

Caesarean link to respiratory infections in babies

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(Medical Xpress) -- A new study from Perth's Telethon Institute for Child Health Research has found that babies born by elective caesarean are more likely to be admitted to hospital with the serious respiratory infection, bronchiolitis, in the first year of life.

The study, published in the latest online edition of the international journal *Archives of Disease in Childhood*, analyzed linked birth data and hospitalization records of 212,068 babies over a 10 year period in Western Australia.

Report lead author, Dr. Hannah Moore, said that after adjusting for a range of maternal factors and pregnancy complications, the effect was an 11 per cent increase in hospital admissions.

"While the increase is relatively modest, this is the first study to link elective caesareans to bronchiolitis," Dr. Moore said.

Bronchiolitis, generally caused by the common respiratory syncytial virus (RSV), is one of the most common reasons for [babies](#) to be admitted to hospital. Bronchiolitis also has been shown to be associated with an [increased risk](#) of asthma in children.

Previous research by the Institute team has found an increased risk of [hospital](#) admissions for acute lower respiratory infections in children less than 2 years of age, delivered by elective caesarean.

Dr. Moore said this study supports the need for more research into the suspected role of various chemicals (cytokines) that are produced by mothers during labor in priming a newborn's immune system.

"We compared elective caesareans with other modes of delivery because with elective caesareans we could be confident that labor had not begun and therefore the baby would not have

been exposed to those chemicals that are released during the labour process," Dr. Moore said.

"It is increasingly plausible that delivery without labour could impair a newborn's immune system and may also explain the known link between c-sections and an increased risk of asthma.

"Given that caesarean rates are rising in Australia, this potential impact on the immune system might be another factor that parents and doctors may consider if choosing a caesarean for other than medical reasons."

More information: Journal reference: Moore, H. C., et al. Hospitalization for bronchiolitis in infants is more common after elective caesarean delivery *Arch. Dis. Child.* 2011;0:archdischild-2011-300607v-archdischild-2011-300607

Provided by Telethon Institute for Child Health Research

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