

2020 ACOI BOARD REVIEW

NUTRITION

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A 49-year-old female with diabetes mellitus type

A. < 3 drinks per week

B. < 7 drinks per week

C. <10 drinks per week

D. < 14 drinks per week

E. < 21 drinks per week

Moderate & Severe Etoh Intake

	Moderate	Heavy
Women	< 7/week	< 14/week
Men	<7/week	>14/week

A 47-year-old male with diabetes mellitus type 2 and hypertension presents for a routine examination. He smokes 1 pack of cigarettes each day. The patient diabetes and hypertension are well controlled. He is on a carbohydrate restricted diet and admits to eating plenty of fruits and vegetable. He has heard that vitamins may be good for vision and asks your recommendation about taking a multivitamins. Which of the following would be the most appropriate recommendation for this patient?

- A. Recommend that multivitamin supplements would be unnecessary
- B. Recommend a daily multivitamin
- C. Beta carotene supplement
- D. Vitamin D supplementation
- E. Vitamin E supplementation

Selected Vitamin & Supplement Points

- MVI no proven benefit in most patients with normal diet
- Beta carotene increases risk of lung cancer in smokers
- Vitamin E supplementation potentially increases cardiovascular events

A 58-year-old male with type 2 diabetes mellitus and obesity is being treated with insulin. The patient is currently on a high-carbohydrate diet and is not exercising. The patient's HbA1c is 8.5%.

- A. prescription of phentermine
- B. hypnotherapy
- C. prescription for a low-carbohydrate diet
- D. bariatric surgery
- E. referral to an exercise trainer

Indications for Bariatric Surgery

- BMI > 40
- BMI > 35 with Comorbidities (e.g. DM, HTN)
- Consider for BMI > 30 with difficult to treat DM or metabolic syndrome
- *Bariatric Surgery prevent to result in at least 10% weight reduction and long-term mortality benefits.

PARKINSON DISEASE

LOW-PROTEIN DIET

ALZHEIMER DISEASE

MEDITERRANEAN DIET

REDUCES RISK

CYSTIC FIBROSIS

- 3 MONTH NUTRITIONAL ASSESSMENTS
CONSIDER CHECKING LEVELS FOR VITAMINS A, D, E, K,
IRON, PROTEIN STORES, A1C (AT DIAGNOSIS OR
ANNUALLY)

CHRONIC KIDNEY DISEASE

PROTEIN RESTRICTION APPEARS
FAVORABLE (0.6-0.8G/KG/DAY)

CIRRHOSIS

MONITOR VITAMINS A, D, & E, AND ZINC
SMALL, FREQUENT MEALS WITH BEDTIME SNACKS
ARE EFFECTIVE AGAINST CATABOLISM

GOUT

ENCOURAGE LOW-FAT
DAIRY

EPILEPSY

KETOGENIC DIET (HIGH
FAT/LOW CARBS) BENEFICIAL

CALCIUM OXALATE NEPHROLITHIASIS

AVOID LOW-CALCIUM DIETS (INCREASE EPISODES)

AVOID CHOCOLATE, SPINACH, GREEN/BLACK TEA

PYRIDOXINE (VITAMIN B6) MAY BE HELPFUL

ICU NUTRITION

POSTPYLORIC FEEDING EQUIVALENT TO GASTRIC FEEDING
HARRIS-BENEDICT EQUATION SOMETIMES HELPFUL
25 KCAL/KG/D FOR CALORIES & 2 G/KG/D FOR PROTEIN

CONDITIONS ASSOCIATED WITH WORSE OUTCOMES WITH PARENTERAL
NUTRITION

CANCER PATIENTS

HYPEREMESIS GRAVIDARUM

SEVERELY BURNED PATIENTS

GLUTAMINE SUPPLEMENTATION

ASSOCIATED WITH INCREASED RISK OF
MORTALITY IN VENTILATED PATIENTS
ON MECHANICAL VENTILATION

DYSLIPIDEMIA

<7% SATURATED FATS, DIETARY CHOLESTEROL
CONSUMPTION <200 MG/DAY, PLANT
STANOLS/STEROLS, OATS/FRUITS/LEGUMES

NUTRITION IN PREGNANCY

NUTRIENT	RATIONALE
FISH/SHELLFISH (OR OMEGA-3 FA)	REDUCED RISK OF PRETERM
B12	PROMOTES FETAL GROWTH
CHOLINE	PROPER NEURAL DEVELOPMENT
CALCIUM	DECREASES RISK OF PREECLAMPSIA
IRON	REDUCED RISK OF LOW-BIRTH-WEIGHT. INFANTS AND MATERNAL ANEMIA
FOLATE	PREVENTS NEURAL TUBE DEFECTS

REFEEDING SYNDROME

- Hypophosphatemia is the hallmark (Intracellular movement/ATP)
- Volume Overload is common
- Prevention: Moderation of Calories/Fluid and Judicious Correction of Electrolytes (phosphorous, magnesium, potassium)

BUPROPRION ASSOCIATED WITH TONIC-
CLONIC SEIZURES IN THOSE WITH
EATING DISORDERS

A 58-year-old female alcoholic presents with vi

A. Thiamine

B. Niacin

C. Calcium

D. beta carotene

E. Folic Acid

POSTOPERATIVE NUTRITION IN A BARIATRIC SURGICAL PATIENT

3,6,12 (THEN ANNUALLY): B12, FE, CBC,
CMP, FERRITIN, VITAMIN D, THIAMINE,
FOLATE, PTH

Population	Recommendation	Grade (What's This?)
Use of Multivitamins to Prevent Cardiovascular Disease or Cancer	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the use of multivitamins for the prevention of cardiovascular disease or cancer.	I
Single- or Paired-Nutrient Supplements for Prevention of Cardiovascular Disease or Cancer	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the use of single- or paired-nutrient supplements (except β -carotene and vitamin E) for the prevention of cardiovascular disease or cancer.	I
Use of β -carotene or Vitamin E for Prevention of Cardiovascular Disease or Cancer	The USPSTF recommends against the use of β -carotene or vitamin E supplements for the prevention of cardiovascular disease or cancer.	D

Population	Recommendation	Grade (What's This?)
Community-dwelling, nonpregnant, asymptomatic adults age 18 years and older	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for vitamin D deficiency in asymptomatic adults.	I

Population	Recommendation	Grade (What's This?)
Premenopausal Women	<p>The USPSTF concludes that the current evidence is insufficient to assess the balance of the benefits and harms of combined vitamin D and calcium supplementation for the primary prevention of fractures in premenopausal women.</p> <p>Go to the Clinical Considerations for suggestions for practice regarding the I statements.</p>	I
Men	<p>The USPSTF concludes that the current evidence is insufficient to assess the balance of the benefits and harms of combined vitamin D and calcium supplementation for the primary prevention of fractures in men.</p> <p>Go to the Clinical Considerations for suggestions for practice regarding the I statements.</p>	I
Noninstitutionalized Postmenopausal Women	<p>The USPSTF concludes that the current evidence is insufficient to assess the balance of the benefits and harms of daily supplementation with greater than 400 IU of vitamin D and greater than 1,000 mg of calcium for the primary prevention of fractures in noninstitutionalized postmenopausal women.</p> <p>Go to the Clinical Considerations for suggestions for practice regarding the I statements.</p>	I
Noninstitutionalized Postmenopausal Women	<p>The USPSTF recommends against daily supplementation with 400 IU or less of vitamin D3 and 1,000 mg or less of calcium for the primary prevention of fractures in noninstitutionalized postmenopausal women.</p>	D
Community-dwelling Adults, 65 Years or Older, at Increased Risk for Falls	<p>The USPSTF has previously concluded in a separate recommendation that vitamin D supplementation is effective in preventing falls in community-dwelling adults aged 65 years or older who are at increased risk for falls.</p>	B

SYMPTOM	ASSOCIATED DEFICIENCY
SUBACUTE COMBINED DEGENERATION	VITAMIN B12
WERNICKE-KORSAKOFF	THIAMINE
PELLAGRA (DERMATITIS, DIARRHEA, DEMENTIA, AND DEATH)	NIACIN
CORKSCREW HAIR	VITAMIN C
SKIN DESQUAMATION	RIBOFLAVIN
ECCHYMOSIS	VITAMINS C & K

ANH

Artificial Nutrition and Hydration

Review on Selected Diets

Diet	Indication
DASH	Hypertension
Low-Fat Dairy	Gout
Low Protein	Parkinson's
Ketogenic	Epilepsy
Mediterranean	Alzheimer's (prevention)

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