

By ~~Art 2008~~ Anitei, Science Editor

[A Battle of the Sexes in the Womb: Boys Seem to Be the Winners](#)

Girls in mixed twin couples have weaker health

It is said that boys are born with a weaker health condition than girls, but in a battle of the sexes inside the womb, they seem to be the winners, as revealed by a research made at the Tel Aviv University and published in the journal "Pediatrics." It appears that a male twin can affect the health of his twin sister even when still inside the uterus. The team focused on the rate of complications, like respiratory distress syndrome, in pre-term twins. Premature born girls who had a brother twin lost the respiratory health advantage usually observed in premature newborn girls. "The male disadvantage seems to be transferred from the boy to the girl in utero," said co-author Prof. Brian Reichman, a lecturer in pediatrics at Tel Aviv University's Sackler School of Medicine. When compared to their premature twin brothers, premature twin girls displayed a 60% advantage. The premature girls tend not to experience respiratory distress syndrome and chronic lung diseases common in premature newborn boys, but this strength appeared to have been lost in premature girls with a brother twin. The data came from the Israel Neonatal Network and it had recorded 8,858 very-low-birth-weight premature infants (1 to 3 pounds or 0.45 to 1.35 kg), all born at 24 to 34 weeks' pregnancy between 1995 and 2003. The premature newborn children comprised singletons, same-sex and mixed-sex twins. Most twin researches look on what occurs after birth, when the children are exposed to complex environmental and behavioral factors. "The effects are occurring already in the uterus," said Reichman. A 2007 research led at the University of Sheffield, UK, investigated Finnish church records from 1734 to 1888, containing data of births, deaths and marriages from a pre-industrial era, without the effect of factors like advanced health care, IVF and contraception. In 754 cases of mixed twins, females who had survived up to adulthood were found to be 15% less likely to get married, 25% less likely to give birth, and those who did had on average two children less than women coming from same sex twin couples had. These are in-utero effects. This is supposed to be a hormonal effect: fetuses of both sexes continuously receive estrogen from the mother, which can diffuse across fetal membranes, but the male fetus produces testosterone, which will be received also by the female fetus sharing the womb with it. Previous studies had shown that this could induce a masculinizing effect on the facial features of a female twin, and even a male sexualization of the brain. A similar but more severe effect has been observed in cattle: some cows, called freemartins, grow up sterile when they are the result of double gestation shared with a little bull. Another 2007 research made on saiga antelopes showed a reverse effect: male twins from mixed twin couples have a lower reproductive success, because of their lower birth weight, resulting in a delayed development compared to other males.