1. Nutrition ABC

A. What is good nutrition?

Good nutrition refers to a healthy status of a person in regard to food consumption. It results mainly from adequate diets respectively the quality of different food products consumed. However, especially health and hygiene factors influence strongly the nutritional status of a person as they have a strong impact on digestion and how the body is able to uptake the ingested nutrients.

> ⓘ **Further information**
>
> - FAO family nutrition guide
> - FAO E-learning centre on nutrition
> - USAID E-learning course on introduction to nutrition
> - SPRING nutrition platform

B. What is malnutrition and undernutrition?

Malnutrition refers to a catch-all term to describe a suboptimal nutritional status. It is little specific as it includes all manifestations of undernutrition and "overnutrition" (i.e. overweight and obesity).

Undernutrition relates to inadequate intake and/or absorption of calories and essential nutrients. To be more precise in regard to causes and manifestations of undernutrition, the following terms are used:

- Acute undernutrition is the result of recent and acute nutrient deficiency. This leads to low weight compared to height (wasting).
- Chronic undernutrition refers to insufficient nutrient intake over time. This leads to low height compared to age (stunting).
- Underweight expresses an unfavorable status of weight compared to age (children) and Body Mass Index (adults).
- Micronutrient deficiency relates to an insufficient intake of vitamins and minerals, e.g. iron and Vit A. Micronutrient deficiency often occur alongside with other undernutrition symptoms.
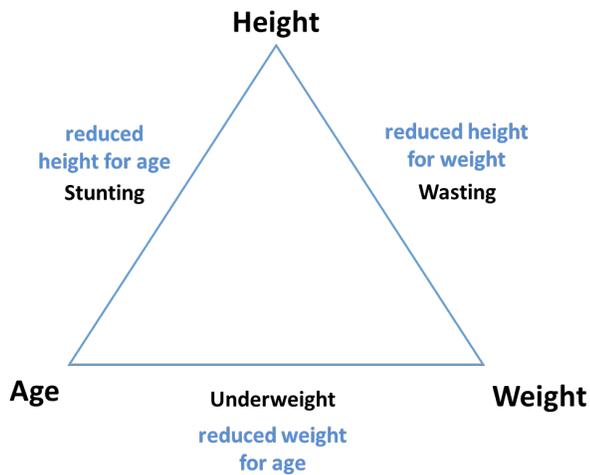
> ⓘ **Further information**
>
> - UNICEF training – Nutrition in Emergencies
> - FAO training - Nutrition, Food Security and Livelihoods: Basic concepts
> - Nutrition and Food Systems Report 2017
> - Global Hunger Index Report 2017
> - UNICEF / WHO / World Bank Group – Levels and Trends in Child Malnutrition 2017
> - 2020 Global Nutrition Report
> - WHO - The state of food security and nutrition in the world 2021

C. How to identify undernutrition?

Measuring the nutritional status refers mainly to three parameters (see figure below): age, size, and weight of a person. Based on these measurements, the following coefficients are calculated:

- Wasting low weight compared to height
- Stunting low height compared to age
- Underweight low weight compared to age

Height

reduced
height for age
Stunting

reduced height
for weight
Wasting

Age   Underweight   **Weight**

reduced weight
for age

In general, micronutrient deficiencies reduce resistance for infectious diseases like diarrhea and pneumonia. Moreover, specific **disease symptoms** express certain micronutrient deficiencies. Most relevant ones are:

- Nightblindness and Xerophthalmia Vitamin A deficiency
- Paleness and extreme fatigue / lethargy Iron deficiency

In the past, and still in many countries, nutrition programs focus on wasting when analyzing the nutritional status of persons. Why? Wasting is more visible than stunting, i.e. skinny children are easily identified, and many countries work with growth monitoring programs that measure only the weight but not the height. Nevertheless, since stunting is a better indicator for undernutrition (see table below), nutrition-monitoring programs are advised to focus on stunting!

Nutritional statistics from NMA countries:

	% Children < 5 years Wasted	% Children < 5 years Stunted
Ethiopia	10	44
Nepal	11	41
Pakistan	11	45
Peru	1	18
Kyrgyz Republic	3	18

Source: The global nutrition report 2015

ⓘ **Further information**

- FAO: MDDS-W - Global Dietary Diversity Indicator for Women
- Global learning. Online course Introduction to nutrition

D. Key target groups: pregnant women and babies – 1000 days approach

The most important target groups in regard to undernutrition are children and women – especially young and pregnant women and babies, respectively children up to the 2nd birthday. The fact is that the 1,000 days from a woman's pregnancy through her child's 2nd birthday is the period when nutrition can have a life-changing impact on a child's future and help break the cycle of poverty! In this period, most organs are developed. Especially the development of the brain is here of greatest importance – having a life-long impact on the intelligence, learning ability, health and productivity of a person!

ⓘ **Further information**

- The 1000 days partnership

E. More relevant information about nutrition

- FAO Food and Nutrition statistics
- Global nutrition report
- Scaling up nutrition (SUN)
- FAO: Global Forum on Food Security and Nutrition
- UN Standing Committee on Nutrition: Agriculture-Nutrition Community of Practice
- WHO: Nutrition health topics
- The State of Food Security and Nutrition in the World - 2017