# https://connect.chw.org/-/media/intranet/employee-resources/images/at-a-glance/CW-logos/Logo_for_EmailSignature.ashx?la=en**Children’s Wisconsin Clinical Nutrition Department**

# Module Growth Assessment:

# Growth assessment

# Malnutrition

# Nutrition Focused Physical Exam (NFPE), MUAC, HGS

**How to use this module:**

* Complete required readings/videos and have learner print out growth charts for use during the growth assessment module worksheet
* Complete pre-tests prior to viewing each module PowerPoint
* Following the PowerPoint have learner complete any case study application breaks included in the module
* Learner to repeat pre-test again
* Content expert to answer outstanding questions

**Required Readings:**

1. **Growth assessment**

* *ADA Pocket Guide to Pediatric Nutrition Assessment*. Leonberg. Chapter 3: Anthropometric Measurements
  + *MKE: Located in the Clinical Nutrition Resource Library*
  + *NE: Located in the 3rd floor NICU RD office*
  + [*Online version*](file:///Q:\Clinical%20Nutrition\Resource%20check-out%20list.xlsx)
* [Measurement and Documentation of Physical Growth P&P](https://pnp.chw.org/_layouts/15/WopiFrame.aspx?sourcedoc=/Patient%20Care%20Published1/Measurement%20and%20Documentation%20of%20Physical%20Growth.docx&action=default&DefaultItemOpen=1)
* [Determining Ideal Body Weight (IBW)](https://connect.chw.org/-/media/DocumentLibrary/Policies-and-Procedures/Determining-Ideal-Body-Weight-IBW.ashx)
* Growth charts (used with worksheet)
  + [*CDC BMI boys*](file:///Q:\Clinical%20Nutrition\Resource%20Binder\Growth%20Charts\CDCBMIboys.pdf)
  + [*CDC BMI girls*](file:///Q:\Clinical%20Nutrition\Resource%20Binder\Growth%20Charts\CDCBMIgirls.pdf)
  + [*CDC Stature for age boys*](file:///\\C1FILPWS01\Shared\Clinical%20Nutrition\Resource%20Binder\Growth%20Charts\CDCstatureforagewtforageboys.pdf)
  + [*CDC Stature for age girls*](file:///Q:\Clinical%20Nutrition\Resource%20Binder\Growth%20Charts\CDCstatureforagewtforagegirls.pdf)
  + [*WHO length for age weight for boys*](file:///Q:\Clinical%20Nutrition\Resource%20Binder\Growth%20Charts\WHOlengthforagewtforageboys.pdf)
  + [*WHO length for age weight for girls*](file:///Q:\Clinical%20Nutrition\Resource%20Binder\Growth%20Charts\WHOlengthforagewtforagegirls.pdf)
  + [*WHO head circumference and weight for length boys*](file:///\\C1FILPWS01\Shared\Clinical%20Nutrition\Resource%20Binder\Growth%20Charts\WHOheadandwtforlengthboys.pdf)
  + [*WHO head circumference and weight for length girls*](file:///Q:\Clinical%20Nutrition\Resource%20Binder\Growth%20Charts\WHOheadandwtforlengthgirls.pdf)

1. **Malnutrition**

* Consensus Statement of the Academy of Nutrition and Dietetics/American Society for Parenteral and Enteral Nutrition: Characteristics Recommended for the Identification and Documentation of Adult Malnutrition (Undernutrition) [consensus statement](file:///Q:\Clinical%20Nutrition\Anthropometrics%20and%20Malnutrition\New%20hire%20competency\2014%20consensus%20statement%20NCP.pdf)

1. **Nutrition Focused Physical Exam**

* NFPE video: [NFPE Video](file:///Q:\Clinical%20Nutrition\Anthropometrics%20and%20Malnutrition\New%20hire%20competency\NFPE%20Video%20@%20CHW.mp4)

**Supplemental Resources:**

* **A) Growth Assessment**
* *Texas Children’s Hospital Pediatric Nutrition Reference Guide.*  11th edition. Chapter 1: Growth and Nutrition
  + *MKE: Located in the Clinical Nutrition Resource Library*
  + *NE: Located in the 3rd floor NICU RD office*
* *ADA Pocket Guide to Neonatal Nutrition*. Groh-Wargo, Thompson & Cox, 2nd edition. Pages 5-16
* [*Pediatric Nutrition Assessment: Anthropometrics to Zinc*. Corkins & Teague. Pages 40-47.](other%20documents%20and%20resources/readings%20for%20module/Pediatric%20Nutrition%20Assessment%20Anthropometrics%20to%20Zinc.pdf)
* [JIT: Knee height measurement](https://connect.chw.org/-/media/DocumentLibrary/Just-In-Time/Knee-height-measurement-using-knee-height-caliper.ashx)
* [*Growth Chart List and Use 2018 version*](file:///Q:\Clinical%20Nutrition\Resource%20Binder\Growth%20Charts\Growth%20Chart%20List%20and%20Use%202018%20version.xlsx)
* **B) Malnutrition**
* [Defining Pediatric Malnutrition: A Paradigm Shift Toward Etiology-Related Definitions](file:///Q:\Clinical%20Nutrition\Anthropometrics%20and%20Malnutrition\Malnutrition\Articles\Defining%20Ped%20malnutrition%20JPEN%202013.full.pdf)
* *Pediatric Nutrition*. Samour & King, 5th edition. Chapter 2: Growth and Maturation and Chapter 4: Malnutrition Related to Undernutrition
  + *MKE: Located in the Clinical Nutrition Resource Library*
  + *NE: Located in the 3rd floor NICU RD office*
* **C) Nutrition Focused Physical Exam**
  + [NFPE in Pediatric Patients](file:///Q:\Clinical%20Nutrition\Anthropometrics%20and%20Malnutrition\Journal%20Articles\NFPE%20in%20Pediatric%20Patients_Corkins%202015.pdf)

**Pre-test/Post-test:**

1. [**Growth assessment**](Pre%20Test%20Mod%20A%20Growth%20Assessment.docx)
2. [**Malnutrition**](Pre%20Test%20Mod%20B%20Malnutrition.docx)
3. [**NFPE**](Pre%20Test%20Mod%20C%20NFPE,%20MUAC,%20HGS.docx)

**Recorded power point with worksheet**

Power point:

1. Growth assessment: [Module A- Growth Assessment + recording.pptx](Module%20A-%20Growth%20Assessement%20+%20recording.pptx)
2. Malnutrition: [Module B- Malnutrition + recording.pptx](Module%20B-%20Malnutrition%20+%20recording.pptx)
3. NFPE: [Module C- NFPE, MUAC, HGS](Module%20C-%20NFPE,%20MUAC,%20HGS%20+%20recording.pptx)

Worksheet:

1. **Growth assessment:** [Growth assessment module worksheet.docx](Growth%20assessment%20module%20worksheet.docx)
2. **Malnutrition:** n/a
3. **NFPE:** n/a

**Case-based application**

1. **Growth assessment**: n/a application breaks throughout module
2. **Malnutrition:** 
   1. Case studies:
      1. [Picky eating](Picky%20Eater.pdf); [picky eating answer key](Picky%20Eater-answers%20(2).pdf)
      2. [Teen](Teen.pdf); [Teen answer key](Teen%20-%20answers.pdf)
      3. [trauma](file:///Q:\Clinical%20Nutrition\Anthropometrics%20and%20Malnutrition\PES%20Statements\Trauma.docx); [Trauma answer key](file:///Q:\Clinical%20Nutrition\Anthropometrics%20and%20Malnutrition\New%20hire%20competency\Malnutrition%20competency%20case%20studies\Trauma%20-%20answers.docx)
      4. [Adult Malnutrition Case study](file:///\\C1FILPWS01\Shared\Clinical%20Nutrition\Anthropometrics%20and%20Malnutrition\Adult%20Malnutrition\Competency\Adult%20Malnutrition%20Competency%20(2).docx) ; [Adult malnutrition answer key](file:///Q:\Clinical%20Nutrition\Anthropometrics%20and%20Malnutrition\Adult%20Malnutrition\Competency\Case%20Study%201%20answer%20key%20(2).docx)
3. **NFPE:** n/a will have hands on training scheduled after this module (for new hires)

**Debriefing with content expert**