

Cancer Advances: Radiation After Lumpectomy Helps Prevent Cancer Recurrence

From the October 15, 2002 issue of the *Journal of Clinical Oncology*. Doctors know that breast irradiation can help prevent breast cancer from returning in women who have had their tumors surgically removed by lumpectomy. However, many researchers have questioned whether radiation is necessary for women with the smallest tumors, those that are one centimeter or less in size. Some have also suggested that a drug called tamoxifen, given by itself after lumpectomy, could eliminate the need for radiation therapy in many patients with small tumors. Tamoxifen is commonly used to prevent recurrence in women who have a type of cancer called "estrogen receptor-positive" breast cancer. In a new study that may help answer these questions, scientists led by Dr. Bernard Fisher, of the National Surgical Adjuvant Breast and Bowel Project, have found that radiation therapy after removal of small breast tumors does help prevent breast tumor recurrence. Women in the study, who had their tumors surgically removed by lumpectomy, were given one of three treatment combinations: radiation therapy with tamoxifen; radiation therapy with a placebo; or tamoxifen alone. The researchers found that the patients who received radiation therapy were less likely to have their cancer return than were those who received only tamoxifen. For women with estrogen receptor-positive cancer, the combination of radiation and tamoxifen provided the most benefit. For those with estrogen receptor-negative tumors, radiation therapy alone was the best option after surgery. **What Does This Mean for Patients?** According to Dr. Fisher, who led the study, many women with tumors of one centimeter or less may benefit from radiation therapy after their surgery. Those with estrogen receptor-positive breast cancer can reduce their risk with the combination of radiation and tamoxifen, while women with small estrogen receptor-negative tumors should consider radiation alone. However, Dr. Fisher stressed that each patient should discuss all available treatment options with her doctor, along with the associated risks, before deciding on any treatment.