

Enemy in the Mirror



Richard W. Bunch, Ph.D., P.T.
Behavioral-Based Ergonomic Specialist

About the Speaker:



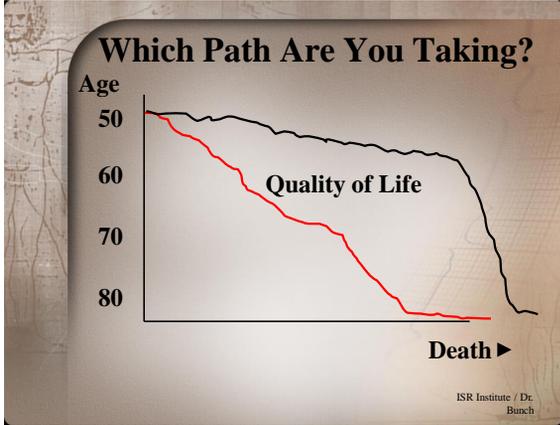

Richard W. Bunch, PhD, PT, CBES

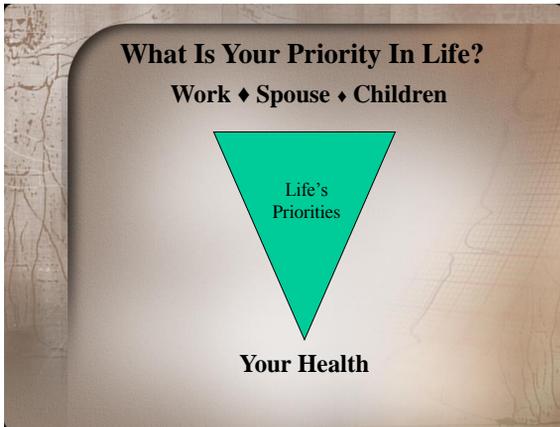
- Founder and CEO of WorkSaver Systems
- Army Veteran -Attended West Point Military Academy
- Medical PhD in Neuroanatomy, LSU School of Medicine
- Licensed Physical Therapist
- Certified Ergonomic Specialist
- Professional Speaker
- Federal and State court accepted expert in FCEs, fitness-for-duty testing, clinical biomechanics, and ergonomics
- Author of book chapters: *Fitness-for-Duty*, in American College of Occupational and Environmental Medicine (ACOEM) Guide to Occupational Health (2018) and *AMA Guide to Functional Capacities Evaluation*, in The Lower Extremity and Clinical Neurology (2001)

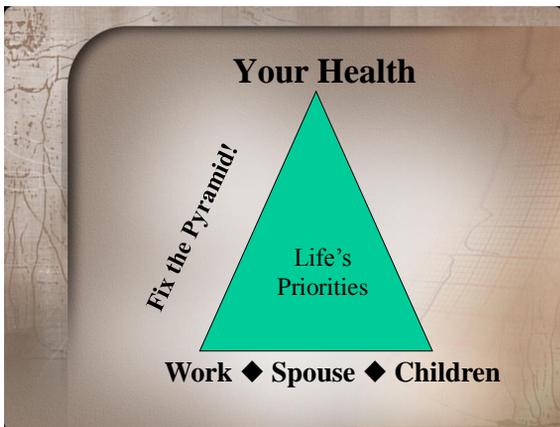
The West Point Principle

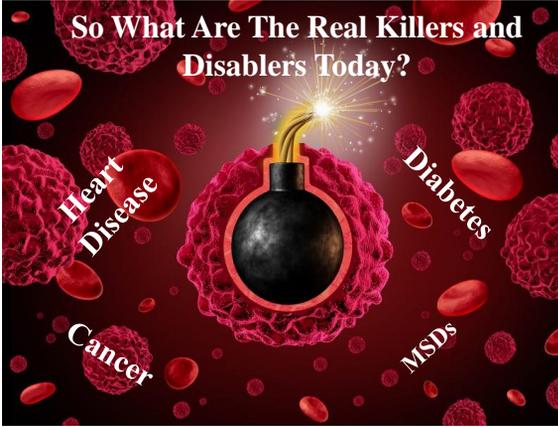
“No Excuse Sir!”











Cardiovascular Disease

Accounts for 40% of U.S. deaths

Over 1.2 million people every year

Causes? You may be surprised!

Heart Attack

Blood clot

Artery

Cholesterol plaque

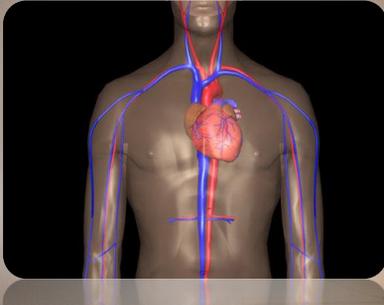
Coronary artery

Healthy muscle

High BP and High Cholesterol Not Only Causes

A Vitamin B Deficiency can elevate Homocysteine, an amino acid that is harmful to blood vessels and heart!

Also from Complications of Excessive Sugar (Glucose) in Blood and Diabetes





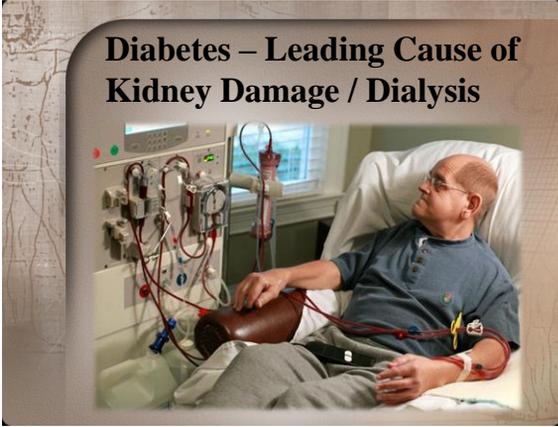
Uncontrolled blood glucose damages blood vessels and is the most frequent cause of non-traumatic lower limb amputations.

The risk of a leg amputation is 27.7 times greater for a person with diabetes.

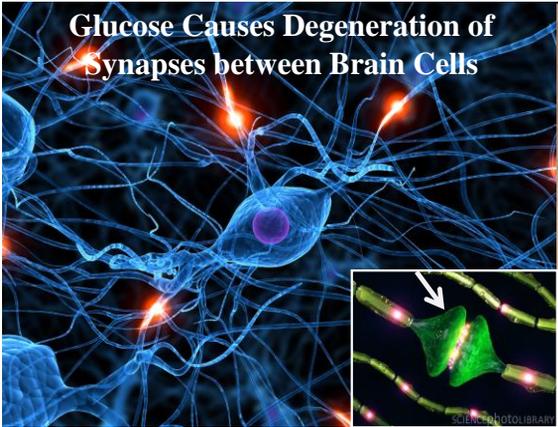
Diabetic Neuropathy- Blindness



Diabetes – Leading Cause of Kidney Damage / Dialysis



Glucose Causes Degeneration of Synapses between Brain Cells



Effect of Excessive Blood Sugar and Diabetes on the Brain

ALZHEIMER'S Brain Diabetes??



Cancer

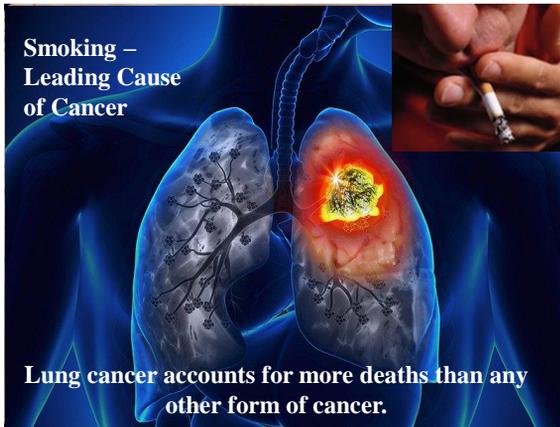
Cancer rate expected to double over next 50 years

Links: Hereditary, Smoking, Alcohol, Poor Nutrition, Lack of Exercise, and Stress



70 – 80% of Cancers are Related to High Risk Lifestyles

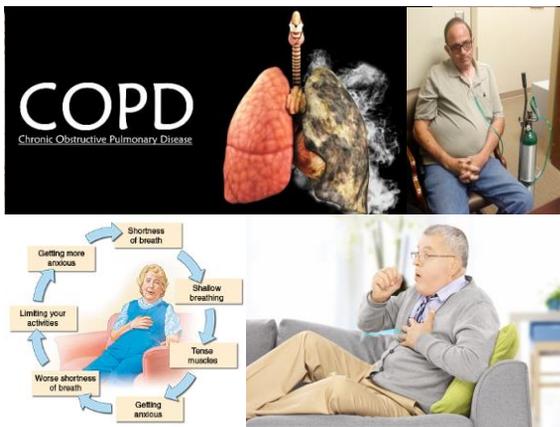
Smoking – Leading Cause of Cancer



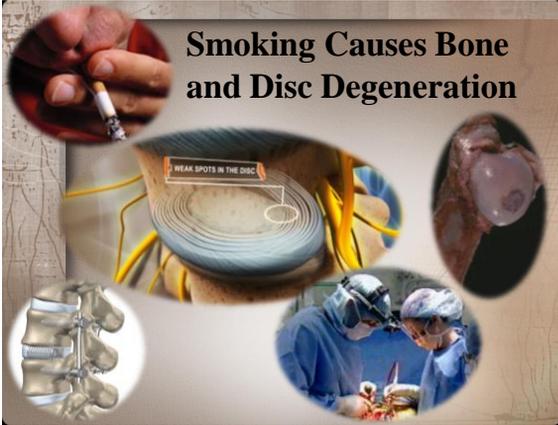
Lung cancer accounts for more deaths than any other form of cancer.

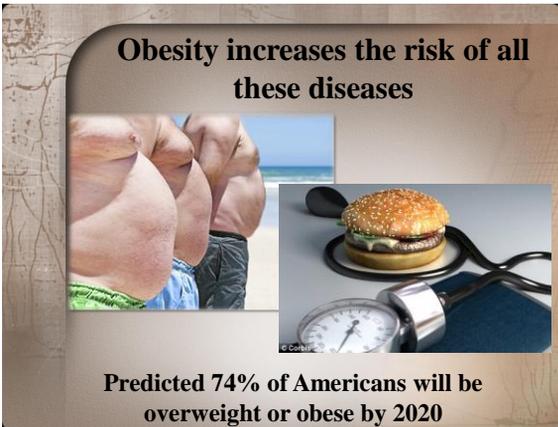
COPD

Chronic Obstructive Pulmonary Disease



The circular diagram shows the following cycle of symptoms: Shortness of breath leads to Getting more anxious, which leads to Limiting your activities, which leads to Worse shortness of breath, which leads to Getting anxious, which leads to Tense muscles, which leads to Shallow breathing, which leads back to Shortness of breath.







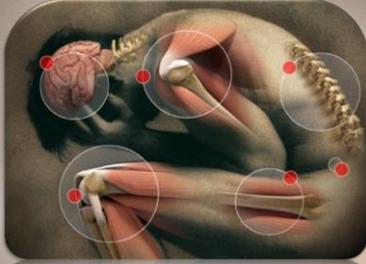


Joint Replacement Surgeries Are on an All Time Record Increase!





So What Can We Do ?



Know How to Prevent MSDs



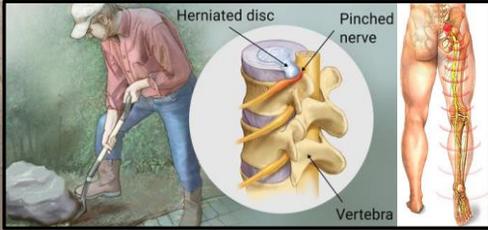
Prevent Low Back Injuries

- Nation's #1 Workplace Safety Problem costing industries billions
- 1/4 of occupational injuries (NIOSH)
- Affects about 80% of adults
- 3 of 4 occur while lifting!

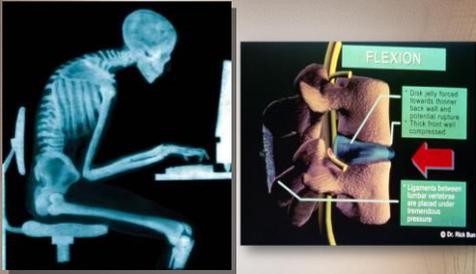
Reference: U.S. Department of Labor, Back Injuries- The Nations #1 Workplace Safety Problem, <http://www.ohstate.edu/training/oshback.htm>

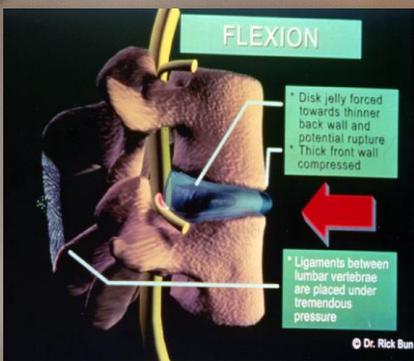


Spinal Discs Can Degenerate or Rupture Silently Well Before Causing Disabling Pain

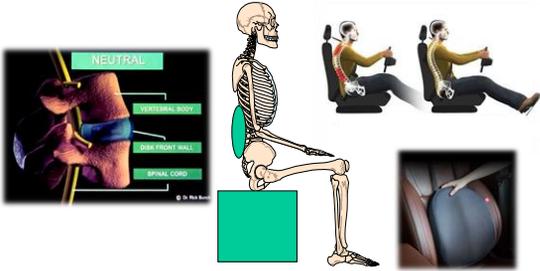


Slumped Sitting – Harmful to Lumbar Disc!





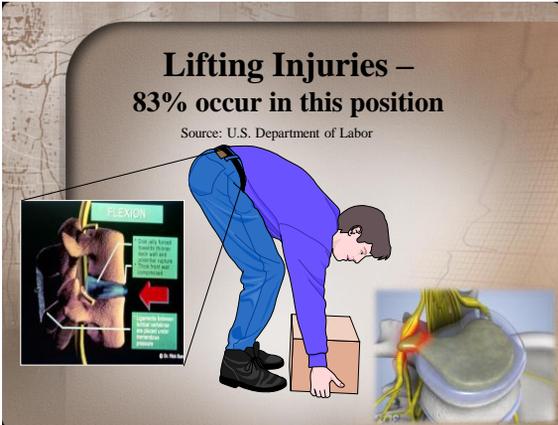
When Sitting - Lumbar Support is Critical



Driving 2+ hours per day = 3x greater risk of disc herniation – Kelsey, et al

Lifting Injuries – 83% occur in this position

Source: U.S. Department of Labor



Lifting while Rounding the Back Increases Risk of Injury



Proper Lifting Technique:

- **B** - Bow low back in
- **L** - Legs
- **A** - Abs
- **S** - Slow
- **T** - Twist – Never!

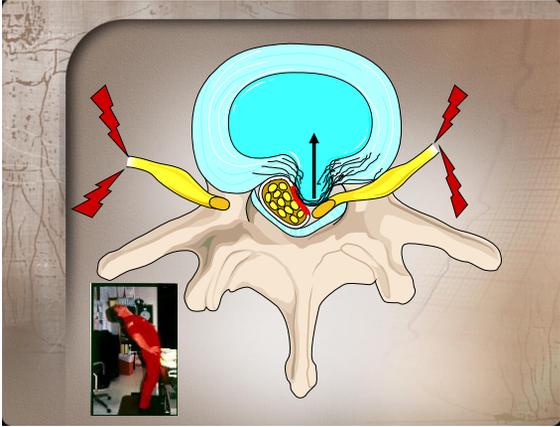


Lift Close to the Body and Keep the Back Arched In and Abs Tight



The Non-surgical Approach to Treating a Contained Disc Herniation - The McKenzie Method

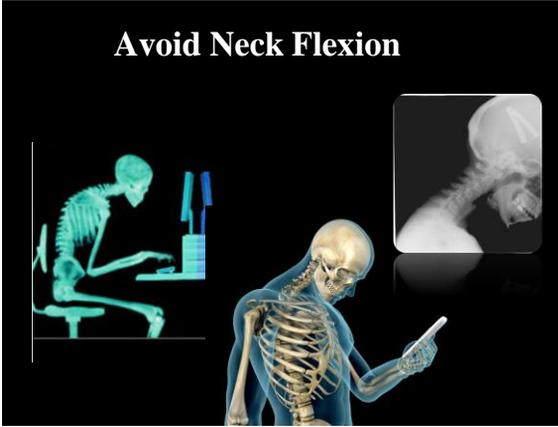




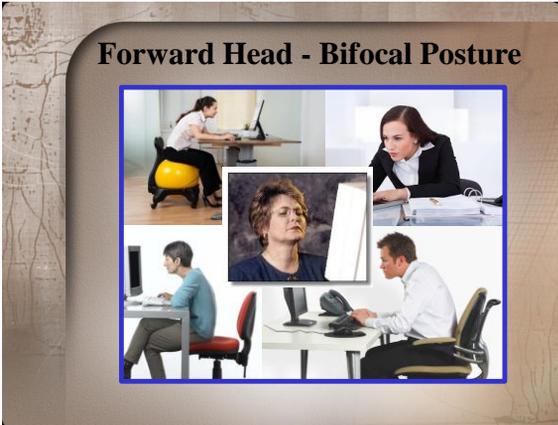




Avoid Neck Flexion

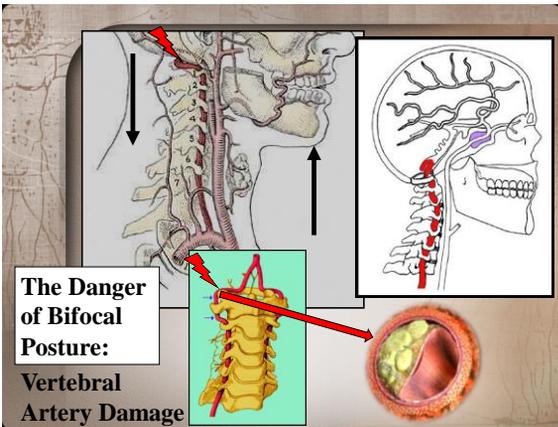


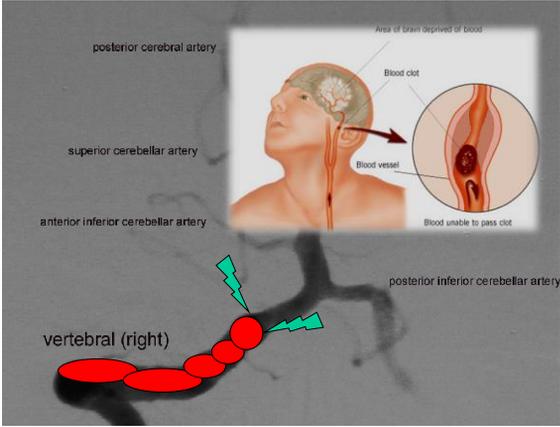
Forward Head - Bifocal Posture

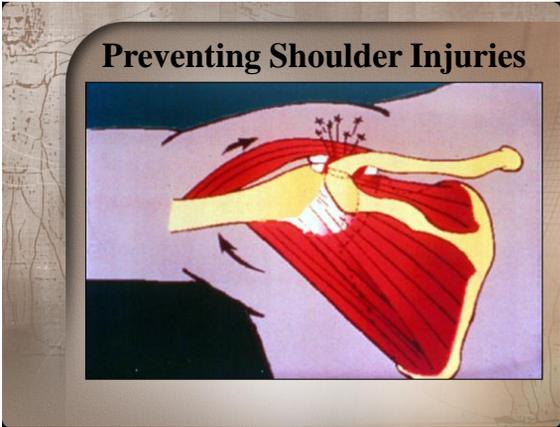


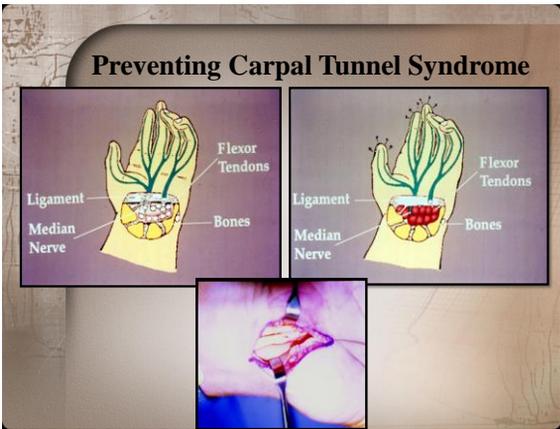
The Danger of Bifocal Posture:

Vertebral Artery Damage





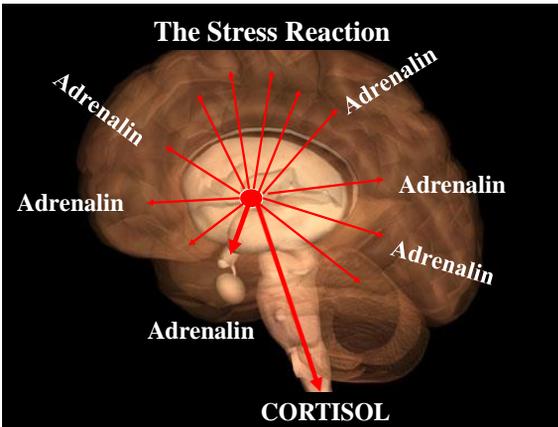




Stress is Directly Linked to Fatigue, Brain Fog, Cancer, Diabetes, Gastric Disorders, and Dementia



Cost to the U.S. - Over 200 billion dollars annually! Cost to Quality of Life - Immeasurable!



Stress Reaction was Great for the Cave Man!



**In Order to Conquer Stress:
Step 1: Analyze the Sources of
Stress**



**Step 2 – Take Specific Action
Steps to Resolve Stress**



Step 3 – Takes Steps to Sleep Better



Step 4 – Exercise!
The F.A.S.T Approach

Step 5: Eat Healthy!



Eat the Right Balance of Foods

- Reduce sugar and high glycemic foods (break the sugar addiction!)
- Avoid saturated and trans fats
- Eat more fruits, vegetables and lean meats
- Reduce sodium
- Reduce caloric intake



Avoid Hunger Peaks - The 6 Meal Diet Plan

- Healthy breakfast
- *Healthy snack mid-morning*
- Light lunch
- *Healthy snack mid-afternoon*
- Light dinner
- *Healthy snack mid-evening*



Nutritional Supplements –
Best derived from Nutritious Food
 e.g., vegetables, fruits, nuts, and lean meats

Multiple Vitamin that includes:

- Vitamin C- 400 mg
- Vitamin B Complex 150: B₆, B₁₂, Folic Acid
- Omega 3 - Flaxseed Oil / Fish Oil: 1000 mg
- Vitamin D3 – 1000 mg
- Coenzyme Q 10: 50 - 120 mg

Check with your medical doctor before any taking supplements

Harvard School of Public Health Longevity Study

You can add 12- 15 years of life by:

- Never smoking
- Maintaining a healthy weight (BMI 18.5-24.9)
- Exercise regularly (*30 minutes or more per day*)
- Reduce intake of alcohol (*to no more than ½ - 1 drink / day for Women; ½- 2 drinks for men*)
- Maintain a healthy diet (*a diet with high intakes of vegetables fruits, nuts, whole grains, polyunsaturated fatty acids and long-chain omega-3 fatty acids, and low intakes of red and processed meats, sugar sweetened beverages, trans fat and sodium*)

Get Medical Check-Ups!





