Chapter 18 Older Adults, pp. 484-487, 497-498, 506-508 & AND position paper on aging

Key Concepts

Eating and enjoying a varied diet contributes to mental and physical well-being.

Diseases/disabilities are not an inevitable consequences of aging.

Functional status vs. chronological age.

Body composition changes can alter lifestyle & lifestyle alters body composition

“Normal” aging causes inevitable & irreversible physical changes over time

Everyone ages differently

What Counts as Old?

There is no one age that defines “old”

50—Eligibility for AARP

60—Many businesses offer “senior discounts” & age used by the Elderly Nutrition Program

65—Eligibility for full Social Security & Medicare

U.S. Census Bureau uses:

65 to 74 - “young old”

75 to 84 - “old”

85 & older - “oldest old”

Concerns

Cumulative effects of lifelong habits determine nutritional status in old age

Struggle to keep autonomy and independence

Compression of morbidity

Life expectancy

Life span

 Life Expectancy at Birth and at 65

More are living longer

Currently, ~15% are >65

By 2030, ~19% will be >65

Persons ≥85 are the fastest growing group

Life Expectancy

From **Table 18.1** Life expectancies in selected countries, 2017 estimated

Healthy People 2020

Emphasize fitness and health consequences of obesity

Relate to disease prevention and management

Eat more vegetables and whole grains

Nutrition-Related Changes

Body composition changes

Inevitable? Reversible?

LBM  & fat 

Sarcopenia

Weight:  or 

Changing sensual awareness

Taste & smell 

Appetite & thirst become less sensitive

Oral health: chewing & swallowing

Ill-fitting dentures, poor dentition

Nutritional Risk Factors taking action before chronic disease

Risk factors for older adults are:

Hunger, poverty, low food & nutrient intake

Functional disability

Social isolation or living alone

Urban & rural demographic areas

Depression, dementia, dependency

Poor dentition & oral health

Diet-related acute or chronic diseases

Polypharmacy

Minority, advanced age

Screening tool

Dietary Recommendations

Adaptations for older adults:

MyPlate, Tufts University, University of FL

All focus on:

Nutrient dense foods

Adequate fluids

Physical activity that matches functional ability

Diverse audience

Tufts University’s modified food guide for 70+ y.o.

UF MyPlate for older adults

Energy

Maintain weight

Energy needs go down d/t changes in:

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BMR

Hormones

Body composition

Nutrient dense foods

Protein

Often low intakes in inactive, older adults living alone

May need 1 to 1.5 g/kg/d

Nitrogen balance is easier to achieve when:

Protein is high quality

Adequate calories are consumed

Elders participate in resistance exercise

Fluids

Total amount of water decreases with age

smaller margin of safety for staying hydrated

Often consciously limit intake

Combined w/ HTN meds

~1 mL of fluid/kcal consumed, with a minimum of 1500 mL

Nutrients of Particular Concern: altered metabolism with aging

Vitamin A

Toxicity & possible liver damage

Not usually deficient

Vitamin D

Factors that put older adults at risk for deficiency:

Skin changes

Limited exposure to sunlight

2. Institutionalization or homebound

3. Certain medications interfere with vitamin D metabolism

barbiturates, cholestyramine, Dylantin, laxatives

Recommended Dietary Allowances (RDAs) for Vitamin D

Nutrients of Concern: Low Intake

Vitamin E: antioxidant

Vitamin K: bone fractures

Folate, folic acid: homocysteine

Calcium:

Colon CA, ovwt, HTN

Potassium

Magnesium

Deficiency d/t ETOH, malabsorption d/o, DM

B12

Despite adequate intake, ~ 40% of older adults have serum B12 levels

May be d/t HCL & pepsin

Inadequate intrinsic factor production

Synthetic or purified B12 is much better absorbed

Not bound to protein

Food sources: beef, milk & fish

Bound to protein

Fortified cereals and soy well absorbed

Or injections/supplemental B12

Iron Some too much, some too little

Needs after menopause

Most older adults consume excess

Excess iron contributes to oxidative stress

Deficiency may be a problem for some

Blood loss from disease or medications

 acid secretion/antacid use

 calorie intake

Supplements

Diets may be low in: choline, calcium, magnesium, potassium, and vit A, D, E & K

Up to 50% use supps

Some may be harmful

Vit A, E, beta-carotene, calcium, iron

A few may help

B12, folic acid

Drug-supplement interactions

Food Safety

Compromised immune systems

Vulnerable to foodborne illnesses

Leading hazardous practices:

Improper holding temperatures

Poor personal hygiene

Contaminated knives, cutting boards

Inadequate cooking time

When in doubt, throw it out

Considerations for Educational Materials for Older Adults

Larger type size

Serif lettering (such as Times Roman)

Bold Type

High contrasts (black on white)

Avoid blue, green & violet

Non-glossy paper

Reading level of 5th to 8th grade

Stroke & TIA

Reduced cerebral blood flow resulting in:

Deprivation of oxygen & other nutrients to brain -> cell death

Loss of speech, walk, feed self & swallow

Forms:

Ischemia (85% of all strokes)

Hemorrhagic

Prevalence & Etiology

Prevalence

Of adults ≥65, 7% of females & 8% of males have had a stroke

Etiology

Blocked arteries

Easily clotting platelets

Weak heartbeat unable to circulate blood

Risk Factors

Age

Long-term high blood pressure

Family history

African American, Asian, Hispanic

Physical inactivity

Cigarette smoking

Comorbid conditions

Diabetes mellitus

Carotid artery disease

Atrial fibrillation

Sickle cell anemia

Depression

Transient ischemic attacks

Living in poverty

Excessive use of alcohol or drugs

Nutritional Remedies

Same as Dz

More fruit and veggies

Foods with more potassium and less sodium

DASH, Prudent Healthy Diet, Mediterranean Diet

Normalize blood pressure

Reduce overweight & obesity

mainly abdominal fat (VAT)

DASH Diet

From **Table 19.4** DASH effectiveness increases as sodium decreases, but it's not easy to consume <1500 mg

Hypertension

Or on anti-HTN meds

Etiology: not clear

Family history

~20% of cases linked to salt intake

Risk factors

 alcohol consumption

 saturated fat intake

Physical inactivity, overweight & obesity

Smoking

 dietary calcium (maybe K+ & vit D)

Nutritional Remedies

Maintain healthy weight

Reducing sodium to <1500-1800 mg/d

Other recommendations

Moderation in alcohol, if at all

Adequate potassium, magnesium, & calcium consumption

Follow **DASH + exercise guidelines**

Constipation

Definition—no one definition

Abnormal bowel pattern

Etiology—

 muscle strength,

 F/V ( fiber) d/t chewing problem

 thirst/fluids

 fecal bulk d/t less food

 cognition: not recognize urge to defecate

Medications and Dz

Effects—

Anxiety, preoccupation & may exacerbate diverticulitis

Remedies

 dietary fiber, fluids & muscle tone -> “Power Pudding” p. 499

PA

Bereavement / Grief

The loss felt when a long-term relationship changes

Death, dementia, relocation

Stages of the grieving process:

shock & denial, disorganization, volatile reactions, guilt, loss & loneliness, relief, & reestablishment

May divert attention from shopping, meal prep, eating and drinking

Dehydration

Causes:

Decreased thirst

Kidneys’ inability to concentrate urine

Voluntary avoidance of fluids

Seven signs & symptoms

Upper-body muscle weakness

Speech difficulty

Confusion

Dry mucous membranes (nose/mouth)

Longitudinal tongue furrows

Dry tongue

Sunken appearance of eyes

Effects of Dehydration

Effects

Increases HRrest

Susceptibility to UTI

Pneumonia

Pressure ulcers

Confusion, disorientation, dementia

Fecal impaction

Nutritional Interventions for Dehydration

1 ml/kcal w/ minimum of 1500 ml/d

Beverages contribute nutrients + fluid

Tea has flavonoids (antioxidants)

Coffee has small amounts of K+

Milk has calcium, protein, riboflavin, K+, & vitamin D

Cranberry juice may reduce UTI

Fruit & vegetable juices count toward fruit & vegetable servings

End-of-Life Dehydration

Done voluntarily and usually unconsciously

Stops eating & drinking days or weeks before dying

Whether to Tx is less controversial

Reasons for voluntary dehydration

Slows body systems down

Less body fluid production:

congestion, edema, GI/GU action

Causes natural loss of appetite, constipation

Dehydration may increase levels of confusion and drowsiness

Reduces fear and anxiety about dying

Comfort Care:

Ice chips prn

Morphine for pain

Ativan for anxiety

This lets them slip away peacefully