RAND HEALTH

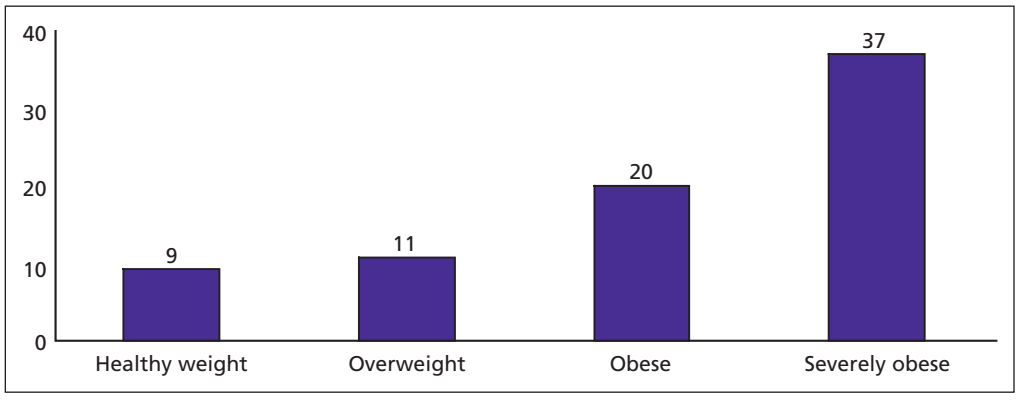
FACT SHEET

Obese Women Receiving Breast Cancer Chemotherapy Are Often Undertreated

Obesity both increases the risk for breast cancer and worsens the prognosis for treatment. The increased risk and poorer prognosis have been attributed to physiological factors, including higher blood levels of the hormone estrogen. However, the difference in prognosis—in terms of cancer recurrence and overall survival—between obese[1] women with breast cancer and their healthy-weight counterparts may actually be the result of inadequate doses of chemotherapy. The dosage of most chemotherapeutic drugs is based on the patient's body surface area, determined from weight and height. Because concerns have been raised about the potential for toxic side effects if chemotherapeutic doses for obese women are increased to account for body weight, some doctors apparently base the doses they give obese women on their ideal weight, even though little evidence exists to support the concerns. By examining the medical files of 9,672 women treated between 1990 and 2001, a newly released study by RAND researchers sought to confirm whether obese women are in fact systematically undertreated for breast cancer. Their findings:

- Obese and overweight women received intentionally reduced doses of chemotherapy for breast cancer more frequently than women of healthy weight (see figure).
- Providers varied greatly in the use of dose reductions for overweight and obese women.
- Severely obese women had fewer severe side effects from chemotherapy, whether they received full or reduced doses.
- The women in this study were not followed long enough to determine whether the reduction of chemotherapy dosage was associated with an increased risk of recurrence or other long-term outcomes.

Percentage of Women in Each Weight Category Who Were Undertreated



[1] Overweight and obesity are defined on the basis of body mass index (BMI), a ratio of weight to height. Individuals whose BMI falls between 25 and 29.9 are considered overweight. Obesity is defined as a BMI of 30 or more. Severe obesity is defined as a BMI of 40 or more.

This fact sheet is based on JJ Griggs, MES Sorbero, and GH Lyman, "Undertreatment of Obese Women Receiving Breast Cancer Chemotherapy," *Archives of Internal Medicine*, Vol. 165; June 13, 2005; pp. 1267–1273.

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RB-9141 (2005)