

Health, Wellness and Quality of Life

An Ounce of Prevention Is Worth More Than a Pound of Cure

Dean Gravlin, MD
Caterpillar Total Health Physician

Total health



Be Safe

Every Employee ... Safely Home ... Every Day

be present

SEEK + SHARE + LISTEN + CHAMPION

Win the Right Way

VALUES + ETHICS + COMPLIANCE

– Our reputation is built not only on what we achieve, but how we achieve it

Be Cyber Safe

Cybersecurity is a shared responsibility

Health, Wellness and Quality of Life

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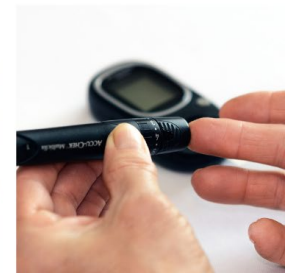
Agenda

- Wellness
- Health screenings
- Recommended immunizations



Wellness – Life's Simple 7

1. Diet
2. Get active / Exercise
3. Reduce weight
4. Stop smoking
5. Reduce cholesterol
6. Optimize blood pressure control
7. Reduce blood sugar



“High sodium, high cholesterol, lots of toxins – your blood test is remarkably similar to a potato chip.”



Diet – Heart-Healthy, Mediterranean

Why a Mediterranean Diet?

- 1950s – Noted that heart disease was not as common in the Mediterranean countries as in the U.S.
- Way of eating based on the traditional cuisines of Greece and Italy
- Plant-based foods such as whole grains, vegetables, legumes, fruits, nuts, herbs, and spices
- Olive oil as the main source of added fat
- Fish, seafood, dairy, and poultry are included in moderation
- Red meat and sweets – only occasionally
- Wine – only in moderation
- “Healthy fats”
 - Olive oil can lower total cholesterol
 - Fatty fish – Mackerel herring, sardines, albacore tuna, and salmon

The Mediterranean Way

- Build meals around vegetables, beans, and whole grains
- Eat fish twice a week
- Olive oil instead of butter in cooking
- Fresh fruit for dessert



Get Active – Exercise

- Multiple health studies support the positive effect of exercise; not only longevity but enhancing quality of life (QOL)



ALZHEIMER'S DISEASE RISK FACTORS

Age

Family History – 2-to-3-fold increase

Lower Education Level – 1.4-to-2-fold increase for < 9th grade education

Apolipoprotein E E4 Allele – 8x increase if homozygous (< 20% Of ALZ D)

Cardiovascular Factors – HTN, DM, Hyperlipidemia

Depression, Head Trauma, Hearing Loss, Smoking

Down's Syndrome, PS1 / PS2 / APP

Protective: Aerobic exercise, social engagement, lifelong learning, optimism and purpose, Mediterranean diet

**PREVENTION HAS THE POTENTIAL TO
REDUCE OR MODIFY THE INCIDENCE
OF DEMENTIA BY UP TO 35%.**

**EDUCATION
HEARING, HTN, OBESITY
SMOKING, DEPRESSION,
EXERCISE**



Exercise and Longevity

- Reduces your chance of dying from any cause by 35%
- Seems to improve your immune system
- Can reduce risk of high blood pressure
- Improves mood
- Can increase bone density (i.e., reduce risk of osteoporosis)
- Improves libido and performance



“Will I still be able to not exercise?”



How Much Exercise?

- For “step counters” – 7,000 to 8,000 steps per day
 - Benefits level off above 10,000 steps
- Current guidelines recommend **> 150 minutes per week of moderate aerobic activity** (e.g., walking, running, biking, swimming) or **75 minutes per week of vigorous aerobic activity**
- Try to include some resistance training twice per week

Reduce Weight

- Obesity is a global—but especially U.S.—problem
- There is **NO** easy way to sustain weight loss other than caloric restriction
- Fad diets abound, but ultimately fail
- Current diets focus on portion control, reduced carbohydrate intake



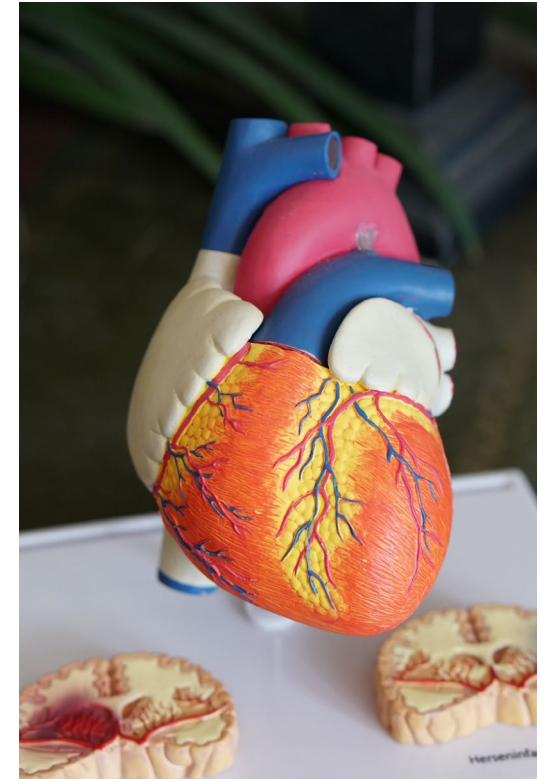
Stop Smoking

- Single largest preventable cause of death
- 7 million people annually die due to tobacco
- Negative impact on QOL – COPD, heart disease, cancer, etc.
- Smoking cessation services provided through Caterpillar global Employee Assistance Program (EAP)
 - Learn more at **EAP.cat.com**



Reduce Cholesterol

- Atherosclerotic Cardiovascular Disease (ASCVD) is a worldwide leading cause of death and disability (heart disease, stroke, peripheral vascular disease)
- In 2015, up to 31% of global deaths were due to ASCVD; in the US and EU, the estimate is 33-40%
- Annual cost estimated at 300 billion USD / 200 billion EUR
- From 1990-2019, the incidence of CVD nearly doubled, deaths increased 50%, and strokes also increased
 - Disability related to ASCVD—especially stroke—nearly doubled
- Perhaps even more unsettling, after recent declines in CVD incidence, it seems to be increasing again in high income countries



How to Reduce Cholesterol

- Heart-healthy diet choices, food prep
- Drain excess fat
- Do not baste with drippings
- Broil or grill instead of fry
- Cut off visible fat
- Remove poultry skin
- Egg whites
- Low-fat dairy
- Increase fruits, vegetables, and grains
- Limit whole dairy, organ meats, and processed meats

Optimize Blood Pressure Control

Non-Pharmacological Management (No Meds)

- Reduce dietary sodium
- Limit alcohol
- Avoid tobacco
- Limit certain OTC meds such as diet pills, decongestants, and some herbal supplements
 - For some, NSAIDS may raise blood pressure
- Exercise
- Improve sleep quality
- Stress management
- Increase dietary potassium
- Peppers and garlic may be beneficial



DASH – Dietary Approaches to Stop Hypertension

- The DASH (Dietary Approaches to Stop Hypertension) eating plan has been tested successfully by researchers since the late 1990s as a way to lower blood pressure
- A recent study suggests that people who follow DASH may also have a lower risk for depression
- DASH emphasizes fruits, vegetables, and low-fat dairy and is low in meats, sugar-sweetened beverages, and saturated fat making it an overall healthful way of eating for people with and without high blood pressure

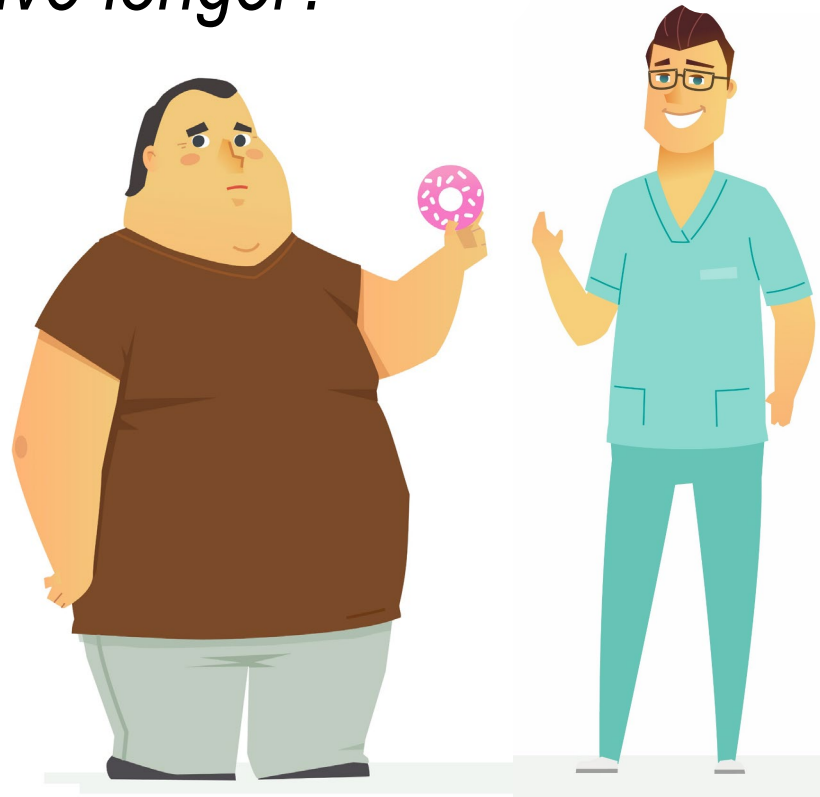
Reduce Blood Sugar

- Pre-diabetes and diabetes can often be prevented by eating a diet rich in fruits and vegetables, whole grains, lean protein, and low-fat/nonfat dairy; limiting foods high in saturated and trans fat, cholesterol, salt, and added sugar; and exercising 30 to 60 minutes most days

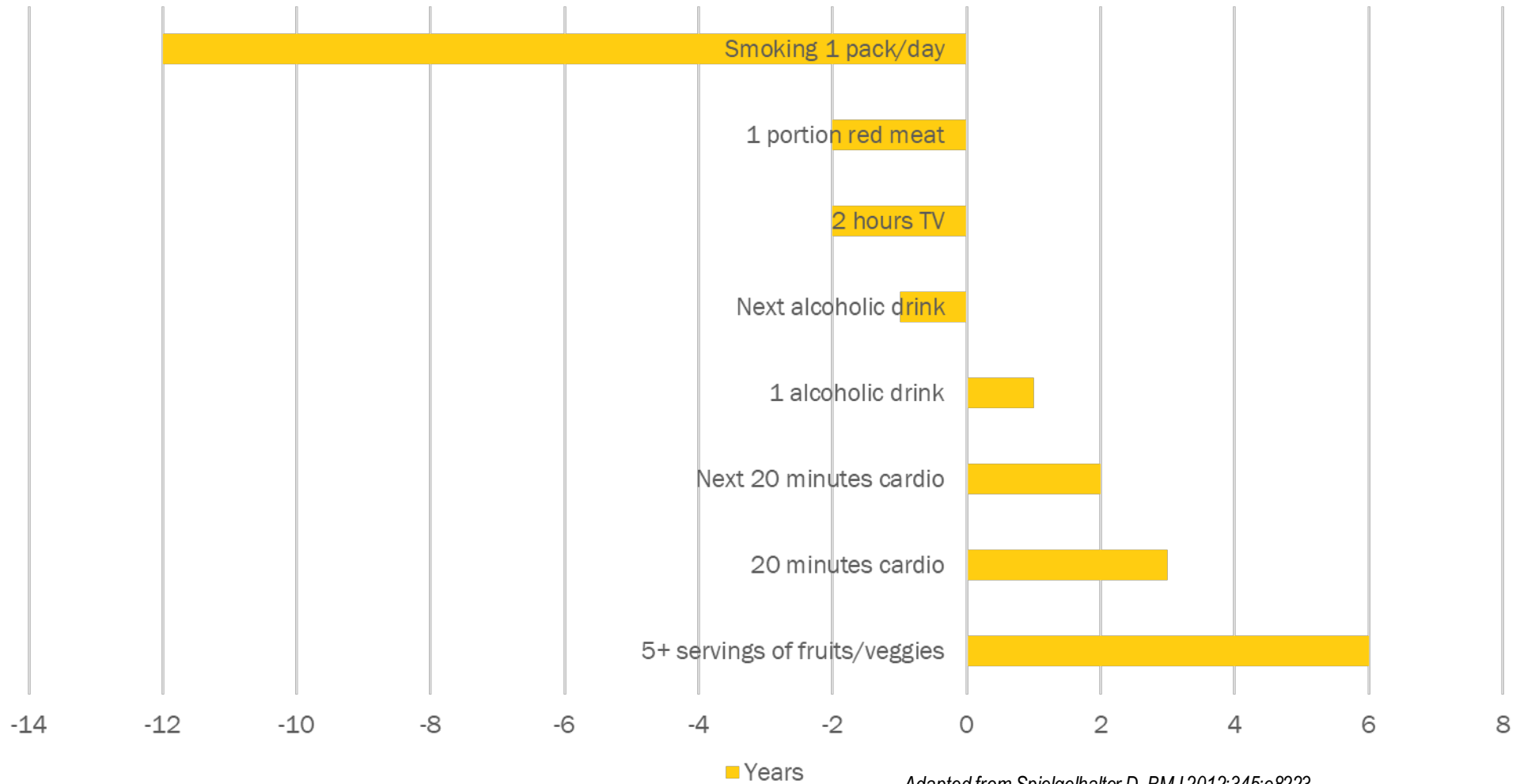


“So, are you saying that if I stop smoking, lose weight, exercise more, and cut back on my drinking, I will live longer?”

“No, but it will seem like it!”



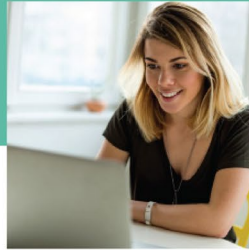
Lifetime Activities That Increase or Decrease Longevity



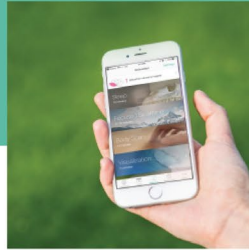
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Health Screenings for Men and Women

- **Blood Pressure** – Every 2 years
- **Lung Cancer** – Annually for individuals aged 50-80 who have a 20-pack-year history of smoking AND currently smoke OR have quit within the past 15 years
 - Non-invasive low-dose high resolution CT scanning
- **Colorectal Cancer** – Risk-based; new recommendation for individuals aged 45-50 due to increasing incidence
 - Age 50-75, average risk
 - Colonoscopy every 10 years (if normal)
 - Stool DNA test every 3 years
 - FOBT/FIT yearly
 - Flexible sigmoidoscopy every 5 years with annual stool testing
 - After age 75, discuss with your healthcare provider

Health Screenings for Men and Women

- **Skin Cancer** – Self-examination
- **Diabetes** – Especially important if BP > 135/80
- **Cholesterol Profile** – After age 35
- **Osteoporosis** – After age 65, especially for women but also important to consider in men
- **Physical Exam**
- **Risk-Based Screenings** - HIV, STDs, hepatitis



Health Screenings for Women

Recommendations for individuals at average risk

- **Cervical Cancer**

- Pap every 3 years for individuals aged 21-65 (if cervix is present)
- After age 65, discuss with your healthcare provider

- **Breast Cancer**

- Mammogram every 2 years for women aged 50-74*
- After age 75, discuss with your healthcare provider

Health Screenings for Men

- **Testicular Cancer** – Self-exam
- **Prostate Cancer** – Recommendations have and continue to evolve; now more risk-based
 - Discuss with your healthcare provider
 - Generally, not recommended for men aged 54 and younger unless risk factors are present:
 - Family history
 - African American
 - Generally recommended for men aged 55-70; however, a risk/benefit discussion is worthwhile
 - Recommended interval of 1-2 years

Immunizations

Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of past infection

Recommended vaccination for adults with an additional risk factor or another indication

Recommended vaccination based on shared clinical decision-making

No recommendation/Not applicable

Vaccine	19-26 years	27-49 years	50-64 years	65+ years
Influenza (IIV4, RIV4)	1 dose annually			
Tetanus, Diphtheria, Pertussis (Tdap, Td)	1 dose Tdap, then Td or Tdap booster every 10 years			
	1 dose Tdap each pregnancy; 1 dose Td/Tdap for wound management			
Measles, Mumps, Rubella (MMR)	1 or 2 doses depending on indication (if born in 1957 or later)			
Varicella (VAR)	2 doses (if born in 1980 or later)		2 doses (if born before 1980)	
Zoster Recombinant (RZV)	2 doses for immunocompromising conditions		2 doses	
Human Papillomavirus (HPV)	2 or 3 doses depending on age at initial vaccination or condition	27 through 45 years		
Pneumococcal (PCV15, PCV20, PPSV23)	1 dose PCV15 followed by PPSV23 OR 1 dose PCV20			1 dose PCV15 followed by PPSV23 OR 1 dose PCV20
Hepatitis A (HepA)	2 or 3 doses depending on vaccine			
Hepatitis B (HepB)	2, 3, or 4 doses depending on vaccine or condition (19 through 59 years)			60+ years
Meningococcal A, C, W, Y (MenACWY)	1 or 2 doses depending on indication			
Meningococcal B (MenB)	19 through 23 years	2 or 3 doses depending on vaccine and indication (24+ years)		
Haemophilus Influenzae Type B (Hib)	1 or 3 doses depending on indication			
COVID-19	CDC recommends everyone 5+ years get their primary series of COVID-19 vaccine, and everyone 12+ years also receive a booster shot			



“You know, as much as I like going to the retail clinic, I still prefer coming to you, doctor. You’re more personable than the computer kiosk I have to talk to there.”

Thank You!

Questions?

Total health

