Integrative Medicine:
It's Not Alternative Anymore

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Integrative Medicine

• Takes account of the whole person including lifestyle
• Emphasizes relationship between practitioner and patient
• Is informed by evidence
• Makes use of all appropriate therapies

If the American Public Embraced a Healthier Lifestyle:

• Healthy nutrition
• Balance of exercise and rest
• Limited or no exposure to toxic chemicals
• No smoking, no or moderate alcohol consumption
• Stress management
• Social integration

93% of diabetes, 81% of heart attacks, 50% of strokes, and 36% of cancers could be prevented.


Complexity of Modern Living

• Poor diet, nutrient deficiencies
• Sedentary, high stress lifestyles
• Poor sleep, too much screen time
• Inadequate social support
• Strong emphasis on “knowing” and “having”

Much of what is making us sick cannot be fixed with more and more pills…..
Nutritional Guidance

• Despite overwhelming evidence that relatively small dietary changes can significantly improve health, clinicians seldom discuss nutrition with patients.

• Poor nutritional intake and nutrition-related health conditions, such as cardiovascular disease (CVD), diabetes, obesity, hypertension, and many cancers, are highly prevalent in the United States, yet only 12% of office visits include any counseling about diet.


Nutrition in the 21st Century

Is it any wonder that people are confused?
The Fountain of Health

- Regular exercise has been shown to slow aging, maintain brain and cardiovascular health, improve mood, boost energy, increase productivity, improve sleep, reduce chronic pain, improve skin and eye health, maintain healthy muscles and bones, and more.

Consequences of Inactivity

- Higher risk for heart disease, type 2 diabetes, certain cancers, Alzheimer's disease and increase lower back pain, depression and anxiety.
- Half of baby boomers in the US report having NO exercise.
- 80 million Americans over the age of 6 years of age are entirely inactive.

FITT Prescription

- Frequency – how often you exercise
- Intensity – how hard you exercise
- Time – how long you spend exercising
- Type – what kind of exercise

Cardiorespiratory Endurance

- Frequency: at least 3 days per week
- Intensity: 60% of your max heart rate
  - 220 – your age = maximum beats per minute
  - Maximum heart rate x 0.6
  - 220 - 50 = 170 x 0.6 = 102 bpm
- Time: minimum of 30 minutes
- Type: any exercise that keeps your heart rate up continuously.
Muscle Strength and Endurance

- Frequency: 2-3 days per week
- Intensity: 3 sets of 8 repetitions (these should be hard, if going for endurance, you can do the repetitions until you can’t.)
- Time: no time requirement for strength training
- Type: mix it up – those that use weight, resistance, jumping all develop muscular strength. Can use machines or pushups, abdominal curls, planks, etc.

Flexibility

- Frequency: at least 3 days per week should stretch all major muscles
- Intensity: should feel slight muscular discomfort but NOT pain
- Time: hold each static stretch for 5-10 seconds, do a couple repetitions, dynamic stretching for 5-10 minutes
- Type: static or dynamic (side shuffle, walking knee to chest, etc.)

Pain

- Affects at >100 million Americans, more than those with heart disease, cancer, and diabetes combined.
- Pain costs US >$500 billion annually in medical treatment and lost productivity
- US accounts for ~100% of hydrocodone (e.g., Vicodin) and 81% for oxycodone (e.g., Percocet) used globally.
- In 2012, over 5% of U.S. population 12 yrs or older used opioid pain relievers non-medically


“My Drug Deaths in America Are Rising Faster Than Ever”
Josh Katz, NY Times
June 5, 2017
Chronic Low Back Pain Guidelines

• For patients with chronic low back pain, clinicians and patients should initially select non-pharmacologic treatment with exercise, multidisciplinary rehabilitation, acupuncture, mindfulness-based stress reduction, tai chi, yoga, progressive relaxation, cognitive behavioral therapy, spinal manipulation…. (Grade: strong recommendation)

Migraine

• 30,000,000 migraine sufferers
• 1 of 4 households include a migraineur
• 9th leading disability, more common than diabetes or asthma
• Stress and poor sleep are biggest triggers for migraines, as well as dehydration, bright lights, menses, specific foods, etc.
• The following have been found effective (varying degrees) for prophylaxis:
  • Acupuncture
  • Yoga
  • Butterbur
  • Magnesium
  • Riboflavin (especially photosensitivity as trigger)

Acupuncture for Migraine

• Cochrane review 22 trials (n=4985) concluded that the available evidence shows adding acupuncture to symptomatic treatment of attacks reduces the frequency of headaches. The available trials also suggest that acupuncture may be at least similarly effective as treatment with prophylactic drugs.
• “Acupuncture can be considered a treatment option for patients willing to undergo this treatment.”


Magnesium for Migraines

• Studies show migraineurs have low brain Mg during migraine attacks and low systemic mag.
• Reduces pediatric migraine and tension headaches.
• Canadian Headache Society: strong recommendation for prophylaxis with 600 mg magnesium citrate.
• AAN/AHS gave level B recommendation (probably effective.
• Diarrhea most common side effect (mag oxide > citrate>glycinate). Caution in poor kidney function.
Magnesium

- Low magnesium intakes and serum levels associated with type 2 diabetes, metabolic syndrome, inflammation, high blood pressure, atherosclerotic vascular disease, sudden cardiac death, osteoporosis, migraine headache, asthma, and colon cancer.
- 50% of U.S. population consumes less than the required amount of daily magnesium.
- FDA requires warning that proton pump inhibitors can cause dangerously low magnesium levels.
- Many people benefit 300-400 mg per day.

Massage Therapy

- Massage involves kneading, rubbing, and manipulating muscles/soft tissues of the body to increase blood flow and cause muscles to relax and lengthen.
- Clinical trials show massage is effective for lower back pain, tension headaches, fatigue in cancer patients, improves sleep, muscle pain, etc.
- The AMTA can help you find a licensed massage therapist in your area.

Omega 3 Fatty Acids from Plants and Animals

- Dark green vegetables, walnuts, freshly ground flax seeds and other plant foods convert to ALA.
- Cold water fish, fish oil, fresh seaweed, clean animal foods like free range chicken, eggs, and grass fed beef convert to DHA and EPA.
- Intermediate molecules.
No Fish Story: The Omega 3 Index

• Omega 3 fatty acids important for regulating inflammation, promoting healthy mood and heart, development of eyes and nervous system in babies, and more.
• Omega-3 Index test is gold standard for omega-3 biostatus testing. In 2008 Dr. Bernadine Healy, cardiologist and past President of the AHA and first woman Director of the NIH said, “Before long, your personal Omega-3 Index just could be the new cholesterol—the number you want to brag about.”

Heart Health

• American Heart Association: “Omega-3 fish oil supplements prescribed by a healthcare provider may help prevent death from heart disease in patients who recently had a heart attack and may prevent death and hospitalizations in patients with heart failure.”

Omega 3 and Asthma

• Reduced intake of omega-3 fatty acids may be a contributing factor to the increasing prevalence of wheezing disorders.
• Reviewers found that supplementation with omega-3 fatty acids in the third trimester of pregnancy reduced the absolute risk of persistent wheeze or asthma and infections of the lower respiratory tract in offspring by approximately 33%.
• DHA 200-500 mg per day in pregnancy and while breastfeeding.

Mental Health

• According to CDC, 11% of Americans 12 and older take anti-depressant medications:
  • 400% increase from the 1980s, ~270 million prescriptions per year.
  • 1 in 4 women 40-60 years old take anti-depressants.
  • Anxiety disorders in ages 9 - 17 is 13%.
  • 1 in 8 adolescents have major depression.
• Over-diagnosis and overtreatment of mental disorders is of particular concern: diagnostic decisions based mostly on patient self-report, not on objective signs or laboratory tests.

• 74 FDA-registered studies, 31% not published. Published literature, 94% of trials were positive. FDA analysis showed that only 51% were positive.

• JAMA review: The magnitude of benefit for antidepressant medication compared with placebo may be minimal or nonexistent, on average, in patients with mild or moderate symptoms.
  • For patients with very severe depression, the benefit of medications over placebo is substantial

Mindfulness Meditation

• Long-time meditators have greater activation of areas responsible for sustaining attention, processing empathy, integrating emotion and cognition, and perceiving the mental and emotional state of others.

• Review of 47 trials found meditation improves:
  • Anxiety
  • Depression
  • Pain


Children on ADHD Medication (2011-12)
Meditation interventions are being increasingly implemented among youth in school, community, and clinic based settings.

Review of 16 studies found meditation can be effective intervention for psychosocial/behavioral problems among children and adolescents.


Neurofeedback

• 104 children (7-11 years) with ADHD randomly assigned to receive in school 40-session computer training intervention with neurofeedback, cognitive training, or control condition and evaluated six months post-intervention.

• Neurofeedback participants made more prompt and greater improvements in ADHD symptoms, which were sustained at the 6-month follow-up. CT and control groups both had increased medication dosing during follow up.