



# Nutritional Requirements of Special Populations

# [Modulations]

## ⇒ Fluids:

- ✓ safe supply, use in preparation

## ⇒ Calories:

- ✓ primary sources

## ⇒ Protein:

- ✓ spare for use as protein

## ⇒ Micronutrients:

- ✓ balanced

# Considerations

- ➔ Pre-existing malnutrition
- ➔ Lifecycle stage
- ➔ Disease:
  - ☑ type and stage or severity
- ➔ Medications/treatments:
  - ☑ potential interactions

# [ Children ]

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- ⇒ Pre-existing malnutrition
- ⇒ Age
- ⇒ Disease or injury
- ⇒ Medication interactions

# [ Adults ]

- ➔ Pre-existing malnutrition:
  - ☑ Type: marasmus, cachexia
- ➔ Sex
- ➔ Pregnancy, lactation
- ➔ Activity level
- ➔ Disease and injury
- ➔ Medication interactions

# [ Pre-Existing Malnutrition ]

## ⇒ Marasmus

- ☑ Requires catch-up for calories, protein

## ⇒ Cachexia

- ☑ Requires catch-up with emphasis on protein

# [ Lifecycle Stage ]

- ⇒ Newborn, toddler, adolescent
  - ☑ Higher calorie, protein per kg needs
- ⇒ Pregnancy, lactation
  - ☑ Higher calorie, protein, micronutrient needs

# [ Sex Differences ]

## ➔ Men

- ☑ More calories, protein, some micronutrient differences

## ➔ Women

- ☑ Fewer calories, protein than men
- ☑ Higher calories, protein for pregnant, lactating women
- ☑ Altered micronutrient needs in pregnancy, lactation

# [ Activity Level ]

- ⇒ Bed bound:
  - ☑ Declining basal metabolism needs (check goals)
- ⇒ Sedentary, light activity
  - ☑ Additional calories
- ⇒ Moderate activity
  - ☑ Additional calories, protein
- ⇒ Heavy activity
  - ☑ Additional calories, protein, micronutrients likely

# [ Disease or Injury ]

## ➔ Acute

- ☑ More calories and protein with emphasis on protein

## ➔ Chronic

- ☑ Take into consideration baseline nutritional status
- ☑ Maintenance requires emphasis on calories
- ☑ Rehabilitation requires emphasis on protein

# [ Medications ]

- ⇒ Acute disease, injury
  - ☑ Modulation of food types
- ⇒ Chronic disease
  - ☑ Adequate calories, protein for goals and volume tolerances
  - ☑ Considerations for symptom management
  - ☑ Considerations for long-term effects of medications

# Food Basket Calculations

- ➔ Determine goal:
  - ☑ Full food supply or supplemental feeding
- ➔ Enter average family characteristics
- ➔ Enter commodities likely to meet needs
  - ☑ Test needs with percentages met with food basket
- ➔ Enter distribution and time strategy
- ➔ Adjust cost estimates