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Mommy Brain, Your Superpower

Birth, the most miraculous experience as a woman, shapes the terrain of the mother's brain. There tends to be negative talk around "mommy brain" and the fogginess and forgetfulness that mothers may experience; however, "mommy brain" is a superpower unlike any other.

During pregnancy, a mother's brain actually decreases in volume, but this does not mean that there is a loss of function. Barba-Muller et al. (2019) discovered that there was a decrease in gray matter in the anterior and posterior cortical midline, prefrontal, and temporal cortex during pregnancy. This helps to prime the brain for the dramatic changes that will occur during the postpartum period. Pawluski et al. (2023) state that from day zero to day forty during the postpartum period, the mother's brain diverts its mental energy away from the logical, rational thinking part (prefrontal cortex) to the emotional, reactive part of its brain (amygdala). This synaptic pruning helps the mom become more hypervigilant to anything that may be dangerous in order to protect the new baby. This also helps mom to decipher each of her baby's cries and how to properly tend to them. The ventral striatum, which is a region of the brain that has a prominent role in the reward system, was shown to be reduced during pregnancy, but then increases in size after birth while physically gazing at her newborn. When a new mother, especially during the early phases of motherhood, is presented with stimuli from her baby, like seeing pictures of her baby, smelling that glorious new baby smell, or hearing the baby coo, this heightens the mother's reward center in her brain. These changes in the ventral striatum are thought to help the mother with responsiveness to her infant, express empathy, and enhance overall caregiving behaviors. An increase in gray matter volume was also shown in the parietal lobe, prefrontal cortex, and the midbrain during the postpartum period.

Most mothers report that they experience brain fog and forgetfulness during the postpartum period. While this is something that should be taken seriously, research shows that brain fog and forgetfulness are attributed to the mental load of the mother. **This is why supporting the mother and the new parents during this time is paramount.** Supporting the new parents, especially the mom, positively impacts the health of both the parents and baby!

Research also stated that environmental factors and lifestyle factors impact the mother's new brain. Therefore, having a large circle of providers, a smaller circle of support, and adapting to stress are crucial. We know two very important things as chiropractors: 1. That the chiropractic adjustment helps the nervous system to better adapt to physical, chemical, and emotional stressors and 2. That the adjustment has a profound impact on the brain, especially the prefrontal cortex. **As perinatal chiropractors, we have a vital role when it comes to serving mothers during the transition into the fourth trimester.** Not only are we helping them adapt to stressors, but also helping shape the terrain of the new mom's brain!

I am always in awe of the intelligence of the body and how the mother's brain and baby's brain synchronize together! The changes in the mother's brain to help bond and tend to her new baby are not a deficit—in fact, they need to be celebrated! These dramatic changes are a superpower unlike any other superpower!

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Mommy Brain Checklist:

Here are some tips for you to try during this critical and sacred time:

- Support your microbiome – our vagus nerve is the connection between our brain and our gut. There are very important neurotransmitters that are made in the gut that help us to feel happy and calm, like serotonin, GABA, and dopamine. We can support our microbiome by including a variety of nutrient-dense and fermented foods into our diet!
- Tons of skin-to-skin time – skin-to-skin time supports the maternal brain with tons of oxytocin and supports vagal tone of both the mom and baby!
- Adapt to stress – one of the ways we can efficiently do this is through nervous system-focused chiropractic care! Lean on your small circle of support and your provider circle of support—I cannot stress enough the importance of a small and large team!
- Extend yourself grace – this is a new you with a different brain! This is a superpower unlike any other!

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