TEN STEP TUESDAY

Human Milk & the Gut Microbiome

Week 1 of 3

It's Ten Step Tuesday!

This week is the first of three in a series on human milk and the gut microbiome.

We are gaining a new understanding of how human milk affects the gut microbiome.
And it is helping to explain exactly how the benefits of human milk are achieved. Evidence suggests that the bacteria in our gut influence virtually every aspect of our functioning, from our stress and anxiety responses, to our metabolism and appetite, to the robustness of our immune system and beyond. And when our gut microbiome is out of balance, research suggests negative consequences can result: depression and anxiety, obesity, irritable bowel syndrome, Alzheimer's Disease, and asthma have all been linked to microbiome disruption.

So what does the gut biome have to do with breastfeeding?
A lot, as it turns out. Below are some fun facts from a webinar by Jarold "Tom" Johnston, DNP, CNM, IBCLC, which explores this connection.

- The microbiomes of baby and birthing parent are inextricably linked. When a mother gives birth, she passes her microbiome to her baby—first through exposure to their normal flora in the birth canal and then through her milk during breastfeeding.

- Communication is a two-way street. The milk ejection reflex is a muscular contraction that pushes milk to the baby. But did you know that once the milk ejection reflex slows, muscles relax and pull baby's saliva back into the breast? Lactocytes respond to saliva exposure by producing particular macrophages. If the baby has been exposed to an infection, at the next feeding, he will get leukocytes and antibodies to fight that specific infection.

- Colostrum is not really food. Yes, you read that correctly! Babies get very few calories at the breast during the first 48 hours, because the calories in colostrum are not intended for digestion. They come from immune cells, designed to colonize the gut and immune system. Rather than thinking of colostrum as calories, think of it as an immune system transfer.

Stay tuned for next week's Ten Step Tuesday for more mind-blowing facts about the maternal-infant gut microbiome.

References: https://learning.ilca.org/products/webinar-the-maternal-child-microbiome-an-overview-of-evidence-and-implications#tab-product_tab_overview

For more information contact
Cara Gerhardt, BSN RN IBCLC, coordinator@high5kansas.org