

Back To Chiropractic Continuing Education Seminars Wellness: The Studies ~ 6 Hours

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(also accepted in other states, check our website or with your Chiropractic State Board)

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If you get audited and lose your records, I'll have a copy.

I'm always a phone call away... 707.972.0047 or email: marcusstrutzdc@gmail.com

Marcus Strutz, DC
Back To Chiropractic CE Seminars
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Ft Bragg CA 95437

Wellness: The Studies ~ 6 Hours
 Learning Objectives
 Presented by: Marcus Strutz, DC

1. To be aware of the demographics changes of our country and how it will affect the type of patients coming into our offices. To provide patients with information and strategies to make healthy choices and how chiropractic is an integral part of that decision. To guide patients to healthier choices and make them aware of the unhealthy choices.
2. To inform chiropractors of the adverse effects of drug therapy, their impact on the health of our patients, and viable options for the chiropractic office. The importance of staying health, which in turn lowers and or prevents the need for drug therapy.
3. To explain how to decrease the risk of: Cancer, Hypercholesterolemia, Hypertension, Ulcers with healthy choices and avoiding the known risk factors.
4. How to incorporate the key factors of health (diet, exercise, stress reduction, proper rest), into a practice on a daily basis and how they relate to chiropractic. Literature is provided to support the validity of these health areas that are useful for both the chiropractor and patient.
5. The physiological effects of healthy living will be given as well as “how to” lists for increased patient compliance.

Outline

Time	Topic
Hours 1-2	<ul style="list-style-type: none"> ➤ Demographics of our Nation: Overview of population growth trends, aging statistics, factors that attribute to the aging, morbidity and mortality rates and the fall-out on health issues and insurance costs. ➤ Why to stay healthy and avoid the adverse effects of drug therapy: A review of the growth of legal drug use in the US, including sales figures, the public demand for them and how the media effects our decision making. A closer look at flu vaccine, aspirin, acetaminophen, naproxen; including peer reviewed literature on the health risks and costs for individuals and our nation.
Hour 3	<ul style="list-style-type: none"> ➤ National data is shown in terms of morbidity & mortality rates as well as economic costs of our nation’s primary killers: Cancer, Hypercholesterolemia, Hypertension and Ulcers. Alternative choices and a “why you should” and “how to” methodology is presented.
Hours 4-6	<ul style="list-style-type: none"> ➤ Key factors of health (diet, exercise, stress, rest). Each factor is reviewed in detail with peered reviewed literature on the impact it has on overall health. Eating habits, exercise regiments, the epidemic of obesity, the importance of rest and sleep, emotional and physical stress, are reviewed. ➤ Includes the physiological effects of diet, exercise, stress and rest; and methods to implement these factors into chiropractic practice and the patient’s daily life.

Marcus Strutz, DC

Life Chiropractic College West Graduate

June 1996, Summa Cum Laude

Professor Life Chiropractic College West, 1997-2002

- **Spinal Biomechanics (authored course manual)**
- **Physiotherapy Rehab (authored course manual)**
- **Physiotherapy Modalities (authored course manual)**
- **X-Ray Physics (authored course manual)**
- **Philosophy I**
- **Philosophy V - Practice Management**
- **Microbiology Lab**
- **Systemic Physiology Lab**

Private Practice, 2000-present Mendocino/Ft Bragg, CA

CE Seminars, 2002-present: Technique, Wellness, Physiotherapy, History & Exam

Ghost Writer Practice Management, 2007-present

National Board Review Instructor, 1999-2000 Dr. Irene Gold & Dr. John Donofrio

Father: Amuel Strutz DC Palmer Grad 1961

The Alternative! Don't wait until you are sick, maintain your health! The goal is to live long & be healthy, achieving a more effective life, maintaining full function & well-being. The goal of chiropractic care is correction of dysfunction w/pain relief, restored function & enhancement of well-being. DC's make pts aware of their role & responsibility in maintaining their health.

“People increasingly see conventional medicine not as health care but as disease care. People want more than that. It's irrational to always wait until one develops a problem to pay attention to health.” Larry Dossey, MD

To start off with Wellness we need to take a look at the demographics of our country, the history and current habits. Once we identify the ills of health, we then can move forward and make educated decisions on how to stay healthy versus waiting until we are sick.

Population, Life Expectancy & Health Care

100 Years Ago! Life expectancy in US 47 yrs, 8% of homes had a phone, 8,000 cars & 144 miles of paved roads, Population of Las Vegas was 30, Average US worker made \$200-\$400/year, Babe Ruth made \$50,000 in 1920, 95% of births took place at home, 6% had graduated from high school, Canada passed a law prohibiting poor people from entering, 230 murders in entire US, 124 in Oakland in 2008, 90% of US physicians attended medical schools, condemned by the press & government as “substandard”.

Top 5 Causes of Death 100 Years Ago: 1. pneumonia/flu, 2. TB, 3. diarrhea, 4. heart disease, 5. stroke.

State of the World If there was 100 people in the world today: 20 would be children, 80 would be adults, 14 would be 65 or older. There would be: 61 Asians, 12 Europeans, 13 Africans, 14 people from the Western Hemisphere. Religion: 31 Christians, 21 Muslims, 14 Hindus, 6 Buddhists, 12 people believe in other religions, 16 not aligned with a religion. Language: 17 would speak Cantonese or Mandarin, 8 would speak Hindi, 8 would speak English, 7 would speak Spanish, 4 would speak Arabic, 4 would speak Russian, 52 would speak other languages. How Lucky Are We?: 82 could read & write, 1 would have a college education, 1 would own a computer, 75 would have some food supply & shelter from wind & rain, 1 would be dying of starvation,

17 would be undernourished, 15 would be overweight, 83 would have access to safe drinking water. When one considers our world from such a compressed perspective the need for acceptance, understanding & education becomes glaringly evident. University of Wisconsin, 2006 .

California Population

1910	2,377,549
2000	34,105,000
2010	39,136,000
2020	44,136,000
2030	49,241,000
2040	54,226,000
2050	59,508,000

US Bureau of the Census, July 2007

Top 10 Causes of Death

US National Center for Health Statistics, 2007
Total deaths: 2,423,712

Cause	Deaths	% of Total
1 Heart disease	616,067	25.4%
2 Cancer	562,875	23.2%
3 Stroke	135,952	5.6%
4 Lung diseases	127,924	5.3%
5 Accidents	123,706	5.1%
6 Alzheimer's	74,632	3.1%
7 Diabetes	71,382	2.9%
8 Influenza/Pneumonia	52,717	2.2%
9 Kidney diseases	46,448	1.9%
10 Septicemia	34,828	1.4%

Life Expectancy at Birth, 2006

United Nations World Population Prospects

	Country	Age
1	Monaco	89.8
2	Macau	84.4
3	San Marino	83.0
4	Andorra	82.4
5	Japan	82.2
6	Guernsey	82.1
7	Singapore	82.1
8	Hong Kong	82.0
9	Australia	81.7
10	Canada	81.3
49	USA	78.2

Life Expectancy at Birth, 1930–2006

National Center for Health Stats, 2008

Year	Age
2006	78.1
2000	77.0
1990	75.4
1980	73.7
1970	70.8
1960	69.7
1950	68.2
1940	62.9

Healthy Life Expectancy

WHO, 2009

#	Country	Total @ Birth
1	Japan	78
2	San Marino	76
3	Sweden	76
4	Switzerland	76
5	Monaco	76
29	USA	72

World Rankings Health Care Systems WHO, 2005

1. France
2. Italy
3. San Marino
4. Andorra
5. Malta
6. Singapore
7. Spain
8. Oman
9. Austria
10. Japan
37. USA

Why Is The US So Unhealthy?

- * Stress, Pills, Diet, Smoking & Drinking
- * Native Americans, rural African Americans & inner city poor have extremely poor health, more like a poor developing country

- * HIV: higher rate of death to US young & middle-aged than in most advanced countries
- * High cancer rate from tobacco use
- * High coronary heart disease rate
- * High number of homicides
- * High number of obese people

Alcohol Consumption WHO 2007		McDonald's		Drug Expenditure Per Capita	
Liters per capita		# of restaurants per million		OECD Health Data, 2009	
1. Luxembourg	12.6	1. US	45.6	1. US	\$878
2. Hungary	11.4	2. New Zealand	38.1	2. Canada	\$691
3. Czech Republic	11.0	3. Canada	36.2	3. Greece	\$677
4. Ireland	10.8	4. Australia	35.9	4. France	\$588
5. Germany	10.2	5. Japan	28.3	5. Belgium	\$566
6. Spain	10.0	6. Sweden	25.6	6. Spain	\$562
7. Portugal	9.6	7. UK	18.7	7. Germany	\$542
8. UK	9.6	8. Denmark	18.4	8. Italy	\$518
9. Denmark	9.5	9. Austria	18.1	9. Austria	\$500
10. Austria	9.3	10. Finland	17.9	10. Switzerland	\$454
26. US	6.8				

Stressed Americans! 5th most stressed & 33rd in smiling! 151 nations surveyed. Time, 2010

Smoking:

As we go through the notes I am providing information and unhealthy things like smoking. If we can share this information with our patients then perhaps we can get them on track towards wellness.

In 2009 43 million or 20.4% of adults were current smokers.

CDC/NCHS, National Health Interview Survey, 2009

50% of high school students tried smoking. 25% of kids age 12 or older currently smoke. CDC, 2009

- ☠ 440,000 die in US each yr from tobacco use. Cigarettes kill more Americans than alcohol, car accidents, suicide, AIDS, homicide & illegal drugs combined.
- ☠ Cigarette smoking ↓ life expectancy 6.8 yrs
- ☠ Stopping at age 40 ↑ life expectancy 4.6 yrs & ↑ disease-free life-yrs 3!

American Cancer Society, April 2007

599 Ingredients in Cigarettes: quitsmokingsupport.com

Cigarette smoke contains over 4,800 chemicals, 69 of which are known to cause cancer

Cancer Causing Agents: Nitrosamines, Crysenes, Cadmium, Benzo-pyrene, Polonium 210, Nickel, Diberiz Acidine, B-Naphthylamine, Urethane, Nitrosonornicotene, Toluidine

Metals: Aluminum, Zinc, Magnesium, Mercury, Gold, Silicon, Silver, Titanium, Lead, Copper

Acetone (nail polish remover), Acetic Acid (vinegar), Ammonium (toilet cleaner), Arsenic (poison), Butane (lighter fluid), Cadmium (rechargeable batteries), Carbon Monoxide (car exhaust), DDT (insecticides), Ethanol (alcohol), Formaldehyde (preserver of body tissue), Hexamine (barbecue lighter), Hydrogen Cyanide (gas chamber poison), Methane (swamp gas), Methanol (rocket fuel), Napthalene (mothballs), Nicotine (addictive drug), Nitrobenzene (gasoline additive), Nitrous Oxide Phenols (disinfectant), Steric Acid (candle wax), Toluene (industrial solvent), Vinyl Chloride (makes PVC)

Glantz, S. 1992. Tobacco: Biology and Politics. Health Edco, Waco TX

1982 Surgeon General's Report "Cigarette smoking is the major single cause of cancer mortality in the US & is the most preventable cause of premature death."

When They Told Us! Surgeon General Luther Terry documented that smoking causes lung cancer. Released on January 11, 1964.

Smoking has declined 40% from 1965-1990, but has changed little since. CDC, June 2005

Tobacco Industry Increases Addictive Nicotine in Cigarettes From 1998-2004 manufacturers ↑ the amount of addictive nicotine by 10%. 166 of 179 cigarette brands fell into the highest nicotine range, including 59 brands labeled "light" & 14 labeled "ultra-light." NY Times, Aug 2006

When They Knew: 1925 Frederick Hoffman, San Francisco Cancer Survey 1925, data showed premature deaths among smokers at a higher rate than among nonsmokers. "Cancer Studies . . . Habits, Characteristics and Environment of Individuals With And Without Cancer," NEJM, April 1928.

Drs. Lombard & Doering, 1925. "The use of tobacco has long been considered a factor in the incidence of cancer of the buccal cavity . . . Heavy smoking is more common in the cancer group than among the controls."

Start Moving, Stop Smoking Smokers can cut their cravings & ↓ withdrawal symptoms by exercising. 5 mins of walking or moderate isometrics can help overcome nicotine cravings. Researchers were surprised, reporting it to be as effective for acute cravings as a nicotine patch. AP, March 2007

Cancer

Cancer is a great example of how people feel helpless and that you simply “catch cancer”. It is our duty to inform our patients on the best strategies in avoiding cancer.

The #2 cause of death in the US! 562,875 die/yr 1,542/day US National Center for Health Statistics, 2007

In 2008 cancer costs: American Cancer Society, 2008
\$93.2 billion ~ direct medical costs Total = \$228.1 billion

11.7 million people (1 in 26) are currently diagnosed with cancer. By 2020 the number will ↑ to 18.2 million (1 in 19) A 56% ↑ ...the US may face a shortage of 4,000 cancer specialists! Journal of Oncology Practice, March 2007

What If We Were Healthier? Maybe We Would Need FEWER Specialists!

Cancer: Common Presentation

Complains of persistent insidious onset of pain
Unexplained weight loss
Fatigue
Pain worse at night
Pain does not change with motion
Care for 1 month with no change
Sore that does not heal
Unusual bleeding or discharge
Thickening or lump in breast or elsewhere
Indigestion or difficulty in swallowing
Obvious change in a wart or mole
Nagging cough or hoarseness

Cancer & Lifestyle Factors

Poor diet & obesity	30%
Smoking	30%
Genetics	10%
Carcinogens in the workplace	5%
Family History	5%
Lack of Exercise	5%
Viruses	5%
Alcohol	3%
Reproductive Factors	3%
Socioeconomic Status	3%

3 Categories of Cancer

Lifestyle Internal External

Diet	Genetics	Workplace
Smoking	Infections	Air pollution
Drinking		Water pollution
Sun Exposure		Chemicals
Lack of Exercise		Pesticides/Herbicides

Poor diet, lack of exercise & unhealthy lifestyle are responsible for 65% of cancer deaths!
American Cancer Society, 2006

Fiber & Bowel Cancer Those with the highest intake of fiber from grains, relative to those with the lowest, had a 49% reduction in the risk of developing small bowel cancer. Gastroenterology, Oct 2008

Probable Cause: DNA damage

How Cells Work

- * Oxygen, water & nutrients get to the cell via the bloodstream
- * The cell does its' "metabolic job"
- * Waste products are then excreted via the bloodstream
- * If the waste doesn't get excreted it becomes toxic & can cause pain via muscular tightening and/or trapping of chronic inflammatory chemicals
- * If this persists the cells may become cancerous

Adjustments ↑ **the respiratory burst** in phagocytes to help engulf & destroy invasive organisms, thus boosting the immune system. JMPT, 1991

Exercise: Cancer is less prevalent in active people, as exercise ↓ depression & ↑ oxygen to the tissues
Harvard Medical School

How to Prevent Cancer Women who followed at least 6 of 9 recommendations were 35% less likely to get cancer & 43% less likely to die from cancer than women who did zero or one.
Cancer Epidemiology, Biomarkers & Prevention, July 2004

How To Decrease The Risk Of Cancer

1. max BMI of 25, limit adult weight gain to 11 lbs.
(daily moderate/wkly vigorous activity)
2. eat 5 or more servings of fruits & veggies daily
3. eat 7 or more portions of complex carbs daily
4. ↓ processed foods & refined sugars
5. limit alcoholic drinks: 1-women, 2-men daily
6. limit red meat to no more than 3 oz daily
7. ↓ fatty foods, particularly animal fats
8. limit intake of salted foods & use in cooking
9. eliminate tobacco use

*Always consult with your doctor/chiropractor before starting any health related program.

Breathing & Oxygen

One of the healthiest things you can do for yourself is regular slow deep breathing exercises. Chiropractic is one of the very few professions that improves breathing through adjustments and postural alignment.

Advice: Take 5-10 Deep breaths per hour

How Long Will You Live? 6 mins without oxygen, 10 days without water, 4-6 wks without food

Respiratory System After age 20 vital capacity ↓ 5-20% per decade (maximum volume of air that a person can exhale after maximum inhalation). Brian K Ross MD, University of Washington

Oxygen: Creates energy (defeats fatigue), Aids in digestion, Cleans & detoxifies, Metabolizes fats & carbs, Transports gases across cell membranes, Makes hormones & proteins, Regulates pH, Maintains a strong immune system

Symptoms of O2 Starvation: Circulation problems, Memory loss, Irrational behavior, Irritability, Poor digestion, Muscle aches & pains, Lung problems, Dizziness, Acid stomach, Depression, Body weakness, Fatigue, Growth of pathogens

"Starved of oxygen the body will become ill & if this persists it will die." Dr. John Muntz

"Virus, amoeba, parasites, fungi & bacteria cause many diseases! None of those hostile organisms can live in an environment with high concentrations of oxygen. Oxygen gets rid of toxicity. These pathogens are destroyed in the presence of oxygen - especially cancer." Dr. Alec Borsenko

"In all serious disease we find a low oxygen state. Hypoxia in the tissues is the fundamental cause for all degenerative disease." Dr. Stephen Levine, Oxygen Deficiency: A Concomitant to All Degenerative Illness

"Cancer has one prime cause. The replacement of normal oxygen respiration of the body's cells by an anaerobic (oxygen-deficient) respiration." Dr. Otto Warburg ~ 1883-1970 Winner Nobel Prize 1931

The best health care is free; be proactive & take care of yourself before you have symptoms. Marcus Strutz

Healthy Insurance?

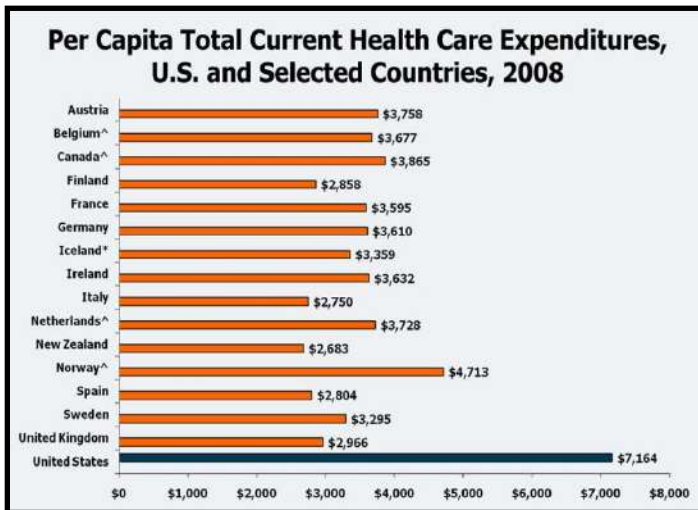
High health insurance costs are another great reason to stay healthy.

US Health Care Expenditures Centers for Medicare and Medicaid Services, 2010

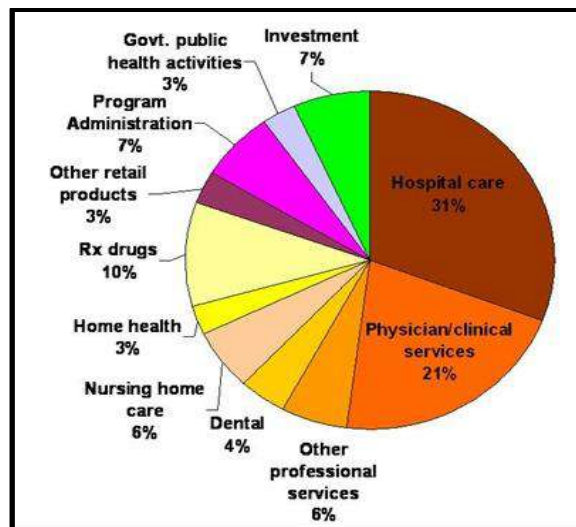
\$2.47 trillion 2009 \$714 billion 1990 \$253 billion 1980

In 2009 spending was \$7681 per resident & 17.3% of the GDP, amongst the highest of all industrialized nations!

Spending Too Much! US spends \$480 billion in excess as compared to Western European nations that have universal health insurance. The costs are mainly associated with excess administrative costs (6x more per capita) & poorer quality of care. McKinsey Global Institute. Jan 2007



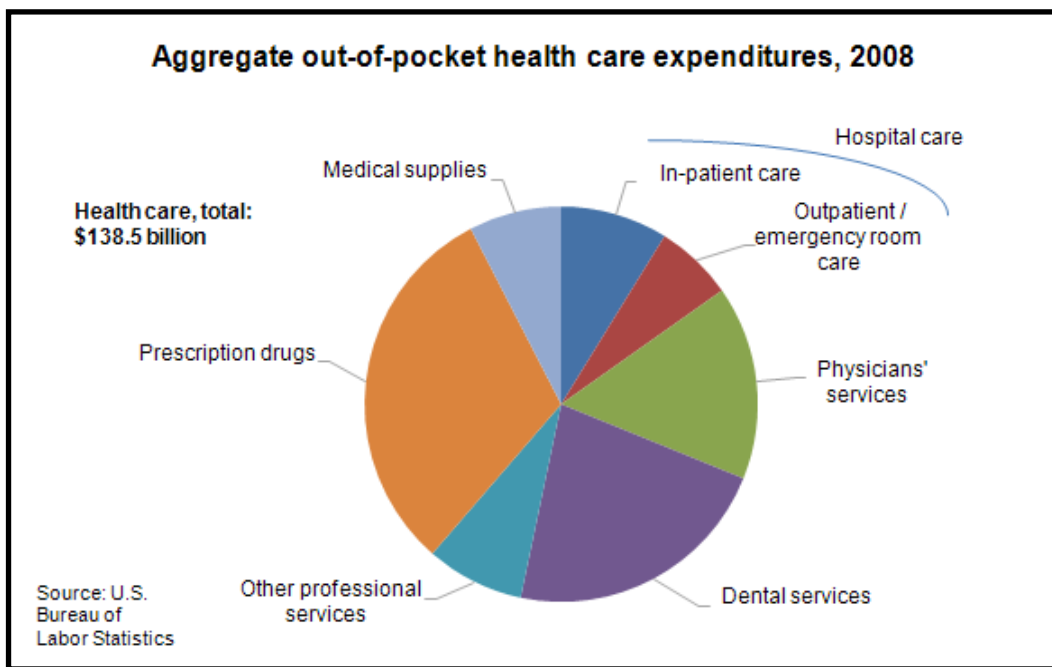
OECD Health Data, 2010



National Health Expenditures, 2008

The Uninsured 46.3 million, 15.4 % of Americans are uninsured! CDC, 2009

Americans spent \$138.5 billion in out-of-pocket health care expenses. US Bureau of Labor Statistics, 2010



\$43 billion, 1/3 of out-of-pocket spending went to prescription drugs.

23% of the uninsured changed their life to pay medical bills. Every 30 seconds someone files for bankruptcy after a serious health problem. National Coalition on Health Care, 2008

Out Of Here? Surgery: \$200,000 vs \$8,000
 Medical Tourism
 Tom Hiland 800.466.9502
Public Surveys On

Health Care...

The public has many misconceptions about health. Confused by advertising they struggle to make healthy choices and often do unhealthy things thinking they are being smart.

- * 48% worry about the safety of health care
- * 50% of chronic condition pts experienced a medical error
- * 14% filed malpractice lawsuits
- * 55% were dissatisfied with the quality of care, up from 44% just 4 yrs ago
- * 33% who saw a printed drug ad didn't notice the small print summarizing a drug's risks & side-effects
- * Of those who did notice the print, only 33% said they read it
- * 66% of participants shown drug ads said they learned "little or nothing" about the condition
- * 59% said they learned "little or nothing" about the drug

- * 43% of respondents believe only drugs that are "completely safe" can be advertised!
- * 46% of respondents would be "disappointed" if their doctor turned down the pt's request for an advertised drug
- * 15% said they would consider switching physicians!

Perceived Causes of Preventable Errors Harvard School of Public Health, 2006

Perceived Causes	Public	Doctors
Not enough time w/ pts	72%	37%
Overwork, stress or fatigue	70%	50%
Not enough nurses	65%	53%
Influence of HMOs	62%	39%
Poor training	54%	28%
Poor supervision	50%	16%
Poor handwriting	48%	21%
Uncaring attitude	47%	15%
Lack of computer records	35%	13%

Be Smart... Never tell a patient to get off a prescription medication, just provide information for them. Always consult with a physician or resource to see if there is an interaction effect with any drug, vitamin, mineral, herb, food, lifestyle or condition.

What happened to prevention & proactive health care?

US Consumed By Drugs

Typically people wait until they are sick and then they try to regain health with pharmaceutical drugs.

Americans make up 5% of the world's population but consume 50% of all prescription drugs. The global pharmaceutical market grew to \$808 billion in 2009 at a compound annual growth rate of 9.3% between 1999 & 2009. URCH Publishing, 2010

Now That's Excessive! The New England Journal of Medicine defines excessive medication as more than 1,000 pills in a lifetime or more than 365 in a year!

Addicted? 51% of US children & adults are taking one or more prescription drugs for a chronic condition! Medco Health Solutions Inc, 2008

People with at least one prescription ↑ from 67% in 2000 to 74% in 2006. Express Scripts, 2008

Retail Prescriptions ~ 2009 Total = 3.5 billion Sales = \$300.3 billion per capita = 11.8 IMS Health, 2010

Top 10 Drugs by Sales 2009 drugs.com

#	Product	US Sales	Used For
1	Lipitor	\$5.4 billion	Cholesterol
2	Nexium	\$5.0 billion	GI disorders
3	Plavix	\$4.2 billion	Thrombic events
4	Advair Diskus	\$3.7 billion	Asthma
5	Seroquel	\$3.1 billion	Depression
6	Abilify	\$3.1 billion	Antipsychotic

7	Singulair	\$3.0 billion	Allergy
8	OxyContin	\$3.0 billion	Pain Relief
9	Actos	\$2.5 billion	Diabetes
10	Prevacid	\$2.5 billion	Acid Stomach

Drugs in our daily life! Pew Internet & American Life Project, Oct 2004

- ⊖ 64% of US households are regular consumers of prescription drugs
- ⊖ 45% of adults take prescription drugs on a regular basis
- ⊖ 41% of adults live with someone who regularly takes prescription drugs
- ⊖ 27% occasionally take prescription drugs
- ⊕ 27% say they never take prescription drugs

Cancer Drugs

Abraxane made \$200 million in 2006 & pts didn't live longer! The older version Taxol has similar effects & costs 25x less ~ \$986 a dose. Pts want the newest & most expensive drugs. Insurers rarely deny coverage based on price. Worldwide sales are expected to reach \$80 billion by 2012! IMS Health, 2009

Drugs: High Prices

The crazy high cost of not being healthy. Once you become sick the cost of regaining health is extreme often leading to bankruptcy.

“It's really exploiting the desperation of people with a life threatening illness.”

New England Journal of Medicine

At What Cost? More than 90% of cancer agents approved by the FDA in the past 4 yrs cost > \$20,000 for a 12 wk course of therapy! Journal of the National Cancer Institute, 2009

2008 sales of cancer drugs in the US were \$19.2 billion, in 1998 sales were < \$5 billion. IMS Health, 2009

Longer Life, Higher Cost

Drugs for colorectal cancer:

1996: \$500 Expected survival: 11 months

Today: \$250,000 Expected survival: 24 months (perhaps due to earlier detection)

Memorial Sloan-Kettering Cancer Center, 2006

Spending... Drug companies spent \$57.5 billion on marketing, dwarfing the \$31.5 billion devoted to research!

The Cost of Pushing Pills, 2008

2007 Salaries for the CEO's American Chronicle, Nov 2008

1. Miles White - Abbot \$33.4M
2. Fred Hassan - Schering-Plough \$30.1M
3. Bill Weldon - Johnson & Johnson \$25.1M
4. Bob Essner - Wyeth \$24.1M
5. Robert Parkinson - Baxter \$17.6M
6. Daniel Vasella - Novartis \$15.5M
7. Richard Clark - Merck \$14.5M
8. Frank Baldino - Cephalon \$13.5M
9. Sidney Taurel - Eli Lilly \$13.0M
10. Jeff Kindler - Pfizer \$12.6M

The Pushers Meds for kids under 19 ↑ 28% last year. Heartburn & other GI disorders in kids
↑ 660% in past 5 yrs. CDC Concept of good nutrition & parenting?

Spending on antibiotics among kids ↑ 42%. CDC

Corporate pushers aren't concerned about health, they just want you feeling better. Someone has to let them know that true health doesn't come from a pill.

If drugs are the solution why do US consumers need more every year? Are we addicted?

New Drugs: Not Always Better or Safer New drugs are promoted more vigorously, pts & doctors request them thinking a new drug must be better. Generic drugs were found to be cheaper & more effective at lowering BP. Treating high BP with generic drugs could save the US health care system \$10 billion yearly. USA Today, Oct 2006

“Pts are spending more money believing they are getting a superior pain & inflammation reliever, but evidence to support that is just not there.” Dr. Sharon Levine Kaiser Permanente

The Worst? ~ anticoagulant Trasyolol Between 1999 & 2005 Bayer made \$935 million from sales, with \$353 million in 2005. Bayer forecasted Trasyolol would generate \$600 million annually. The drug caused kidney failure. 242,000 deaths have been attributed to Trasyolol from 1993 to May 2008. From amicus brief in the US Supreme Court, August 2008

Health is a process, not an event. Marcus Strutz, DC

Daily Aspirin Therapy

Aspirin is quick, easy and inexpensive. People think it is a great pain killer and preventive measure for cardiovascular problems.

Americans consume more than 80 million aspirin tablets per day! 16,000 tons of aspirin tablets a year!
NY Times, 2004

Aspirin: The 8th Wonder of The World? Roman Coliseum, Taj Mahal & aspirin? 74% of American's believe that aspirin should be one of the 8 Wonders of the World! PR Newswire, August 2007

In 1988 researchers found taking aspirin daily could ↓ heart attacks by 50%, (later adjusted to 32%), & that men suffered more strokes. Due to this "side effect" (plus a limited study group) researchers warned NOT to take aspirin to prevent heart disease. A day after it was published in JAMA, aspirin makers (who were given advance notice of the publication) flooded the media with press releases saying "an aspirin a day" could prevent heart attacks. For 23 yrs people have taken aspirin thinking they were protecting their heart. Doctors still believe it & continue to prescribe aspirin to prevent heart attacks.

The medical profession agrees! “The routine use of aspirin for the primary prevention of vascular events in people with asymptomatic disease cannot be supported.” JAMA, 2010

Ulcers

Another reason to stay healthy and not take NSAIDS!

- * Peptic ulcers affect 5 million Americans per year
- * 60% of pts with bleeding/perforation have no history of prior symptoms

* 50% of pts with NSAID ulcers are asymptomatic
CDC, 2005

Long-term aspirin takers are 68% more likely to have GI bleeding. British Medical Journal, 2000

35% of NSAID & aspirin users will get GI ulcers! Journal of Clinical Gastroenterology, May 2002

20% of pts with massive GI tract bleeding were taking aspirin regularly! World Journal of Surgery, May 2002

Taking ibuprofen every day for at least 5 yrs ↑↑ a woman's chance of developing breast cancer by 50%!
Why is she taking it for 5 yrs? Journal of the National Cancer Institute, June 2005

NSAIDS & GI Tract? 103,000 hospitalizations from serious GI complications are related to NSAIDs & 16,500 deaths. Ranked 15th for cause of death - similar to AIDS! New England J Med, 1999

“There is an increased mortality & cardiovascular morbidity associated with NSAIDs in chronic heart failure.”
Archives Internal Medicine, 2009

Flu Vaccine

Most people think the flu vaccine is a great way to stay healthy?

Lives Saved By Flu Vaccine ~ Zero? Predictions were that 50% of those vaccinated would not die.
Mortality rates from 1968-2001 found no correlation between ↑ vaccination rates after 1980 & ↓ death rates.
National Institute of Allergy & Infectious Diseases

Researchers are now saying earlier studies were flawed & the elderly may not be getting much benefit because they fail to produce antibodies in response to the vaccine. Natural immunity may be responsible for the earlier perceived benefits. Archives Internal Medicine, 2005

Who Got The Flu Shot? 70.5% ages 65 yrs and over ~ 40.7% ages 50-64 ~ 23.6% ages 18-49
CDC/NCHS, National Health Interview Survey, 2009

Only 40% of US Health Workers Get Immunized! Doctors & nurses say they're too busy. Some health workers believe that flu shots don't work & that they cause the flu. Health workers say they've been exposed to so many germs that they're immune. CDC, Sept 2007

Why Don't Doctors & Nurses Constantly Get Sick?

Do you take the flu vaccine? Did you get the flu? Do you tell your pts? Rarely have I met a DC that has taken the flu vaccine.

Items in vaccines: Cynthia Cournoyer, "What About Immunizations? Exposing the Vaccine Philosophy"

Phenol (carbolic acid), deadly poison

Formaldehyde, known carcinogen

Thimerosal, toxic heavy metal

Aluminum phosphate, deodorants & toxic

Aluminum/oil adjuvants, carcinogen in mice

Acetone, fingernail polish remover

SV40 virus (similar to AIDS virus), in African green monkeys & in polio vaccine

Preventing The Flu Coordinating Center for Infectious Diseases, Oct 2006

C + careful hygiene

C + avoid crowds/sneezers

F plenty of rest

F balanced diet

F lots of fluids

F stress management

F regular exercise

This list could be for most diseases!

Quickly give a letter grade to Americans on the above list and you will see why we are so sick.

I have put my own grades in front of each category, see if you agree.

"We constantly touch our mouth, nose & eyes, these mucous membranes are welcome mats for cold & flu viruses, which are easily transferred from your hands." American Society of Microbiology, Sept 2005

Give Yourself an Immunity Boost With Chiropractic! Be Well With Chiropractic.

Can't shake that cold or flu? Stress, lifestyle habits & structural imbalances are hindering your body's ability to fight infection or illness. When an invader enters your body the first response is a nervous system signal.

If vertebrae are not moving properly, misaligned and/or causing inflammatory chemical build-up, messages to the immune system are impaired & it won't respond correctly. Initial symptoms may be: sleeping problems, food cravings, irritability, fatigue or joint pain - often dismissed as normal. At this point the immune system has already been breached.

Antibiotics & The Superbugs

As our nation becomes unhealthier, we have to depend on antibiotics for our health.

Again this choice seems to backfire.

In American hospitals, healthcare associated infections account for 1.7 million infections & 99,000 deaths/year. CDC, May 2007

In 2005 methicillin-resistant staph aureus was responsible for 94,000 serious infections & 18,650 hospital stay-related deaths in the US...more deaths than AIDS. CDC/JAMA, Oct 2007

Antibiotics & Ear Infections Infections went away in one week in 81% of placebo pts, as compared with 94% of antibiotic pts. Bacteria, which cause ear infections, learn quickly to be resistant to antibiotics.

New England Journal of Medicine, Oct 2002 Do your pts know chiropractic can help with ear infections?

Vaccine Infections... Prevnar was approved for kids in 2000. Superbugs causing ear infections are cropping up in inoculated kids. Treatment ranges from massive doses of antibiotics (most have failed) to ear surgery to drain the infections. The vaccine sensitizes the body to 7 types of strep bacteria, which when eliminated, make room for the drug-resistant & more aggressive types. The result is an infection that can't be treated effectively with current meds. Wyeth anticipated this problem but a remedy won't be ready for a few more years. AP, Sept 2007

Superbugs! Bacteria can double every 20 mins. The mutation rate surpasses technology. BMJ, 1998

Multi-resistant organisms are diminishing our ability to control the spread of infectious disease. JAMA, 1996

"We're running out of bullets for dealing with a number of these infections, pts are dying because we no longer have antibiotics that work." Joshua Lederberg, Nobel Laureate 1994. Laurie Garrett, The Coming Plague, 1994.

"We have organisms proliferating that never existed. We have selected them. We have organisms that probably caused a tenth of a percent of human disease in the past that now cause 20-30% of all disease. We have changed the whole face of the earth by the use of antibiotics." Mark Lappe, Germs That Won't Die, 1981

How Long Have They Known?

This is medical progress? Trends and consequences of antibiotic use in the US

Journal Of the American Medical Association, 1974

Changing ecology of bacterial infections as related to antibacterial therapy.

Journal Infectious Disease, 1970

The effect of hospitalization and antibiotic therapy on the gram-negative fecal flora.

American Journal of the Medical Sciences, 1968

Conspiracy? Look at all the drugs are being designed for women, geriatrics & pediatrics! The drug companies are simply just taking advantage of an unhealthy and uneducated population. The FDA that is supposed to protect the public allows drugs to get approved that are later deemed unsafe.

Using Guidelines to Push More Drugs? Circulation, July 2004

“New” cholesterol guidelines more than double those eligible for lipid-lowering drugs.

<u>Guidelines</u>	<u>Old</u>	<u>New</u>
Total	15.0 mil	36.0 mil
Under 65	10.8 mil	26.3 mil
Over 65	4.2 mil	9.7 mil

Public Trials? JAMA, 1999

Drug Trials may exclude: 1. Elderly pts, 2. Young pts, 3. Ill pts, 4. Pts taking other meds
Drugs tested in a few thousand are given to millions in the first years of marketing.

"I would argue that the FDA is incapable of protecting America against another Vioxx," Dr. David Graham. "The scientific standards they apply to drug safety guarantees that unsafe & deadly drugs will remain on the US market." Washington Post, Feb 2005

Off-label Prescribing... when doctors write prescriptions for uses other than those approved by the FDA

- * 20% of prescriptions written in US ~173 million a year~ are for unapproved or unproven uses
- * 8,000-80,000 people suffer serious ADR
- * 73% of these scripts “had little or no scientific support”

Archives of Internal Medicine, May 2006

No law in any state specifically requires a MD to inform his or her pt that a drug is being prescribed for off-label use.

“**The public is shocked** when they learn that there isn't a shred of evidence for a lot of medical therapies. They just can't believe their doctor is doing things that they couldn't back up.”
Dr. Richard Greene, Director Agency for Health Care Policy & Research

Doctors received payments for lecturing about drugs to other doctors & sat on committees that created national drug use guidelines. A 2002 survey found that 80% of doctors on these panels had financial ties to drug makers. In the US, drug companies spend \$4 billion to advertise directly to consumers. \$16 billion a yr, or \$10,000/doctor was spent to directly influence them. JAMA, March 2007

Prescription Drug User Fee Act 1992 FDA gets paid by drug companies to hire more MDs to review new drug applications in order to speed up the process. The FDA is mandated to ignore costs and the Centers for Medicare and Medicaid Services is mandated to pay for drugs and is forbidden to negotiate cost.

Journal of the National Cancer Institute, 2009

Since the **Prescription Drug User Fee Act** was implemented, an ↑ number of newly approved drugs have been found to be unsafe & withdrawn.

35% of the progress reports due in '04 were either missing or contained no relevant information. The FDA has little power to punish drug companies that don't comply. Reuters, July 2006

Interesting Conflict The WHO used recommendations of 15 experts when deciding to class the H1N1 (swine flu) outbreak as a pandemic - 6 of them had declared potential conflicts of interest as they had close ties with drug & vaccine manufacturers. WHO, Aug 2010

FDA Scientists?

- * 24% agree a 6-month time schedule provides enough time to "conduct an in-depth, scientific review" of priority drug submissions
- * 64% are "mostly" or "completely" confident that FDA's final decisions "adequately assess the safety of a drug"
- * 34% are "mostly" or "completely" confident that the FDA "adequately monitors safety of prescription drugs once on the market"

Doctors responses to side effects: Drug Safety, August 2007

- * 47% dismissed muscle or cognitive problems as not related
- * 51% with a peripheral neuropathy said their doctors denied a connection
- * 32% denied a connection with the symptoms
- * Many blamed the "aging process" or denied the symptoms entirely
- * Side effects are underreported by 90-99%, according to a Harvard Medical School expert & the FDA relies on reports to gauge a drug's safety

Things to Tell Patients (WebMD.com)

- * There are no "safe" drugs, every drug has side-effects, sometimes death
- * With every pill, there is risk
- * The more pills, the more risk
- * Taking drugs in combo multiplies the risks
- * Try preventing illness & maintaining health
- * Once ill there are often non-drug methods to regain your health

PDR & The System

Researchers at Harvard found 50% of newly discovered serious ADRs are detected & documented in the PDR within 7 yrs after the drug's approval. 50% of the withdrawals of unsafe drugs take place in the first 2 yrs.

26 volumes of the PDR (1975-2000) were examined to determine how many drugs have new serious ADRs that were not known when the drug was released. "Black box warnings" or withdrawal from the market over the 25 yrs was 20%. JAMA, May 2002

Aspartame

Another way to stay healthy is to be aware of what you are eating and avoid as much as you can the unhealthy items.

Accounts for 75% of adverse reactions to food additives reported to FDA

US Dept of Health & Human Services

Aspartame Symptoms Headaches/Migraines, dizziness, seizures, nausea, numbness, muscle spasms, rashes, depression, fatigue, irritability, tachycardia, insomnia, vision problems, hearing loss, heart palpitations, breathing difficulties, anxiety attacks, slurred speech, loss of taste, tinnitus, vertigo, memory loss & jt pain.

This list could apply to any toxic substance!

Chronic Aspartame Illness brain tumors, multiple sclerosis, epilepsy, chronic fatigue syndrome, Parkinson's, Alzheimer's, mental retardation, lymphoma, birth defects, fibromyalgia, diabetes.

NutraSweet Shown to Cause Cancer In a 7 yr study on aspartame, rats were given the equivalent of 4-5 bottles of diet soda a day. It was linked to high rates of lymphoma, leukemia & other cancers. Carcinogenic effects of aspartame were at levels as low as 400 parts per million, or about 20 mg a day for humans. The RDA is 50 mg. Environmental Health Perspectives, March 2006

50% of chronic headaches are attributed to medication overuse! Neurology, 2004

Medical Errors: The Untold Numbers

This section is NOT Medical bashing. Rather it is a wellness ideal. The reality is once you get sick and have to use Western Medicine things can go wrong. Western Medicine has saved many lives and surgical procedures continue to grow leaps and bounds. With that said the best strategy is to avoid illness. The following studies support that idea.

Medical Errors: Children 56% of children have taken at least one med during the preceding week, with 26% using two or more meds & 20% using a prescription drug. National Center for Health Statistics, 2007

Drugs are prescribed to children in 70% of outpatient visits. 75% of drugs given to children have not undergone pediatric testing. 586,000 visits per year for ADEs! American Academy of Pediatrics, 2007

70,000 children hospitalized in the US each year experience an adverse event & 60% of these errors may be preventable! Feinberg School of Medicine Chicago, 2005

Drugging Kids 219 medicines are in development for children!
Pharmaceutical Research & Manufacturers of America, 2010

Medical Errors: Geriatrics 13.5% of hospitalized Medicare pts experienced ADEs. Another 13.5% of hospitalized Medicare pts experienced minor adverse events. 44% of these ADEs are preventable. Cost = \$4.4 billion. US Dept of Health & Human Services, Nov 2010

700,000 visit ER due to ADRs. Seniors were 7x more likely to be admitted to a hospital due to an ADR. Adverse effects included allergic reactions, side effects, accidental overdoses or secondary effects such as falls or choking. Journal of the American Medical Association, Oct 2006

Nursing Home Blues 2 million ADEs a year in nursing homes. ADEs are the most clinically significant & costly medication-related problem in nursing homes & is associated with 93,000 deaths a year & \$4 billion of excess expenditures. Journal of American Geriatric Society, 2008

Medical Errors! Imagine 6 jumbo jets with 360 people aboard crashing every day! 783,936 per year. That's the equivalent of 2,190 jumbo jets crashing each year due to medical errors! Death by Medicine, Dr Gary Null

HMOs spend more treating ADRs than on the actual drugs! ADRs are #1 in cost of malpractice payouts!
Employee Benefit Research Institute Centers for Medicare/Medicaid, 2007

Alarming! US spends \$282 billion a year on deaths due to medical mistakes! Death by Medicine, Dr Gary Null
* 2,216,000 serious ADRs in hospitalized pts

* 76.3 million prescriptions (\$1.9 billion) used to resolve drug failures

* 7.5 million unnecessary procedures JAMA, 1998

Year	#	Death	Serious
2001	284,762	23,988	166,384
2005	463,819	40,238	257,604
2009	580,904	63,846	373,535
2010 Q1	157,077	20,619	100,903

Adverse Event Reporting System ~ FDA 2010

Sleep-Impaired Docs? Hospital interns typically work 30hr shifts & > 80hrs per wk. The Accreditation Council for Graduate Medical Education mandated that interns work no more than 80hrs per wk but little has been done to enforce this. Docs make > 5x as many serious misdiagnoses & 36% more serious mistakes than they would if properly rested. NEJM, Oct 2006

Unnecessary hospitalization: 8.9 million/yr. Only 5-20% of iatrogenic acts are reported!

"Death by Medicine" Life Extension, March 2004

Hospital-acquired infections affect 2 million pts each year & 100,000 die every year!

American Journal of Medical Quality, Nov 2006

Annual Mortality & Economic Cost of Medical Intervention Death by Medicine, 2004

Condition	Deaths	Cost
ADRs/Medical error	420,000	\$200 billion
Bedsore	115,000	\$55 billion
Infection	88,000	\$5 billion
Malnutrition	108,800	-----
Outpatients	199,000	\$77 billion
Unnecessary Procedures	37,136	\$122 billion
Surgery-Related	32,000	\$9 billion
Total	999,936	\$468 billion

American Medical System:

#1 cause of death!

- 1. Iatrogenic 999,936
- 2. Heart disease 685,089
- 3. Cancer 556,902

War

	<u>Deaths</u>	<u>Cost</u>
Revolutionary	4,435	\$101,100,000
Civil War	558,052	\$5,183,000,000
World War I	116,708	\$18,676,000,000
World War II	407,316	\$262,259,000,000
Korean	33,651	\$67,386,000,000
Vietnam	58,168	\$150,000,000,000
Medicine*	999,936	\$468,000,000,000

*Per Year

Physicians

Gun Owners

Number	700,000	80,000,000
Acc Death Caused	120,000	1,500

Acc Death per 17.1% .00188%

Doctors are statistically 9,000x more dangerous than gun owners! "Guns don't kill people, doctors do." Not Everyone Has A Gun, But Almost Everyone Has At Least One Doctor. US Dept of Health & Human Services

When doctors in Los Angeles went on strike in 1976, the daily number of deaths dropped 18%.

Homeless people were posing as pts & in return the hospital provided them a clean bed & cash. For the hospitals it meant a full pt-load & a government paycheck. Authorities say this was a massive scheme to bill government programs for millions of dollars in unnecessary health services. Hospital CEO was arrested after federal agents raided 3 medical centers. The city attorney office has also sued the hospitals, saying they used homeless people as "human pawns". USA Today, Aug 2008

What's Up Doc? Archives of Internal Medicine, Aug 2006

Survey results of 2,500 US/Canadian doctors in regards to professional accountability:

42% would tell pt if a medical error occurred

56% would mention the adverse event to a pt, but not a specific error

63% said they would opt NOT to provide info about preventing future errors

Great Minds Discuss Ideas, Average Minds Discuss Events, Dull Minds Discuss People

Eleanor Roosevelt ~ 1884-1962

I've got an idea!

So How Do We Get Our Patients To Understand Wellness?

Socratic Method Of Teaching The basic form is a series of questions formulated as tests of logic & fact intended to help a person or group discover their beliefs & understanding about a given topic.

Ask your pt: Do you want to live a long & healthy life?

The answer is always YES. Pts question: how much time & effort will it take? Ask them how much time do THEY want to put into it. This avoids you constantly pushing and prodding them into health. Perhaps they really DO Not want health

Fun Facts: 168 hours in a week, 1440 minutes in a day. And all I want is the pt to exercise 5 minutes to start.

Ask the pt what are your strategies for health?

If you are 45 can you be healthier at 50?

What is your 5-10 year plan?

What are your strategies?

Take the health quiz on RealAge.com. It simply goes through a series of questions and adds or subtracts years from your real age depending on your response. A great eye opener for a new pt.

Below is part of my 1st visit intake form. This allows me to discover if the new pt is here just for pain relief or are they interested in improving their overall health.

Initial Intake Form (please rate your...)

Musculoskeletal pain: 1 2 3 4 5 6 7 8 9 10 (1 extreme, 10 none at all)

I would like help and/or info on decreasing my pain: Yes No

Diet and nutrition: 1 2 3 4 5 6 7 8 9 10 (1 horrible, 10 excellent)

I would like help and/or info on improving my diet and nutrition: Yes No

Exercise program: 1 2 3 4 5 6 7 8 9 10 (1 horrible, 10 excellent)

I would like help and/or info on exercise: Yes No

Ability to get a good night's sleep: 1 2 3 4 5 6 7 8 9 10 (1 horrible, 10 excellent)

I would like help and/or info on getting a good night's sleep: Yes No

Stress level: 1 2 3 4 5 6 7 8 9 10 (1 extreme, 10 none at all)

I would like help and/or info on decreasing my stress: Yes No

Ability to breath well: 1 2 3 4 5 6 7 8 9 10 (1 horrible, 10 excellent)

I would like help and/or info on improving my breathing: Yes No

Headache frequency: 1 2 3 4 5 6 7 8 9 10 (1 constant, 10 never)

I would like help and/or info on decreasing my headaches: Yes No

Blood pressure: 1 2 3 4 5 6 7 8 9 10 (1 high, 10 low)

I would like help and/or info on lowering my blood pressure: Yes No

Pharmaceutical drug intake: 1 2 3 4 5 6 7 8 9 10 (1 daily, 10 never)

I would like help and/or info on alternative solutions: Yes No

Despite everything life is good! Anne Frank 1929-1945

Chiropractic Lifestyle: A Wellness Model

What do you need to do to become healthy. The following are factors other than chiropractic care that are an essential part to living a long and healthy life. The only trick is the pt has to choose it.

1. Nutrition
2. Rest
3. Exercise
4. Mental Attitude

General Guide For Health ~ What to do to regain one's health?

Deep breathing: 5-10 deep breaths per hour.

Water: 40% of your weight in ounces.

Cardiovascular Exercise: 20-40 mins 3-5x/wk.

Lift weights: 2-3x/wk & daily stretching.

Diet: ↓: calories, refined sugars, saturated fats, processed foods, dairy & soda.

↑: organic fruits, vegetables, good fats, protein & complex carbs.

Have a positive mental attitude. Minimize stress.

1st Factor of Health & Wellness: Nutrition

565,000 deaths related to: poor nutrition, physical inactivity, excessive weight. American Cancer Society, 2006

Diet changes have the potential to ↓ the risk of death & illness. 365,000 deaths/yr result from nutrition related diseases: heart disease, stroke, high BP, diabetes & obesity. Journal Watch Cardiology, May 2005

Malnutrition? 33% of the elderly fail to get the daily essential nutrition & energy requirements. If all adults took a multivitamin for the next 5 yrs health care costs could be ↓ \$1.6 billion. Lewin Group, Oct 2003

How Much Water? 70-90% of your body is water, drink 40% of your body weight in ounces

During weight loss, after an injury or an adjustment we release toxins. Water helps flush these toxins. Soda, juice, alcohol, coffee & tea don't count, as they contain sugar &/or caffeine speeding up dehydration.

Vitamins & Supplements US dietary supplement sales ↑ to \$4.8 billion, an 8% ↑! HerbalGram, 2009

Herbal Supplements Sales were \$335.6 million for 2009, an ↑ of 14.4% over 2008. Information Resources Inc, 2010

Would you like an apple pie with that!

<u>Item</u>	<u>Calories</u>	<u>Fat</u>	<u>Sugar</u>
Big Mac	540	29g	9g
Lg Fries	500	25g	0g
Coke 32 oz	310	0g	82g
Apple Pie	250	13g	19g
Total	1600	67g	110g

Trans Fats: french fries 40%, cookies 30-50%, doughnuts 35-40%. ↑ LDLs ~ ↓ HDLs
Which: clogs arteries, ↑ risk of type 2 diabetes, ↑ risk of heart disease. Dr. Joseph Mercola

Fries With That? 14 leading hospitals & 6 top children's hospitals serve fries with trans fats including: UCLA, UCSF & Children's National Med Center. The USDA serves trans-fat-laden fries, despite their own guidelines & their fries contained the most trans fats! Center for Science in the Public Interest, Feb 2006

Since 1970 caloric intake has ↑ 23%. CDC National Center for Health Statistics, 2004

Restricted Calories Benefits The Heart In a 6 yr study where half ate a calorie-restricted diet (1,670 calories) & half ate a Western diet (2,445calories): The 1st group showed significantly improved cardiac performance, suggesting less aging. Journal of the American College of Cardiology, Jan 2006

Fruit for Kids Lung, bowel & breast cancer were less likely to occur in people who ate larger amounts of fruit when they were young. Journal of Epidemiology & Community Health, Feb 2003

Whole Grain for Heart Success Whole-grain foods, make congestive heart failure less likely. Men who averaged one bowl of whole-grain cereal a day (25% or more whole grain or bran) were diagnosed with heart failure half as often, compared to those who rarely ate such cereals. Archives of Internal Medicine, Oct 2007

Sugar Please? We consume 142 lbs of sugar a year (2.5lbs/wk), an ↑ of 23% in the last 25yrs.
"Sugar is in nearly every packaged product, including spaghetti sauce, salad dressing, peanut butter, mayonnaise & ketchup. Highly processed carbs & refined sugars cause hormonal changes that drive hunger, cause overeating & ↑ the risk of diabetes & heart disease."
Dr. David Ludwig, Boston Children's Hospital CBS News, June 2007

High fructose corn syrup in the US diet ↑ 10,673% from 1970 to 2005! 90% of the food we buy is processed. 25% of the calories consumed by Americans are added sugars – the majority coming from high fructose corn syrup. "Our study shows for the first time the surprising speed with which humans make body fat from fructose. Once you start the process of fat synthesis from fructose it's hard to slow it down."
Journal of Nutrition, Dr. Elizabeth Parks

How Sweet It Is! US National Soft Drink Association: "A thorough review of scientific literature on obesity shows there is no association between sugar consumption & obesity."

Bursting the Soda Bubble Framingham Heart Study, Circulation, 2006

Sodas ↑ the risk of heart disease & diabetes. Those who drank at least one soda per day had:

- *31% greater risk of becoming obese
- *25% ↑ risk of high triglycerides & high blood sugar
- *32% greater risk of ↓ HDLs

Soda a Day? School Health Policies & Programs Study (CDC), 2006

85% of kids drink at least one soda

20% drink 4 or more

One soda a day can add 15 lbs to your weight in a year

- * Kids 1-2 eat 30% more calories than required
- * 17% of 6 month-olds get their total caloric intake through breastfeeding
- * (American Academy of Pediatrics recommends 100%)
- * 20% of kids 19-24 months old eat fries daily
- * 33% of kids under 2 eat no fruits or vegetables on a daily basis
- * 60-70% eat a dessert or candy daily

Reducing Alzheimer's Risk Eating meals rich in fish, nuts & oily salad dressings at least once a wk may ↓ the risk of Alzheimer's by 60%. The link is fatty acids, an essential part of the brain's cell membrane.
Archives of Neurology, July 2003

Preventing Alzheimer's... People in their early 40s with cholesterol levels between 249-500 mgs/dl are 1.5x more likely to develop Alzheimer's compared to those who had levels of 198 mgs/dl or lower. Alzheimer's pts who took high doses of Vit E had mortality rates 26% lower than those taking nothing.
Baylor College of Medicine, 2008

Juice for Alzheimer's Prevention People who average 3 or more servings of "good" juice per wk have a 25% lower risk of developing Alzheimer's compared to those who have < 1 serving per wk.
American Journal of Medicine, Sept 2006

Omega 3's on the Brain MRIs show consuming omega-3 fatty acids ↑ the volume of gray matter in the mood & emotional regulation areas of the brain (bilateral anterior cingulate cortex, right amygdala & right hippocampus). People with a lower intake of omega-3 fatty acids tend to be impulsive & have negative moods.
University of Pittsburgh Reuters, April 2007

Fish Protects the Heart Men who eat fish > 2x/wk had a heartbeat of 2 beats/minute less than men who ate fish < 1x/wk. 1,051,200 beats less a year! Fish-eaters had: ↑ fatty acids, ↓ triglycerides, ↓ BP & ↑ HDLs.
Circulation, Aug 2003

Lower your risk of coronary heart disease!

Substitute one red meat serving a day with protein-rich foods:

low-fat dairy products ↓ risk 13%

poultry ↓ risk 19%

fish ↓ risk 24%

nuts ↓ risk 30%

Annals Of Internal Medicine, 2010

Pesticides You ingest up to 20 different pesticides a day. Eating organic & avoiding foods high in pesticides can ↓ exposure by 90%. foodnews.org

Carcinogens make up: 30% of insecticides, 60% of herbicides, 90% of fungicides.

Pesticide use has ↑ 50x since 1950. 2.5 million tons are used a year. Many chemicals used in pesticides are soil contaminants that remain for decades. EPA, 2007

Pesticides contribute to: Birth defects, miscarriages & stillbirths, Infertility, Learning disorders, Aggressive behavior, Cancers of: breast, prostate & lymphatics. The average person has 13 harmful pesticides in them. EPA, 2007

Organic fruits & vegetables contain a higher percentage of antioxidants.

With pesticides protecting the plant from insects, the natural production of antioxidants ↓.

Journal of Agricultural & Food Chemistry, March 2003

Farmed Out? Most US citizens today are suffering from dangerous diet deficiencies. The alarming fact - fruits, vegetables & grains - are now being raised on millions of acres that no longer contain enough minerals. No matter how much of them we eat, these foods are starving us! It's bad news to learn from our leading authorities that 99% of North Americans are deficient in vital minerals. A marked deficiency in any of these results in disease. **Senate Document No. 264, 1936**

GMO's 80% of organic farmers in the Midwest report GMO's being carried by wind or water into their fields. Commingled crops during harvest or cross-pollination can also cause contamination. 53% of consumers say they won't buy GMO food. Unlike organic foods, there is no labeling requirement for GMO foods in the US. 92% of soybeans (soybean oil) & 80% of corn (high fructose corn syrup) are said to be GMO!
Whole Foods Magazine, Sept 2008

Moderate Drinking Mayo Clinic, 2008

Dementia: ↓ risk vs nondrinkers & those who only had one drink a week

Heart disease: ↓ risk & death by heart attack by 25-40%

Ischemic stroke: ↓ risk 70%, heavy drinking ↑ the risk

Gallstones: ↓ risk 50%

Type 2 diabetes: ↓ risk

Vascular: ↓ risk of peripheral vascular disease 25-40%

General health: more likely to get enough sleep, exercise regularly & be at a healthy weight than nondrinkers

Red Wine Antioxidants (flavonoids) ↓ risk of coronary heart disease 3 ways: ↓ LDL's, ↑ HDL's, ↓ blood clotting. Mayo Clinic

Resveratrol (in the skin of red grapes) may inhibit tumors & stimulate nerve cell formation.

It may ↓ the risk of age-related disorders, such as Alzheimer's & Parkinson's, chronic inflammation, diabetes & cardiovascular disease. Alcoholism Clinical & Experimental Research, 2009

Red Wine & Blood Vessel Cells Daily red wine consumption for 3 weeks significantly enhanced vascular endothelial function which improves blood flow & heart health. American Journal of Clinical Nutrition, 2010

Breakfast to Stay Slim People who eat breakfast every morning are half as likely to be overweight or show signs of diabetes. Children's Hospital in Boston, 2003

Skipping breakfast may cause your metabolic rate to drop by 5%, adding up to 10 lbs/yr.
Medical College of Cornell University

How Many Meals? The ideal diet is 4-6 small meals. Not eating for long periods can lower your metabolic rate 10-20% preventing the use of 250-300 calories a day. Dr. Sears, The Zone

Atkins, Sears, South Beach, Fit for Life, Grapefruit diets...Calories in vs Calories out is still the key!
Diet for a lifetime. What is your sin food? Are YOU willing to give it up?

10 Tips To Healthy Eating

1. Eat a variety of nutrient-rich foods. You need more than 40 different nutrients. Include bread & other whole-grain products, fruits, vegetables, dairy products & meat, poultry, fish & other protein foods.
2. Eat whole grains, fruits & vegetables. 6-11 servings from the bread, rice, cereal & pasta group, 3 should be whole grains. 2-4 servings of fruit & 3-5 servings of vegetables.
3. Maintain a healthy weight. Your best weight depends on: your sex, height, age & heredity. Excess body fat increases your chances for high blood pressure, heart disease, stroke, diabetes, some types of cancer & other illnesses. Being too thin can increase your risk for osteoporosis, menstrual irregularities & other health problems. Regular exercise is important to maintain a healthy weight.
4. Eat moderate portions. If you keep portion sizes reasonable, it's easier to eat the foods you want & stay healthy. The recommended serving of cooked meat is 3 ounces, similar in size to a deck of playing cards. A medium piece of fruit is 1 serving & a cup of pasta is 2 servings. A pint of ice cream contains 4 servings.
5. Eat regular meals. Skipping meals can lead to out-of-control hunger, resulting in overeating. When you're hungry, it's also tempting to forget about good nutrition. Snacking between meals can help curb hunger.
6. Reduce, don't eliminate certain foods. Most people eat for pleasure as well as nutrition. If your favorite foods are high in fat, salt or sugar, the key is moderating how much of these foods you eat & how often you eat them. Choosing skim or low-fat dairy products & lean cuts of meat can reduce fat intake. If you love fried chicken you don't have to give it up. Just eat it less often. When dining out, share it with a friend, ask for a take-home bag or a smaller portion.
7. Balance your food choices over time. Not every food has to be "perfect." When eating a food high in fat, salt or sugar, select other foods that are low in these ingredients. If you miss out on any food group one day, make up for it the next. Your food choices over several days should fit together into a healthy pattern.

8. Know your diet pitfalls. To improve your eating habits, you first have to know what's wrong with them. Write down everything you eat for three days. Then check your list according to the rest of these tips. Do you add a lot of butter, creamy sauces or salad dressings? Rather than eliminating these foods, just cut back your portions.

9. Make changes gradually. Just as there are no "superfoods" or easy answers to a healthy diet, don't expect to totally revamp your eating habits overnight. Changing too much, too fast can get in the way of success. For instance, if you don't like the taste of skim milk, try low-fat. Eventually you may find you like skim, too.

10. Remember, foods are not good or bad. Select foods based on your total eating patterns. Don't feel guilty if you love foods such as apple pie, potato chips, candy bars or ice cream. Eat them in moderation & choose other foods to provide the balance & variety that are vital to good health.

International Food Information Council Foundation

10 Reasons To Eat Veggies

1. Keep trim
2. Prevent heart disease
3. Control diabetes
4. Avoid diverticulosis
5. Reduce the risk of certain cancers
6. Prevent stroke & other diseases/illnesses
7. Lower blood pressure
8. Lower risk of adult blindness
9. Satisfy your sweet tooth
10. Pure pleasure

What's Organic?

Single-Ingredient Foods on foods like fruits & vegetables, look for sticker version of the USDA Organic label or check the signage in the produce section for the seal. The word "organic" & the seal may also appear on meat packages, egg or milk cartons, cheese & other single ingredient foods.

Multi-Ingredient Foods Beverages, snacks & other processed foods use the following classification system to indicate their use of organic ingredients.

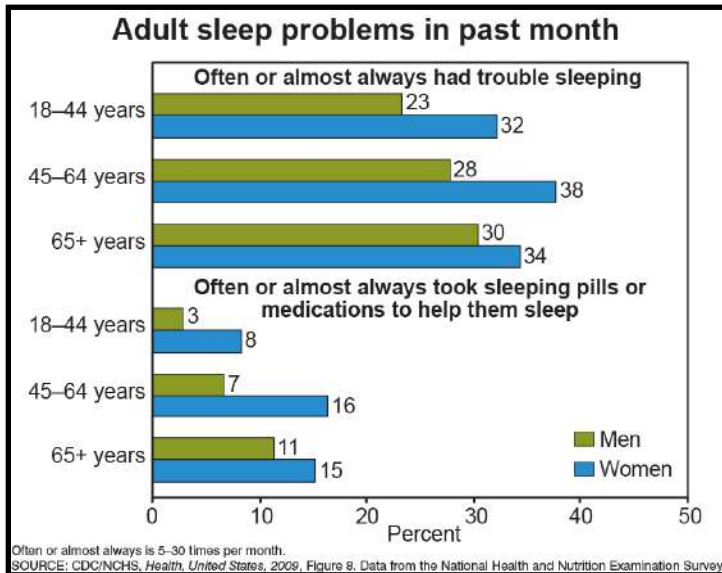
100% Organic Foods bearing this label are made with 100% organic ingredients & may display the USDA Organic seal.

Organic These products contain at least 95-99% organic ingredients (by weight). The remaining ingredients are not available organically but have been approved by the National Organic Program. These products may display the USDA Organic seal.

Made With Organic Ingredients Food packages that read "Made With Organic Ingredients" contain 70-94% organic ingredients. These products may list up to 3 ingredients on the front of the package & can't bear the USDA Organic seal.

Other Products with less than 70% organic ingredients may only list organic ingredients on the information panel of the package. These products will not bear the USDA Organic seal. Even if a producer is certified organic, the use of the USDA Organic label is voluntary. Not everyone goes through the process of becoming certified, especially small farming operations. When shopping at a farmers' market, consumers should ask vendors how the food was grown.

USDA, 2007



2nd Factor of Health: Rest

Insomnia > 100 million Americans of all ages fail to get a good night's sleep.
 American Academy of Sleep Medicine, 2006

More Sleeping Pills.... IMS Health, 2007

- * US adults average 6.9 hours of sleep a night
- * 48 million scripts were filled last yr
- * \$3.6 billion spent
- * Sepracor, makers of Lunesta, advertised the most spending \$298 million

Children's Sleeping Problems Sleep, 2007

- * 18.6 million doctor visits
- * 81% were given a prescription

Sleep or Gain Weight In a 16 yr study women sleeping 5 hrs or less a night were 32% more likely to gain at least 33 lbs, compared to those who averaged at least 7 hrs. The weight gain was due to a change in the metabolic rate rather than diet or exercise. Reuters, May 2006

Sleep Right, Live Long The secret to a long life may come with just the right amount of sleep. Less than 5 hrs a night is not enough; more than 6.5 hrs is too much. The best survival was seen in women who slept 5-6.5 hrs, as they were more likely to be alive at the 14 yr follow-up. Sleep Medicine, Oct 2010

No Technology Please 3400 messages are sent per month at sleep time. 77.5% of kids have problems falling asleep & were woken once per night by an ICT device. Half of the kids who text or surf the internet at bedtime have problems falling asleep. They experience mood, behavior & cognitive problems including: ADHD, anxiety, depression & learning difficulties. American College of CHEST Physicians, 2010

Naps for the Heart Those who napped 30 mins, 3x/wk, were 37% less likely to die from a heart problem. Archives of Internal Medicine, Feb 2007

Top 10 Health Benefits of a Good Night's Sleep

1. **A Healthy Heart:** Lack of sleep has been associated with high blood pressure & high cholesterol. Your heart will be healthier if you get 7-9 hours of sleep a night.
2. **May Prevent Cancer:** People working late shifts have a higher risk for breast & colon cancer. The extra light exposure at night suppresses melatonin production. Melatonin is a hormone that makes us sleepy & appears to suppress the growth of tumors. Keep your bedroom dark to help produce melatonin.
3. **Reduces Stress:** When your body is sleep deficient, it goes into a state of stress. This causes an increase in blood pressure & production of stress hormones. Higher blood pressure increases your risk for heart attacks & strokes. Stress hormones make it harder to sleep, so try relaxation techniques.
4. **Reduces Inflammation:** Stress hormones increase inflammation & the risk for heart problems, cancer & diabetes. Inflammation contributes to the aging process.
5. **Be More Alert:** A good night's sleep makes you feel energized & alert. Being active not only feels good, it ups the odds for another good night's sleep.

6. Improves Memory: While resting, your brain processes your day, connecting events, sensory input, feelings & memories. Dreams & deep sleep are important for your brain to make memories & links.
7. Lose Weight: People who sleep less than 7 hours a night are more likely to be overweight or obese. Hormones called ghrelin & leptin regulate appetite & are disrupted by lack of sleep.
8. Naps Make You Smarter: Napping several times a week lowers the risk for heart disease, improves memory, improves cognitive function, improves mood, protects your health & makes you more productive.
9. Reduces Depression Risk: Lack of sleep decreases serotonin production which can lead to depression.
10. Helps the Body Repair: Sleep is a time for your body to repair damage caused by stress, ultraviolet rays & other harmful exposures. Your cells produce more protein while you sleep & the protein forms the building blocks for cells, allowing them to repair damage.

Mark Stibich, PhD

A Better Night's Sleep Without Pills

Exercise. Vigorous exercise or even a small increase in exertion helps nocturnal sleep. Don't exercise 5-6 hours before bedtime, as the body takes several hours to slow down.

Lose weight. Being overweight can increase the risk of sleep apnea.

Cut back on napping. "If you must nap, keep it brief & early in the day," says Donald Bliwise, professor of neurology at Emory University School of Medicine. If you can't resist dozing, keep it to 30 minutes or less.

Get 1-2 hours of daily sunlight exposure. If you are unable to fall asleep, get sun exposure in the morning. Those who fall asleep too early & want to reset their body clock should get sun exposure late in the afternoon. Natural light synchronizes the inner clock that regulates sleep, nudging the body into wakefulness by day & sleepiness at night. If you live where winter days are short, consider a bright lamp. Remember no light works as well as Mother Nature, even on an overcast day.

Sleep in darkness. If there is even the tiniest bit of light in the room it can disrupt your circadian rhythm & your pineal gland's production of melatonin & serotonin.

Use night-lights. Exposing yourself to regular room light in the middle of the night can shift your internal sleep/wake clock, causing you to awaken early.

Supplements. Melatonin, St John's Wort or Valerian Root.

Set a sleep schedule. Go to bed at the same time each night. Set an alarm & get up at the same time each morning. "The brain's sleep center wants a schedule," says Leah Friedman, a sleep researcher at Stanford. Your body, particularly your adrenals, do most of their recharging from 11 pm to 1 am. Your gallbladder dumps toxins during this time. If you are awake the toxins back up into your liver, which then backs up into your entire system.

Ear plugs. Blocks out sleep disturbing sounds.

Wear socks to bed. Having the poorest circulation, the feet often feel cold before the rest of your body.

Take a hot bath 1-2 hours before bedtime. In addition to relaxing you, the cooling of your core body temperature after you leave the bath, promotes sleep. Don't take your bath too close to the time you turn out the lights, because it takes the body an hour or two to cool down.

Puzzles. Crossword or Sudoku puzzles force you to focus, thus all the distracting thoughts go away & then you can sleep.

Listen to white noise or relaxation CDs. The sound of white noise or nature sounds, such as the ocean, can be soothing for sleep. Read something spiritual or religious. This will help you relax. Avoid reading anything stimulating,

(mystery or suspense novels), as they have the opposite effect. If you are enjoying a suspenseful book you might wind up unintentionally reading for hours instead of sleeping.

Keep a journal. If you often lie in bed with your mind racing, keep a journal. This is a great way to help you recover from the effects of stress.

Avoid TV before bed. Get the TV out of your bedroom. It stimulates your brain & it will take longer to fall asleep.

Avoid loud alarm clocks. It is stressful to awake suddenly.

Remove the clock from view. Constantly staring at it adds to angst.

Keep bedroom temperature less than 70 degrees. Turn down the heat 2 hours before you go to bed to give your bedroom time to cool off.

Big meals close to bedtime can lead to general discomfort and/or heartburn.

Avoid before-bed snacks, particularly grains & sugars. This will raise blood sugar & inhibit sleep.

Later when blood sugar drops too low, you may wake up & not fall back asleep.

Drink a glass of warm milk at bedtime. Tryptophan, an amino acid in milk & other dairy promotes sleep. If this causes too many trips to the toilet, try a bit of cheese or yogurt instead.

Eat a high-protein snack several hours before bed. This can provide the tryptophan needed to produce melatonin & serotonin.

Eat a piece of fruit. This can help the tryptophan cross your blood-brain barrier.

Avoid foods you are sensitive to. Especially dairy & wheat products, as they may have an effect on sleep, such as causing apnea, excess congestion, gastrointestinal upset & gas.

Avoid caffeine. In some people caffeine is not metabolized efficiently & they can feel the effects long after. So an afternoon cup of coffee or tea may keep you awake.

Avoid alcohol. Alcohol will make people drowsy, but the effect is short lived. People will often wake up several hours later unable to fall back asleep. Alcohol will also keep you from falling into the deeper stages of sleep, where the body does most of its healing. A cocktail at 5 pm is a lot more conducive to a good night's sleep than a nightcap.

Don't drink any fluids within 2 hours of going to bed. This will reduce the likelihood of needing to get up & go to the bathroom or at least minimize the frequency.

Medication might cause your sleep problem. If you suspect a medicine is interfering with your sleep, talk to your doctor. Switching drugs, lowering the dosage or changing the time of day you take a pill may help.

3rd Factor of Health: Exercise

Moving is the key to health! Visit a hospital & see how pts become weak in just a few days.

No Time? Current recommendations call for 30 mins of exercise 5 days/wk. 30 mins is only 2% of your day!

Cardiovascular Disease ~ American Heart Association, 2007

- * 79.4 million Americans have cardiovascular disease
- * 871,500 die/yr ~ 2388/day
- * \$400 billion/yr in medical expenses & lost productivity
- * 6 million hospitalizations/yr

Blood Pressure ~ American Heart Association, 2007

- * 72 million Americans have high BP
- * 15 million don't know it
- * 40% receive proper treatment
- * Effects > 50% of people over 65 yrs old
- * 60% have BP in high-normal range & can be managed with diet/exercise

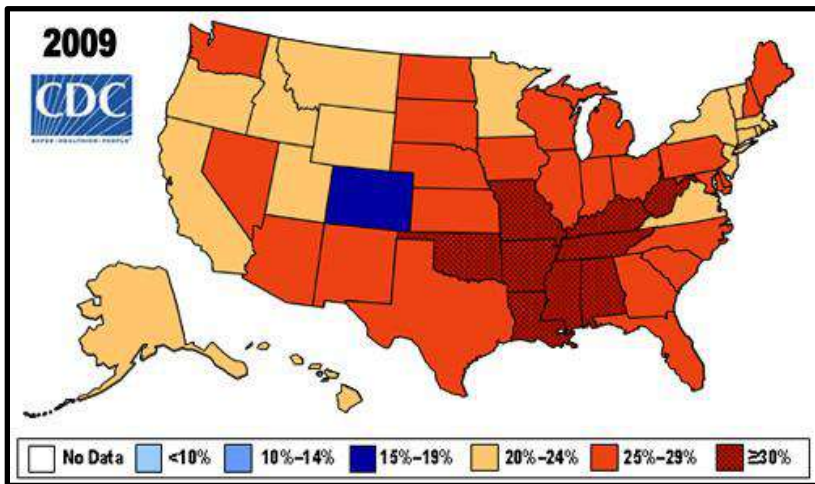
Exercise for Hypertension Those who exercise 60-90 mins per wk:

↓ systolic pressure by 12 pts ↓ diastolic pressure by 8 pts

American Journal of Hypertension, August 2003

Adjustments ↓ BP 14.7 pts systolic 13.0 pts diastolic 5 mins after the adjustment. JMPT, 1988

Life Expectancy Shortening? Obesity rates have ↑ 50% per decade since 1980. Consequently, for the first time in American history, it is anticipated that life expectancy will drop! New England Journal of Medicine, March 2005



Fat Planet 1.6 billion people are overweight! US 74%, UK 64%, Canada 61%, Germany 60%, Russia 49%, China 29%. WHO, 2007

Percent of Obese Adults (BMI ≥ 30) Over Eating? 27.2% of US adults age 20 yrs & over are obese! Obesity is defined as a BMI of 30 or more, or 20% or more above your recommended weight. National Health Interview Survey, 2009

Calculate Your BMI

Underweight	< 18.5
Normal Weight	18.5-24.9
Overweight	25.0-29.9
Obese	30.0-34.9
Very Obese	35.0-39.9
Morbid Obesity	Over 40

Pt Education: Have pt hold a bag of groceries to simulate extra weight.

An Expensive Meal! The adverse effects of obesity cost \$86 billion last year & will quadruple over the next decade! 50% of US adults & 30% of kids will be obese by 2018 & costs will ↑ to \$344 billion. 33% of kids & teens in the US (25 million) are overweight. If obesity rates held at current levels, the US would save \$200 billion in health care costs. CDC & WHO, 2009

Surgeon General: preventable morbidity & mortality from obesity exceeds that of cigarette smoking! 300,000 Americans die each year from obesity-related illnesses. CDC, 2006

Excess Weight Shortens Life A 20 yr old who has a BMI of 45 (well into the obese category) will lose 13-20 yrs off their life. JAMA, Jan 2003

Black Women are Shrinking! Heights of lower & middle income women are plummeting, while all other classes are growing. A change of over a half inch since 1980's! CDC, 2009

Teen Obesity a Killer in Middle Age Females who were overweight or obese at age 18, were most likely to die between 36-56. Causes of death included cancer, heart disease, stroke & suicide. Annals of Internal Medicine, July 2006

Diabetes Rate Up 90% in Last Decade The incidence has been fueled by growing obesity rates & increasingly sedentary lifestyles. Experts say there is no end in sight to the diabetes epidemic.

American Diabetes Association: 24 million US kids/adults, 8% of the population, have diabetes. Reuters, 2008

The Spread of Social Obesity Framingham Heart Study, 2007
57% more likely to become obese if you have a friend who becomes obese

40% more likely if a sibling becomes obese
37% more likely if a spouse becomes obese

Couch-Potato Kids Kids ages 4-17, who watch 4 or more hrs of TV a day are 3x more likely to have high BP than those who view < 2 hrs. 17% of US children are classified as obese.
American Journal of Preventive Medicine, Oct 2007

What's on TV? Americans spend 4.5 hours watching TV, which is more than 1500 hours a year!
A full-time job is 2000 hours! US Census Bureau, 2007

Manage Your Metabolism Beginning in your 30's your metabolism slows by 5% every decade due to muscle loss. During menopause women can lose 1 lb of muscle/yr, due to lack of activity & aging. By 65 it's possible to lose half your muscle mass & ↓ your metabolism by 200-300 calories. Strength training maintains metabolism. Working your major muscle groups 2x/wk, will replace 5-10 yrs worth of muscle loss in a few months.

Age Does Not Matter! People in their 60s & 70s who trained 3 days/wk for 6 months ↑ their daily calorie-burn by more than 230 calories. Strength training builds bone using more nutrients & ultimately burns more calories.
University of Alabama Birmingham, 2007

Exercise for Alzheimer's In a 15 yr study of 1,500 elderly people who exercised at least 2x a week, (walking or cycling), had a 60% lower incidence of Alzheimer's disease. Lancet Neurology, Nov 2005

Quick Healer Regular exercise may speed up wound-healing by 25%, (skin wounds healed 10 days faster).
“This is the first time we've been able to document this kind of enhancement associated with exercise.”
~ Charles Emery. Ohio State University, Jan 2006

Exercise Protects Against Breast Cancer 6 hrs of strenuous activity per week could ↓ the risk of breast cancer by 23%. The ↓ risk was apparent whether the physical activity took place early in life, in postmenopausal years or recently. Cancer Epidemiology Biomarkers & Prevention, Feb 2007

Burn Calories Live Longer In a 6 yr study of healthy seniors, the most active burned 830 calories a day more than the least active group. Side note: the most active were 70% more likely to be alive at the study's end!
National Institute on Aging, Oct 2006

Never Too Late! In a study that tracked people from their 20s into their senior yrs, those who became more active in their 40s cut their risk of heart disease by nearly the same amount as those who had maintained a lifetime of activity. University of Heidelberg, 2006

Abdominal Fat 30 obese men (age 20 yrs) trained for 4 months. The average loss was 26 lbs & they kept their muscle mass. Fat loss was most pronounced around the waist. Dieting without exercise, muscle mass is lost.
Medicine & Science in Sports & Exercise, 2003

Just Good For You! 2 ½ hours of exercise per week ↓ the risk of all disease by 60% Framington Heart Study

How To Motivate Patients To Exercise

1. Register for an Event or Set Specific Goals. Walk: Walk-a-thons, specific distances; 1, 2 or 5 miles etc. Run: 5K, 10K, Half or Full Marathon. Hike: top of local mountain or complete a trail. Swim: Swim-a-thons or specific number of laps. Cycle: Road races or distance. Should set daily, weekly, monthly and/or annual goals.

2. Measure Your Distance: Pedometer. Studies show wearing a pedometer increases your activity and weight loss. Set your step goal at 6,000-10,000 per day. Speed monitors, heart monitor watches - all make exercise more fun and give you a reason to exercise.
 3. Journal. Keep track of your exercise in minutes, steps, laps or mileage. Total each week to see your progress. Set a goal and you will find yourself exercising just to make those numbers add up.
 4. Get a Workout Buddy. You keep each other moving no matter what the weather or other excuses. The conversation, silly jokes and coffee afterwards are great ways to make even a blah workout a lot of fun.
 5. Join a Walking, Cycling, Running or Swim Club. Being the part of a club or organization makes exercise more fun. Clubs usually travel to events and train for them.
 6. New Gear. Having new equipment or clothes will make exercise more enjoyable.
 7. Choose the Right Time. What is the best time to exercise? To stay motivated, analyze your habits and choose the time that will work best on a daily basis.
 8. Make Exercise a Part of Your Daily Life, But It Is Okay to Miss a Day. Often people perceive exercise as a chore or punishment. It is something that should be as routine as showering or brushing your teeth. Sometimes you may skip a day for many reasons and that is fine, just start again tomorrow.
- *Always consult with your doctor/chiropractor before starting any health related program.

Top 15 Benefits of Exercise

1. Increases metabolism to burn calories by increasing oxidation (breakdown & use) of fat.
2. Improves blood sugar control. With inactivity the body becomes more resistant to insulin, increasing the risk for type 2 diabetes.
3. Improves immune system function.
4. Protects the body from cancer & increases digestive efficiency reducing the incidence of colon cancer 30-40%. Decreases women's risk of endometriosis by 50%.
5. Increases aerobic capacity.
6. Develops new blood vessels in the heart & muscles.
7. Increases hemoglobin level, for better oxygen transport.
8. Decreases BP, increases HDL (good) cholesterol & decreases chance of blood clots, heart disease & stroke.
9. Maintains, tones & strengthens muscles & increases muscular endurance. Inactivity causes muscles to atrophy, for women in their 40s & men in their 50s.
10. Increases bone strength. Lack of activity leads to bone weakness, osteoporosis & bone loss.
11. Increases thickness of joint cartilage.
12. Increases blood flow to the skin.
13. Improves sleep patterns.
14. Decreases risk of cognitive decline & dementia.
15. Decreases risk of depression & symptoms of those already depressed.

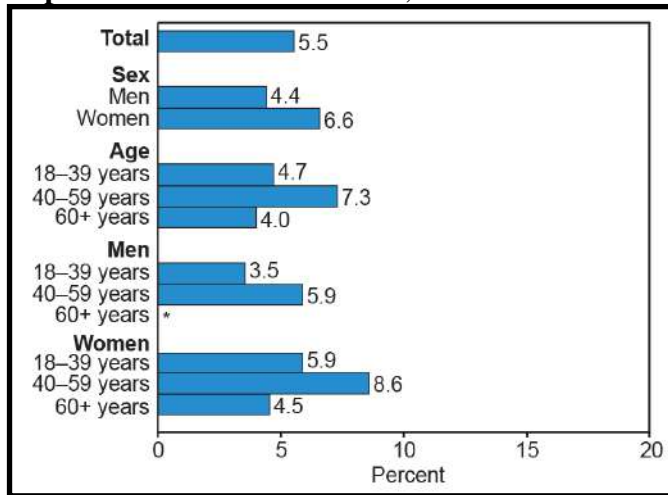
Top 10 Reasons To Strengthen Muscles

1. Healthy bones: Regular weight bearing exercise & strengthening work can prevent osteoporosis.
2. Great posture: Strong muscles lift & hold your posture.
3. Fewer injuries: With strong muscles, connective tissue also becomes stronger. This provides protection against injuries caused by weak ligaments, tendons & muscles.
4. Higher metabolism: There's no better way to ↑ your metabolism than to develop muscle mass. Muscles burn calories even at rest.
5. Better sports performance: Top athletes use resistance training to enhance their skills.
6. Faster rehab: Strong muscles assist in recovery from injury.
7. Improved balance: Regular strength training leads to better muscle control & balance.
8. Minimized body fat: When you build muscle you burn fat. Keeping body fat down will add years to your life.
9. More fun: Your quality of life is enhanced.

10. Prevents ailments associated with aging: Conditions linked to old age are often a result of not exercising & eating poorly. By combining an exercise program of aerobic conditioning with strength training you can grow old gracefully.

4th Factor of Health: Mental Attitude

Depression ~ US Adults CDC, 2009



Stressed Out! American Institute of Stress, 2006

- * Workplace stress costs > \$300 billion/yr in health care & missed work
- * 90% of all disease is stress related

Stress is responsible for:

- * 19% of employee absenteeism
- * 40% of employee turnover
- * 60% of the cost of workplace accidents
- * 60-90% of doctor visits

Work stress increases: Luminari Landmark Study, 2004

cardiovascular problems 2x, anxiety/depression 2-3x, substance abuse 2x, infectious disease 2-3x, certain cancers 5x, back pain 3x, injuries 2-3x

Major life changes can be the underlying cause of stress: All can lead to physical ailments!

1. Birth, death or illness 2. Marriage or divorce 3. Hired or fired 4. Buy or sell a house 5. Finances

Symptoms of stress: tight shoulders, digestive upset, recurring headaches, ↑ tendency to lose temper or become upset. Stretching, breathing, relaxation & meditation are effective in managing stress.

Subliminal Stress ↑ in BP during mentally stressful situations is a warning sign. No correlation between high BP & whether the pt perceived their stress. BP is more reliable as a risk factor than smoking, diabetes or cholesterol levels. Subjects whose BP rose 20 pts during testing were 6x more likely to suffer a cardiac incident in the next 6 yrs. Johns Hopkins University, Nov 2003

Stress activates the sympathetic nervous system (fight-or-flight).

The adrenal medulla secretes adrenaline (epinephrine): ↑ heart rate ↑ blood pressure ↑ respiration ↑ blood sugar
This response is triggered daily, hourly or may be constant!

Exercise Instead of Medication Regular exercise can help pts suffering from depression. Group-based exercise therapy 3x/wk worked as well as drugs. Psychosomatic Medicine, Sept 2007

Calm Down With Stretching 66% of Americans blame stress for their nighttime tossing & turning. Stretching 4x/wk led to falling asleep 30% faster & using 60% less sleep meds. Hutchinson Cancer Research Center, 2006

Half Full? Optimism ↓ the effects of stress & can ↑ life span at least 7.5 yrs!
Yale University, 2007

Don't Antagonize Me! Antagonistic people, especially those who are manipulative & aggressive, have a 40% higher risk of stroke & heart attack due to arterial wall thickening. Hypertension, 2010

Repeat After Me I Am Less Stressed Repeating a mantra helps you cope with life. 75% of subjects eased stress, frustration & tension. Veterans Administration San Diego Healthcare System, June 2006

“Happiness is not something ready made. It comes from your own actions.” Dalai Lama

A Laugh a Day Keeps the Doctor Away 70% of people who saw a stressful movie, ↓ blood flow by 35%. 95% of people who saw a funny movie ↑ blood flow by 22%, equivalent to a 15-30 min workout. Laughing causes endorphins to release, which counteracts the effects of stress hormones, boosts the immune system & ↓ inflammation. Washington Post, March 2005

Patch Adams “Laughter ↑ secretion of catecholamines & endorphins, which ↑ oxygenation of the blood, relaxes arteries, ↑ heart rate, ↓ BP, which has a positive effect on all cardiovascular & respiratory ailments, as well as ↑ immune system response.” American Journal of Medicine “Patch Adams”

Smile It takes 17 muscles to smile - 43 to frown. Six-year-olds laugh 300x a day. Adults laugh 15-100x a day.

Stressed Kids? 8% of kids 12-17 had a Major Depressive Episode! National Health Interview Survey, 2008

“Most folks are about as happy as they make their minds up to be.” Abraham Lincoln ~ 1809-1865

“If you have fear of some pain or suffering, you should examine whether there is anything you can do about it. If you can, there is no need to worry about it; if you cannot do anything, then there is also no need to worry.” Dalai Lama

Simple Ways to Decrease Stress

Relax Your Body

Your body is your temple and can easily get run down by stress, strain and struggle so:

- * Get good sleep
- * Chiropractic adjustments
- * Swedish massage, hot stone massage
- * Foot or hand paraffin
- * Body treatments: aromatherapy body wraps, body scrubs, etc
- * Reflexology
- * Rigorous and regular exercise
- * Healthy sex

Refresh Your Mind

Your mind is your guide, it can easily get distracted and off course so:

- * Take long walks
- * Spend time in nature the average person is outside only 17 minutes per day
- * Read inspirational messages
- * Learn new things
- * Talk with a good friend
- * Play with a dog or cat. Pet owners live longer and have fewer stress symptoms.
- * Therapy or personal coaching on a regular basis

Rejuvenate Your Spirit

Your spirit can easily be forgotten in the busyness of life so:

- * Meditate 10-30 minutes per day
- * Pray

- * Sing & dance, people swear by the power of music to release tension and stress
- * Consciously slow down
- * Be fully present
- * Know and live by your values and beliefs
- * Surround yourself with supportive, loving and accepting people

Stress-Free Activities

- * Connect with nature, it restores homeostasis to your system.
- * Make a list of your favorite things. Read it when you feel down.
- * Rely on friends and animals, they are great sources of support.
- * Create a pleasure drawer. Stock your drawer with personal momentos or simple indulgences: favorite scents, textures and tastes to create your own multi-sensory stress-relief treatments.
- * Deep breathe. This will soothe your nerves, it sends oxygen to your brain and refreshes your mind. Inhale through your nose and count to 8. Fill your belly not your chest with air. Exhale through your mouth to the count of 10-15. Repeat 5-10 times per hour until you feel calmer.
- * Laugh. Laughter is the best medicine for stress. Find humor in the situation. Smile often.
- * Imagine. Use visualization and guided imagery to take your mind off the situation.

More Ways To Decrease Stress!

1. Yell! But---be sure you are alone. The best place is in the car with the windows up. Stuck in traffic? Try it.
2. Do something soothing. Start or try an activity like knitting, crochet or pottery. Don't worry about being good at it. It's the process that's beneficial. Sitting still while performing repetitive movements is calming and stabilizing for many people. It can be a good time to collect your thoughts.
3. Start a garden. Even apartment-dwellers can do this. Tending plants, fruits, vegetables, flowers and watching them grow, bloom or yield food is rewarding. Avid gardeners say working a garden is the best way to control stress and worry. An added benefit is the creation of a more beautiful, restful environment.
4. Gaze at the stars. Preferably in a still, dark and quiet area, sit back and observe the heavens. The vastness of space is awesome. This way can make a lot of problems seem very small.
5. Focus on the things you can change and do not worry about the rest
6. Eliminate stress by decreasing your activities and/or responsibilities
7. Do not over commit, manage your time, avoid rushing from place to place
8. Focus on the positive
9. Do not gossip
10. Be tolerant of others
11. Be giving & forgiving
12. Don't speed
13. Turn off your TV, do not watch the news, read & play games instead
14. Hug at least 5 people a day

10 Ways to Improve Your Attitude

1. Work on relationships: They're our best source of happiness & biggest source of problems & frustrations. Develop good relationships & improve or end poor ones.
2. Develop routine activities: an early morning walk, exercise, meditation & quiet time, are effective in getting the day off to a positive start. It is easier to stay positive, by starting positive.
3. Monitor your mental state: Being aware of the cause of your negative mood makes it easier to return to the positive. If in a negative state, learn from it & then take action.
4. Create an energizing physical environment: Invest time & money to make your surroundings pleasing & energizing. Small items make a difference in how your space affects your moods. Lighting can provide a mood improvement. Mood improves by cleaning up the bedroom or dirty dishes, as clutter is de-energizing. A water fountain can create a feeling of energy & music can offset feelings of isolation.

5. Monitor your negative self-talk: This is a source of low moods, be alert to negative messages. Focus on getting a truthful message, then shifting out of self-defeating criticism. We are usually our own worst critic. Refrain from making judgments ~ instead think positively.
 6. Deal with problems effectively: Problems are a part of life & we can learn from them.
 - a. Ask yourself:
 - b. What am I contributing to this problem?
 - c. What life lesson am I missing here?
 - d. What is the worst that can happen & how can I improve on that?
 - e. What am I doing right?
 - f. What am I going to do differently?
 7. Attract what you need: Time & energy is best spent pursuing desirable goals. Ask others for what you need. On Monday make a list of goals for the week.
 8. Be a positive energy source: Negative energy attracts negative results. Keep your own mood positive & suppress negative behavior. Pay it forward. For every kind deed offered to you, do a kind deed for someone else.
 9. Avoid using negative energy as an energy source: Negative people create busyness, use deadlines, crises & problems to keep them going. Serious burnout is the eventual result of becoming dependent on negative energy.
 10. Ease up on the internal life commentary. If you want to be happy, stop telling yourself you're miserable.
- Bruce St. John, Leadership Coach

So there you have it. A full arsenal of information to help your pts become healthy. Allow them to choose health on their own. If they do not want optimum health, so be it.

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