Maintenance of adequate nutrition is an integral component of the cancer treatment process. Numerous factors should be considered when evaluating the nutritional status of patients with cancer. A systematic review of the literature revealed the importance of nutrition interventions in patients with cancer who were undergoing chemotherapy. Counseling in nutrition has been shown to improve quality of life, strengthen response to therapy, and increase survival. Lung cancer presents a significant risk as the leading cause of cancer morbidity and mortality in the United States. In addition, nutritional deficiencies are experienced by most adults with lung cancer during the course of their disease and treatment. The deficiencies compound the cost of treatment and also increase morbidity and mortality in this patient population. Further study of nutritional interventions is needed to promote better outcomes and quality of life in patients with lung cancer.