

cytotoxically than morning administration.

## **Altered Nutrition**

Altered nutrition is a common side effect of treatment. Continued assessment of the child's nutritional status, child's intake, and energy expenditure must occur throughout treatment. The child's height, weight, and head circumference (for children younger than 3 years old) must be measured routinely during visits to the hospital or clinic. Energy reserves should be evaluated with routine skinfold measurements. Biochemical assays such as serum prealbumin, transferrin, and albumin may be helpful to evaluate nutritional status in some children, but a single assay should not be used alone for a nutritional evaluation ([Lawson, Daley, Sams, et al, 2013](#)). There are no specific criteria that mandate nutritional interventions in children undergoing cancer treatment. Instead each child should have an individualized nutritional care plan based on routine assessments.

Nutritional status is important to maintain because a compromised nutritional status can contribute to reduced tolerance to treatment, altered metabolism of chemotherapy drugs, prolonged episodes of neutropenia, and increased risk for infection.

Supportive nutrition measures include oral supplements with high-protein and high-calorie foods. Ways to increase calories include using whole milk, adding tofu (high in protein) to most meals, and serving full-fat instead of nonfat or low-fat items. Cooking with butter; putting sugar or cheese on foods; and making high-calorie snacks such as trail mix, peanut butter, or dried fruit readily available for the child are other ways to increase calories. Enteral feeding or parenteral hyperalimentation may be necessary when children are unable to maintain the necessary calories to prevent weight loss. [Chapter 20](#) discusses these interventions in more detail.

Despite such approaches, some children still do not eat. Theories to explain persistent anorexia include (1) a physical effect related to the cancer that is nonspecific; (2) a conditioned aversion to food from nausea and vomiting during treatment; (3) a response to stress in the environment, related to eating or to the child's condition; (4) a result of depression; and (5) a control mechanism when so much else has been imposed on the child. When loss of appetite and