

## **Decreased Breast Cancer Rates and Hormone Replacement Therapy Use: Are They Related?**

Recent reports attribute the drop in US breast cancer rates between 2002 and 2003 to a decline in the use of hormone replacement therapy (HRT). However, evidence from multiple sources suggests that changed HRT use is unlikely to result in lower breast cancer rates, since:

- Decreased breast cancer rates occurred in women of all ages, not only those of menopausal age, who most frequently use HRT. The change in rate was greater for older than younger women, perhaps due to an improved ability to track changes in the older group, which included the vast majority of breast cancers.
- Decreased breast cancer rates were found in women with ER negative as well as ER positive breast cancers. A greater change was found for ER positive tumors, perhaps due to an improved ability to track changes in the ER group, which included the vast majority of all breast cancers.
  - Some reports speculate that estrogen causes ER positive breast cancers to grow, so the decline in HRT use resulted in a greater decrease in ER positive than ER negative tumors. The issue, however, is whether HRT use leads to tumor growth beyond what might result from a woman's own hormones. In this regard, over 15 studies find that breast cancers detected in women using HRT at the time of their diagnosis were not growing more rapidly than cancers detected in non HRT users. If HRT use did significantly influence breast cancer growth rates, tumors in HRT users would have grown more rapidly than those of non HRT users. No such increase in growth rate was found. These scientific results do not support the theory that HRT use itself causes breast cancers to grow.
- Other scientific studies have investigated breast cancer risk after women stop using HRT. At least nine studies find NO significant decrease in breast cancer risk when HRT use stops, even up to ten years later. (Risks were not increased either.)
- In Canada, where many women also stopped taking HRT in 2002, NO decrease in breast cancer rates has occurred. If declining HRT use were a likely cause of reduced US breast cancer rates, those in Canada should also have dropped. They did not.

In conclusion, the cause(s) of decreased breast cancer rates from 2002 to 2003 are currently unknown, but do not appear to be the result of changes in HRT use. Reduced breast cancer rates in women of all ages and with different tumor types, studies finding no reduction in breast cancer risk even ten years after HRT use stops, and the lack of a decline in Canadian breast cancer rates, all suggest that factors unrelated to HRT use are responsible for the drop in US breast cancer rates from 2002 to 2003.