During the past 20 years, an increase in survival among pediatric patients with cancer has occurred, and a need exists to be proactive prior to cancer therapy regarding issues related to fertility. Chemotherapy and radiation can cause a number of deleterious side effects to female patients, including early menopause and its associated side effects of osteoporosis and heart disease as well as the inability to carry a pregnancy to term or conceive a child. Many drugs and fields of radiotherapy are associated with an increased incidence of female reproductive complications. Options are available for the preservation of female fertility, but many are experimental. Of highest importance is the need to counsel female adolescents and young adults before beginning induction chemotherapy or radiation. Nurses play a large part in the information about future fertility that female patients receive before the initiation of cancer therapy. After reading this article, nurses will have a better understanding of the impact of cancer therapy on the female reproductive system and be more comfortable discussing the topic with their patients.