



Enhanced Nutritional Care for Cerebrovascular, Frail and Chronic Disability in Rehab Achieving Better Care for Patients

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Objectives

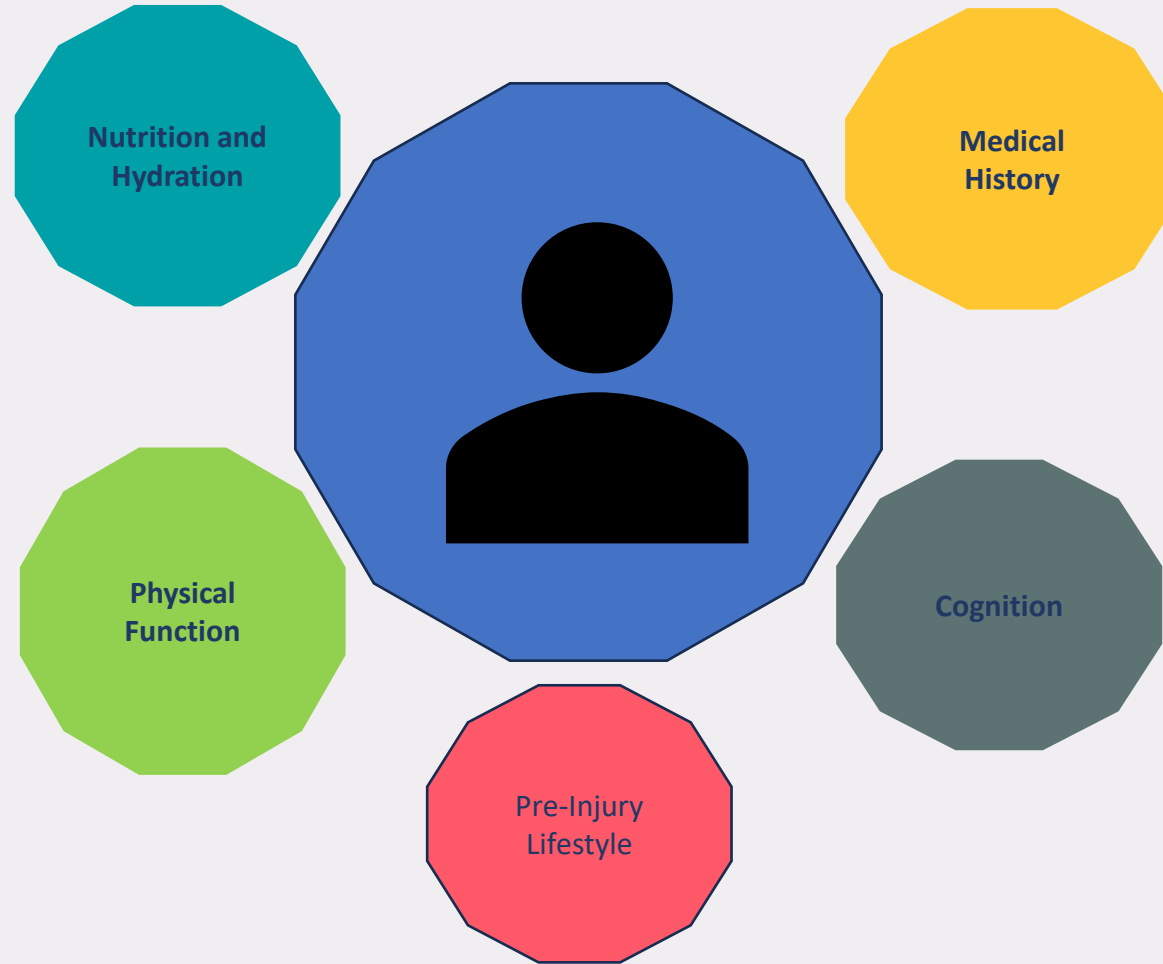
Identify Barriers to Nutritional Intakes

Criteria and Causes of Malnutrition

Describe clinical dietary recommendations

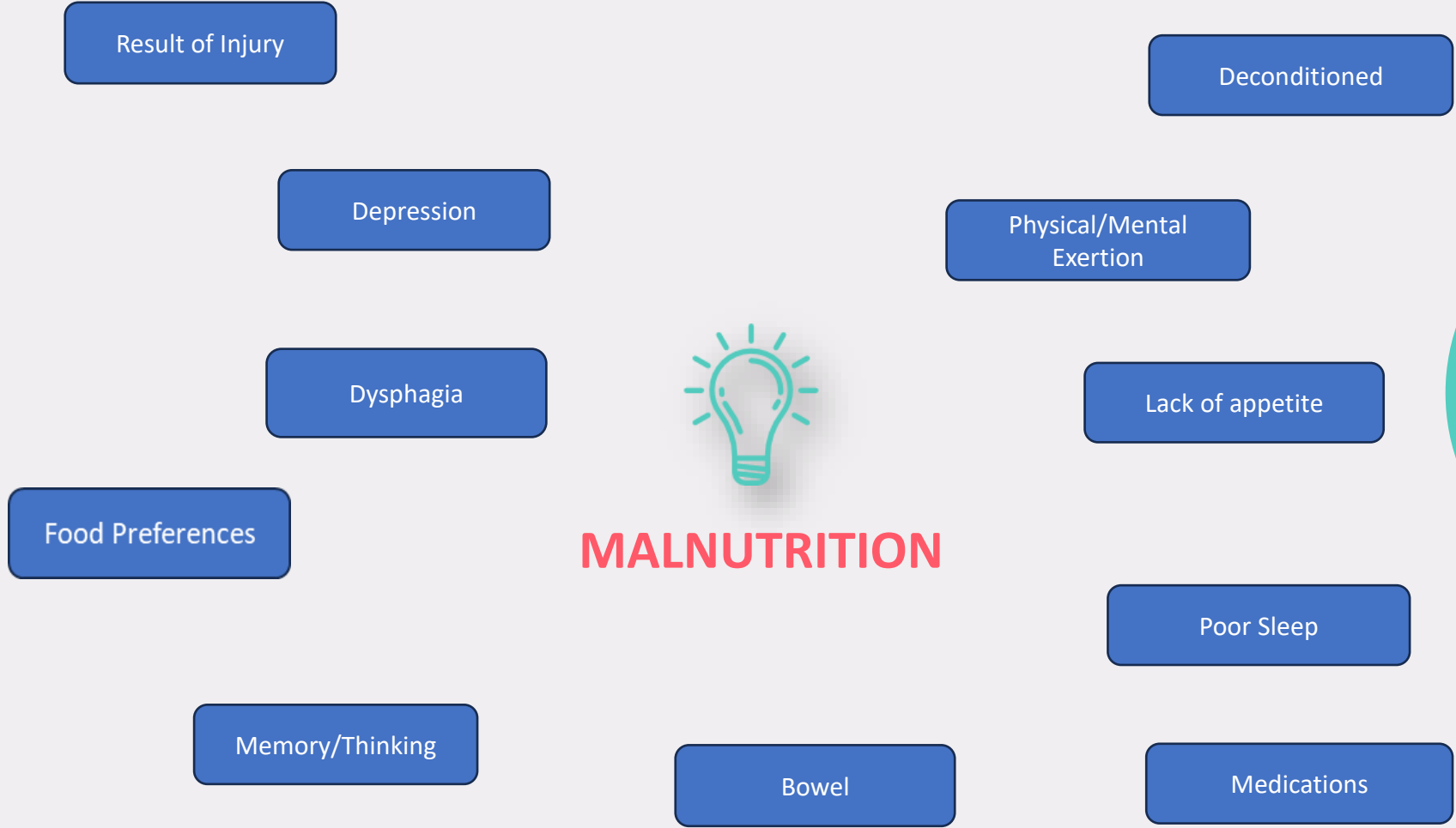
Analyze and make nutritional recommendations for patient

Nutrition after a stroke is Complicated



Nutritional Barriers

- Tips and Strategies
- Case Study
- Nutritional Strategies
- Physical Function



- Nutrition and Hydration Status
- Overview

Did you KNOW

WITH
2018
HCUP
DATA

MALNOURISHED HOSPITALIZED PATIENTS ARE ASSOCIATED WITH

POORER OUTCOMES

Malnourished Patients Have:

**3.4x
HIGHER**
In-Hospital Deaths
Than Those
Without Malnutrition



**1.9x
LONGER**
Hospital Stays
Than Those
Without Malnutrition



**2.0x
HIGHER**
Discharge Rates
to Long-Term Care or
Rehab Facilities



**1.4x
HIGHER**
Need for Home
Health Care
Services



Tips and Strategies

Case Study

Nutritional
Strategies

Physical Function

Nutrition and
Hydration Status

Overview

Aspen

Criteria for Malnutrition

Diagnosis	Severe Protein Calorie Malnutrition			Malnutrition of Moderate Degree		
	Acute Injury/ Illness	Chronic Illness Environmental	Social/ Behavioral/ Circumstances	Acute Injury/ Illness	Chronic Illness Environmental	Social/ Behavioral/ Circumstances
Criteria (at least 2 must be present)						
Weight loss	>2% x 1 week, >5% x 1 month, >7.5% x 3 months	>5% x 1 month, >7.5% x 3 months, >10% x 6 months, >20% x 12 months	>5% x 1 month, >7.5% x 3 months, >10% x 6 months, >20% x 12 months	1-2% x 1 week, 5% x 1 month, 7.5% x 3 months	5% x 1 month, 7.5% x 3 months, 10% x 6 months, 20% x 12 months	5% x 1 month, 7.5% x 3 months, 10% x 6 months, 20% x 12 months
Energy Intake	<50% energy intake compared to estimated energy needs ≥ 5 days	<75% energy intake compared to estimated energy needs ≥ 1 mo.	<50% energy intake compared to estimated energy needs ≥ 1 mo.	<75% energy intake compared to estimated energy needs > 7 days	<75% energy intake compared to estimated energy needs ≥ 1 mo.	<75% energy intake compared to estimated energy needs ≥ 3 mo.
Body fat	Moderate depletion	Severe depletion	Severe depletion	Mild depletion	Mild depletion	Mild depletion
Muscle mass	Moderate depletion	Severe depletion	Severe depletion	Mild depletion	Mild depletion	Mild depletion
Fluid accumulation	Moderate to Severe	Severe	Severe	Mild	Mild	Mild
Corresponding ICD-10 Code	E43 Unspecified severe protein-calorie malnutrition	E43 Unspecified severe protein-calorie malnutrition	E43 Unspecified severe protein-calorie malnutrition	E44 Moderate protein-calorie malnutrition	E44 Moderate protein-calorie malnutrition	E44 Moderate protein-calorie malnutrition

The Academy Malnutrition Work Group, the A.S.P.E.N. Malnutrition Task Force, and the A.S.P.E.N. Board of Directors. "Consensus Statement: Academy of Nutrition and Dietetics and American Society for Parenteral and Enteral Nutrition: Characteristics Recommended for the Identification and Documentation of Adult Malnutrition (Undernutrition)." *Journal of Parenteral and Enteral Nutrition* (2012): 275-283.

Malone, Ainsley, and Hamilton, Cynthia. "The Academy of Nutrition and Dietetics/The American Society for Parenteral and Enteral Nutrition Consensus Malnutrition Characteristics: Application in Practice." *Nutrition in Clinical Practice* Dec. 2013: 639-650.

Tips and Strategies

Case Study

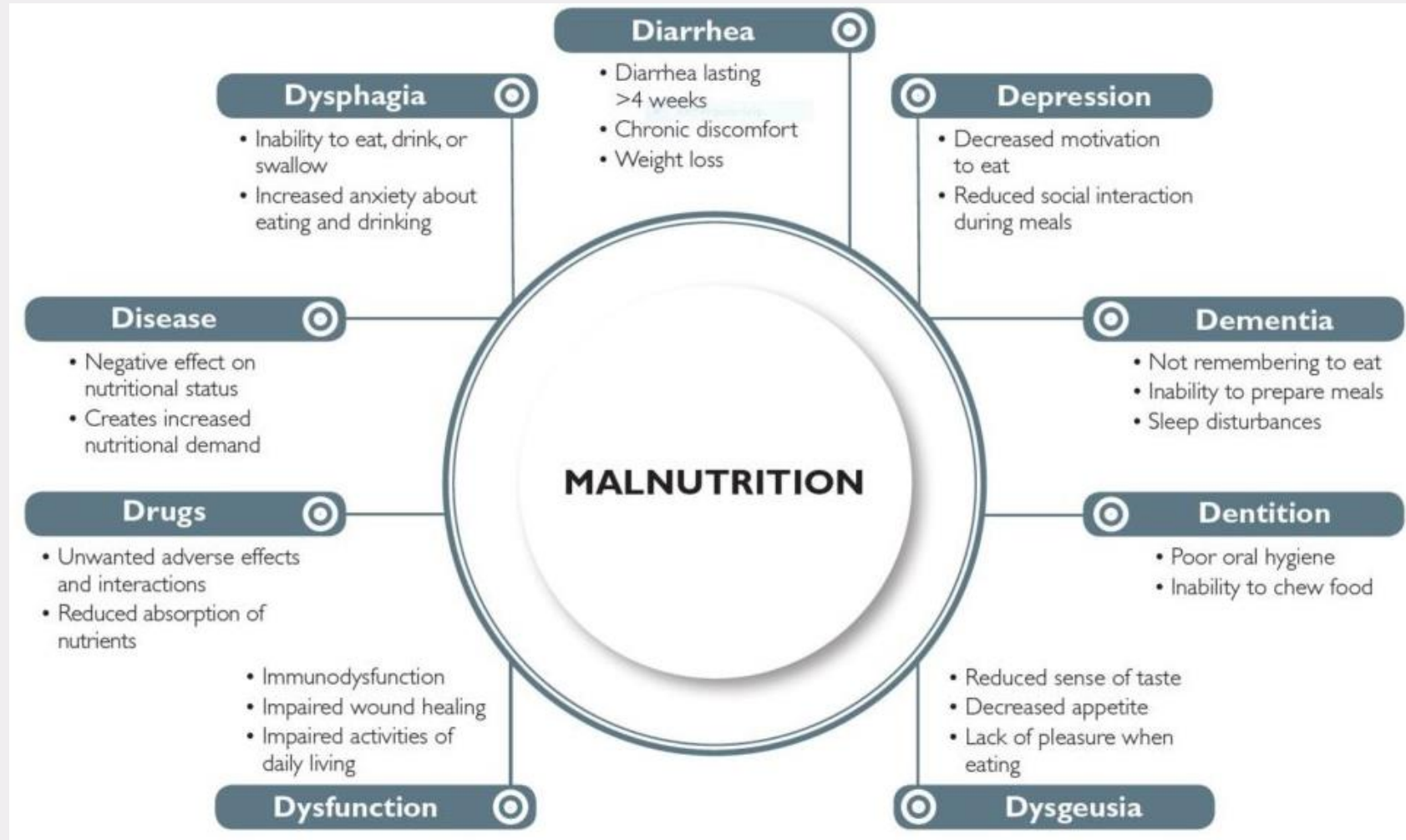
Nutritional Strategies

Physical Function

Nutrition and Hydration Status

Overview

Causes of Malnutrition



Tips and Strategies

Case Study

Nutritional Strategies

Physical Function

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Physical Function

Tips and Strategies

Case Study

Nutritional
Strategies

1



Paralysis

Face
Limbs
Foot Drop
Spasticity
Changes in Sensation
Incontinence

2



Brain

Dyspraxia
Aphasia
Dysphasia
Spatial Neglect
Vision

3



MInd

Problem-solving
Attention
Orientation/Perception
Behavioral Changes
Difficulty Sleeping

Physical
Function

Nutrition and
Hydration Status

Overview

Nutritional Strategies

Bowel Regularity

Provide both soluble/insoluble fiber

- Soluble- forms gel which helps to regulate both constipation/diarrhea
- Insoluble- bulk forming helping constipation

Psyllium husk- most effective to help both constipation and diarrhea

Maintain Fluids

Tips and Strategies

Case Study

Nutritional
Strategies

Physical
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Nutritional Strategies

Dehydration

Provide moist foods, such as stews or foods with sauce

Provide at least 8 to 10 cups of fluids daily.

Mouth care

Tips and Strategies

Case Study

Nutritional
Strategies

Physical
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Nutritional Strategies

Low Intakes

Liquid Supplements

ASK, HONOR, AVOID

Multiple small snacks/meals

Remind persons of meal/snack time

Limit noise and activity

Identify hunger/awakens

Appetite Stimulant

Nutritional
Strategies

Physical
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Tips and Strategies

Case Study

Nutritional Strategies

Texture Modifications

Presentation

Fortification

Flavor/Taste

(IDDIS)



Nutritional Strategies

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Supplements

B vitamins	Important role in brain function
Vitamin D	Neuromuscular, neuroprotective, and osteoprotective roles
Vitamin C	Antioxidant
Protein/Amino Acid	Enhance muscle protein synthesis and increases anabolic activity

Tips and Strategies

Case Study

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Overview



M.K is a 74-year-old Silicon woman who is being transferred to the rehabilitation unit 2 weeks after ischemic stroke. M.K. is currently on a minced diet and being fed meals in her room. M.K is accompanied by her daughter, who expresses frustration that her mother “just will not eat”.



Patient History:

M. K. goes to bingo x3/week, attends church weekly, and enjoys playing league pickle ball.



Objective Data:

Height: 5'4

Weight: 150lbs

BMI: 25.9

Patient lost 10lbs in the past two weeks since being in hospital. Patient can follow directions but has difficulty expressing herself. M.K. complains of coughs and choking periodically when eating or drinking. A barium swallow test was performed to rule out dysphagia and the test results found that patient required thickened and pureed food. Patient reports unresolved complaints of constipation, extreme fatigue from walking, weakness, frustration when communicating with others.



Subjective: Daughter states she is very concerned for her mother due to losing weight since the stroke. Daughter states her mother has a good appetite and loves to snack.

Case Study

Nutritional
Strategies

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Achieving Better Outcomes

Early assessment

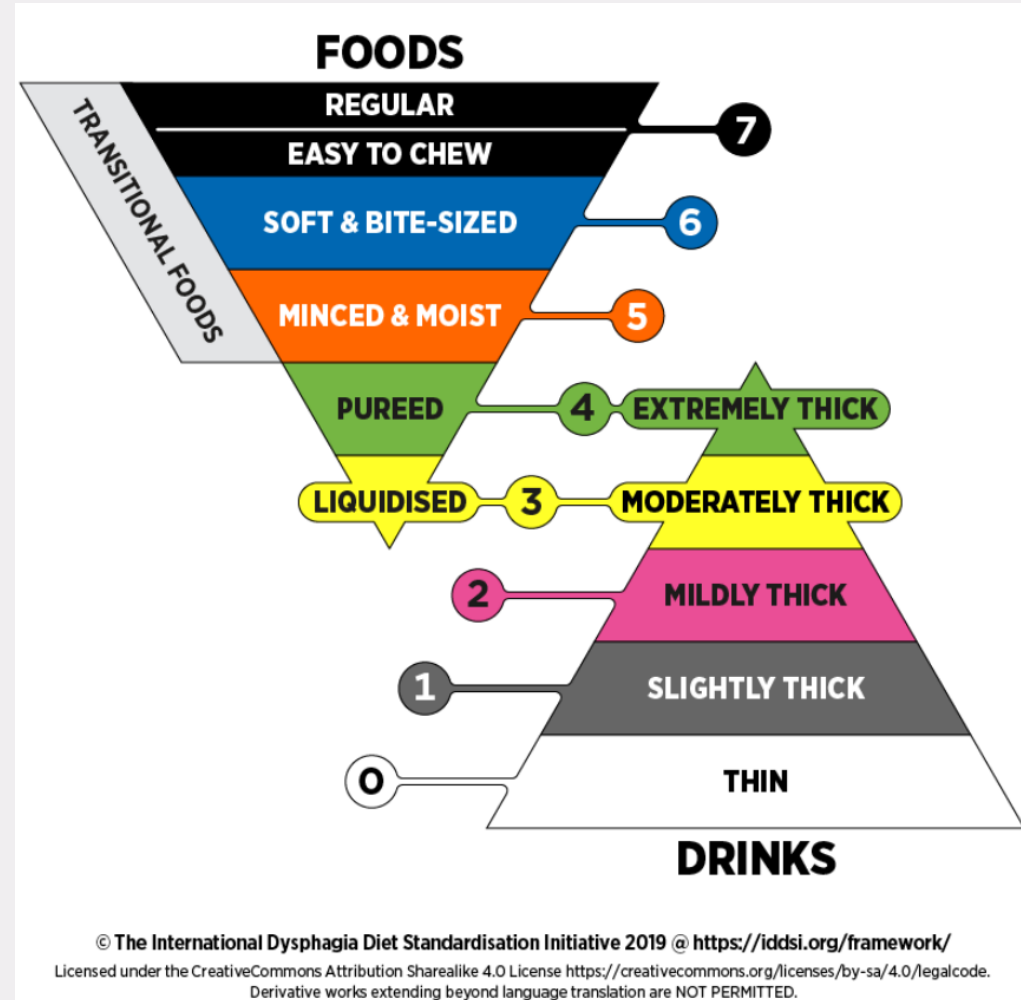
Become a Malnutrition Detective

Involve multidisciplinary team

Meet the Standards

Treat incontinence

Address dietary interferences



<https://iddsi.org/Framework>



Literature Review

https://www.nutritioncare.org/guidelines_and_clinical_resources/Malnutrition_Solution_Center/

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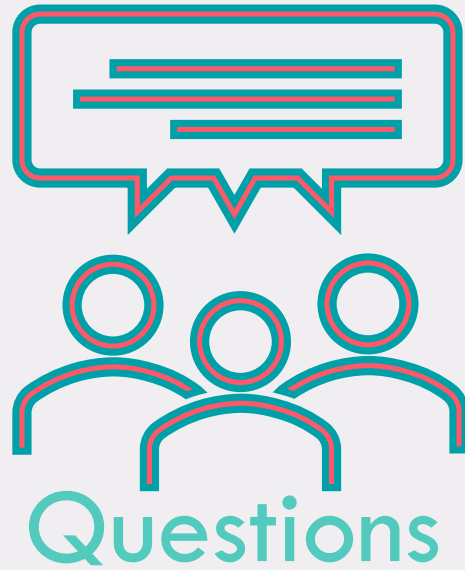
<https://eatrightinternational.org/wp-content/uploads/2019/09/8-28-malnutrition-changing-landscape-1.pdf>

[Nutritional Supplementation in Stroke Rehabilitation: A Narrative Review - PMC \(nih.gov\)](#)

Recent Advances in Clinical Nutrition in Stroke Rehabilitation <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8953342/>

Nutrition in Post-Stroke Subjects during Rehabilitation <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10180945/>





Thank You

AZRN

Association of Rehabilitation Nurses

