Weight gain and body composition changes are common during the first year after breast cancer diagnosis. Women who are overweight or obese at the time of diagnosis or who gain weight following diagnosis are at higher risk for adverse clinical outcomes. Unhealthy weight conditions, compounded or caused by weight gain after diagnosis, are a considerable challenge for women with breast cancer during and after treatment. Despite the prevalence of weight gain in women with breast cancer as well as its adverse effects, little research has examined preventive and therapeutic interventions targeting reduction of weight and/or body fat. The purpose of this article is to update the state of knowledge on weight gain and body composition changes in women with breast cancer. Current evidence from weight intervention studies, including diet, exercise, and combined approaches for weight loss—or for prevention of weight gain—are reviewed. Along with published practice guidelines, the currently available information provides guidance for oncology nurses on the methods that can impact unhealthy weight conditions associated with breast cancer.