most Vitamins & Minerals (like Folate, Caft) pland Clinic Pic or video or copywritten material here Cleveland Clinic

What's New (2015-6) & Key For Your Getting Younger: TMAO Means (non-Italian) EVOO Key If You Want to Eat Red Meat or Egg Yolks Avoid Antibiotic & Alcohol Mouth Washes Baby Aspirins Not 1; Coffee For Fast Metabolizers

Two Baby Aspirin's Impact

- 10- 45% reduction in heart attacks
- 30+% reduction in strokes, other arterial aging like wrinkling & erectile dysfunction
- 40% reduction in major cancers like colon & breast; and 9 other cancers

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5 areas in arterial aging YOU can impact:

- **Endothelial& Grout Injury/dysfunction**
- Quality of LDL Repair
- Chronic Inflammation (& TMAO levels)
- Acute Inflammation/Rupture
- Platelet/Clot Aggregation on injury

How Much Aspirin?

- 100 mg of Aspirin Every Other Day doesn't reduce cancer incidence While 162 mg every day does- Cook NR et al Ann Int Med 2013)
- 70% of side effects are related to aspirin effects on stomach ...take with one half glass of H2O before and after --- no data just logic

Two Baby Aspirin's Impact

- 40% reduction in major cancers like colon & breast; and 9 other cancers
- All Cause Mortality Data: 22% reduction in cancer rates with about 2 babies a day (take with H2O -- Pignone J Gen I Med 2013; Rothwell Lancet 2011)
- Benefit>Risk 4 Anyone with greater than 10 yr risk of Heart &/or Stroke of 2.5%

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Supplements, Vitamins, & Minerals— Don't Test, Just Give Women 12 to 45 These 3 : BS or Real Science

- ½ a Prenatal with DHA every morning
 & night
- Vit D2/3 1000-2000 IU a day till measured
- Calcium <600mg a day & Magnesium 400 mg a day (+Aspirin if on BCP's)

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3 Types Of Choices • 2. Things Where More or Less Make You Older (Like # of Investments) & There Is An Ideal Amount To Makes You Youngest:

- 4 Components
 Of Phys Activity
- Stress
- Sleep
- Calories & Fiber
- Alcohol & Watermelon
- Exposure to Dirt, Bacteria, Viruses & Infections
- Most Vitamins & Minerals (like Folate, Ca++)

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Test Video #5

What Do-Over Deed Does This Video "Explain" & Why?

The Magnificent 7 Do-Over Choices

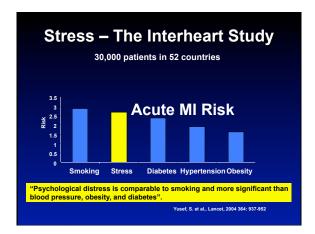
- Get A Buddy
- 10K a Day, No Excuses, & Show Some
 Resistance Twice a Week & Do Some Cardio
- Arrest & Ban The Five Food Felons
- Morph a Bad Habit With A Good Habit
- Find Your Stress Buster
- Keep Love In Your Life
- Find Your Passion or Purpose in Life

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Test Video #5	
What Do-Over Deed Does This Video "Explain" & Why?	
A: Find Your Stress Buster	
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81	

Stress Is The Greatest Ager What Just Happened

- Release of Cortisol, & NE,E,etc from Your Adrenal: Increased Sugar, Increased BP, Increased Alert/Anxiety
- Longer Term: Increased Fat
- Longer Term: Increased
 Inflammation & Burn Out

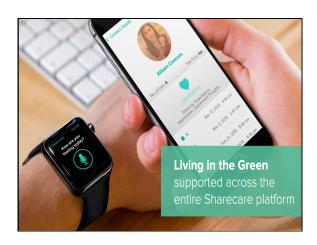


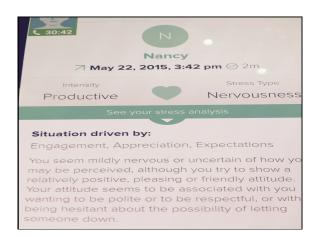
Leading in A Demanding Environment

- Why Care About Stress?
- What Causes Stress For You Isn't The Same As What Causes Stress For Your Team Members

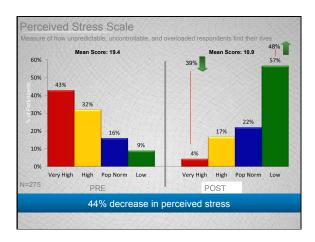
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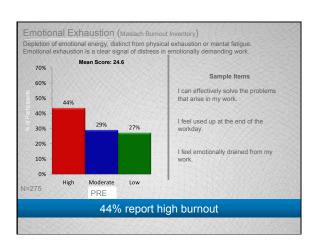


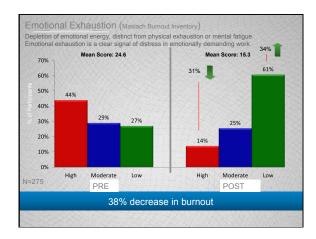












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The Holy Grail Of Aging Is Repair

- 14 Areas of "Hot" Research Into Why You Age
- Some, Like Mitochondrial Errors & Wear & Tear may Be Able to Be Reduced
- But The Key Is Having A Great Repair/
 Replacement System: Pluripotent Stem Cells
- Example of Sunburn/ Heartburn
- Example of Heart Attack & Stroke

Cleveland Clinic

5 Day a Month Modified Calorie Restriction May Rejeuvenate Your Pluripotent Stem Cells	
Calorie Restriction in 21/23 Species Extends	
Median & Max Life Span	
• 5 days a Month Seems To Be Almost As Good,	
Maybe Better in 2 Species (Longo et al)	
• 1000 calories 1 st day, Followed By Four 750	
calorie days; Then Medit Diet	
• Reduced Biomarkers of Aging, Inflammation & □ Cleveland Clinic	
Lengthened Telomeres on Stem Cells	
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The Holy Grail Of Aging Is Repair	
14 Areas of "Hot" Research Into Why You Age	
 Change Which Genes Are OnSince You Can't 	
Change Which Genes You Have Or Can YOU	
CRISPR	
F3 Olymbra Office	
Cleveland Clinic	
	·
DISCLOSURE OF INTERESTS:	
Cleveland Clinic	
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Lessons Learned To Sustain Healthful Behavior Change

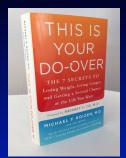
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 Stem Cells—The Holy Grail of Aging

The Magnificent 7 Do-Over Choices



& Overpay For Pedometer, HR Monitor, Chef's Knife, Cross Training Shoes.

Cleveland Clinic

