Infants and Children

I. Periods of rapid growth
   A. Infancy
   B. Adolescence

II. Brain Growth
   A. 70% in the first three years of life
   B. 90% by age 7

III. Assessing dietary adequacy in children
   A. Accurate anthropometric measurements
   B. Longitudinal charting

IV. Infants: Birth to 4-6 months
   A. Milk based food is primary nutritional source

V. Breast Milk
   A. Composition ideally suited to infant’s needs
   B. Immunological factors are present
   C. Adjustable volume
   D. Hypoallergenic
   E. Lower incidence of GI infections and otitis media?
   F. Fortification may be necessary for premature infants

VI. Formula
   A. Composition mimics breast milk
   B. Cow’s milk or soy based
C. Proteins are heat treated for digestion
D. Parental education to avoid overfeeding and nursing bottle syndrome
E. In some cases, may be the best feeding option

VII. Cow’s milk
   A. Never appropriate for infant’s under 6 month’s of age
   B. Not recommended for infant’s under 1 year
   C. Untreated casein difficult to digest
   D. High renal solute load
   E. GI blood loss

VIII. How much?
   A. 4-6 wet diapers a day
   B. Appropriate growth rate
   C. Let infant indicate satiety

IX. Infants: 4-6 month to 1 year: Introduction of solid foods

X. When
   A. Oral extrusion reflex is extinguished
   B. Infant can sit with support and has head control
   C. Milk feedings are no longer adequate as sole source of nutrients
      1. Iron
      2. Calories

XI. What
   A. Usually iron fortified infant cereal
   B. Additional foods added one at a time
C. Watch for allergic reactions
D. Suspect foods can be reintroduced later unless the reaction was severe

XII. How much
A. appropriate growth rate
B. Child should indicate satiety

XIII. Older children
A. When provided with a selection of healthy foods, can choose a balanced diet
B. Intra-day variety may be limited

XIV. Nutrients of concern
A. Iron
B. Vitamin D
C. Fluoride
D. Calcium

XV. Parental responsibility
A. Role Models
B. Providers

XVI. Case 997: August and Rachel
A. Rachel: Normal 3 month old breast fed infant
B. August: 3 year old obese child with history of failure to thrive

XVII. Past medical History
A. Rachel: Fluoride supplements, exclusively breast fed
B. August
   1. Fluoride supplements
2. Poor feeding and weight gain as an infant

XVIII. Social history

A. Children live with mother and father
B. Mother stays at home with the children
C. August likes to watch TV and play video games
D. Municipal water supply is fluoridated

XIX. Diet History: August

A. Eats 6 times a day
B. Mother must coax to eat at meal times

XX. Diet recall

A. Diet Composition
B. 1908 kcal, 149% RDA

XXI. Treatment

A. Educate parents on appropriate weight gain
B. Alternative food choices
C. Low fat dairy products
D. Exercise