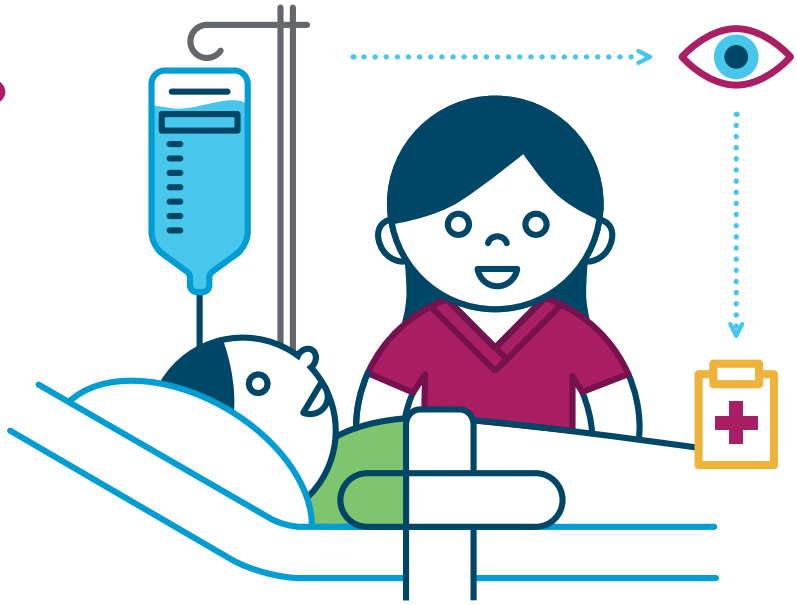
THE NUTRITION-FOCUSED PHYSICAL EXAMINATION (NFPE)

WHAT IS MALNUTRITION?

Malnutrition is defined as an, "acute, subacute or chronic state of nutrition, in which a combination of varying degrees of undernutrition, with or without inflammatory activity, have led to a change in body composition and diminished function." [1-2]

Reviewing the medical chart, and conducting a patient interview are usual starting points in identifying malnutrition; however they lack a physical examination component. The nutrition-focused physical exam (NFPE) provides essential information that the Registered Dietitian Nutritionist (RDN) will use to more accurately identify malnutrition.



THE CRITICALITY OF PROPER MALNUTRITION IDENTIFICATION

Identifying patients with malnutrition early and accurately is critical to support positive clinical outcomes. Malnourished patients have higher health care costs, prolonged hospital stays, and increased rates of hospital readmission.[3-4]

20-50%

OF PATIENTS ARE AT-RISK FOR MALNUTRITION UPON HOSPITAL ADMISSION.[5-7]

ONLY ~7%

OF HOSPITALIZED PATIENTS ARE DIAGNOSED WITH MALNUTRITION, LEAVING MANY OTHERS UNDIAGNOSED AND UNTREATED.[8]

WHAT IS NFPE?

A head-to-toe physical examination used by the RDN as part of their nutrition assessment.

The NFPE requires training and continual practice. This hands-on approach allows the RDN to evaluate for the loss of muscle mass and subcutaneous fat; examine for the presence of fluid accumulation; identify specific nutrient deficiencies through physical appearance and touch; and measure functional status.

WHY USE NFPE?

The NFPE enables RDNs to go beyond the traditional assessment of energy intake and weight loss – it allows for a more comprehensive approach that takes into consideration body fat, muscle mass, fluid accumulation and functional status. Utilizing the NFPE can help to identify the presence and degree of malnutrition in patients and can positively impact key quality measures.[9] In fact, one study conducted by RDNs found that after conducting the NFPE, 393 out of 691 patients were underdiagnosed with the severity (mild, moderate, severe) of their malnutrition.[9]

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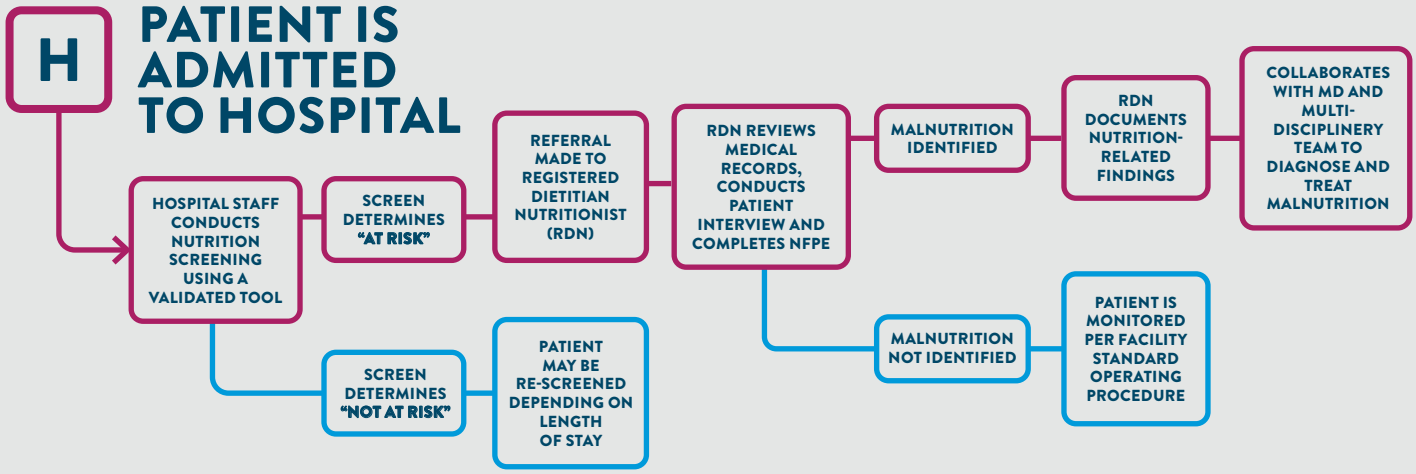
MALNUTRITION IDENTIFICATION PROCESS



CHARACTERISTICS OF MALNUTRITION

The American Society for Enteral and Parenteral Nutrition (ASPEN) and the Academy of Nutrition and Dietetics (AND) worked together to recommend a set of standardized diagnostic characteristics to identify and document adult malnutrition in routine clinical practice.

Your patient may be malnourished if he/she has 2 or more of the following characteristics[10]:

- Insufficient energy intake
- Unintentional weight loss
- Loss of muscle mass
- Loss of subcutaneous fat
- Localized or generalized fluid accumulation
- Diminished functional status (typically measured by hand grip strength)

SEVERITY AND TYPE OF MALNUTRITION: IDENTIFICATION CHART [11]

	ACUTE ILLNESS / INJURY		CHRONIC ILLNESS		SOCIAL / ENVIRONMENTAL	
	NON-SEVERE (MODERATE MALNUTRITION)	SEVERE MALNUTRITION	NON-SEVERE (MODERATE MALNUTRITION)	SEVERE MALNUTRITION	NON-SEVERE (MODERATE MALNUTRITION)	SEVERE MALNUTRITION
ENERGY INTAKE	<75% OF EER FOR >7 DAYS	≤ 50% OF EER FOR ≥ 5 DAYS	<75% OF EER FOR >1 MONTH	≤ 75% OF EER FOR ≥ 1 MONTH	<75% OF EER FOR ≥ 1 MONTHS	≤ 50% OF EER FOR ≥ 1 MONTH
WEIGHT LOSS	1-2% IN 1 WK. 5% IN 1 MO. 7.5% IN 3 MO.	>2% IN 1 WK. >5% IN 1 MO. >7.5% IN 3 MO.	5% IN 1 MO. 7.5% IN 3 MO 10% IN 6 MO. 20% IN 12 MO.	>5% IN 1 MO. >7.5% IN 3 MO >10% IN 6 MO. >20% IN 12 MO.	5% IN 1 MO. 7.5% IN 3 MO 10% IN 6 MO. 20% IN 12 MO.	>5% IN 1 MO. >7.5% IN 3 MO >10% IN 6 MO. >20% IN 12 MO.
SUBCUTANEOUS FAT	MILD	MODERATE	MILD	SEVERE	MILD	SEVERE
MUSCLE MASS	MILD	MODERATE	MILD	SEVERE	MILD	SEVERE
FLUID ACCUMULATION	MILD	MODERATE TO SEVERE	MILD	SEVERE	MILD	SEVERE
REDUCED GRIP STRENGTH	N/A	MEASURABLY REDUCED	N/A	MEASURABLY REDUCED	N/A	MEASURABLY REDUCED

*EER = ESTIMATED ENERGY REQUIREMENTS

Visit anhi.org for a digital copy of this resource, practice case studies, and to view a two part series on the NFPE

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PRACTICE CASE STUDIES:
DETERMINE THE SEVERITY AND TYPE OF MALNUTRITION

PATIENT 1

ADMITTED FOR CONGESTIVE HEART FAILURE

- EER is unknown
- Lost 4% of body weight in 1 month
- Severe muscle loss was identified in clavicle region (pectoralis major) and within shoulder region (deltoid)
- Handgrip strength is measurably reduced from last physician appointment 1 month ago
- Severe fluid accumulation was documented

PATIENT 2

ADMITTED FOR ACUTE PANCREATITIS

- Patient has consumed 60% of EER for 8 days and has lost 1% of body weight in 1 week
- Mild subcutaneous fat loss was identified in the thoracic and lumbar region (ribs, lower back and mid-axillary line)
- No fluid accumulation was documented

ANSWER (PATIENT 1): Severe Chronic Malnutrition

ANSWER (PATIENT 2): Mild/Moderate Acute Malnutrition

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