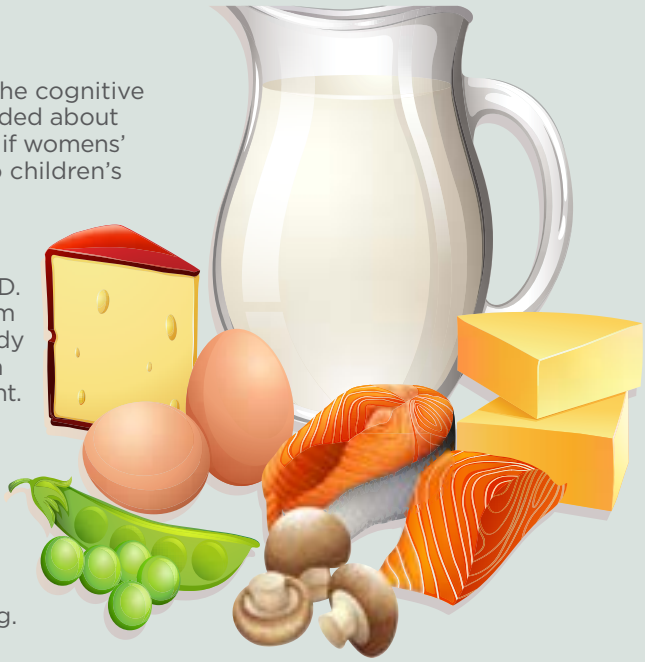
THE CANDLE STUDY
UTHSC

RESEARCH RECAP

VITAMIN D LEVELS IN PREGNANCY and Children's Language Development

WHY WAS THIS STUDY NEEDED?

Many studies have shown women's nutrition in pregnancy can support the cognitive and language development of their children, but more information is needed about the possible benefits of specific ***nutrients***. This study was designed to see if womens' intake of one specific nutrient, Vitamin D, during pregnancy is related to children's cognitive or language development.



WHAT HAPPENED DURING THE STUDY?

Blood samples collected during pregnancy were analyzed for Vitamin D. Other information used in the study came from surveys collected from mothers and cognitive testing completed with children at the year two study visit. Researchers looked to see if different levels of Vitamin D in women during pregnancy contribute to children's cognitive or language development.

WHAT WERE THE STUDY RESULTS?

After accounting for several other characteristics that shape children's development, such as tobacco use during pregnancy, maternal IQ, socioeconomic status, race, and child age at the time of testing, women's vitamin D levels in pregnancy were shown to be related to children's ***receptive language*** scores. Children of mothers with higher levels of Vitamin D during pregnancy scored better on receptive language testing.

CANDLE RESEARCH IN ACTION

Results from this study were used to create a publication for use by health care workers in our community. Visit the CANDLE Research in Action webpage to view this publication or request copies. **candlestudy.uthsc.edu/ria/**

WHAT HAPPENS NEXT/IMPACT?

More studies should be done to see if women's Vitamin D intake during pregnancy truly improves children's language development. If future studies have the same results, health care providers will have a specific nutrient to assess during pregnancy that could positively promote language development.

DEFINITIONS

Nutrients – Chemical compounds in food that are used by the body to function properly and maintain health. Examples include proteins, fats, carbohydrates, vitamins, and minerals.

Source: **medlineplus.gov/definitions/nutritiondefinitions.html**

Receptive Language – The ability to understand words and language.

Source: **childdevelopment.com.au/areas-of-concern/understanding-language/receptive-language-understanding-words-and-language/**

FOOTNOTE

Results reported here are for a single study. Other or future studies may provide new information or different results. You should not make changes to your health without first consulting your healthcare professional.

Tylavsky FA, Kocak M, Murphy LE, Graff JC, Palmer FB, Völgyi E, Diaz-Thomas AM, Ferry RJ Jr. Gestational Vitamin 25(OH)D Status as a Risk Factor for Receptive Language Development: A 24-Month, Longitudinal, Observational Study. Nutrients. 2015 Dec 2;7(12):9918-30. doi: 10.3390/nu7125499. PMID: 26633480; PMCID: PMC4690051.

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