Holistic Wellness and Aging

Amy B. Locke, M.D., FAAFP, ABIHM
Associate Professor
Wellness Department of Family Medicine
University of Utah
WHAT DOES IT MEAN TO BE WELL?
Wellness is the optimal state of health of individuals and groups. There are two focal concerns: the realisation of the fullest potential of an individual physically, psychologically, socially, spiritually and economically, and the fulfillment of one’s role expectations in the family, community, place of worship, workplace and other settings.

WHO, accessed October 30, 2006
Wellness Wheel

- Tranquility
- Nutrition
- Peace of mind
- Physical activity
- Relaxation
- Sleep
- Reflection
- Time for self
- Contemplation
- Connection with others
Case 1

- TR is a 72 yo retired man who works out regularly and engages in daily physical activity. He has eaten a Mediterranean diet over most of his life. He is well connected with his family and community. He takes a vitamin D supplement daily.
Case 2

- TR is a 72 yo retired man who recently suffered his 2\textsuperscript{nd} heart attack. His diabetes is under average control. He tries to avoid sugar by using other sweeteners. He quit smoking 3 yrs ago. He takes 7 medications regularly. He walks 3 times/week for 30 min.
Foundations of Health

- Nutrition
- Sleep
- Physical activity
- Love
- Relaxation/calm mind
- Connection with others
- Contemplation
A healthy diet, regular exercise and not smoking can eliminate 80% of heart disease and 70% of some cancers.

Willett; Eat, Drink and Be Healthy 2005
Outline

• Wellness as a focus of care
• Specific recommendations
• Incorporating wellness into your life and practice
• Changing the face of health care
Qualities of Health Care Professionals

Take a moment to think about why you went into health care.
Prevention

LIFESTYLE
Food as Medicine
Mediterranean Diet

• Emphasis on fruits and vegetables
• Plant proteins and fish over other animal proteins
• Whole grains (coarsely ground)
  – Low glycemic index
• Healthy fats
  – High omega-3 and monounsaturated fats
  – Low omega-6 and saturated fats
Low Glycemic Index

• Summary of high GI:
  – Eat more
  – Hungry more often
  – Harder to lose weight
    • (even if eat the same amount of food)
  – More likely to have chronic disease
    • Increased inflammation
    • High cholesterol
    • Diabetes
    • Cardiovascular disease

Dose-response relationship between red meat intake and risk of all-cause mortality in the Health Professionals Follow-up Study (A) and the Nurses' Health Study (B)

Beverages

- Water preferable
- Potential for large number of calories
- Often high glycemic index
- Artificial sweeteners
  - May eat more
How Sweet Is It?
Calories and Teaspoons of Sugar in 12 Ounces of Each Beverage
For more information, see The Nutrition Source, www.hsph.harvard.edu/nutritionsource/healthy-drinks/

Key

170 Total Calories
10 Teaspoons of Sugar
RED: Drink Sparingly and Infrequently
YELLOW: A Better Choice, but Don’t Overdo It
GREEN: Best Choice

Cranberry Juice Cocktail 12
Orange Soda 11
Orange Juice 170
Cola 150
FDA Definition of Reduced Calorie 110
Sports Drink 7
New Target for Food Industry 90
Seltzer With a Splash of Juice 11
Coffee With a Sugar Packet 15
BEST BET: SUGAR-FREE NATURALLY (Water, Tea, Etc.) 0
“Those who think they have not time for bodily exercise will sooner or later have to find time for illness.”
Edward Stanley
Earl of Derby 1873
Attributable fractions (%) for all-cause deaths in 40,842 (3,333 deaths) men and 12,943 (491 deaths) women in the Aerobics Center Longitudinal Study.
Sedentary behavior

- Prolonged sitting independently increases risk of obesity and diabetes, cardiovascular death and all cause mortality\(^1,2\)

1. Manson et al NEJM 2002
2. Grontved and Hu JAMA 2011
Prolonged sitting is a risk factor for all cause mortality, independent of physical activity.
• Adequate sleep associated with:
  – Improved blood pressure
  – Decreased rates of diabetes
  – Decreased stroke
  – Increased productivity
Body: Sleep

- Realistic expectations
- Deal with co-morbid conditions
- Cognitive Behavioral Techniques
  - Education (sleep hygiene)
  - Address anticipatory anxiety and coping skills
  - Relaxation
  - As effective as meds but last longer

Mental Health

- Beyond the absence of disease
- Resilience
- Purpose
- Mindful
Positive Affect

• Deal better with stressful situations\(^1\)
• Lower cortisol level, decrease HR\(^1\)
• Less severe illness\(^2\) and frequency of URI\(^3\)
• Faster healing times\(^4\)

\(^1\) Steptoe et al, PNAS 2005
\(^2\) Cohen et al, Psychosomatic Med 2003
\(^3\) Smith et al, Psychoneuroendocrinology 2001
\(^4\) Yang et al, J Neuroimmunology 2002
Spirit

• Fostering connection with others
• Forgiveness
• Time for self
• Experience of love
• Religious experience
Strategies to address

- Seek out support from individuals and groups
- Forgiveness
- Visualization
- Meditation
- Prayer
- Breathing techniques
- Time in nature

- Relaxation
- Prayer
- Tai Chi
- Yoga
- Dance
- Art
- Music
Time in nature

- Improved mental wellbeing\textsuperscript{1}
- Decreased stress\textsuperscript{1}
- Outdoor physical activity\textsuperscript{2}
  - Decreased tension, confusion, anger, depression
  - Higher satisfaction
  - Increased sustainability

SPECIFIC RECOMMENDATIONS
BRAIN HEALTH
Nutrients for Brain health

- **Antioxidants**¹
  - Dark fruits and veggies
  - Especially blueberries

- **Omega-3**²
  - Monounsaturated fats increase absorption

- **Vitamin D**³

Brain Health

- Cognitive challenge
- Physical activity
  - Aerobic + strength or flexibility
- Social connection
- The basics: helmets
In the news: PPI use and dementia

- Pharmacy data study
  - Increase in dementia
    - 52% men
    - 42% women
- > 70,000 elders; mean age 83
- Consistent with animal data

Gomm et al. JAMA Neurol. 2016
HEART HEALTH
Nutrition for Heart health

- Fruits and veggies
- Nuts¹/healthy fats
- Low glycemic index²
- Moderate alcohol

Lyon Diet Heart Study

Cumulative survival without nonfatal infarction and without major secondary end points
Relative Risk for heart disease: Fruits and Vegetables
Low fat diet vs. standard diet

Howard et al. JAMA 2006;295:655-666
Lifestyle Activities vs. Exercise

• Equal weight loss when combined with nutrition changes\(^1\)
• Equal impact on CVD risk factors\(^{1,2}\)
• May be easier and more sustainable
• Significant cost difference\(^2\)

1. Andersen et al, JAMA 1999
2. Dunn et al, JAMA 1999
Heart Health

• Mental and Spiritual Health
  – Stress management\textsuperscript{1}
  – Social connection
    • Marital status and cohabitation\textsuperscript{2}

• Mouth care
  – Periodontal disease associated with early onset MI\textsuperscript{3}

Social connectedness

• Support from others leads to improved health
  – Support groups
    • Breast cancer survivors
    • Post melanoma resection
  – Familial/community support
    • Post cardiac catheterization
    • Upper respiratory infections
BONE HEALTH
Nutrition

• Plant based diet
  – Calcium, vitamins D and K
  – Avoid acidic load

• Avoid over supplementation
Physical activity

- BEST trial
  - Bone Estrogen Strength Training
  - Postmenopausal women
  - Increased bone mineral density with resistance training +/- estrogen
  - Decreased bone density in control

Metcalfe et al, ASCM Health Fit J 2001
Resistance Training

- Maintain lean muscle mass
- Decrease fat mass
- Increase resting metabolic rate
- Decrease risk of osteoporosis
- Maintain function status
- Decrease risk of CAD
- Decreased hypertension

4. Tanasescu et al. JAMA 2002
Balance and Agility

- Functional Status
  - Activities of daily living
- Tai Chi RCT with elders\(^1,2\)
  - Decreased fall risk by 48%
  - Fear of falling decreased
  - Improved mood
- Yoga

JOINT HEALTH
Joint Health

- Anti-inflammatory diet$^1$
- Physical activity
- Joint load reduction
  - Weight maintenance
  - Limit prolonged standing
  - Wedges where appropriate

1. Calder et al Br J Nutr 2009 May
Joint health physical activity

- **Aerobic training**
  - Decrease pain and progression of disease

- **Resistance training and strengthening**
  - Stabilizing joints helps prevent pain

- **Flexibility**
  - OA can limit motion
  - Flexibility training can improve function
Hormones

• Bio-identical hormones
• What is “Natural”? 
• What is their purpose?
BOWEL HEALTH
Microbiome

- 10 times the number of human cells
- 99% of the genetic material
- Over 1000 species
- Varies from person to person
- 90% are in the gut
- The “composite organism”
  - Co-evolution

Sonnenburg J, University of Arizona CME speaker 2014
Associations with different species

- Autism
- Inflammation
  - Including IBD
- Allergic disease
- Anxiety
- Insulin sensitivity
- Ghrelin regulation
- Weight
- Early osteoarthritis
Changing the microbiota

- Vaginal delivery
- Breastfeeding
- Diet
  - Fiber
  - Food additives
- Hygiene/sanitation
- Probiotics/prebiotics
- Pharmaceuticals
- Fecal transplant
Low diversity

- Adiposity
- Inflammation
- Insulin resistance
- Low Short Chain Fatty Acids
- Dyslipidemia
  - Increased triglycerides
  - Low HDL

LeChatelier et al. Nature 2013
Increasing diversity

- Increased dietary fiber
- Western societies have about 25-30% less diversity (and different species)

Change in diet\(^1\):
  - Improves diversity
  - Reverses inflammatory markers
  - Improves lipids
  - Decreases adiposity

Lotillard et al. Nature 2013
Mucosal disruption

• Emulsifiers in processed foods
  – Lecithin, polysorbate 80, datem, etc.
  – Damage mucosa
  – Increased bacterial translocation¹
  – In mice²:
    • Change flora
    • Inflammatory disorders
    • Obesity
    • Metabolic syndrome
    • Overt colitis

Avoid unnecessary testing

- Choosing Wisely Campaign
- What does the evidence support?
  - Prostate cancer screening
  - Breast cancer screening
  - Osteoporosis screening
  - Cardiovascular screening
Motivation: what doesn’t work

- Brief one time educational intervention
- Unrealistic goals
- Guilt
- Recommend against exercise due to chronic disease
- Focus on dramatic weight loss
Motivating Individuals

• Clear goals
  – i.e. Health/Wellness rather than weight loss
  – Short term positive: feel better, more energy

• Tailored message
  – Start with one step

• Play: What is fun?

• Self Monitoring
  – Tracking

• Get family and friends involved

• Lead by example

• Each day is a new day

• Close follow-up
Future of Medicine

- Patient Centered Medical Home
- Whole Person Care
- Team Based Care
- Population management replaces fee-for-service care
Integrative Medicine at University of Utah

• Now
  – Huntsman
  – Primary Children’s
  – Family Medicine
  – Orthopedics

• Future
  – Wellness
  – Collaboration
University of Utah
Wellness and Integrative Health

- Human Resources Programs
- Wellness Centers
- Lifestyle support
  - Nutrition
  - Physical activity
  - Mindfulness
  - Health Coaching
- Integrative services
Take home points

- Lifestyle is the foundation of health
- Focus on lifestyle must be the expectation rather than the exception
- We spend an disproportionate amount of time on treatment of disease over prevention
- Wellness interventions can reduce dependence on pharmacotherapy, limit morbidity and extend life
- Start with yourself
Resources - Provider

- University of Wisconsin Integrative Medicine
  - Teaching Modules
  - [http://www.fammed.wisc.edu/integrative](http://www.fammed.wisc.edu/integrative)
- Integrative Medicine, David Rakel, 2012
  - Available on MDConsult and Clinical Key
- Eccles Library Guide to CAM
  - [http://campusguides.lib.utah.edu/cam](http://campusguides.lib.utah.edu/cam)
  - Natural Medicines
- NCCIM website
  - [www.nccam.nih.gov](http://www.nccam.nih.gov)
Resources

- www.nutritionsource.org
- Why We Eat More Than We Think, Wansink, 2007
- Switch, Chip and Dan Heath, 2011
- No Sweat, Michele Segar, 2015
- Where Ever You Go There You Are, Kabat-Zinn, 2005
- Forgive for Good: A Proven Prescription for Health and Happiness, Luskin and Luskin, 2001
“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”
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