

A decorative graphic consisting of a thin gold circle on the left side, partially overlapping a horizontal bar. The bar has a gold-to-white gradient and is enclosed in large, stylized brackets: a black bracket on the left and a gold bracket on the right.

Tools to Calculate Dietary Needs

The “Science Behind Jello”

[Dietary Needs: Basics]

- ⇒ Maintenance of adequate body functions
- ⇒ Alterations and special needs
 - ☑ Lifecycle stage, age
 - ☑ Sex, pregnancy/lactation
 - ☑ Disease and injury
 - ☑ Food/nutrition security

General Maintenance

- ➔ Baseline recommendations for comparisons for sex, age, pregnancy/lactation, growth, development...
- ➔ Food and/or supplementation
 - ☑ Old Biz Adage: “find a gap and fill it”
 - ☑ What we think we know
 - ☑ What we don’t know
- ➔ Upper limits and toxicity

[Alterations: Lifecycle]

- ➔ Pregnancy
- ➔ Infancy
- ➔ Childhood
- ➔ Adolescence
- ➔ Adulthood
- ➔ Older adulthood
 - ☑ “Pauses” and other changes

Alterations: Sex, Pregnancy, Lactation

- ⇒ Nutrient needs based on body composition and hormonal differences
- ⇒ Pregnancy increases some needs, challenges nutrient tolerances and immunity
- ⇒ Lactation increases needs for energy, protein, micronutrients

Alterations: Disease/Injury

- ⇒ Malnutrition
- ⇒ Catch-up growth, development
- ⇒ Disease
 - ☑ The body's nutritional response
 - ☑ Blunting effects of chronic disease
 - ☑ Rehabilitating function and volume

Alterations: Securities

- ⇒ Food availability and food choices
 - ☑ Limitations and alternatives yield a variety of quality for nutrients
 - ☑ Current vs. adequate or optimal intake
 - ☑ Supplemental vs. total nutrient needs

[Summary]

- ⇒ Nutritional intervention is both preventive and care/treatment oriented
- ⇒ Calculations for individuals, families, communities, and countries require knowledge of demographic characteristics, what can alter nutrient needs, and availability/choice issues
- ⇒ Basic schemes tailored to targeted areas and populations can be the foundation for estimating nutrient needs