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Since the development of vital organs such as the brain, lungs and liver occur in the final weeks of pregnancy, delivery of the infant prior to complete organ development can have devastating effects on both the baby and the family. Short-term complications such as jaundice, breathing problems, extremely low immunity and infections extend the infant’s hospital stay. Long-term disabilities such as blindness, deafness, cerebral palsy and other neurological issues in children due to preterm delivery add more than $26 billion to the U.S. national healthcare costs. Factors such as tobacco, alcohol and drug use, carrying multiple babies, high blood pressure and diabetes during pregnancy increase a woman’s risk of pre-term delivery. Most of the time preterm labor and delivery cannot be predicted. Preterm labor is difficult to stop and there are very few pharmaceutical drugs that

The uterus, commonly referred as the “womb,” is a hollow and highly expandable organ responsible for accommodating the growing fetus during the nine months of pregnancy. The uterus is made up of strong, involuntary muscles that contract during menstruation and childbirth. Abnormal contractions of the uterine muscles may cause severe cramps during menstruation. During pregnancy, abnormal and untimely uterine contractions can lead to premature labor and delivery. A normal healthy pregnancy usually lasts up to 40 weeks. An infant born before the 37th week of pregnancy is described as having a “preterm birth.”

Micronutrients Support Normal Uterine Contractions

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An optimal supply of micronutrients during pregnancy is important for ensuring the well-being of mother and child. A study by the Dr. Rath Research Institute shows that specific micronutrients can prevent premature uterine contractions.
can be administered to prolong the pregnancy. Moreover, in those that are used there are also associated side effects.

The uterus is relatively calm throughout most of a pregnancy. At near term, the uterine muscles become extremely sensitive to the hormone oxytocin, which is the strongest stimulus to induce contractions. Oxytocin-induced uterine muscle contractions are inhibited during pregnancy by various substances, including the hormones estrogen and progesterone, prostacyclin, nitric oxide and relaxin. It is thought that infection and inflammation are also involved in the initiation and progression of preterm labor and delivery. Inflammatory markers such as tumor necrosis factor (TNF-alpha), interleukin (IL-1B) and the levels of matrix metalloproteinases (MMP-9) enzymes are increased during preterm labor.

We studied the effects of natural micronutrients on contraction of the uterine smooth muscles induced by hormones and inflammatory agents*.

We observed that the inflammatory mediators, TNF-alpha and prostaglandins, increased the smooth muscle contractions, while the micronutrient mixture significantly inhibited the activity of these mediators and induced uterine muscle relaxation up to 300%. The combination of micronutrients also reduced MMP secretion. Combining micronutrients such as lysine, proline, vitamin C and green tea extract was more effective in relaxing uterine smooth muscles than the use of any individual nutrient alone.

**Knowing that any pharmaceutical drug taken during pregnancy can have damaging effects on the development of the infant, the combination of these safe micronutrients may be a better and more effective way to maintain a healthy pregnancy.**

Ref: