

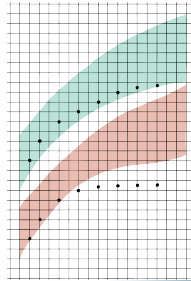
# FAILURE TO THRIVE

## Definition

Weight <2nd %ile + ↓ Velocity of weight gain disproportionate to growth in length

(Due to insufficient usable nutrition)

! For malnutrition, use z-scores for weight-for-length and length-for-age or mid-upper arm circumference



## Sequelae

- Possible risk for long-term developmental deficits (data conflicting)
- Some children may be biologically programmed to be smaller (possible via insulin resistance) → aggressive nutritional intervention may lead to development of metabolic syndrome

## Potential Causes

### Inadequate nutrient intake/availability

#### Not enough food offered

- Food insecurity
- Neglect
- Poor knowledge of child's needs
- Breastfeeding difficulties

#### Child not taking enough food

- Mechanical feeding difficulties
- Oromotor dysfunction
- Developmental delay
- Behavioral feeding problem

### Inadequate absorption/increased losses

#### Malabsorption

- Cystic fibrosis
- Celiac disease
- Food protein intolerance
- Short gut

#### Emesis

- GERD
- Pyloric stenosis
- Malrotation
- Increased ICP

#### Stool losses

- Infectious diarrhea

### Increased metabolic needs/ineffective metabolic utilization

#### Infection

- Congenital (HIV, TORCH)
- Chronic/recurrent (TB, UTI)

#### Metabolic problem

- Inborn errors of metabolism
- Diabetes or adrenal insufficiency

#### Chronic disease

- Endocrine (hyperthyroid)
- Respiratory (BPD, CF)
- GI (IBD)
- Congenital or acquired heart disease
- Rheumatologic (JIA)
- Renal (RTA, renal failure)

#### Genetic syndromes

- Down, Turner

#### Malignancy

## Lab evaluation

! Extensive lab screening is of minimal clinical utility

Consider: CBC, ESR, CRP, UA and UCx, chemistry, LFTs, stool studies