

FAILURE TO THRIVE

DR. IBRAHIM AL AYED

-
-
- Q1: What factors influence / control growth?
 - Q2: How to know that a child is not growing normally?
 - Q3: What causes failure to thrive? How to classify it?
 - Q4: What specific points in history you need to know?
 - Q5: How to approach examination of a child who has growth failure?
 - Q6: What investigations you need to do on a child with failure to thrive?
 - Q7: How to treat children with failure to thrive?
 - Q8: Take home message.

- 1) A 2-month-old male infant is brought for a routine health supervision visit. His mother reports that he cries a lot. He feeds vigorously then regurgitates. The regurgitation is nonbilious and nonprojectile. Findings on physical examination are normal except for the fact that the infant's weight has fallen from the 60th to the 25th percentile for age.

Of the following, the MOST likely diagnosis is:

- A. adrenal insufficiency
- B. cystic fibrosis
- C. gastro esophageal reflux
- D. poor feeding technique
- E. pyloric stenosis

- 2) A 15-month-old girl who was placed in foster care recently has had poor growth over the past 6 months. Her weight is markedly below the 5th percentile for her age and has plateaued since the age of 9 months. Length and head circumference are at the 25th and 50th percentile, respectively. Development is normal, although she still uses a bottle rather than a cup.

The finding in this patient are MOST likely due to:

- A. a chromosomal abnormality
- B. an endocrine disorder
- C. an intrauterine insult
- D. constitutional growth failure
- E. inadequate intake of calories

3) You are examining a girl at her 1-year health supervision visit. Her weight, length, and head circumference all were at the 10th percentile at birth. There were no pregnancy, labor, delivery or nursery complications. Physical examination reveals her weight, length, and head circumference are at the 5th percentile.

Of the following, this child's growth parameters MOST likely represent:

- A. a chromosomal abnormality
- B. a malabsorptive disorder
- C. an endocrine disorder
- D. inadequate caloric intake
- E. normal growth

4) You are evaluation a 6-month-old boy whose length is at the 20th percentile and weight is at the 5th percentile. Review of his growth chart documents the following:

His head circumference has been consistently at the 50th percentile. He was born at term to an 18-year-old single mother. The grandmother is the caregiver while the mother works. He was breastfed for 2 weeks, and his formula was changed twice in the first 4 months. Although he is offered one cereal feeding a day, he does not seem to like it. His mother denies any history of fever, diarrhea, or vomiting.

Physical examination reveals an active, Thin infant who has otherwise normal findings. Of the following, the factor MOST likely to explain this infant's failure to thrive is the:

- A. Family's low socioeconomic status
- B. Infant's difficult temperament
- C. Infant's inadequate caloric intake
- D. Mother's age of younger than 19 years
- E. Participation of multiple caregivers

5) You are evaluating a 2-year-old child for failure to thrive. The dietary history suggests the boy's caloric intake is 100 kcal/kg per day, which is the recommended dietary allowance (RDA) for his age. He has not been vomiting, and he is passing one to two normal bowel movements per day. On physical examination, he appears to be an active, happy, thin toddler. His weight is 10.5 kg (5th percentile), height is 85 cm (25th percentile). There is mild eczema on the cheeks and antecubital fossae. The abdomen is not distended, and other findings are normal.

Of the following, the BEST explanation for this child not gaining weight is that he has:

- A. a food allergy
- B. caloric requirements that exceed the RDA
- C. celiac disease
- D. cystic fibrosis
- E. reflux esophagitis

6) Both the weight and height parameters of a 6-month-old girl have dropped to substantially below the 5th percentile for age. Until 2 months of age, she had maintained growth at the 50th percentile. At that time, her mother returned to work and the grandmother assumed her care. She has received iron fortified formula since birth and currently ingests 6 oz every 4 hours.

Of the following, the best INITIAL step in management of this child is to:

- A. determine how the formula is mixed
- B. obtain a creatinine level
- C. obtain a sweat test
- D. obtain thyroid function studies
- E. reassure the mother that this is a normal growth pattern

7) The best statement which describe infant nutrition that might optimize growth and development is of the following:

- A. preterm and term infants both require 100 to 120 kcal/kg per day of energy to grow.
- B. preterm infants require less caloric intake per kilogram to grow than do term infants.
- C. term infants require 60 to 80 kcal/kg per day of energy to grow.
- D. term infants require 30 to 50 mL/kg per day of fluid intake.
- E. term infants whose birth weights are greater than 2,500 g require more energy per kilogram to grow than those whose birth weights are less than 2,500 g.