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Children Born During Pandemic Have Lower IQ

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STORY AT-A-GLANCE

- Results of one study show the cognitive scores of children born during 2020 and 2021 were adversely affected by lockdown measures when compared to infants born from 2011 to 2019
- Clinical symptoms of parental anxiety can affect an infant's neurodevelopment and increase the risk of low birth weight and preterm birth; several studies that engaged pregnant women and parents during 2020 demonstrated a significant rise in anxiety
- Scientific data show that pre-and postnatal exposure to fluoride also has a detrimental effect on a child's IQ, including four key National Institutes of Health-funded studies, yet fluoride continues to be added to the water supply
- Consider strategies you can use to positively impact your child's cognitive health, including taking care of your mental health, providing appropriate interaction and stimulation for your infant, and reducing or eliminating fluoride exposure

As adults have masked up, locked down and engaged in social distancing, children have been forced to as well. Yet, as psychologists have warned, children have likely not come away from this situation unscathed. New data suggest that infants born during 2020 may have lower IQs than those born in 2019 or earlier.[1]

Despite data that children appear to be more resistant to COVID-19, health experts continue to insist that children wear masks at school and in public.[2] According to the American Academy of Pediatrics,[3] children ranged from 1.5% to 3.5% of the total

number of hospitalizations for COVID-19 in the 23 states that reported data; 0.2% to 1.9% of all child cases resulted in a hospital stay.

In 43 states reporting, children represented from zero percent to 0.25% mortality. In other words, the risk of death from COVID to children was significantly less than to adults. On the flip side, wearing masks has increased the risk for physical and psychological harm.

One German study[4] gathered data from 25,930 children, of whom 68% reported adverse effects from wearing face masks. Those complaints included 29.7% reporting feeling short of breath, 26.4% being dizzy and 17.9% who were unwilling to move or play.

The list also included children who had impaired learning, drowsiness or fatigue, malaise, headache and difficulty concentrating. Even though the complaints were filed by parents, doctors and teachers, Research Square editors posted a warning the data "cannot demonstrate a causal relationship between mask wearing and the reported adverse effects in children."[5]

The question may be: Will all mask studies be rejected similarly, unless they show masks are great for children and do no harm at all? And how will the latest data be received, showing that infants are faring no better than older children?

Infant IQ Affected by Lockdown Measures

According to the results of this study,[6] infants born during 2020 and 2021 had lower verbal, motor and overall cognitive scores as compared to those children born from 2011 to 2019. Children who were most affected were boys and those from lower socio-economic families. The researchers wrote that:

> *"While children, and those under age 5, have largely been spared from the severe health and mortality complications associated with SARS-CoV-2 infection, they have not been immune to the impact of the stay-at-home, masking, and social distancing policies."*

The research team recognized that since the beginning of the pandemic there were concerns about child development that may have been impacted by stressors triggered by the events of 2020, as well as economic adversities and a lack of stimulating environments.

Given the changes in the social environment, the researchers sought to compare the neurodevelopmental scores in children born before 2019 to those born after July 2020. They used the Mullen Scales of Early Learning that assesses function "across the five primary domains of fine and gross motor control, visual reception, and expressive and receptive language via direct observation and performance."[7]

In total, 672 children participated in the study.[8] What they found was the mean IQ score for children born from 2011 to 2019 was between 98.5 and 107.3. However, in children born in 2020 and 2021, the scores were from 86.3 to 78.9 respectively.[9]

After controlling for differences in the children's age and maternal education, they discovered there were significant and consistent reductions in IQ when comparing children born in 2011 to 2019 against those born in 2021. The results of the study suggested the pandemic had a strong effect on early neurodevelopment.

The data showed specifically "verbal, nonverbal, and overall cognitive scores are significantly lower since the beginning of the pandemic."[10] Lead researcher Sean Deoni, Ph.D., is an associate professor of pediatrics at Brown University. He postulates that the limited amount of stimulation at home and less interaction with the outside world triggered the shockingly low test scores in the infants. He said:[11]

> *"It's not subtle by any stretch. You don't typically see things like that, outside of major cognitive disorders. Parents are stressed and frazzled … that interaction the child would normally get has decreased substantially. The ability to course-correct becomes smaller, the older that child gets."*

How Are Infant IQ Measurement Tools Used?

A standard IQ test measures the ability of a person to learn new information and retain that information. It is simple to test immediate recall, but more difficult to test the retention of complex information. For that reason, learning ability is sometimes estimated indirectly through testing a person's past knowledge.

The value in an IQ test is the correlation with what they measure. In other words, after testing hundreds of thousands of people, IQ test scores have been found to correlate with important outcomes.[12] If an IQ test given to an adult is aimed at testing complex information, how can you administer a test to infants?

Joseph Fagan III was a psychologist at Case Western Reserve University in Cleveland who developed the Fagan Test of Infant Intelligence used in children up to 12 months of age.[13] During this test, infants are shown a series of paired photographs. The first pair are identical faces, and the second pair is the same face with another unfamiliar to the baby.

The researchers then measure the length of time the baby looks at the new face. What Fagan found is that babies with below-average intelligence are not attracted as strongly to the novelty of the new face. His goal was to identify children who were at risk so that early intervention could be started.[14]

Other developmental tests used on infants and toddlers include the Gesell Developmental Schedules and the Bayley Scales of Infant and Toddler Development III. The Mullen Scales of Early Learning used in the featured study is a standardized assessment test that's commonly used in Clinical Psychology.[15]

The design of the test can be used in infants, preschoolers and young children. Researchers have also used these cognitive function tests to identify deficits that may occur with health conditions.

For example, one study[16] engaged infants with iron deficiency anemia and administered the Fagan test of infant intelligence. The researchers found the data indicated cognitive deficits that could be attributed, in part, to iron deficiency anemia-related socioemotional function.

Clinical Symptoms of Parental Anxiety May Affect Children

According to Rhonda BeLue, associate professor of health policy and administration at Penn State,[17] "Maternal stress has been linked to harsh parenting, maternal depression, and poor cognitive, socio-emotional, and physical development in children and may have long-lasting effects on the well-being of both mother and child."

The long-lasting demands during 2020 and 2021 increased parental stress levels, which one study has found have not returned to pre-COVID-19 levels.[18] Studies have also found that prenatal stress is a well-established risk for infant health challenges, low birth weight and preterm birth, and has demonstrated long-lasting effects on the children.[19]

Maternal stress was measured at the end of April 2020 in 788 pregnant women which demonstrated that 21.1% reported either no or minimal anxiety symptoms, while 43.3% reported either moderate or severe symptoms of anxiety.

Since the beginning of 2020, researchers from different countries have looked at the effect parental stress has on childhood development and pregnancy.[20,21,22] This was also one of the factors analyzed in the featured study in which the researchers found children born during 2020 and 2021 have lower cognitive scores.[23]

During 2020, maternal stress was impacted by a fear of attending prenatal visits. The researchers wrote, not surprisingly, concern over maternal fear, anxiety and depression may also impact missed educational opportunities for the mother and a reduction in interactions and stimulation for the child.[24]

The researchers also note that maternal stress during pregnancy can impact the developing brain structures and connectivity, which later may lead to delays in cognitive and behavioral development. However, data from the featured study did not demonstrate an increase in general maternal stress, which they note was "in contrast to other ongoing studies through the pandemic."

Past studies have demonstrated that parental stress has a significant impact on child behavioral problems[25] and current studies during 2020 and 2021 have also found

parental stress reduces the ability to be supportive and may be a reason for "more pronounced psychological symptoms" in children.[26]

One study[27] published in November 2020, evaluated the mental and behavioral health of 148 children at age 36 to 47 months. What they found was that parents who reported high levels of stress when their children were infants had a two times greater risk of developing mental health problems by the time the children were 3 years old.

Prenatal Fluoride Exposure Lowers Cognitive Function in Kids

An infant's cognitive function may be affected by several factors, including fluoride exposure. In my most recent interview[28] with Paul Connett, executive director of the Fluoride Action Network, he stated:

> *"He [judge] heard from Philippe Grandjean, who is the world's expert on mercury's neurotoxicity, and Grandjean did the BMD [benchmark dose] analysis and testified to that effect in court ... Basically, going back to Grandjean's BMD analysis again, he said, right now the damage to children's brains in the United States is probably greater for fluoride than it is for lead, arsenic and mercury."*

One study published in Environmental Health Perspectives[29] analyzed exposure and impact in 299 mother-child pairs with the aim of estimating the association between prenatal exposure and cognitive development.

Urine samples were taken from pregnant women and then their children when they were 6 to 12 years old. Intelligence was measured in the children using the General Cognitive Index of the McCarthy Scales of Children's Abilities at age 4 and again with the Wechsler Abbreviated Scale of Intelligence between ages 6 and 12.

The results demonstrated that infants who experience a higher prenatal exposure had lower scores on cognitive function tests by ages 4 and 6 to 12 years.[30] The evidence that fluoride has a significantly detrimental effect on children's IQ continues to mount,[31,32,33] yet the toxin continues to be added to the water supply. Connett described further studies, saying:[34]

"There have been four key NIH (National Institutes of Health)-funded IQ studies. Fabulous methodology, the best methodology to date. They've been publishing IQ studies from 1988 to the present. These studies, all published since 2017, all funded by NIH, done by the top researchers.

Not only did they find a strong relationship, two of them, one from Mexico City and one from Canada … [found a] *strong association to the level of fluoride in mother's urine and the baby's IQ, the offspring's IQ.*

[In another study] *One group of children was bottle-fed with fluoridated tap water when they were babies, and the other group of children, similar in every other respect you can think of, were bottle-fed with nonfluoridated tap water.*

So the only difference was whether these babies, whether these children got fluoridated tap water in their formula when they were bottle-fed. A staggering 13 IQ points dropped — staggering."

Tips to Protect Your Children's Cognitive Health

There are several steps you can take to help protect your children's cognitive health, and the first is to protect your own mental health. As has been demonstrated by multiple studies, parental stress, anxiety and depression have an adverse effect on children's behavioral and mental health, which in turn can affect performance.[35]

Additionally, parental stress can reduce meaningful interaction and stimulation for infants, which in turn has an impact on their neurodevelopment. One of my favorite strategies to lower levels of anxiety and fear is the **Emotional Freedom Techniques (EFT)**. As you lower your anxiety level, you become more productive and better able to function.

It is important that you find a way to lower the stress in your life in a way that works for you. Other strategies that are helpful include yoga, vigorous exercise, walking, connecting with friends, meditation and journaling. As your stress levels decline, you'll

find it easier to interact with and provide stimulation for your infant and children, which improves their mental and cognitive health too.

The level of evidence that fluoride is neurotoxic now far exceeds the evidence that was in place when lead was banned from gasoline. Connett explains:[36]

> *"Fluoride is following the same trajectory as lead, because basically, whether or not you found a neurotoxic effect for lead was simply a function of how well designed your study was. The better your study was designed, the more likely you were to find that lead was lowering IQ. The same thing is happening with fluoride."*

I have been outspoken on the potential danger to you and your family from drinking and showering in unfiltered tap water. While ventilating your home helps reduce the indoor air pollution caused by aerosolized particles from your water supply, you need a filtration system to eliminate the fluoride in the water.

The Fluoride Action Network[37] offers tips on filtration systems that help remove fluoride from your drinking water, including what to look for in reverse osmosis filtration devices and other products that may help reduce fluoride. They also suggest **10 ways you can reduce your fluoride exposure**,[38] including filtering your water supply and eliminating dental fluoride treatments.

Sources and References

- [1, 6, 7, 10, 23] medRxiv, August 11, 2021, preprint
- [2] Mayo Clinic, August 11, 2021
- [3] American Academy of Pediatrics, August 9, 2021
- [4] Research Square, PDF. doi.org/10.21203/rs.3.rs-124394/v2
- [5] Research Square, doi.org/10.21203/rs.3.rs-124394/v2
- [8] The Guardian, August 12, 2021, para 6
- [9] medRxiv, August 11, 2021, preprint, para 2 page 5
- [11] The Guardian, August 12, 2021
- [12] Scientific American, February 3, 2014
- [13, 14] New York Times, April 8, 2014
- [15] Science Direct, Mullen Scales of Early Learning
- [16] Pediatrics, 2010;126(2)

- [17] Penn State News, March 8, 2016
- [18] Frontiers in Psychiatry, 2021, doi.org/10.3389/fpsyt.2021.626456
- [19, 21] American Journal of Obstetrics and Gynecology, 2020;2(3) US
- [20] Archives of Women's Mental Health, 2021; doi.org/10.1007/s00737-021-01104-9
- [22, 26] Frontiers in Psychology, 2020; doi.org/10.3389/fpsyg.2020.01713
- [24] medRxiv, August 11, 2021
- [25] American Journal on Intellectual and Developmental Disabilities, 2012; 117(1)
- [27] BMC Public Health, 2020; 20(1726)
- [28, 34, 36] Bitchute, July 11, 2021
- [29, 30] Environmental Health Perspectives, 2017; doi.org/10.1289/EHP655
- [31] JAMA Pediatrics, 2019; 173(10)
- [32] Environment Int., 2020;134:105315
- [33] BMC Public Health, 2020;20(1657)
- [35] Frontiers in Psychology, 2019; doi.org/10.3389/fpsyg.2019.00045
- [37] Fluoride Action Network, Considerations When Buying a Water Filter
- [38] Fluoride Action Network, 10 Ways to Reduce Fluoride Exposure