

## Bacteria Could be Causing Premature Birth



According to new US research published in the journal PLOS ONE, specific bacteria may be the major cause for premature birth where labour is triggered by waters breaking too soon.

These findings suggest certain bacteria may lead to thinning of the membranes around the baby, causing them to tear. The report could pave the way for a screening process to help identify women at risk of early labour, and allow for possible treatment.

Up to a third of all pre-term births are caused by early rupture of membranes. These make up the sac that actually holds the baby and usually do not start until the onset of labour; should this occur before contractions, it could trigger early labour. This condition is called 'preterm premature rupture of the membranes' (PPROM).

A team at Duke University School of Medicine identified an accumulation of bacteria linked with the thinning of membranes. By determining whether the bacteria are the root cause opposed to the consequence of early labour, the development of new screening techniques or treatment for pregnant women at risk may be possible.

Author of the study Amy Murtha, associate professor of obstetrics and gynaecology at Duke University School of Medicine, explained that screening could take place in early pregnancy and a subsequent antibiotic treatment could reduce the woman's risk for PPRM. According to Murtha, early findings are encouraging the exploration of potential targeted therapeutic interventions, which obstetrics currently lacks.

The study involved the examination of membrane samples in 48 women who had just given PPRM birth, early birth for other reasons, or had their babies born at full term.

Bacteria were present in all membranes, however, the higher the number of bacteria, the thinner the membranes were, particularly so in women with PPRM.

Dr Patrick O'Brien from the Royal College of Obstetricians and Gynaecologists commented that bacterial infection as cause for PPRM in some women, was a known fact. He explained that the next step was to understand the detailed mechanism of how the bacteria actually led to the waters breaking.

Head of communications at the UK premature baby charity 'Bliss' Duncan Wilbur found the study's findings interesting and welcomed research that contributed to an improved understanding of the causes of preterm birth and identification of women at high risk. Treatments could then help the prevention of premature birth.

Source: [BBC News](#)

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