Nutrition-Focused Physical Exam-Time to Get Physical!

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Learning Objectives
1. Describe the purpose of a nutrition-focused physical exam (NFPE).
2. Discuss etiology-based definition of malnutrition
3. Identify techniques used in the NFPE.
4. List potential abnormal nutritional findings of a NFPE.

I. Nutrition Focused Physical Exam-Getting Started
   1. Role of the registered dietitian
   2. Components of nutrition assessment
   3. Learn the techniques- Inspection, Palpation, Percussion, Auscultation

II. Etiology-Based Malnutrition Definitions
   1. Starvation-related
   2. Chronic disease-related
   3. Acute disease-related
   4. Characteristics

III. Vital Signs
   1. Nutritional implications of blood pressure, pulse, respirations, temperature

IV. Skin
   1. Functions of the skin-protective barrier, regulates temperature, sensory organ, metabolism
   2. Factors affecting skin integrity
      a. age
      b. sun/ultraviolet light
      c. soap/chemical agents
      d. nutrition
      e. medications
   3. Examination of the skin
      a. color (inspect)-four pigments-melanin, carotene, oxyhemoglobin, deoxyhemoglobin
      b. temperature (palpate)-use back of hand
      c. turgor/mobility (palpate)-test for tension, elasticity, tenting
      d. Edeama
         1. accumulation of interstitial fluid
         2. causes-systemic, venous, nutrition
      e. scars/lesions (inspect)
   4. Types of Lesions
      a. Primary lesions-occur as initial spontaneous manifestations of a pathologic process: macule, papule, plaque, wheal, nodule, vesicle, bulla, tumor
b. Secondary lesions-occur as a later evolution or external trauma to a primary lesion: erosion, fissure, keloid, atrophy
c. Ulcers (secondary lesion)- pressure/decubitus ulcers
d. Vascular lesions-Petechia, ecchymosis, spider angioma, hemangioma

5. Vitamin, mineral, deficiencies of the skin
   a. Vitamin C-Scurvy, ecchymosis
   b. Vitamin A-perifollicular hyperkeratosis
   c. Trace elements-zinc
   d. Niacin

V. Examination of Nutrition Support Devices
   a. venous access devices
   b. enteral feeding access devices

VI. Oral and Eye Exam
   1. Assess for moisture, swelling, color, lesions
   2. Nutritional deficiencies- teeth, gums, tongue, lips, eyes

VII. Nail Exam
   1. Inspect for color, shape, curvature, texture, adhesions, lesions, cleanliness
   2. Nail anatomy
      a. nail plate
      b. nail bed
      c. lunula
      d. eponychium
      e. paronychium
   3. Nail disorders and nutritional changes
      a. koilonychias-spoon nails, iron deficiency
      b. beau’s lines-transverse depression at base associated with stress/nail growth interruption
      c. white banding-white bands covering all but distal edge of nail associated with cirrhosis, hypoalbuminemia
      d. blue lunula-excess copper-Wilson’s disease
      e. clubbing-associated diseases

VIII. Hair Exam
   1. Inspect for color, distribution, quantity. Palpate for texture
   2. Nutritional disorders
      - dry, dull hair-PEM, EFA deficiency
      - alopecia-protein, zinc, biotin
      - flag sign-periods of inadequate/adequate nutrition

IX. Abdominal Exam
   1. Specific technique order
   2. Nutritional implications-nausea, vomiting, diarrhea, malabsorption, bowel sounds

X. Chest and Lung Exam
   1. Techniques
   2. Nutritional implications-hydration, malnutrition, energy

XI. Neurological Exam
1. Techniques
2. Nutritional implications - feeding abilities, coordination

XII. SGA
1. Role of NFPE and SGA
2. Functional measures (hand-grip)

XIII. Putting it All Together
1. Interpretation of findings
2. Correlation with other physical exam, history components
3. Development of the nutrition care plan
4. Documentation

References


