



What's new with APrON?

APrON Collection Update

Since the last update, the ***Eight is Great*** questionnaire has continued arriving in participants' mailboxes. The ***Eight is Great*** questionnaire is part of the Alberta Births Common Data (ABCD), which has been looking into topics such as socioeconomic status, child behaviour, child health and development, early childhood experiences, parenting, maternal health and wellbeing, and much more among Alberta Pregnancy Outcome and Nutrition (APrON) and All Our Families (AOF) participants. If you haven't received an email to complete this questionnaire yet, look for this around the time your child turns eight.

With the youngest children in the APrON study having celebrated their fifth birthdays this past year, data collection for the five year APrON child questionnaire is wrapping up. Data collection for the five year ABCD questionnaire has also concluded. This questionnaire extended the scope of topics studied by the five year APrON child questionnaire.

Datasets from the first trimester of pregnancy to one year postpartum have been prepared for use by researchers. This data is being used for a variety of research projects which study the impact of mothers' nutrient intake on their mental health and on their children's development and mental health. The two year and three year questionnaires are also currently being cleaned by the APrON data team, for use by researchers in the near future.

We're wondering if you would be able to please keep our participant e-mail list up to date by contacting the APrON study team (apron@ucalgary.ca) if your e-mail address will change. This will be important in order to receive future questionnaires, as most participants are now receiving them by e-mail.

Finally, we would like to take this opportunity to express our gratitude for the time commitment that you and your child have given to the APrON study. We wish you and your entire family all the best for the new year.

Join APrON's Participant Advisory Committee

The APrON team is always looking for participants to join our advisory committee meetings and we want you to be a part of it! Share your ideas on how we can keep participants, like you, engaged and interested in our research. We want to hear from you. Sessions will be 1.5 hours long and will take place at the Owerko Centre at the Child Development Centre in Calgary. If you would like to learn more about this exciting opportunity, please contact us by email at apron@ucalgary.ca

Send Us Your Feedback!

If you have any comments or questions about the *APrON Leaflet*, we want to hear them! We would also like to hear your ideas for future newsletters. Please contact us at apron@ucalgary.ca

We truly value your feedback!

Winter 2018
Leaflet



You're all like SnowFlakes

*Unique & One of a kind,
we value your differences.*



Thank you for sharing with the APrON Study Team

RESULTS

Study Title: Prepartum and Postpartum Maternal Depressive Symptoms Are Related to Children's Brain Structure in Preschool



Feelings of sadness, anxiety, hopelessness, and irritability are common among pregnant women, and are often associated with depression. Almost one in five women will experience bouts of depression sometime during their pregnancy or shortly after the birth of their child. Research has shown that children whose mothers experienced depression during or after pregnancy are more likely to develop mental health problems, struggle in school and/or have difficulties relating to others compared to children whose mothers were not depressed. However, it is still unclear how or why a mother's depression surrounding pregnancy affects her children. The goal of this study was to look at how mother's depression symptoms during or after pregnancy affected their young child's brain.

Using magnetic resonance imaging (MRI), researchers studied the brains of fifty-two children 2-5 years old. Children's brain structure was then compared to their mother's depression symptoms during and shortly after pregnancy.

The results from this research study showed that maternal depression symptoms are related to their children's brain structure in areas that control attention and inhibition. Specifically, higher depression symptoms either in the middle of pregnancy (2nd trimester) or shortly after birth (~3 months postpartum) were related to more mature brain structure in these areas. While brain plasticity is life-long, adaptability is greatest during early childhood. The results of this research may indicate that children whose mothers had more depression symptoms have a shorter window of optimal brain plasticity during which they are most able to learn and adapt to their environment.

Though further investigation is needed, the results from this study uncover links between maternal mental health and children's brain structure. Clearly, investing in mother's mental health during and after pregnancy is critical as it may have long-term positive impacts on their children.

Reference: Lebel, C., Walton, M., Letourneau, N., Giesbrecht, G. F., Kaplan, B. J., & Dewey, D. (2016). Prepartum and postpartum maternal depressive symptoms are related to children's brain structure in preschool. *Biological psychiatry*, 80(11), 859-868.

To request the above or any other APrON publication please contact us at apron@ucalgary.ca

All of the APrON publications to date can be viewed at the following link:

https://scholar.google.ca/scholar?start=0&q=APRON+Study+Team&hl=en&as_sdt=0,5

**HELP KEEP OUR
FILES
UP-TO-DATE**

Staying in touch with our participants is a key part of our work. When we lose touch with people we lose our ability to answer important health questions. If you have moved, changed your phone

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