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Reflection 7 - Chapters 15 & 16

Chapters 15 and 16 focused on nutrition from infancy through older adulthood, showing how nutritional needs change throughout the entire lifespan. Chapter 15 covered infancy, childhood, and adolescence, emphasizing how nutrition supports rapid growth and development. I learned how fast infants grow, doubling their birth weight by 4 to 6 months and tripling it by a year, and how their needs for calories, fat, vitamins, and minerals differ from adults. I didn't realize that breast milk provides more than half its calories from fat, which is important for brain and nervous system development. The chapter also explained when and how solid foods should be introduced, as well as the common nutrition issues in toddlers, school aged children, and teenagers, such as iron deficiency, picky eating, and childhood obesity.

Chapter 16 is about adulthood and aging, showing how physiological and lifestyle factors affect nutrition. One idea that stood out to me was the difference between usual and successful aging. Successful aging is the kind where declines occur naturally instead of being due to poor lifestyle choices. This chapter also explained how caloric needs drop with age because of decreases in basal metabolic rate and lean mass, and why older adults struggle with hydration, B-12 absorption, and proper protein intake. The psychosocial side of aging was also important. Isolation, depression, limited income, and mobility issues can all negatively affect dietary intake.

One thing that was new to me in Chapter 15 was how early eating habits can shape long-term health. For example, excessive restriction or poor feeding habits in infancy can actually impact organ and brain development, and early childhood eating patterns can influence

the number of adipose cells a person has later in life. I also didn't know how much soft drinks have displaced milk in teen diets, which can cause calcium and vitamin D deficiencies.

From Chapter 16, something new was how common sarcopenia becomes with age, and how lifestyle choices such as resistance training and proper protein can slow it dramatically. I also didn't realize that nearly 25% of all prescription medications are used by people over 65, and how these medications can interfere with nutrient absorption and appetite.

A challenge in these chapters was keeping track of the different nutrient recommendations for each age group. Infants need high fat and very limited water, toddlers need more iron and calcium, teens need more calcium and sometimes iron (especially girls), and older adults need fewer calories but more nutrient-dense foods. Another challenge was remembering all the physiological changes in older adults, such as reduced HCl, decreased intrinsic factor, loss of taste and smell, and decreased thirst. There were a lot of layers to how aging affects nutrition.

These topics connect to my computer science major more than I expected. As someone entering a field known for long hours, stress, and sedentary habits, understanding how nutritional needs evolve across adulthood is important for my own health. Knowing about sarcopenia, hydration issues, and bone loss can help me avoid problems later in life by building good habits now. The childhood and adolescence material also connects in a practical way. Many CS students will eventually have children, and understanding how feeding patterns influence growth and development is useful long-term knowledge.

If I were teaching these chapters, I would include more case studies that track individuals over time, from infancy through older adulthood, to show how nutritional patterns build on each other. Seeing how early choices affect later health might make the content more memorable.

Overall, Chapters 15 and 16 helped me appreciate how nutrition shapes every stage of life. From rapid infant growth to maintaining independence in old age, the chapters showed how nutritional needs are always changing and how early awareness can improve long-term health outcomes.