

# Ten Best Readings Relating to Breast Cancer

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**Baum M, Budzar AU, Cuzick J, et al. Anastrozole alone or in combination with tamoxifen versus tamoxifen alone for adjuvant treatment of postmenopausal women with early breast cancer: first results of the ATAC randomised trial. *Lancet*. 2002; 359:2131-2139.**

Almost 10,000 postmenopausal women with early breast cancer were randomly assigned to receive anastrozole, tamoxifen, or a combination of these two drugs. Early findings indicate that anastrozole alone is an effective and well-tolerated endocrine option for these patients, but longer follow-up is needed before a final benefit:risk assessment can be made.

**Goss PE, Ingle JN, Martino S, et al. A randomized trial of letrozole in postmenopausal women after five years of tamoxifen therapy for early-stage breast cancer. *N Engl J Med*. 2003;349:1793-1802.**

In a double-blind, placebo-controlled trial to test the effectiveness of 5 years of letrozole therapy in postmenopausal women with breast cancer who have completed 5 years of tamoxifen therapy, longer survival was seen in those who received letrozole therapy after the completion of standard tamoxifen treatment.

**Coombes RC, Hall E, Gibson LJ, et al. A randomized trial of exemestane after two to three years of tamoxifen therapy in postmenopausal women with primary breast cancer. *N Engl J Med*. 2004;350:1081-1092.**

This double-blind, randomized trial demonstrated that exemestane therapy after 2 to 3 years of tamoxifen therapy improved disease-free survival compared with the standard 5 years of tamoxifen treatment.

**Chlebowski RT, Hendrix SL, Langer RD, et al. Influence of estrogen plus progestin on breast cancer and mammography in healthy postmenopausal women: the Women's Health Initiative Randomized Trial. *JAMA*. 2003;289:3243-3253.**

A relatively short-term regimen of estrogen plus progestin use increases incident breast cancers, which are diagnosed at a more advanced stage compared with placebo use, and also substantially increases the percentage of women with abnormal mammograms. These results suggest estrogen plus progestin may stimulate breast cancer growth and hinder breast cancer diagnosis.

**Anderson GL, Limacher M, Assaf AR, et al. Effects of conjugated equine estrogen in postmenopausal women with hysterectomy: the Women's Health Initiative randomized controlled trial. *JAMA*. 2004; 291:1701-1712.**

The use of conjugated equine estrogen (CEE) increased the risk of stroke, decreased the risk of hip fracture, and did not affect coronary heart disease incidence in postmenopausal women with prior hysterectomy over an average of 6.8 years. The burden of incident disease events was equivalent in the CEE and placebo groups, indicating no overall benefit. Thus, CEE should not be recommended for chronic disease prevention in postmenopausal women.

**Veronesi U, Paganelli G, Viale G, et al. A randomized comparison of sentinel-node biopsy with routine axillary dissection in breast cancer. *N Engl J Med*. 2003;349:546-553.**

This study of patients with small ( $\leq 2$  cm) primary breast cancer compared sentinel-node biopsy plus total axillary dissection vs sentinel-node biopsy followed by axillary dissection where metastasis was detected. The authors found that sentinel node biopsy is a safe and accurate method of screening the axillary nodes for metastasis in women presenting with a small breast cancer.

**Tallman MS, Gray R, Robert NJ, et al. Conventional adjuvant chemotherapy with or without high-dose chemotherapy and autologous stem-cell transplantation in high-risk breast cancer. *N Engl J Med*. 2003; 349:17-26.**

**Rodenhuis S, Bontenbal M, Beex LV, et al. High-dose chemotherapy with hematopoietic stem-cell rescue for high-risk breast cancer. *N Engl J Med*. 2003;349:7-16.**

The first article reports that adding high-dose chemotherapy and autologous hematopoietic stem-cell transplantation to 6 cycles of adjuvant chemotherapy with CAF may reduce the risk of relapse but does not improve outcomes among patients with primary breast cancer and at least 10 involved axillary lymph nodes. Conventional-dose adjuvant chemotherapy remains the standard of care for such patients. The second reading reports that high-dose alkylating therapy improves relapse-free survival among patients with stage II or III breast cancer and 10 or more positive axillary lymph nodes. This benefit may be confined to patients with HER-2/neu-negative tumors.

**King MC, Marks JH, Mandell JB, et al. Breast and ovarian cancer risks due to inherited mutations in BRCA1 and BRCA2. *Science*. 2003;302:643-646.**

Risks of breast and ovarian cancer were determined for Ashkenazi Jewish women with inherited mutations in the tumor suppressor genes *BRCA1* and *BRCA2*. The lifetime risk of breast cancer among female mutation carriers was 82%, similar to risks in families with many cases. Breast cancer risk by age 50 among mutation carriers born before 1940 was 24%, but among those born after 1940 it was 67%. The increased risk in women born after 1940 was associated with obesity and sedentary lifestyle. Lifetime risks of ovarian cancer were 54% for *BRCA1* and 23% for *BRCA2* mutation carriers.

**Vinh-Hung V, Verschraegen C. Breast-conserving surgery with or without radiotherapy: pooled-analysis for risks of ipsilateral breast tumor recurrence and mortality. *J Natl Cancer Inst*. 2004;96:115-121.**

A pooled analysis of randomized clinical trials was conducted to compare radiotherapy vs no radiotherapy after breast-conserving surgery. The relative risk of ipsilateral breast tumor recurrence after breast-conserving surgery, comparing no radiotherapy or radiotherapy, was 3.00. The relative risk of mortality was 1.086, corresponding to an estimated 8.6% relative excess mortality if radiotherapy was omitted. Omission of radiotherapy is associated with a large increase in risk of ipsilateral breast tumor recurrence and with a small increase in the risk of patient mortality.

**Miglioretti DL, Rutter CM, Geller BM, et al. Effect of breast augmentation on the accuracy of mammography and cancer characteristics. *JAMA*. 2004;291:442-450.**

Breast augmentation decreases the sensitivity of screening mammography among asymptomatic women but does not increase the false-positive rate. Despite the lower accuracy of mammography in women with augmentation, the prognostic characteristics of tumors are not influenced by breast augmentation.