

## Childhood aggression linked to stressful birth

Wed, Nov 3, 2010 (Reuters) — Babies who undergo a difficult birth and are delivered using forceps are more likely to develop problems such as aggression during childhood compared with those born by Caesarean section, according to a study in China.

Researchers believe the behavioral problems may be linked to high levels of cortisol, a hormone the body produces during a stressful and difficult birth.

Previous studies have found that cortisol levels in cord blood are lowest in babies born by elective Caesarean, followed by spontaneous vaginal delivery.

The highest levels of cortisol are found in those born by assisted vaginal delivery using forceps or vacuum extraction.

"Cortisol levels have been linked to childhood psychopathology, however, more studies are still needed to look at this in more detail," write Dr. Jianmeng Liu, of Peking University Health Science Center in Beijing, and colleagues in the obstetrics journal BJOG.

The study involved 4,190 children who were born in China's southern provinces of Zhejiang and Jiangsu, and they were assessed between the age of 4 and 6 for problems such as being withdrawn, anxious, depressed, attention difficulties and delinquent and aggressive behavior.

Such problems were lowest in children delivered by caesarean section and highest in those delivered using instruments like forceps and vacuum, the researchers said.

Caesarean births are increasing in China, particularly in the richer southeastern parts of the country where rates have risen to 56 percent in 2006 from 22 percent in 1994.

Caesarean delivery on request by mothers is a major contributor to this trend. It accounted for 3.6 percent of all caesarean births in 1994 and 36 percent in 2006 in southeast China.