LifeStyle Medicine
What? Why? How?
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20 year old
• 20 year old college sophomore
• BP = 122/74
• HR = 111
• BMI 38.93
• Bilateral hip dysplasia diagnosed at age 18
• HgA1C = 5.8

What? 1
• Life Style Medicine
  – Egger (2008)
  – ACLM
  – ALMA
  – Rippe Health
  – ACPM
  – Greenstone (2007)

Overlap
• Complementary Medicine
• Alternative Medicine
• Functional Medicine
• Integrative Medicine
• Preventive Medicine
• Mind-body Medicine
• Personalized Medicine

1 July 14, 2010 JAMA Physician Competencies for Prescribing Lifestyle Medicine

Commentary
Physician Competencies for Prescribing Lifestyle Medicine2
Liana Lianov, MD, MPH; Mark Johnson, MD, MPH
40 year old

- BP = 110/70
- HR = 70
- BMI 30.16
- Smokes intermittently
- Consumes one bottle of wine/evening
- Can bicycle up to 100 miles on a weekend day
- Single and unhappy

Why? 2

- Health of patients
- Professional satisfaction
- Financial implications for healthcare

Evidence – Prevalence of Lifestyle Related Conditions 1

- 2 out of 3 overweight or obese (1 in 3 obese)
- 1 out of 2 with abdominal obesity (waist circumference ≥ 35” in women)
- 1 in 3 with one or more types of CVD
- 1 in 3 with hypertension (half over age 55, 2 in 3 over age 65); another 1 in 3 with pre-hypertension
- 1 in 8 with diabetes (another 1 in 3 with pre-diabetes)
- 1 in 3 with metabolic syndrome; approaching half over age 60
- 1 in 5 with arthritis; approaching half over age 55
- 1 in 5 women over 50 with osteoporosis

Primary prevention of coronary heart disease in women through diet and lifestyle

- 84,000+ women free of cardiovascular disease, diabetes or cancer in 1980
- Followed health habits of smoking, BMI under 25, % or more of alcoholic beverage/day, minimum of 30 minutes of moderate to vigorous exercise per day and healthy diet
- Women in low risk category (3%) had RR = .17 for cardiovascular disease; 82% of 1128 major coronary events could be attributed to lack of adherence to this low-risk pattern
- Follow up was for 14 years

Healthy living is the best revenge: findings from the European Prospective Investigation into Cancer and Nutrition-Potsdam Study

- 23,000+ Germans age 35-65 years old
- End points of developing type 2 diabetes, myocardial infarction, stroke or cancer
- Health factors were never smoking, BMI less than 30, 3.5 hrs of physical exercise or more/week and healthy diet (fruits, vegetables, whole grains)
- 4% had none of these health factors, 9% had all of them
- When all four factors present, 78% lower risk of developing above chronic illness compared to 4% with none over eight years.

Major Coronary risk factors and death from coronary heart disease: baseline and follow-up mortality data from the second national health and nutrition examination survey (NHANES II)

- 8069 adults age 30-75 in 1976-1980 with 17 year follow up
- Health risks of hypertension, total cholesterol greater than 240mg/dl and cigarette smoking
- 75% had one of these three risk factors
- The risk of CHD was 51% lower among men and 71% lower among women with none of the three risk factors compared to those with at least one. Had all three of the risk factors not occurred, 64% of the 185 CHD deaths among women and 45% of the 239 CHD deaths among men could have been avoided.

1Lifestyle Medicine – Evidence Review. June 30, 2009
American College of Preventive Medicine
Telomere length and risk of incident cancer and cancer mortality

To determine the association between baseline telomeres length and incident cancer and cancer mortality

- 787 cancer free adults in Italy (1995)
- 100% follow up over ten years
- 92 (11.7%) developed cancer over the ten years
- Statistically significant inverse relationship between telomere length and both cancer incidence and mortality

Increased telomere activity and comprehensive lifestyle changes: a pilot study

- 30 men with biopsy-diagnosed low risk prostate cancer asked to make positive lifestyle changes
  - Ornish diet (low fat, high fiber, fruits and vegetables)
  - Moderate exercise (30 minutes at least six days/week)
  - Stress management (yoga, progressive relaxation, breathing 60 minutes/6 days/week)
  - 1 hour group support session
  - Supplements of soy, fish oil, Vitamin E, selenium and Vitamin C
- Primary endpoint was telomerase activity over three months
- Comprehensive lifestyle changes significantly increased telomerase activity and consequently telomere maintenance capacity in human immune system cells

60 year old

- BP = 112/60
- HR = 80
- BMI = 32
- Right hip replacement 2010
- 14 year old daughter with ADD
- Works full time
- Married and unhappy

Clinician challenge

- ‘The challenge is no longer proving that lifestyle interventions work, but rather in enhancing clinicians’ and the health care system’s commitment to learning how to incorporate the interventions into their practices and to deliver specific and compelling messages and strategies to patients...’
  - Greenstone

How?

- Leadership
- Knowledge
- Assessment Skills
- Management Skills
- Use of Office and Community Support

STAGES OF BEHAVIORAL CHANGE
WHAT MATTERS TO THE PATIENT?

Contemporary
- Focused on Disease
- Physician Directed
- Disease Management
- Find it, Fix it
- Reactive
- Sporadic
- Biomedical Interventions
- Individual Left to Enact

Patient Centered
- Focused on the Person
- Partnership with Team
- Health Optimization
- Identify Risk; Minimize It
- Proactive
- Life Long Planning
- Whole Person Approach
- Resources and Tools for Implementation

Future Models
- Time Based Care
- Group Based Care
- Team Based Care
  - Physician Assistant
  - Dietician
  - Licensed Clinical Social Worker
  - Advance Practice Nurse

80 year old
- BP = 120/82
- HR = 60
- BMI = 23.12
- Right hip replacement 2010
- Left knee pain
- HgA1C = 6.1
- Married and happy

The Future: What IS Possible?