

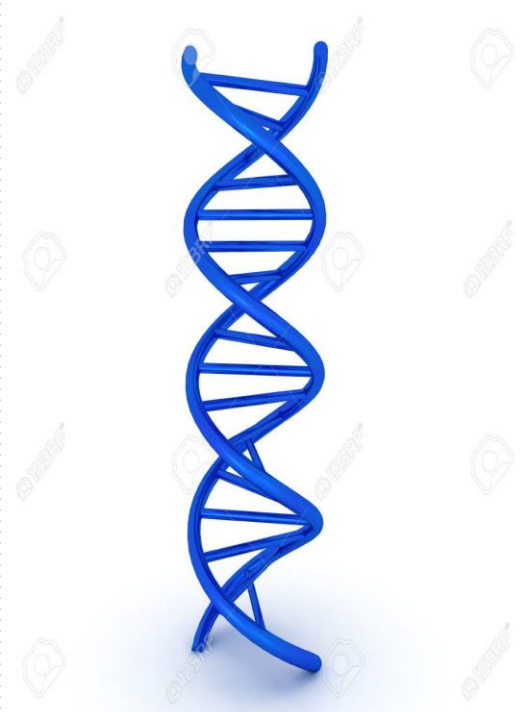
THE ART OF EATING WELL: OLDER ADULTS

**MARY LOUISE ZERNICKE MS MPH RDN CSG
ALAMEDA COUNTY AREA AGENCY ON AGING**



TRUE OR FALSE???

- Zip code is as important to health as genetic code.



TRUE OR FALSE???

- Heart Disease is the number one killer of older adults.



TRUE OR FALSE???

- Vitamin D is needed to improve muscle strength.



KEY SOCIAL DETERMINANTS OF HEALTH FOR OLDER ADULTS

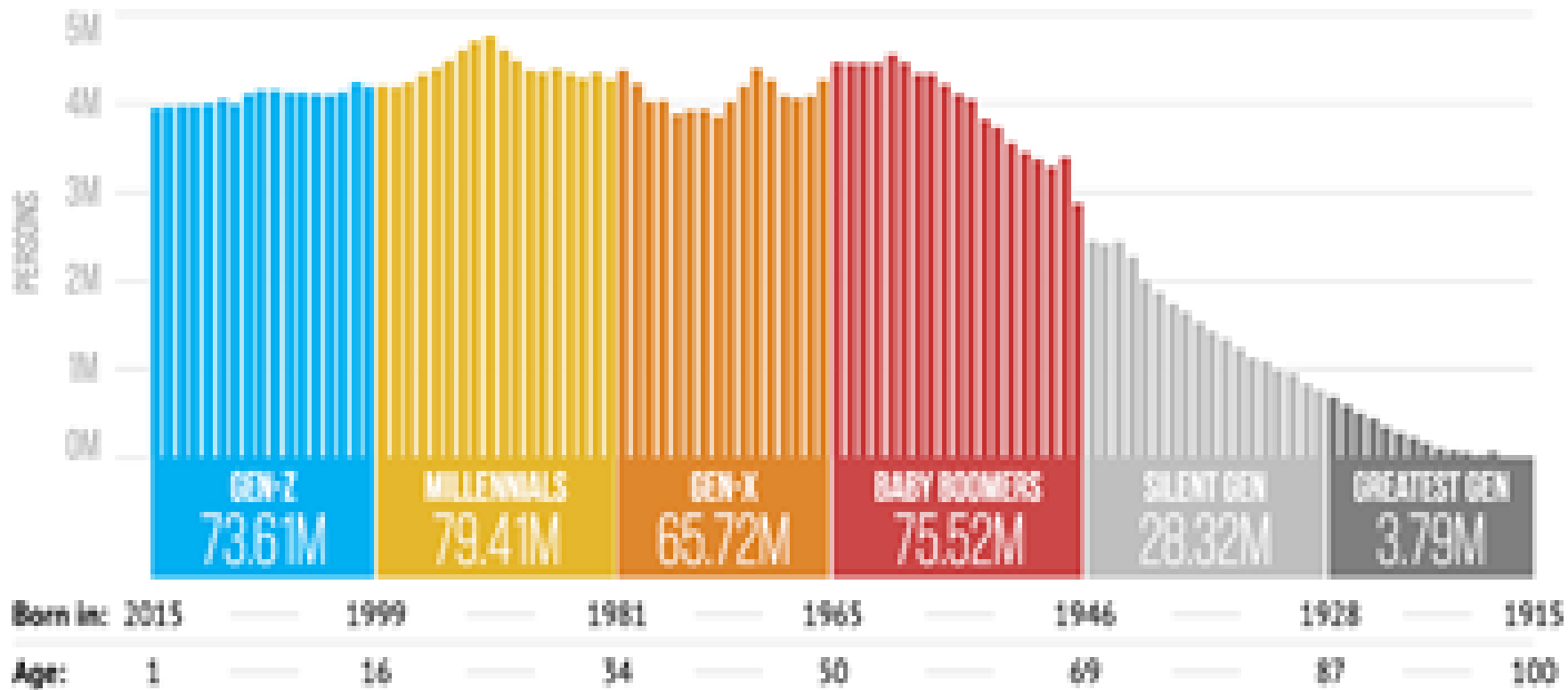
- **Income**
- **Food insecurity**
- **Transportation**
- **Social support**
- **Health Access**
- **Safety**
- **Stress**

HEALTH OUTCOMES

- **Physical Environment = 10%**
- **Social and Economic Factors = 40%**
- **Health Behaviors = 30%**
- **Clinical Care = 20%**

POPULATION BY AGE: US CENSUS

Total US Population by Age and Generation
as of December 2015

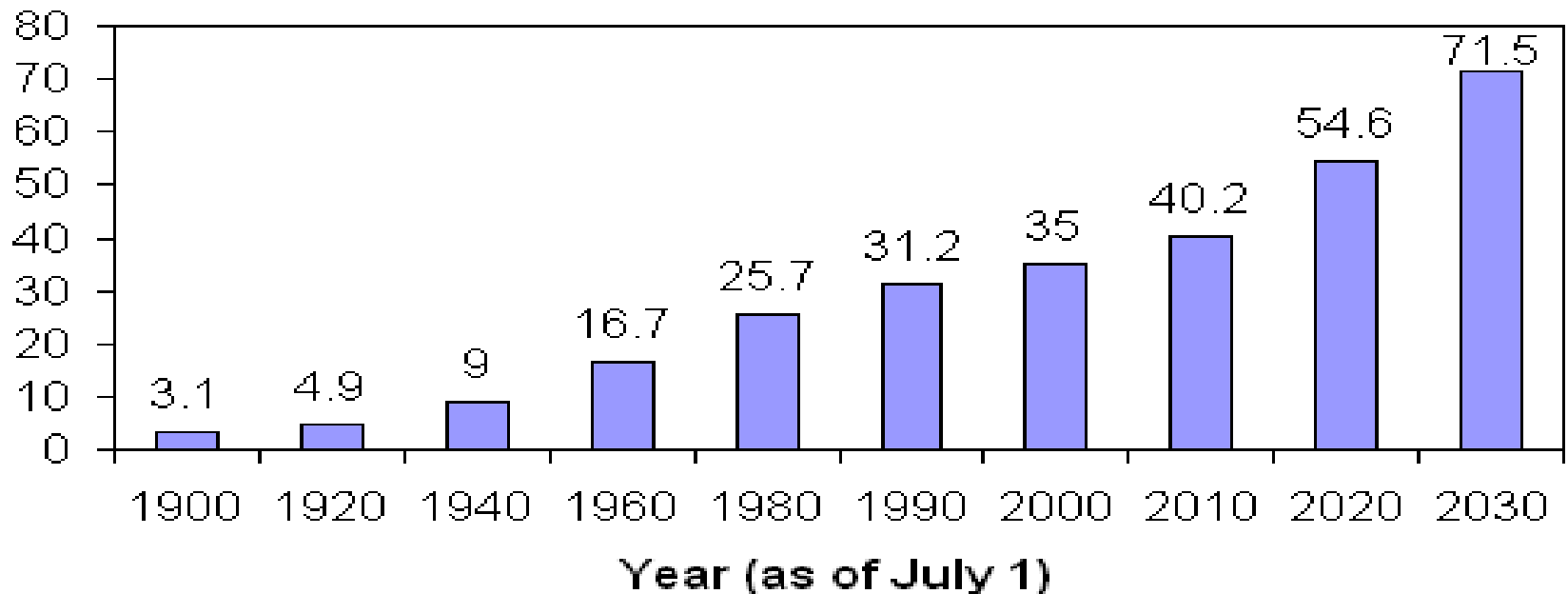


THE FUTURE OF AGING



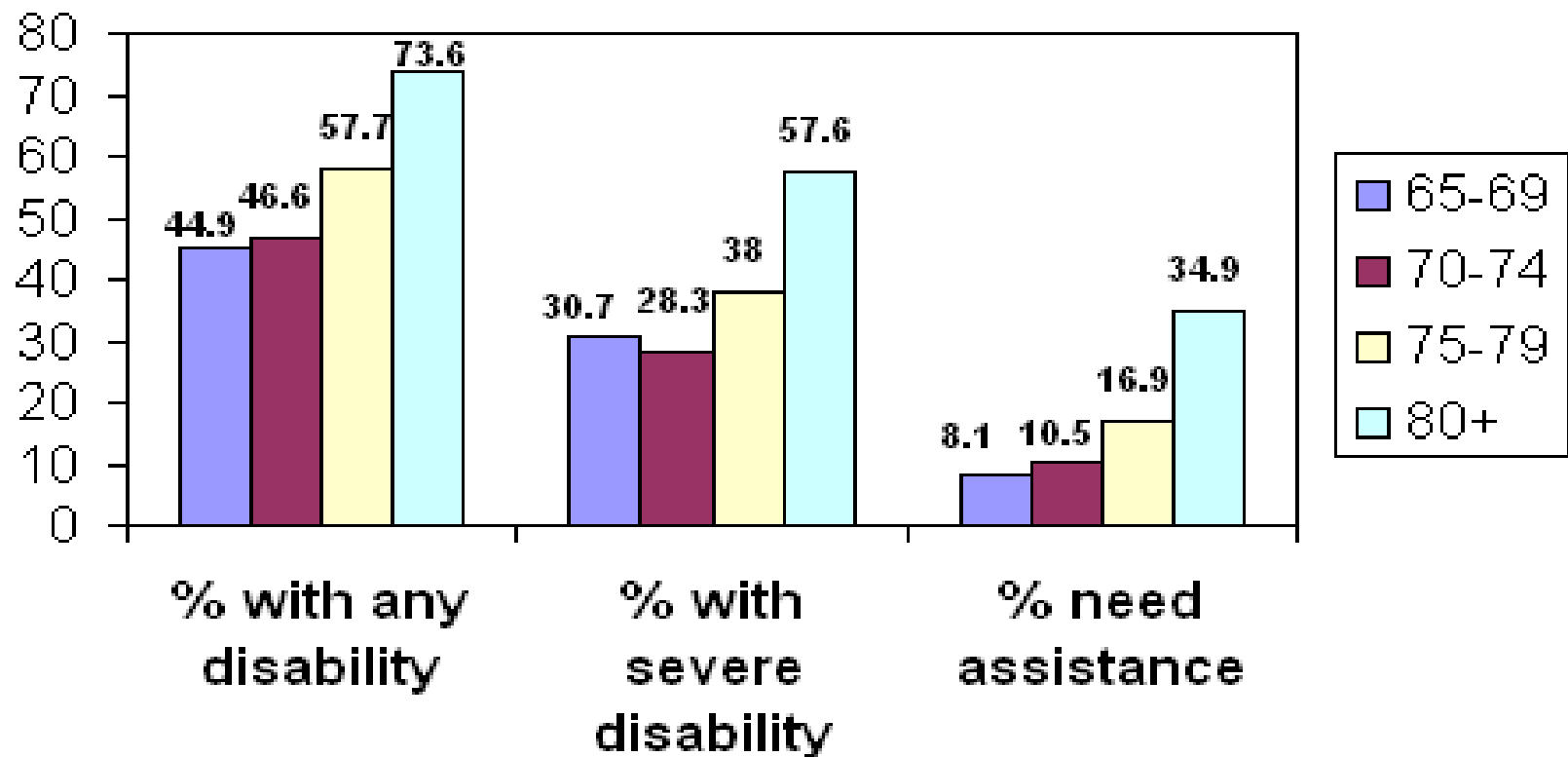
THE FUTURE OF AGING

**Figure 1: Number of Persons 65+,
1900 - 2030 (numbers in millions)**



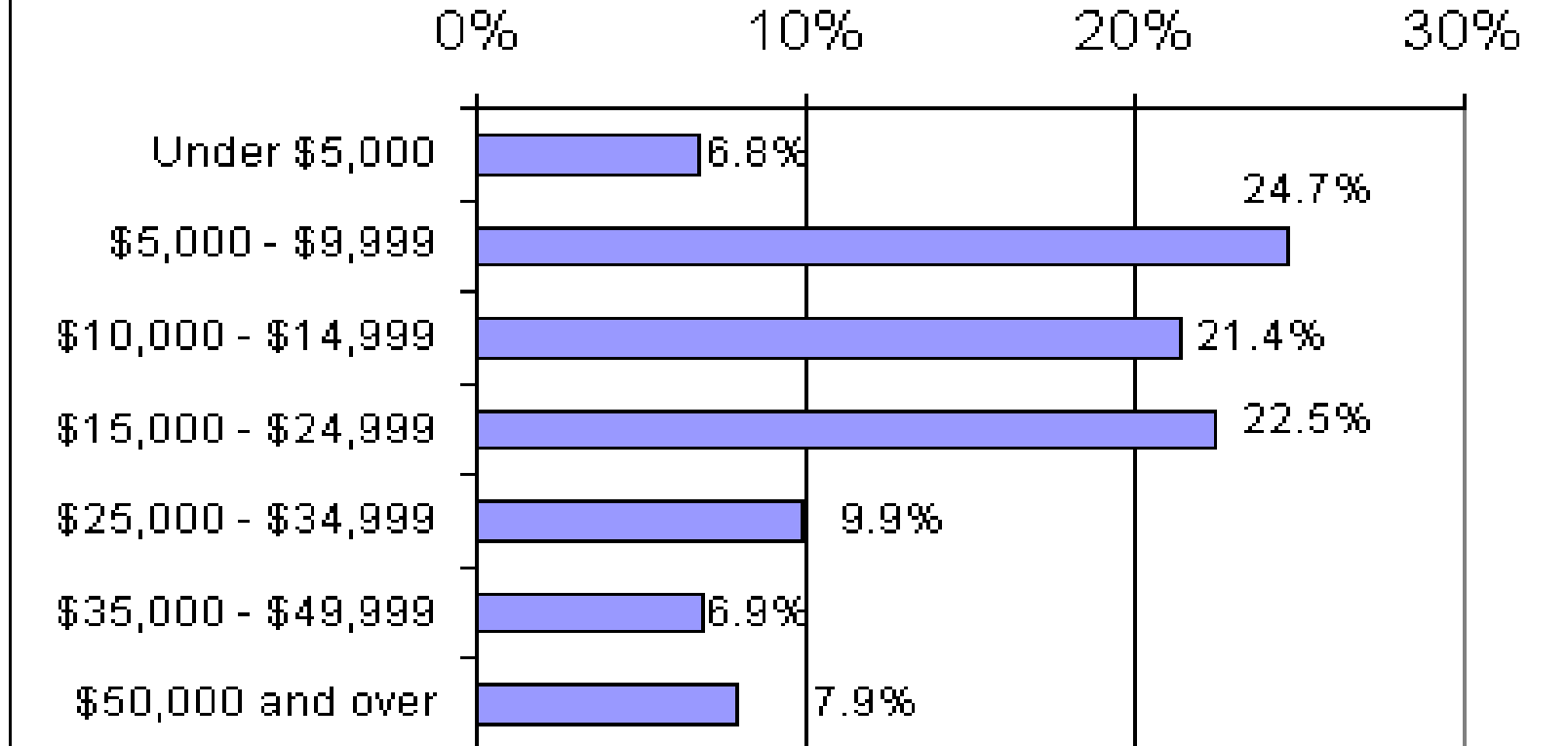
AGING AND DISABILITY

Figure 8: Percent with Disabilities, by Age



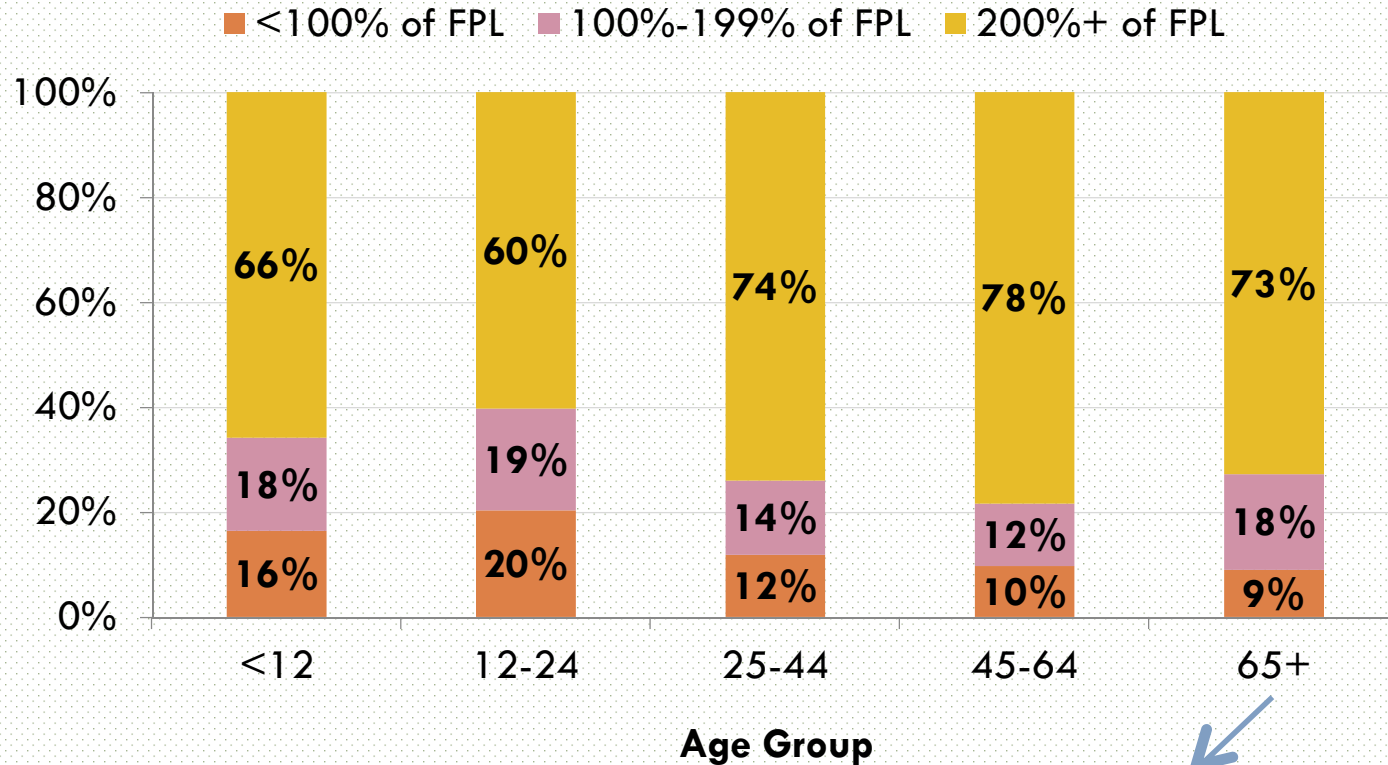
AGING AND INCOME

Persons 65+ Reporting Income



OLDER ADULT SOCIOECONOMIC STATUS

Poverty Levels by Age Group



- About 1 in 10 older adults live in poverty
- Over 1 in 4 older adults earn <200% of FPL

Source: American Community Survey, 2011-2013

SENIOR HUNGER

- **8.8 million seniors – or nearly 1 in 6 – faced the threat of hunger in 2016 in CA.**
- **California data indicates higher numbers of seniors are food insecure –up to 1/3.**
- **Alameda County → 20% of food bank users are older adults**

10

Source: Gunderson, Craig and Ziliak, James. "The State of Senior Hunger in America 2011: An Annual Report." National Foundation to End Senior Hunger, September, 2013.

MALNUTRITION AND POVERTY AND HEALTH IMPACTS

- **33% of older adults admitted to hospital may be malnourished**
- **Up to 50% of community dwelling seniors malnourished**
- **Malnutrition increases health care costs by 300%.**
- **Food insecure seniors are 50% more likely to have DM, 3X more likely to be depressed, 60% more likely to have CHF or heart attack, 30% more ADLs, 2X more gum disease and asthma**

OTHER ISSUES AFFECTING NUTRITIONAL STATUS OF OLDER ADULTS

- Dentition
- Cognition
- Food access
- Ability to shop
- Ability to cook
- Depression
- Food-medication interactions



EATING ALONE CAN BE HAZARDOUS TO YOUR HEALTH

- Proper nutrition vs social engagement
- Eating alone associated with eating less (or eating more!)
- Eating alone associated with higher rates of malnutrition





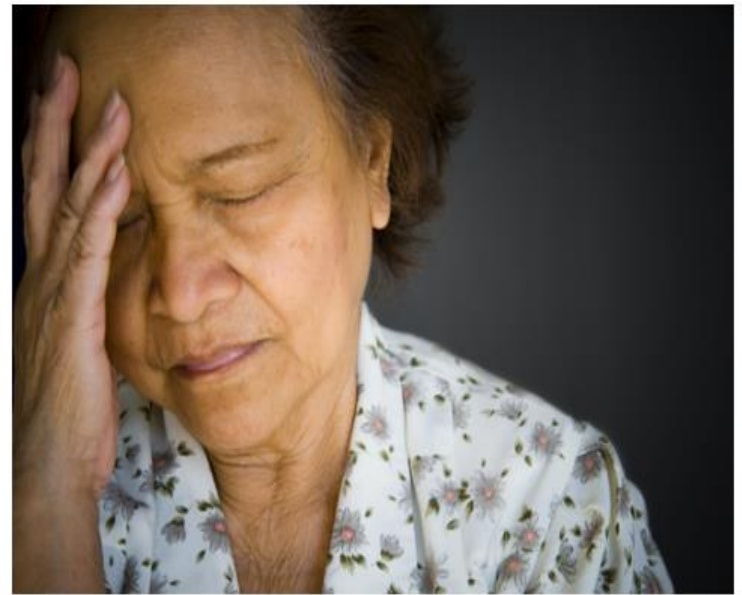
THE IMPACT OF STRESS: LACK OF CONTROL, SAFETY, INDEPENDENCE

Physiology of Stress

- **Cortisol**
 - Increases blood glucose
- **Abdominal Weight Gain**

High Cortisol Levels

- **High Blood Pressure**
- **Reduced Cognition**



HOW TO LOWER CORTISOL LEVELS

- Magnesium
- Omega 3's
- Adequate Sleep
- Massage
- Laughing
- Dancing
- Music (some studies show an impact)



CAN WE CHANGE THE HEALTH HABITS OF OUR CLIENTS?



PHYSIOLOGICAL CHANGES WITH AGING THAT AFFECT NUTRITIONAL STATUS

- ↓ Basal Metabolic Rate
- ↓ Taste Acuity
- ↓ Thirst Reflex
- ↓ Gastric Acid Secretion
- ↓ Nephron Function and Kidney Clearance
- ↑ Thinning of the dermis



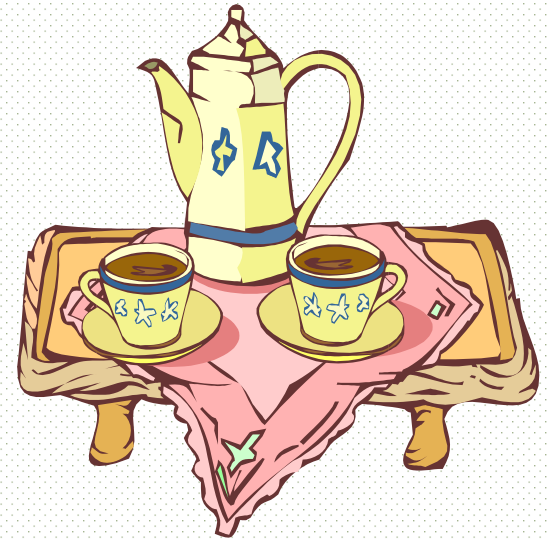
KEY NUTRIENTS OF CONCERN FOR OLDER ADULTS: AVOIDING MALNUTRITION

- **Fluids**
- **Calories**
- **Protein**
- **Fiber**
- **Antioxidants**
- **Vitamin B-12**
- **Vitamin D**
- **Calcium**

H²O.....FLUIDS

–Hydration

- How much is enough?
- Symptoms of dehydration
- Hydration and falls
- Incontinence/
UTIs



CAFFEINE



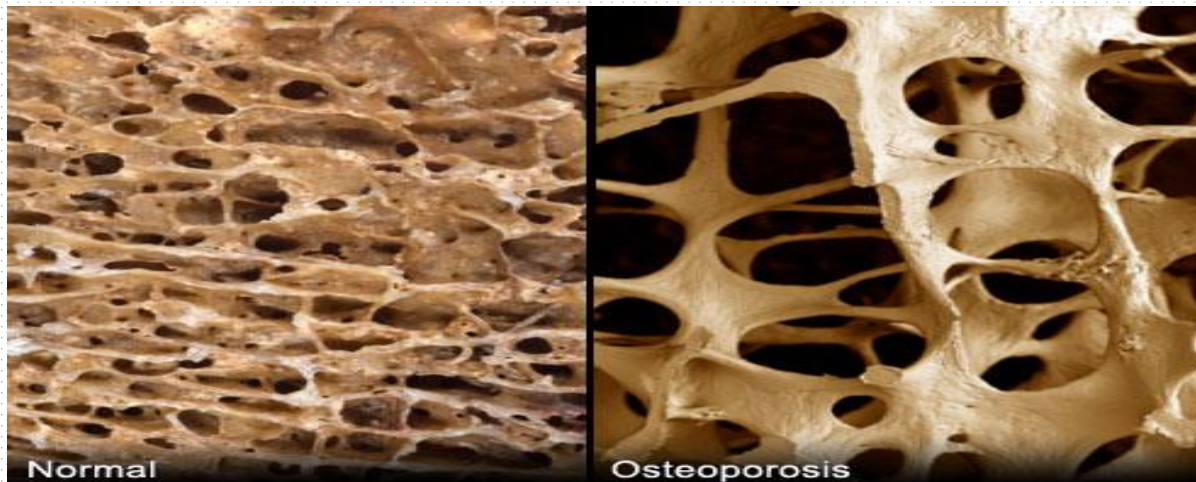
RISKS OF OVERWEIGHT AND OBESITY

- Chronic Disease
 - Diabetes
 - Cancer
 - Heart disease
 - Etc.
- Osteopathic problems
 - Mobility
 - Attendant care



CAN BEING UNDERWEIGHT BE A PROBLEM?

- Risk of osteoporosis
- Strength and endurance
- Rapid weight loss associated with mortality



ROLE OF GUT BACTERIA



MANAGING OUR MICROBIOME

Insoluble fiber: *grains, beans*

- *Bulking effect to move food through the colon*

Soluble fiber: *fruits and vegetables*

- *Aides digestion by increasing bacteria in the gut*
- *Adds water to feces*

We need both types!!!

TYPE 2 DIABETES AND DEMENTIA

- **Dementia called “Type 3”, or Brain Diabetes**
- **Due to visceral fat deposits so more dangerous during middle age**
- **Does insulin repair or destroy?**
 - Insulin appears to protect synapses
 - Competes with enzymes that break down beta-amyloid plaques?
 - Really due to C/V risk?

PROTEIN NEEDS FOR SENIORS

- Need muscle strength to stop falls
- How much? 1.0-1.2 gms/kg
- About 6 ounces of meat or equivalent per day
- Where found?
 - Meats
 - Eggs
 - Fish
 - Dairy
 - Legumes
 - Nuts



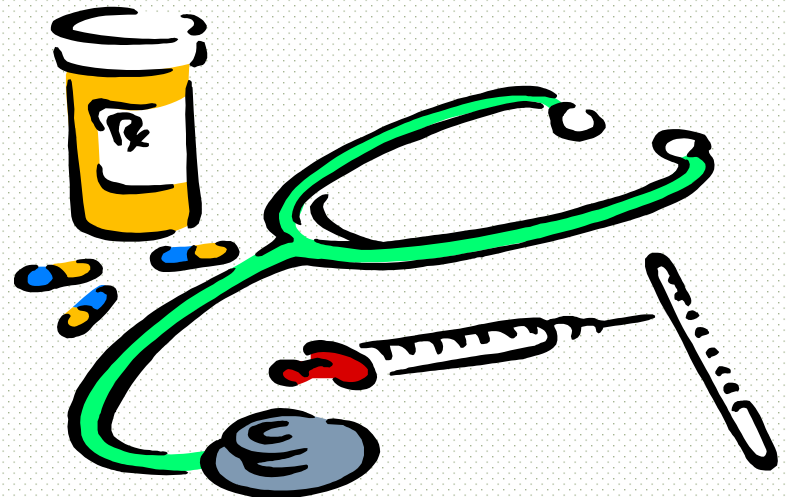
CALCIUM

- Sources
- How much is needed?
- Should older adults take supplements?

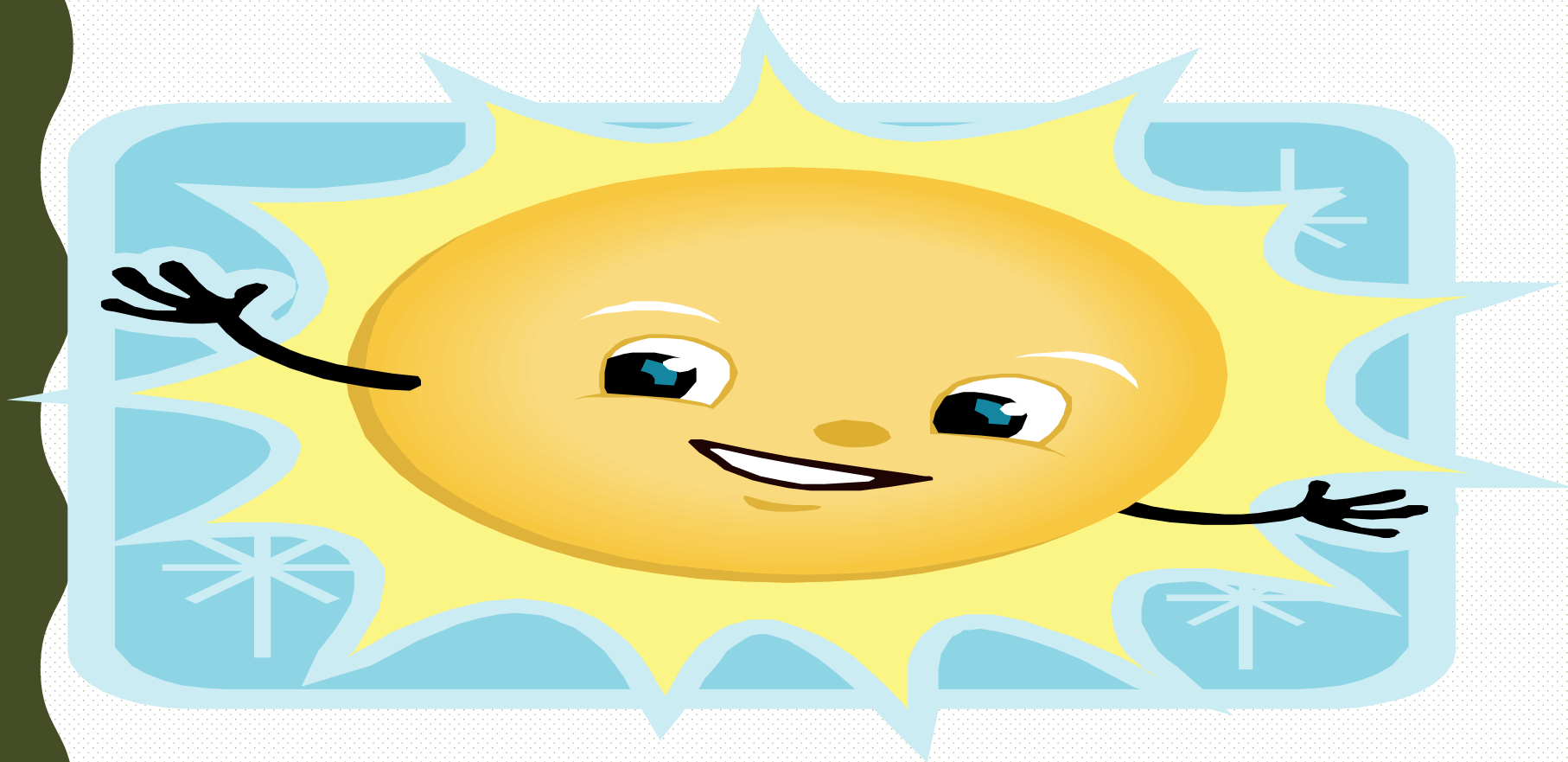


DISEASE PREVENTION AND VITAMIN D

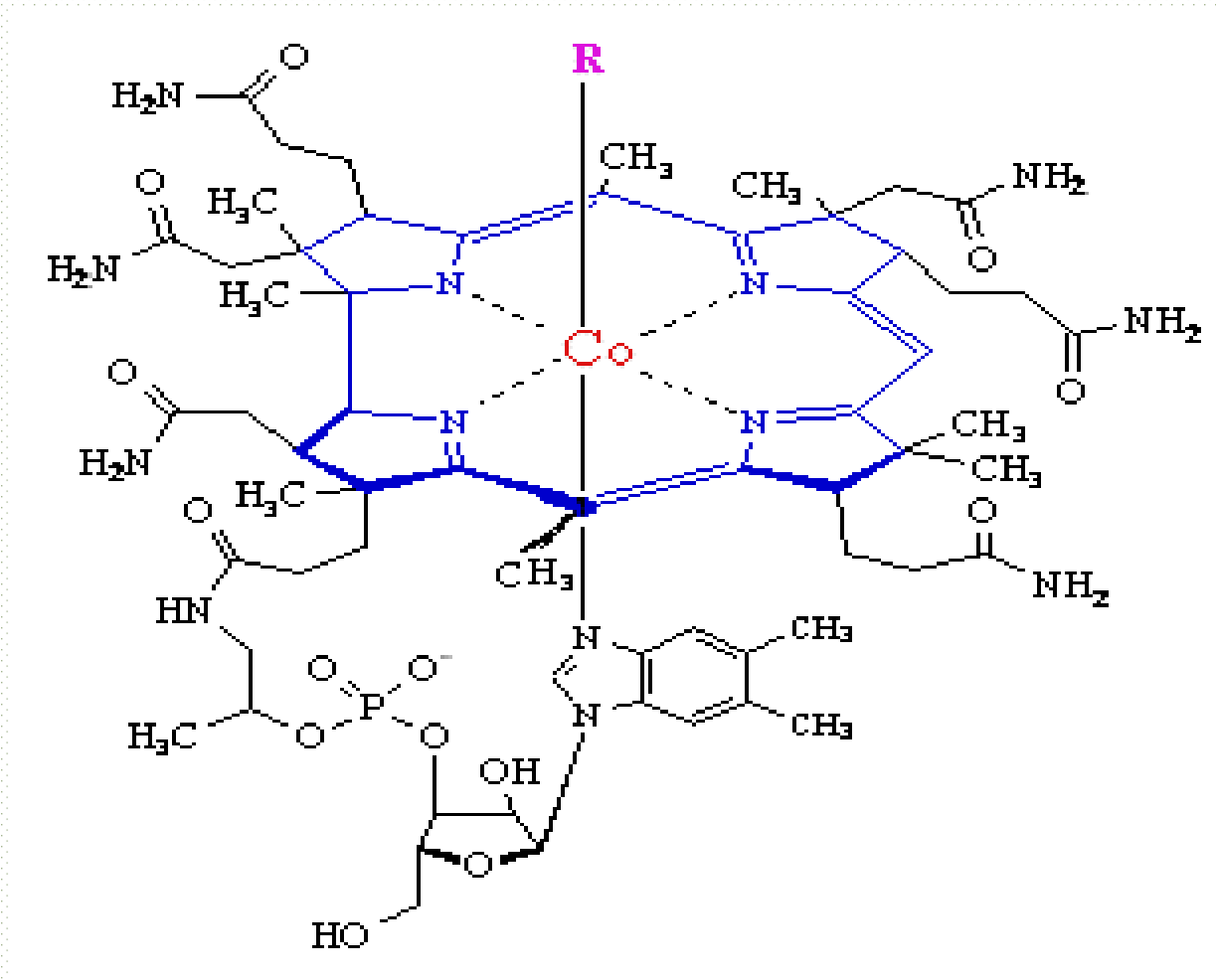
- Osteoporosis
- Muscle Weakness
- Cancers
- Autoimmune disease
- Hypertension
- Fall prevention?



HOW MUCH VITAMIN D?



VITAMIN B-12



CAUSES OF B-12 DEFICIENCY

- **Pernicious anemia/ Autoimmune disease**
- **Food-bound vitamin B-12 malabsorption**
- **Atrophic gastritis**
- **History of ulcers**



RECOMMENDATIONS FOR OLDER ADULTS: B-12

- **Food and Nutrition Board recommends that all adults over 50 years of age get most of their RDA (2.4 mcg) from fortified foods or supplements**
- **Many experts recommend 100-400 mcg daily for adults over 65**

ANTIOXIDANTS AND PHYTOCHEMICALS

- Vitamins A, C, E
- Selenium, Zinc
- Carotenoids
- Polyphenols
- Lycopene
- Co-Enzyme Q
- ALA
- Lipoic Acid



**EAT
YOUR
COLORS!!!**

ANTIOXIDANT RESEARCH

- Stabilize “free radicals”
- Free radical damage implicated in...
 - ✓ Cancer
 - ✓ CV Disease
 - ✓ General cognitive decline
 - ✓ Alzheimers
 - ✓ Macular Degeneration and Cataracts

ROLE OF OMEGA-3 FATTY ACIDS

salmon



tuna



anchovies



walnuts



broccoli



edamame

ROLE OF SODIUM

- Increased sodium can result in increased loss of calcium in the urine
- Increased blood pressure in sensitive individuals
- Are there other concerns? Controversy surrounds sodium recommendations



MAJOR NUTRITION-RELATED RISK FACTORS FOR FALLS

- Alcohol intake
- Dehydration
- Protein ??
- Vitamin D??
- Calcium??



SHOULD OLDER ADULTS TAKE SUPPLEMENTS?

- Vitamin D
- Vitamin B-12
- Calcium ?
- Omega 3's ?
- Antioxidants ?



FOOD SAFETY AND OLDER ADULTS

- Lower Immune Function
- Different Agricultural Practices



CAL FRESH EXPANSION: ELIMINATING CASH-OUT



24
HOUR

FITNESS

FITNESS

24
HOUR

FITNESS
QUALITY FITNESS
MEMBERSHIP
KIDZIE DAY
HOT TUBS

WE POINT TO
THE STAIRS

JOIN
NOW!

POINT LO
HANDICAP
TO UPPER
LOCATED
24 HOUR



PHYSICAL ACTIVITY

- Aerobic 3X a week



PHYSICAL ACTIVITY, CONT

- Balance 3X week



PHYSICAL ACTIVITY, CONT.

- Strength 2X week



DOCTOR
RECOMMENDED



Sit and Be Fit™

with Mary Ann Wilson, RPT

ALL - SITTING WORKOUT

1-800-222-2225

Your Everyday Guide
from the National Institute on Aging

Exercise & Physical Activity

Go4Life