

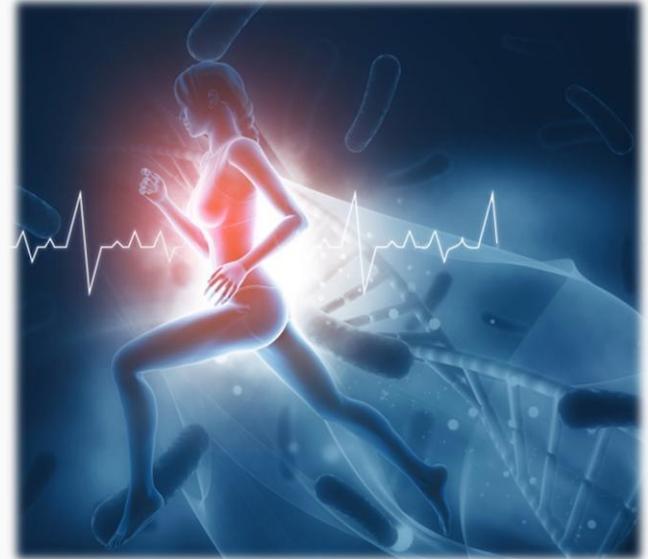
# The Story of **AUTISM**

**PART 6:**

**IT ONLY TAKES ONE  
REFLEX TO START  
THE TOPPLING**

# THE STORY OF AUTISM: It Only Takes One Reflex

Movement is at the core of all that we do. Sometimes that movement is obvious, like when we are involved in physical activity; sometimes it is less obvious, like when we are gesturing, smiling or talking.



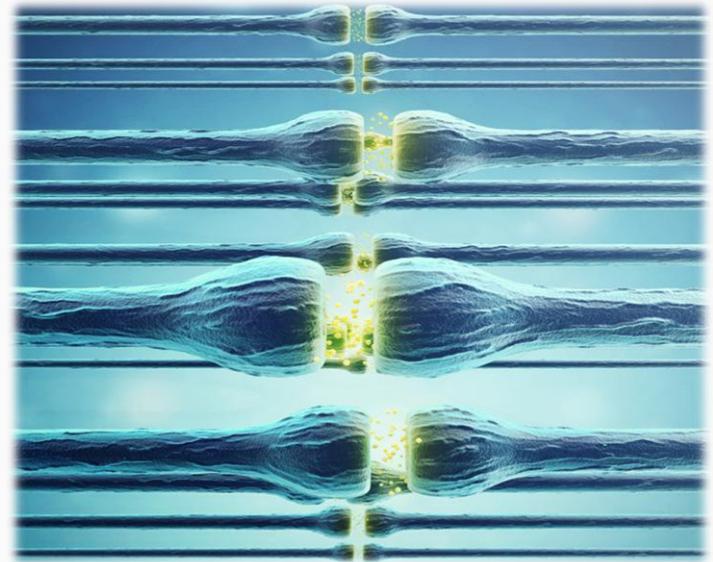
# THE STORY OF AUTISM: It Only Takes One Reflex

For most of us, our brain and body work together so smoothly that we don't even notice what we are doing.



# THE STORY OF AUTISM: It Only Takes One Reflex

**For people with autism, there is a disconnect between the body and the brain;** a disconnect that begins at the beginning of life, when the first automatic reflex arcs in the brainstem are retained when they are supposed to be cleared away.



# THE STORY OF AUTISM: It Only Takes One Reflex

**This retention of nuisance wiring clogs up the neural lines of communication and impedes the formation of new, more functional circuitry.**

Circuitry that allows a developing baby to take control of the movements he makes with the muscles of his body.



# THE STORY OF AUTISM: It Only Takes One Reflex

In this presentation I will show how the retained wiring for one very simple movement can have a cumulative **domino effect that ultimately results in autism spectrum disorder.**



# THE STORY OF AUTISM: It Only Takes One Reflex

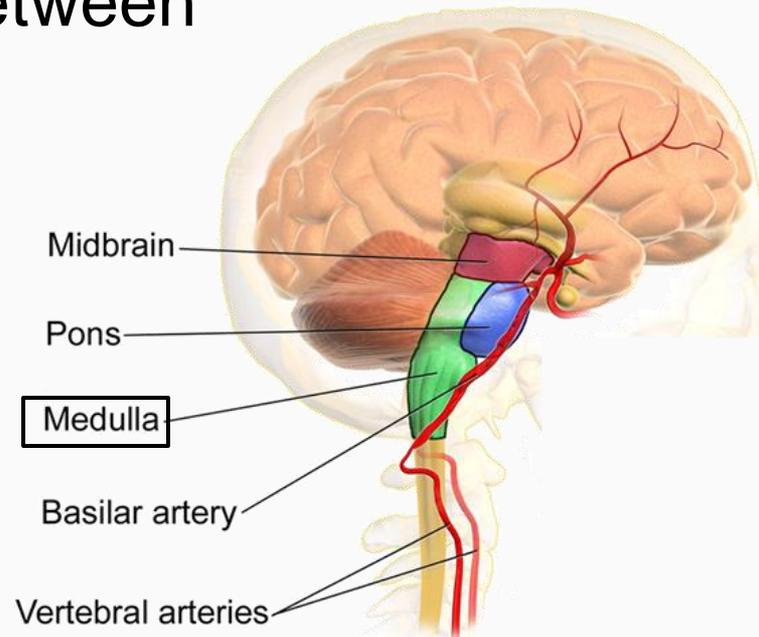
The movement involves a newborn's leg flexing and then extending when the sole of the foot of the opposite leg is stimulated.



This reflex, called the **Crossed Extensor**, probably goes unnoticed by most parents, but **it is very important that it happens and that it happens by the 2<sup>nd</sup> month of life.**

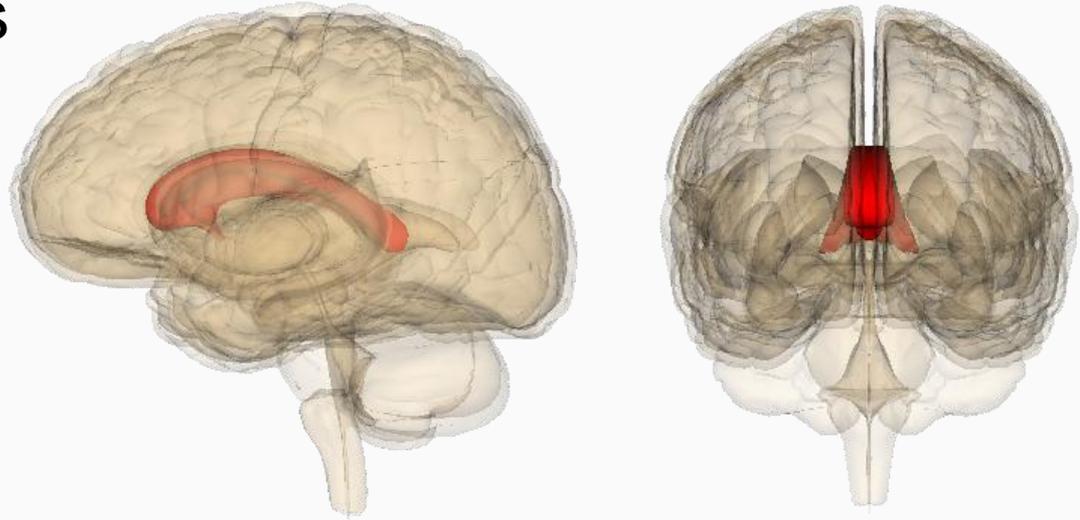
# THE STORY OF AUTISM: It Only Takes One Reflex

The reason this cross lateral movement is so important is because it indicates that the **medulla** (the connecting structure between the spinal cord and brain) is developing along with other higher brain areas



# THE STORY OF AUTISM: It Only Takes One Reflex

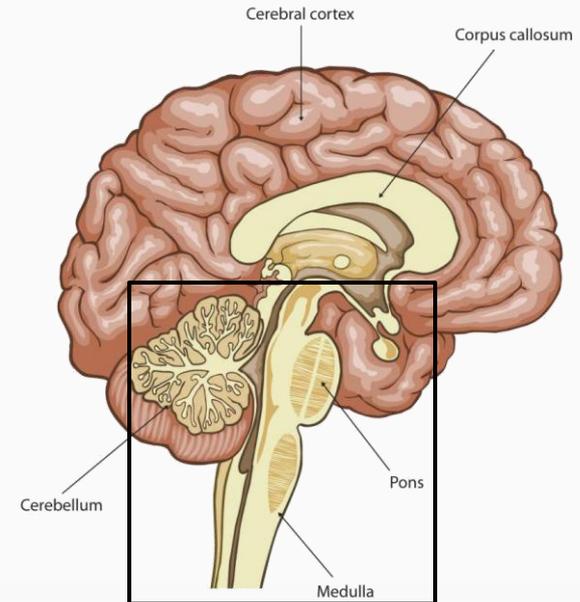
One of structures that the CE reflex helps to get started is the **corpus callosum**, a netting of neural fibers that enables communication between the two sides of the brain.



# THE STORY OF AUTISM: It Only Takes One Reflex

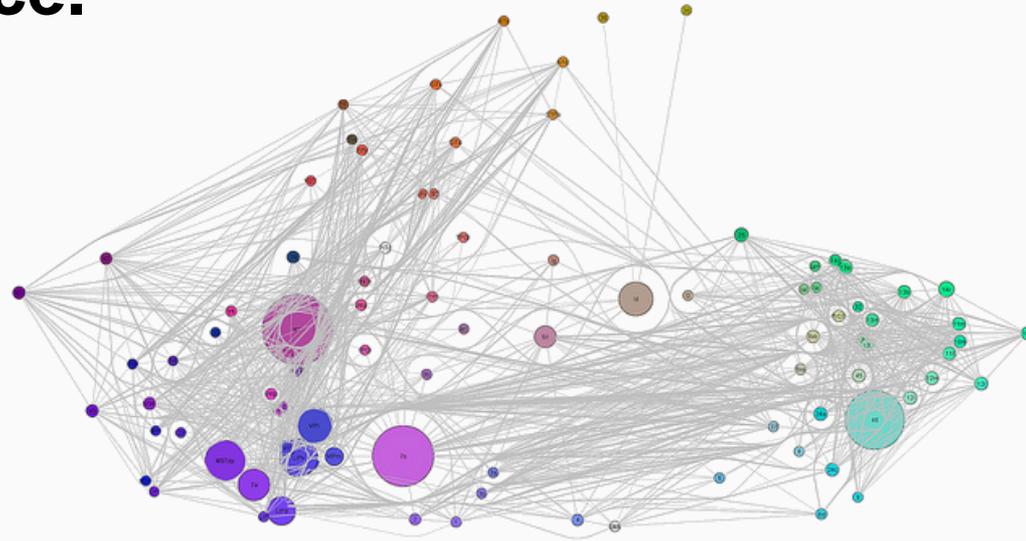
**Activation of this circuitry is essential for the maturation of the brain stem and mid-brain and the development of the both the lower and higher neural pathways.**

**But, once the CE reflex has done it's job, it is equally important that it's circuitry be cleared away.**



# THE STORY OF AUTISM: It Only Takes One Reflex

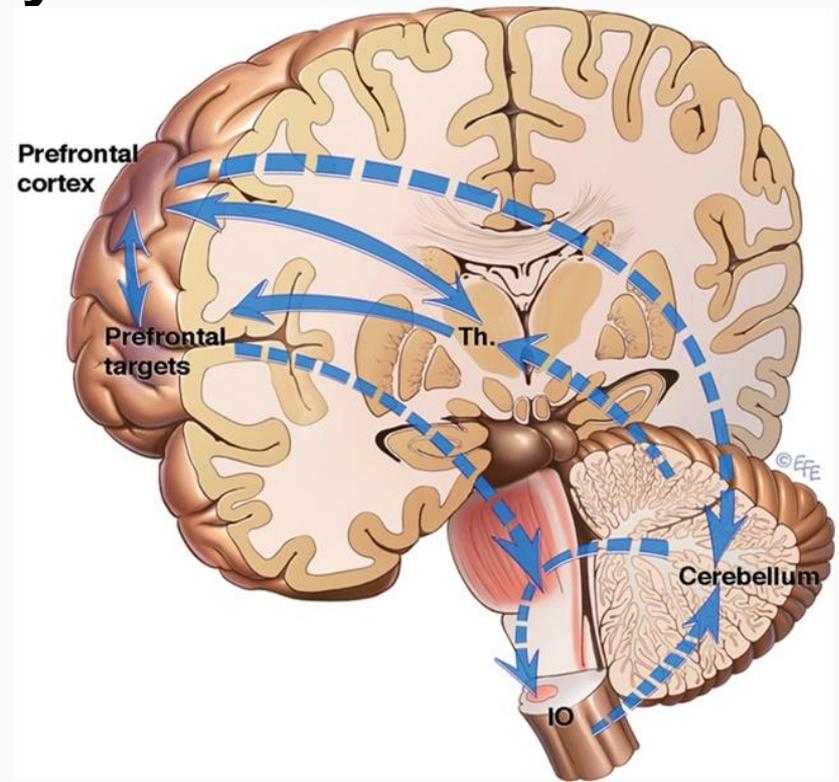
**This must happen by the 2<sup>nd</sup> month of life. If it doesn't, if this reflex hangs around instead, it starts interfering with the very circuitry it was assigned to put in place.**



# THE STORY OF AUTISM: It Only Takes One Reflex

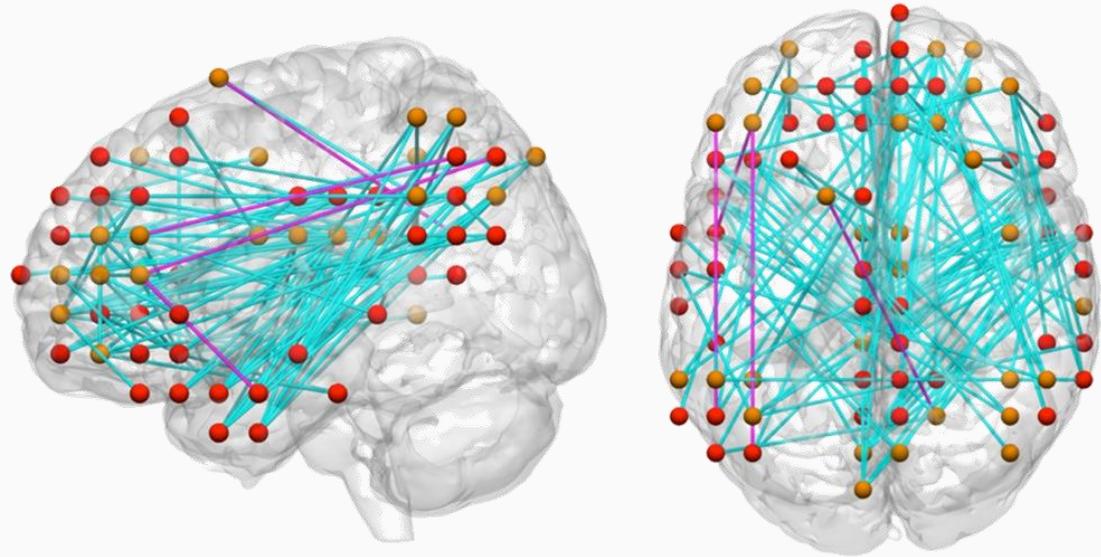
**And this is critical circuitry.**

How the brain develops from this point forward will depend on key neural connections being made and down the length of this tract.



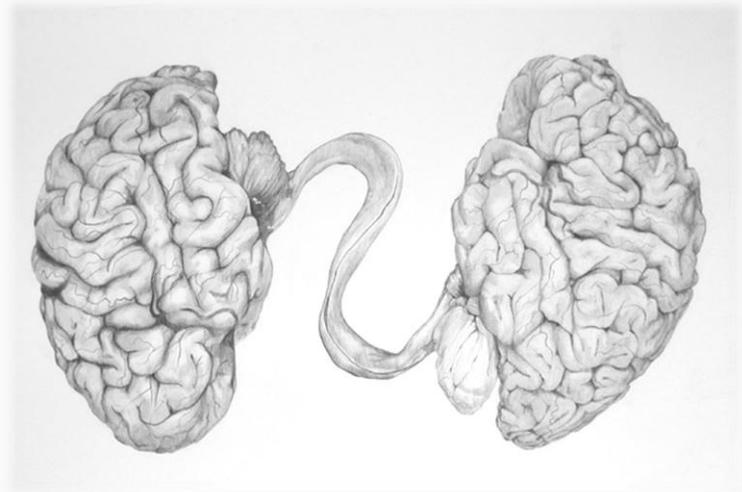
# THE STORY OF AUTISM: It Only Takes One Reflex

If they are not made or are made in an atypical way, the **functional wiring connections to the upper regions of the brain might be over or under-developed.**



# THE STORY OF AUTISM: It Only Takes One Reflex

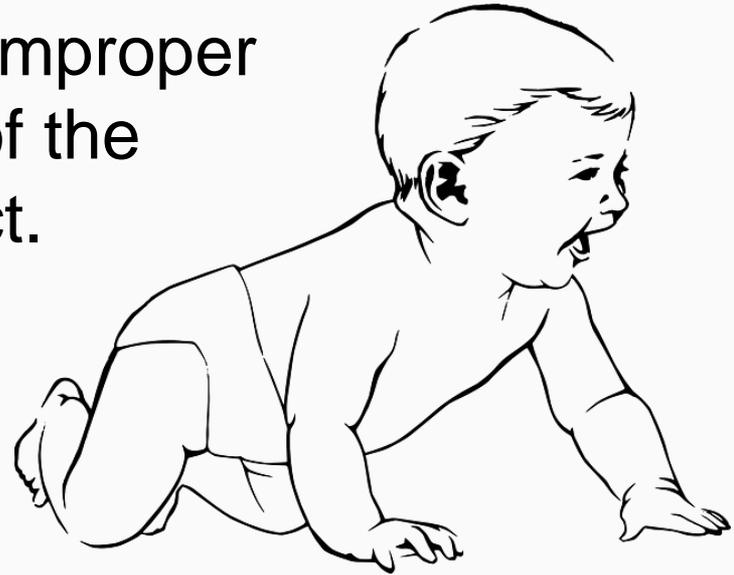
And, if the neural netting (corpus callosum) that links the two hemispheres of the brain together is not being continuously reinforced with new signals or messaging, each side of the brain might begin to form virtually independently of the other.



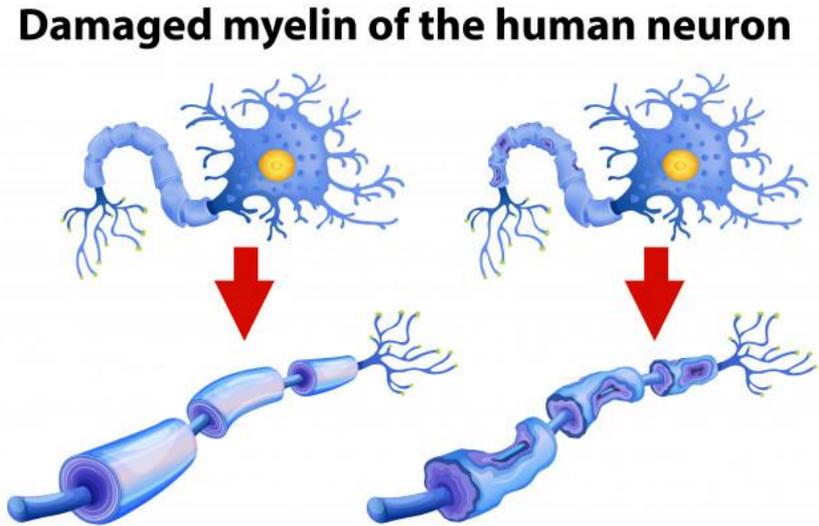
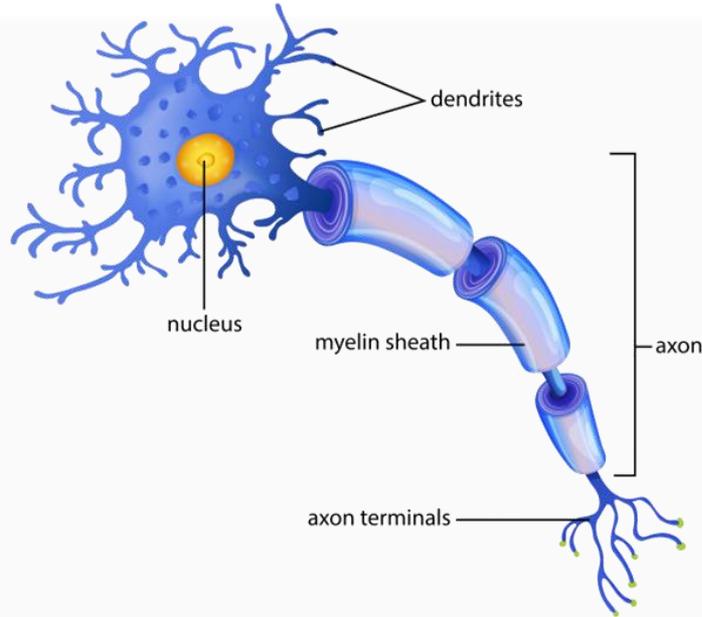
# THE STORY OF AUTISM: It Only Takes One Reflex

If the CE reflex remains active **the Bauer Crawling (BC) Reflex** will not develop properly.

A retained BC reflex causes improper functioning and myelination of the descending motor neural tract.



# THE STORY OF AUTISM: It Only Takes One Reflex



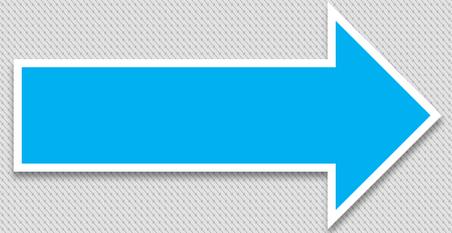
Myelinated neurons are able to process more information in a faster period of time.

# THE STORY OF AUTISM: It Only Takes One Reflex

The lack of myelination in lower neural pathways could result in a delay in the development of both gross and fine motor skills. And, left unchecked, these movement problems could then spiral into other processing delays.



GO ON TO THE NEXT PRESENTATION



The Story of  
**AUTISM**

**CHAIN OF REFLEX  
TOPPLING CAUSES  
GROUND UP HAVOC**

**PART 7:**

