

Best Practices in Nutrition Focused Physical Exam

Live Webinar: Wednesday January 12, 2022 (2:00-3:00pm EDT) Convert to your own [time zone](#)

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Description and Speaker:

Are you strategically integrating NFPE in your clinical expertise? Are you using the NFPE findings along with other health screening assessment findings to justify the need for additional laboratory and diagnostic testing? Learn to make clinical connections between NFPE findings for malnutrition, nutrient deficiencies and declining functional status. Prepare to strategically use NFPE findings to determine the need for additional health assessment screenings, laboratory and diagnostic testing.

Join award winning dietitian, **Dr. Mary Litchford, PhD, RDN, LDN** to Discuss Best Practices in Nutrition Focused Physical Exam!

Objectives:

After completing this continuing education course, the learner should be able to:

1. Critique your current level of expertise of NFPE in clinical practice.
2. Examine the interrelationships between malnutrition, declining functional status and sarcopenia as significant factors impacting well-being and quality of life.
3. Identify strategies to incorporate health screening assessments into the comprehensive nutrition assessment.

Disclosure: Dr. Litchford discloses that she is a paid presenter on this topic for Abbott Labs, however, she certifies that no conflict of interest exists for this program.

Professional Approvals:

Becky Dorner & Associates has been a Continuing Professional Education Accredited Provider (NU004) with the Commission on Dietetic Registration since 2002.



This course is intended for: RDNs and CDCESs	CDR Activity Type and Number: Activity Type: 171 Live webinar/175 Recorded Webinar Activity number: 167412 Recorded Webinar: 167413
Course CPE Hours: 1	CDR Level: 3
Suggested CDR Performance Indicators: 4.2.5, 4.2.6, 8.2.2, 10.2.5	

Note: Numerous Other Performance Indicators May Apply.

Expiration Date for Recorded Webinar: December 25, 2024.

Questions? Please contact us at info@beckydorner.com



Best Practices in Nutrition Focused Physical Exam

Mary D. Litchford PhD, RDN, LDN



- National speaker, author, medical-legal expert, consultant to HC providers
 - President, CASE Software & Books
 - Past President of National Pressure Injury Advisory Panel (only the 2nd RDN to ever hold this prestigious position)
 - NPIAP representative to the 2019 Guideline Governance Group (1st RDN to serve on this group)
 - Author of cutting-edge reference books and advanced-level CE courses including:
 - *Laboratory Assessment of Nutritional Status: Bridging Theory & Practice*
 - *Nutrition & Pressure Injuries*
- Available at www.beckydoner.com

Disclosures
Consultant to Prosynthesis Labs and President, Case Software and Books
However, there are no conflicts of interest for this webinar

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Best Practices in Nutrition Focused Physical Exam



Mary D. Litchford PhD, RDN, LDN

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Objectives

- Critique your current level of expertise of NFPE in clinical practice.
- Examine the interrelationships between malnutrition, declining functional status and sarcopenia as significant factors impacting well-being and quality of life.
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Best Practices in Nutrition Focused Physical Exam

Think About Your Plans to Advance Your Practice in 2022...

- New nutrition care delivery system?
- Impact of pandemic on health of clients?
- Impact of new research on diet and disease?
- New ASCEND competencies for dietetic interns?



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New NFPE-Related Competencies for Dietetic Interns
Starting 6/1/2022

Domain 3. Clinical and Client Services:

CRDN 3.2 Conduct nutrition focused physical exams.(unchanged)

CRDN 3.3 Perform routine health screening assessments including measuring blood pressure, conducting waived point-of-care laboratory testing (i.e. blood glucose or cholesterol), initiating pharmacotherapy plans (i.e. insulin management), & administering vaccine injections (flu shots).

CRDN 3.4 Provide instruction for self-monitoring blood glucose, insulin administration and adjusting diabetes medication.

CRDN 3.5 Insert nasogastric or nasoenteric feeding tubes.


CRDN 3.6 Initiate and conduct bedside swallow screenings.

<https://www.eatrightpro.org/-/media/eatrightpro-files/acend/accreditation-standards/sectraft-2022standardsinotrack-4142021.pdf?la=en&hash=C3E2C4DE0DB90DE4DB8C4D0B5E4E7153CB0C62C6A>

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How would you critique your level of expertise doing NFPE in clinical practice?



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Best Practices in Nutrition Focused Physical Exam

Triple D's of NFPE

Do your homework

- Stay current on the Triple D's
- Evidenced-based connections between Diet-Disease-Diagnosis (Nutrition)

Make a list of common Triple D's you see in your practice.

- What do I usually see?
- What might I be missing?

Diet	Disease/Condition	Nutrition Diagnosis Supported by NFPE

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Examples of Triple D's of NFPE

Diet	Disease/Condition	Nutrition Diagnosis Supported by NFPE
Poor quality diet: high in low quality carbs and unhealthy fats	Obesity Type 2 diabetes Impaired cognitive status	Moderate malnutrition/ loss of muscle Nutrition-related anemia Medication-related anemia Alcohol-related micronutrient deficiencies (Vitamins A, D, E, C, B12, thiamine; Minerals Fe, Ca, Zn, Mg)
Low energy, low protein diet	Underweight Hospitalization for acute illness or injury	Dehydration Moderate to severe malnutrition/ loss of muscle Difficulty swallowing

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Optimize NFPE in Your Practice

Use your time wisely

- Use validated malnutrition screening and other health screening tools
- Gathering information from medical record or patient generated documents
- Collaborate with healthcare team members
- Make an initial risk assessment
- Have a plan to weave NFPE into the time available



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Malnutrition Assessment Criteria

Academy/ASPEN Criteria	Global Leadership Initiative on Malnutrition	
Must have 2 criteria. 3 content: acute, chronic, environmental	Phenotypic Criteria (1 or more; severity determined by phenotypic criteria)	Etiologic Criteria (1 or more)
Evidence of reduced energy intake	Weight loss	Reduced food intake or assimilation
Unintended weight loss	Low BMI	Disease Burden/Inflammation
Loss of Fat	Reduced Muscle Mass	
Loss of Muscle Mass	White, 2012	
Fluid Accumulation	Cederlom, 2019	
Reduced Grip Strength		

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NFPE: Skin & Nutrient Deficiencies

Physical Signs

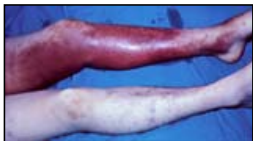
- Skin color
- Pallor, pale lips, mucous membranes
- Fatigue
- Fe, vitamin B12, folate



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NFPE: Skin & Nutrient Deficiencies

- Physical Signs in Skin Appearance Due to Subcutaneous Hemorrhage
- Petechiae (small pinpoint hemorrhages in the skin)
- Ecchymoses, Purpura (large areas of bleeding)
- Ascorbic Acid or Vitamin K Deficiency



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NFPE: Skin & Nutrient Deficiencies

Physical Signs in Skin Appearance Due to:

- Vitamin A Deficiency (impaired night vision)
 - Follicular Hyperkeratosis
- Niacin Deficiency
 - Early & Advanced Pellagra



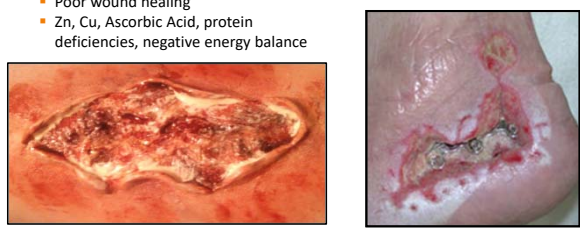
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NFPE: Skin & Nutrient Deficiencies

Physical Signs of Impaired Skin Integrity

- Poor wound healing
- Zn, Cu, Ascorbic Acid, protein deficiencies, negative energy balance



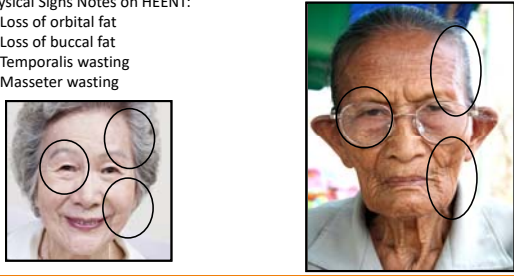
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NFPE: HEENT & Nutrient Deficiencies

Physical Signs Notes on HEENT:

- Loss of orbital fat
- Loss of buccal fat
- Temporalis wasting
- Masseter wasting



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NFPE: Oral Cavity & Nutrient Deficiencies

- Oral cavity
- Corners of mouth
- Teeth
- Gums
- Tongue

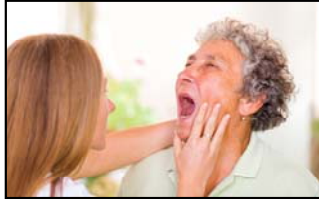


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NFPE: Oral Cavity & Nutrient Deficiencies

- Angular Stomatitis
- Riboflavin Deficiency other B vitamins
- Fe deficiency
- Protein deficiency



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NFPE: Oral Cavity & Nutrient Deficiencies

Poor Oral Health



Signs of Ascorbic Acid Deficiencies



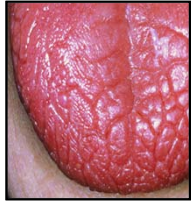
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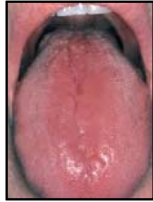
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NFPE: Oral Cavity & Nutrient Deficiencies

Signs of Poor Hydration



Signs of Malnutrition



Folate or B12 Deficiencies

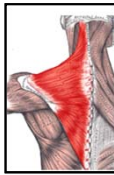


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NFPE: Upper Torso & Nutrient Deficiencies

Evaluate for muscle loss in upper body.

Trapezius subclavius



Deltoids

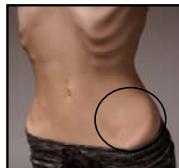


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NFPE: Upper Torso & Nutrient Deficiencies

Evaluate for muscle loss in upper body.

trapezius supraspinatus, infraspinatus, latissimus dorsi muscles



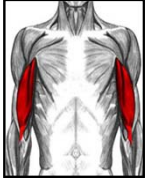
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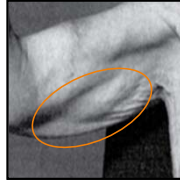
NFPE: Upper Torso & Nutrient Deficiencies

Evaluate for muscle loss in upper body.

Biceps



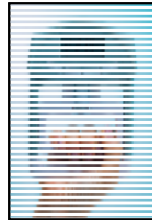
Triceps



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NFPE: Upper Torso & Diminished Function

Muscle Strength- Dynamometer (Hand grip)

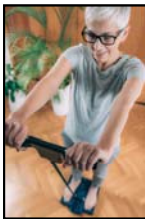


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NFPE: Upper Torso & Manual Muscle Testing

Fitness/strength to meet AADLs

BIA- Measure % muscle gains

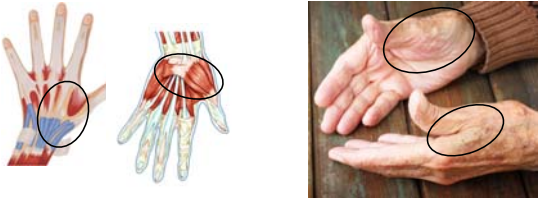


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NFPE: Upper Torso & Nutrient Deficiencies

Interosseus Thenar Prominence



The slide contains three images. On the left, a diagram of a hand shows the interosseus space between the metacarpals, circled in red. In the middle, another diagram shows the thenar eminence, circled in red. On the right, a photograph of an elderly person's hands shows the thenar eminence circled in black.

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NFPE: Upper Torso & Nutrient Deficiencies

- Use your thumb & index finger to judge the interosseus tissue density.



The slide contains two photographs. The left one shows a hand with the thumb and index finger pinching the interosseus space, circled in red. The right one shows a photograph of an elderly person's hand with the interosseus space circled in black.

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NFPE: Upper Torso & Nutrient Deficiencies

- Palpate palm of hand flat & cupped



The slide contains three photographs. The left one shows a hand with the palm circled in red. The top right one shows a hand with the palm circled in black. The bottom right one shows a hand with the palm circled in black.

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NFPE: Nails & Nutrient Deficiencies

- Koilonychia (Spoon Nails)**
 - Fe and protein deficiencies
- Beaus Lines**
 - Malnutrition
- Brown-Gray Nails**
 - Vitamin B12 deficiency



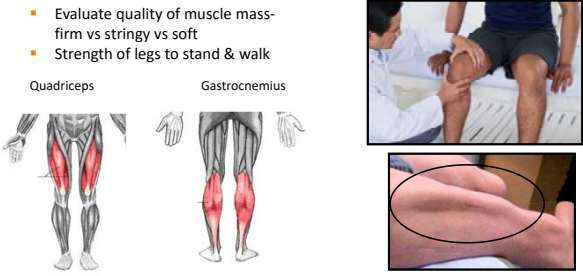
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NFPE: Lower Torso & Nutrient Deficiencies

- Evaluate quality of muscle mass - firm vs stringy vs soft
- Strength of legs to stand & walk

Quadriceps Gastrocnemius




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NFPE: Lower Torso & Nutrient Deficiencies

- Evaluate quality of muscle mass - firm vs stringy vs soft
- Strength of legs to stand & walk

Normal Gastrocnemius Muscle Mass vs Significant Loss



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SARC-CalF

Component	Questions	Scoring		
Strength	How much difficulty do you have in lifting and carrying 10 lbs?	None = 0	Some = 1	A lot or unable = 2
Assistance in walking	How much difficulty do you have walking across a room?	None = 0	Some = 1	A lot, use of aids, or unable = 2
Rise from Chair	How much difficulty do you have transferring from a chair or bed?	None = 0	Some = 1	A lot or unable without help = 2
Climbing	How much difficulty do you have climbing a flight of 10 stairs?	None = 0	Some = 1	A lot or unable = 2
Falls	How many times have you fallen in the past year?	None = 0	1-3 falls = 1	> 4 falls = 2
Calf Circumference	none	< 33 cm females = 10 < 34 cm males = 10		

maximal score of the SARC-CalF is 20 points. A total score of ≥ 11 points indicates the risk of sarcopenia.
Kivimäki-Sieminski, Ruff et al. *Clinical Interventions in Aging*. 2020; 15, 983-994.


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NFPE: Lower Torso & Sarcopenia

Measuring Calf Circumference

- Participant can be standing or seated or lying down
- Calf exposed
- Legs relaxed
- Flat heeled shoes or no shoes
- Use non-stretchable, flexible measuring tape
- Find the largest girth of calf
- Measure the girth of right and left calf
- Widest girth varies from 4-6 inches from mid-point of patella



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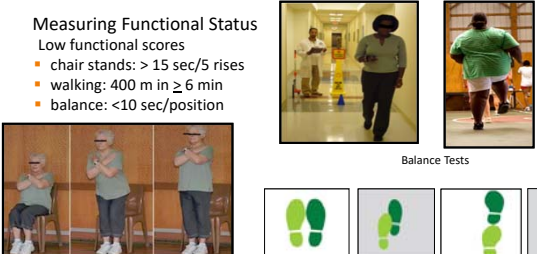
35

NFPE: Lower Torso & Sarcopenia


Measuring Functional Status

Low functional scores

- chair stands: > 15 sec/5 rises
- walking: 400 m in ≥ 6 min
- balance: <10 sec/position



Balance Tests

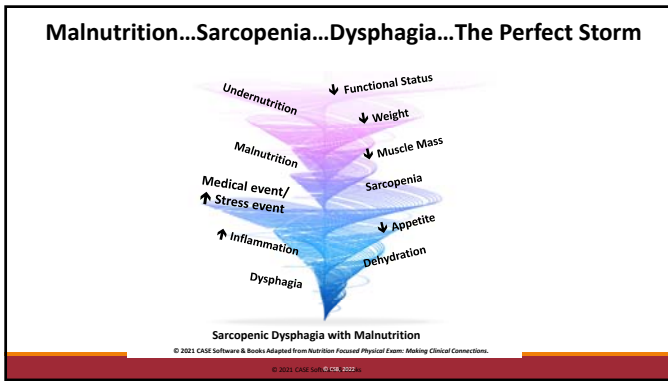


Guralnik, 1994, 1995

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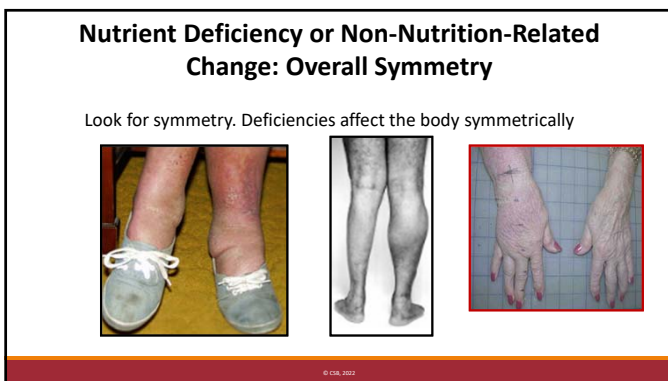
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Health Screening Assessments & NFPE

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Health Screening Assessments & NFPE

1. Get out of your comfort zone! Comfort is the enemy of achievement
2. Make a plan:
 - what you can do in next 30 days
 - what you can do in next 30-90 days
 - what you can do in next 6 months
3. Determine which health screenings your organization is doing now if you do not know. How can you access these findings?
4. Use ASCEND competencies as your guide. Health Screens: SARC-CalF, European Consensus on Sarcopenia(EWGSOP2), Eat-10, Swallowing pre-screen and bedside swallowing screen. Health assessments- BP, point of care blood tests, injections

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Health Screening Assessments & NFPE

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Presenter: Dr. Mary Litchford, PhD, RDN, LDN



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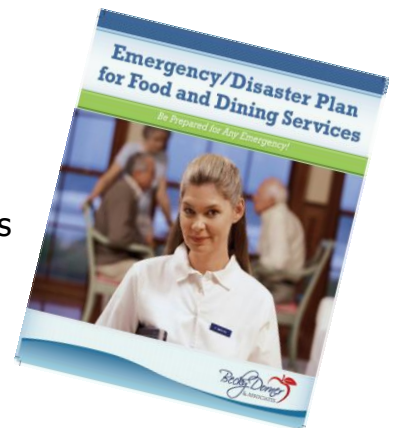
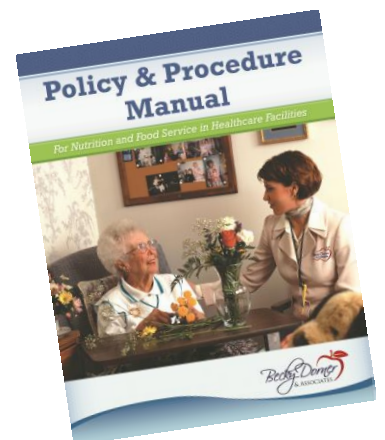
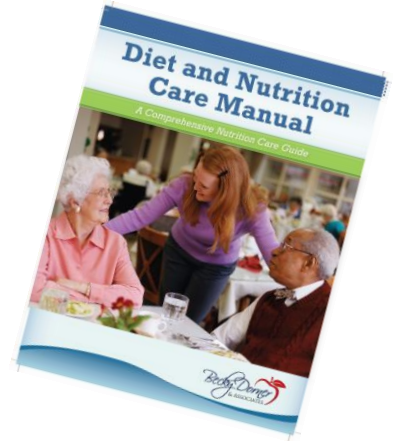
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