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By: Stefan Anitei, Science Editor

## **Pregnancy Can Save Your Boobs!**

### *Fetal chimerism appears to protect the woman against breast cancer*



Most women fear that their breasts might get sagged after breastfeeding. But a new research shows that pregnancy could decrease a woman's risk of developing breast cancer, since the fetus transmits to its mother cells with protective abilities.

The team at the University of Washington in Seattle U.S. Investigated 82 female subjects, 35 of whom had been found to have developed breast cancer, to check if fetal cells, which entered into the mother's body through a phenomenon called 'fetal micro-chimerism', have any defensive role in case of breast cancer. The results were published in the current issue of Cancer Research.

"Most studies have looked at autoimmune diseases where chimerism has been shown to be bad, but so many women harbor micro-chimerism after pregnancy in detectable levels that I reasoned there must be some reason why nature decided this must be a good thing to do," said lead researcher Vijayakrishna K. Gadi of the University of Washington in Seattle. "Perhaps it's this function of clearing cancer cells from your body. Another possibility is that it could participate in tissue repair," he said.

The team studied the blood samples coming from each subject the male DNA, easier to spot than a daughter's DNA. "I don't have any intrinsic reason to believe that a male child would be any more protective than a female child," said Gadi, underlining the fact that the team will investigate also fetal chimerism.

The researchers discovered that 14 % of the subjects suffering of breast cancer had in their bloodstream DNA coming from their son, while the number rose to 43 % in the case of the healthy subjects. "My hypothesis was that maybe fetal cells can get into a mother and recognize a pre-cancer breast cancer cell and kill it before it becomes an active cancer. We have other studies from our group where we believe stem cells are really what are coming over, establishing themselves in various tissues and reproducing themselves," said Gadi.

The team believes that the chimerism persists during a woman's whole life, defending her body against cancer development.