



A study in the *Journal of the American Medical Association* by Dartmouth economist Douglas Staiger showed that the average hours worked by physicians dropped 7% from 1996 to 2008.

## Study conclusion: Last is far from least

**M**others who breast-feed their last-born child have a reduced risk of ovarian cancer compared to mothers who do not, according to a study led by DMS researchers Linda Titus-Ernstoff, Ph.D., and Judy Rees, M.D., Ph.D.

The link between breast-feeding and the risk of ovarian cancer has long been a subject of debate. Some studies have found that mothers who breast-feed are less likely to get ovarian cancer than those who do not, but other research has contradicted those findings. The lack of clarity makes it difficult for physicians to advise mothers about how breast-feeding may affect their future health. With 20,000 cases of ovarian cancer diagnosed each year in the U.S., it's a matter of concern to many women.

**Tease:** This controversy intrigued Titus-Ernstoff, inspiring her to take a new look at the issue. She hoped to tease apart the factors affecting the risk of ovarian cancer in women who have given birth.

Titus-Ernstoff, Rees, and two collaborators at Brigham and Women's Hospital in Boston examined data from a population-based study of women in Massachusetts and New Hampshire. They compared the breast-feeding patterns of mothers who had been diagnosed with ovarian

cancer to those of mothers without the disease. As other researchers have done, they analyzed the duration of breast-feeding and number of children breast-fed. They also examined a factor overlooked in previous studies—whether the mothers breast-fed their youngest child.

**Effect:** Writing in the journal *Cancer Causes and Control*, the authors reported that breast-feeding offered a substantial protective effect only when a mother breast-fed her last child. These women were 42% less likely to get ovarian cancer than mothers who did

**"If you are going to breast-feed . . . breast-feed your last child."**

not breast-feed any of their children. The authors confirmed this connection by looking at women with exactly two children. In this group, women who breast-fed only their second child were 64% less likely to get ovarian cancer compared to women who breast-fed only the first of two children. "These provocative findings were seen in all child-bearing women," Titus-Ernstoff says. The findings were also seen in subsets of the study group defined by number of children per mother.

One possible explanation is that breast-feeding may counteract pregnancy-related changes that increase ovarian cancer risk. Titus-Ernstoff cautions that this hypothesis needs to be examined by further research, but she says it might explain why breast-feeding the last child would offer protection, while breast-feeding earlier children would not.

**Risk:** Excited that her decision to delve into this subject has led to such a surprising finding, Titus-Ernstoff plans to look next into how patterns of breast-feeding may affect the risk of breast cancer.

Meanwhile, until her conclusions are tested by subsequent studies, Titus-Ernstoff offers this advice: "If you are going to breast-feed at all, breast-feed your last child." TINA TING-LAN CHANG

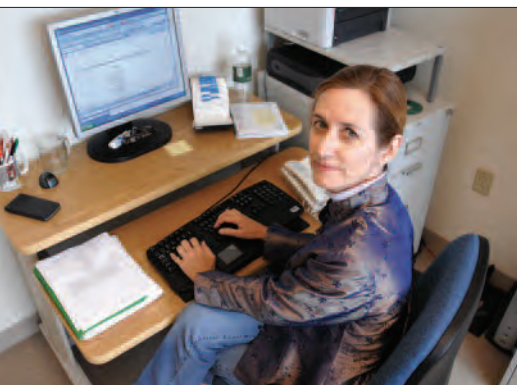


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**Titus-Ernstoff studied the impact of breast-feeding.**

### Port authority

If you need a chest port—for chemotherapy or blood draws—it doesn't matter if a radiologist, a resident, or a nurse practitioner puts it in; whoever does it just needs to be well-trained in the procedure. That's what several DMS radiologists found on reviewing the records of 536 patients who received a totally implanted subcutaneous central venous access device (a.k.a. chest port). "There was no statistically significant difference in overall complication rates, including infection rates, among operator groups," they wrote in *Academic Radiology*.



### Balancing act

In the process of investigating a gene-regulating protein called *Chd6*, DMS scientists may have pinpointed the cause of some forms of human ataxia, a rare neurological disease. When they created a mouse model with a *Chd6* mutation, they found that the animals had "coordination defects most consistent with a cerebellar neuron disorder," according to a paper in *Mammalian Genome*. "Behavioral testing indicated that only coordination and balance are impaired in [the] mice," wrote the researchers. "Although *Chd6* is expressed ubiquitously, the only consistent phenotype [of the mutation] appears to be the impairment in sensorimotor performance."

