



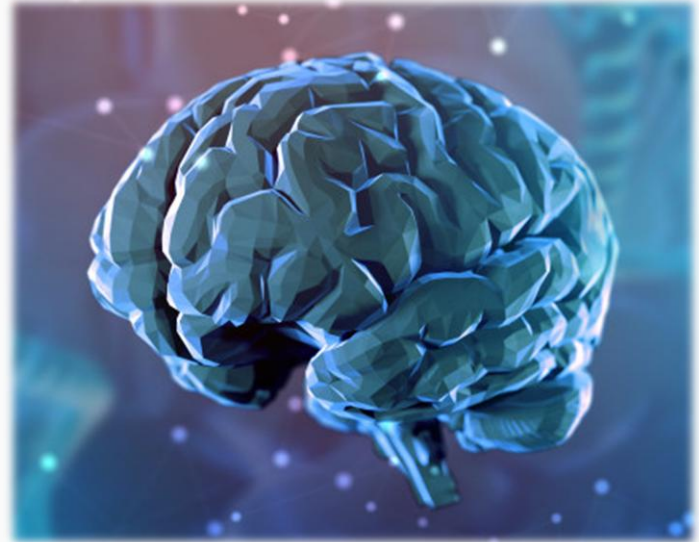
The Story of **AUTISM**

PART 3:

**A PRUNING PATTERN
PROBLEM IS SET**

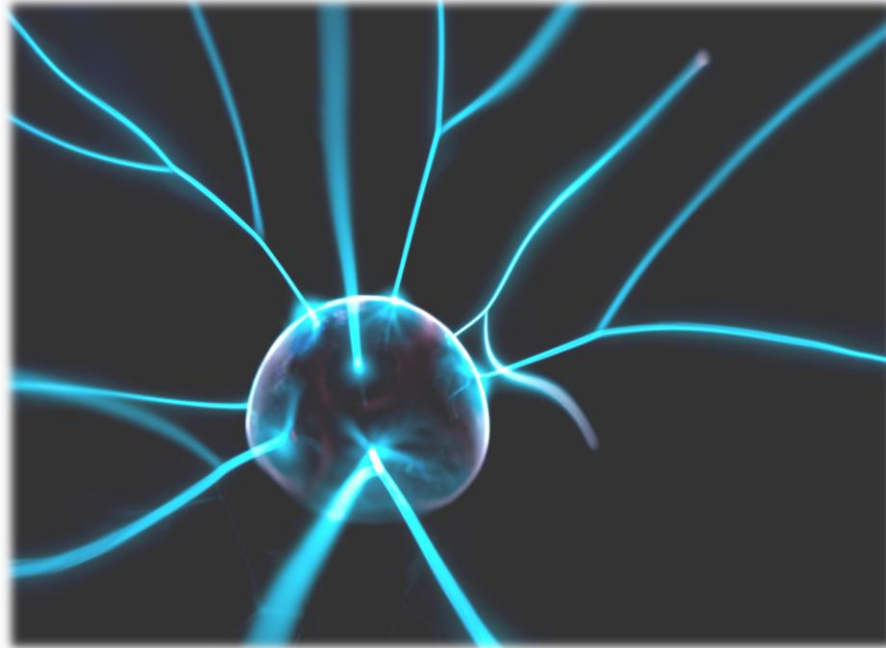
THE STORY OF AUTISM: A Pruning Pattern Problem

The brain wants to be streamlined. It is a myth that the most efficient brains have the most connections. Actually, the opposite is true. The most efficient brains have the fewest connections!



THE STORY OF AUTISM: A Pruning Pattern Problem

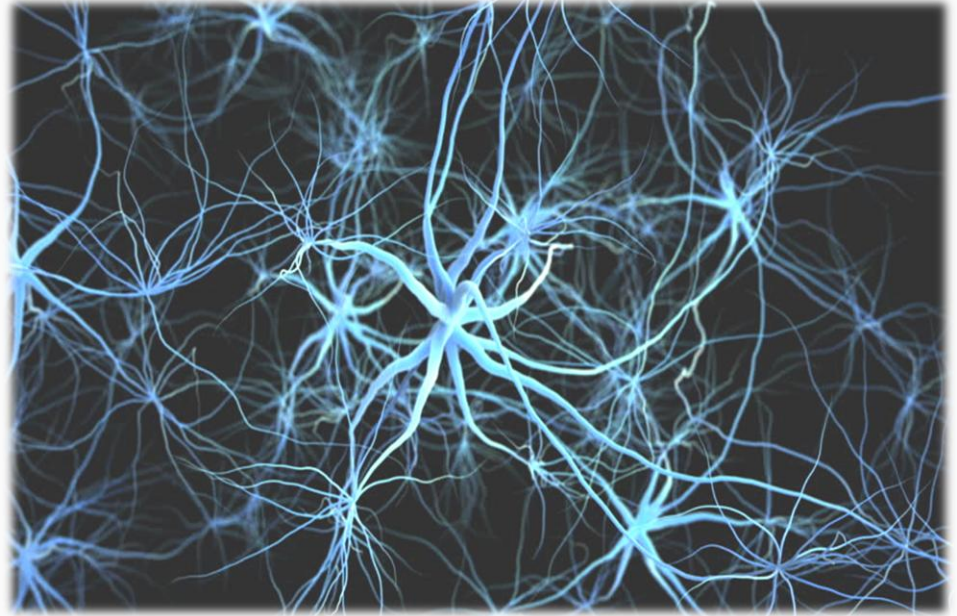
The KEY to brain growth and efficiency is to FIRE and WIRE and then PRUNE.



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But in the autistic brain, shortly after birth, one or more primitive reflexes gets caught up in a continuous cycle of firing and wiring.

The pruning doesn't happen.

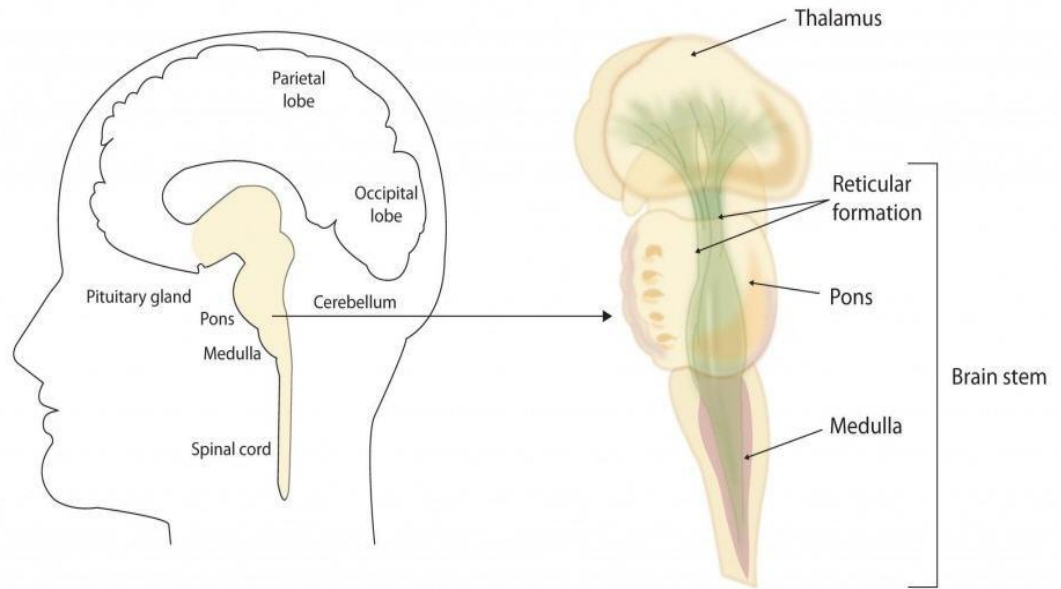


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The neurological repercussions of this are huge.

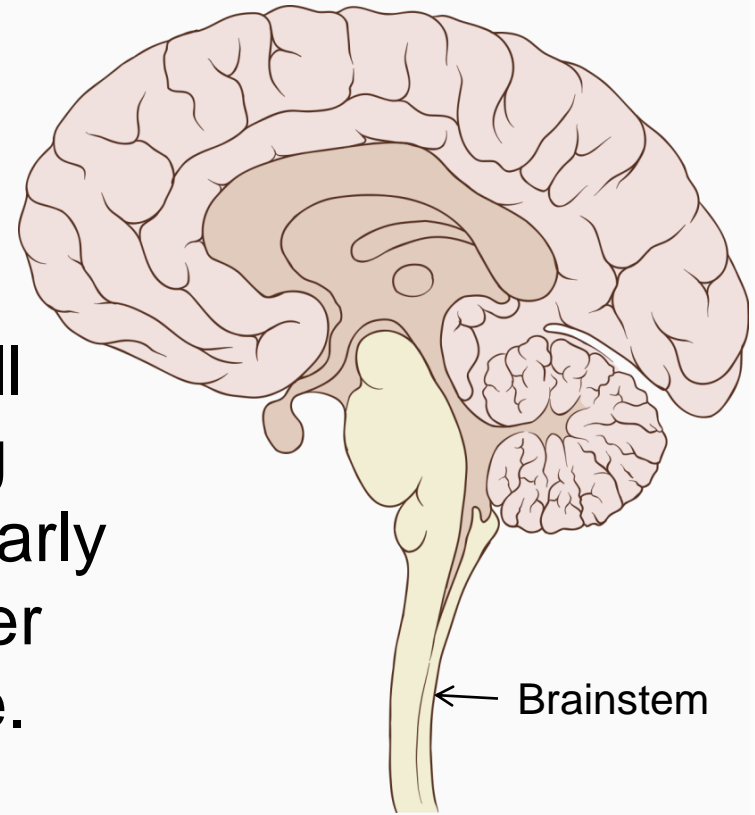
Why?

Because of where it happens – In the brainstem, which essentially is the brain at birth.



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The brainstem the CORE of all sensory and motor processing and the place from which all early connections between the upper brain and lower body originate.



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Because of when it happens – At birth, at a time when neurons are multiplying at a faster rate than they ever will again.



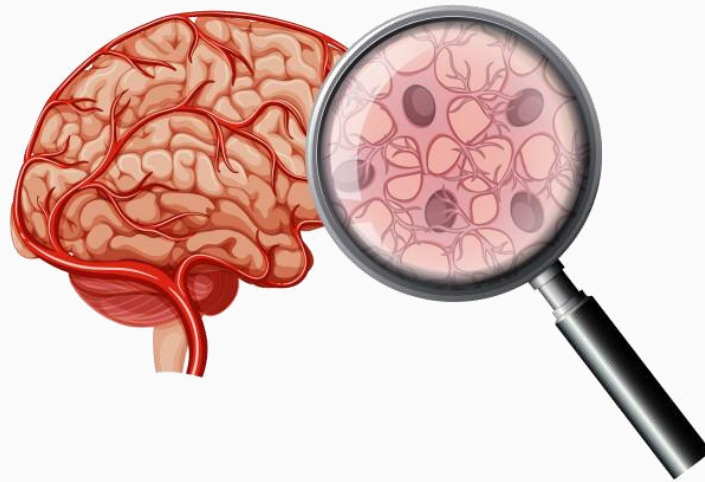
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A newborn's brain is a blank slate. **Every sight, every sound, every touch, every movement sends data to his brain that turns undifferentiated stem cells to fire and wire neurons.**



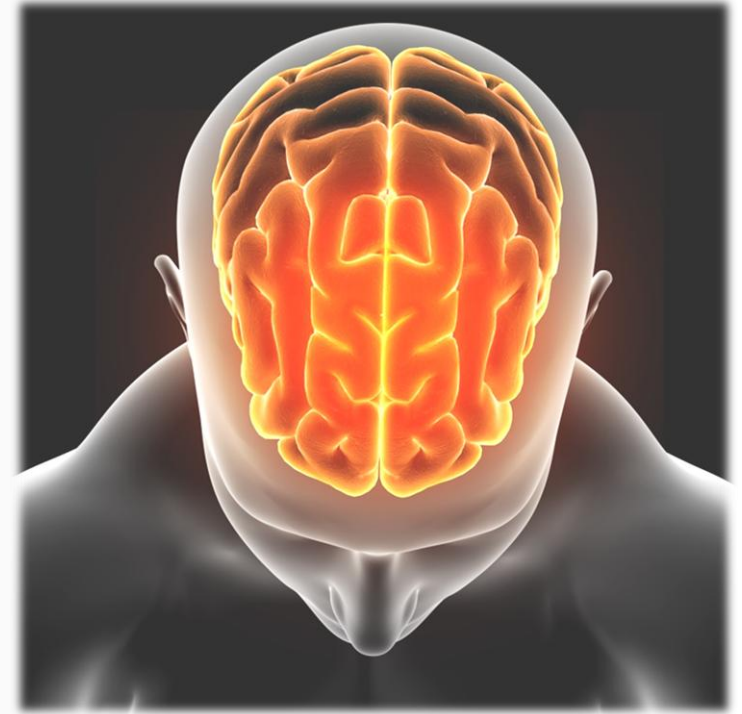
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In typical brains, newly formed neurons follow a chemically programmed GPS to where they are needed, connect to form networks and then they differentiate themselves to serve specialized functions.



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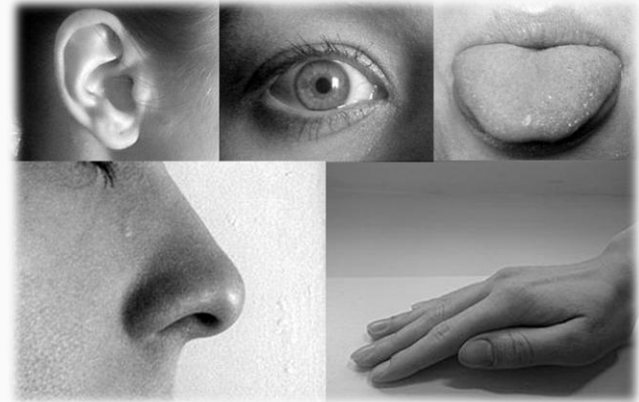
This is how the typical brain develops and organizes itself into right and left hemispheres and specialized lobes.



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In brains with retained reflexes, none of this happens exactly as it should. Here's why.

Each primitive reflex is associated with one or more senses: auditory, visual, tactile, olfactory, vestibular and proprioceptive.



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If even one reflex is retained, a baby will experience some degree of sensory processing dysfunction.



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Of course, the more reflexes that are retained, the more senses that are impacted, the greater the degree of sensory distortion.



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But there are a number of primitive reflexes that affect all the senses, so if just one of these reflexes is retained, it would result in sensory processing disorder as well.



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And if sensory information coming in is incomplete or distorted, the motor information being fed back will be incomplete or distorted.



THE STORY OF AUTISM: A Pruning Pattern Problem

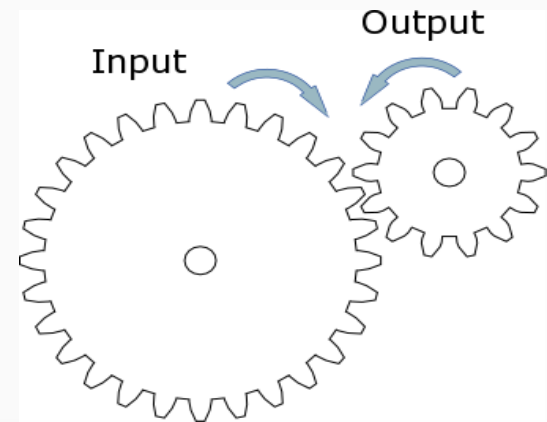
See how the dominos begin to topple. One retained reflex can easily throw off another, and then another and another. Unless and until the initial error is corrected, damage to the developing brain will continue.



THE STORY OF AUTISM: A Pruning Pattern Problem

What we get out of our brains is only as good as what we put into them.

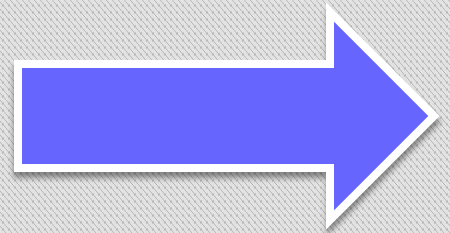
Below is a summary of the most important primitive reflexes and how they impact the development of the brain and neurological system.



PRIMITIVE REFLEXES	AREAS OF OVERLAP	IMPACTS ON NEWBORN IN FIRST 4 MONTHS OF LIFE IF THEY ARE NOT INTEGRATED INTO THE BRAIN & CNS
Crossed Extensor (If this is retained, Bauer Crawling will be retained)	A B C E	A. Impacts hemispheric differentiation and the development of the corpus callosum
Hands Pulling Reflex	B C D	B. Impacts motor development – upper and lower gross and fine movements – hand-eye coordination
Hands Supporting Reflex	B C D F	C. Impacts combining movement with senses – tendency toward hypo- or hyper-sensitivity, impulsivity
Stepping Reflex	A B C D	D. Impacts the development of the vestibular system – Poor balance and equilibrium, binaural hearing
Moro Reflex	A B C D	E. Impacts the development of the visual system – distance, depth, 3-D, binocular, scanning
Bauer Crawling (If this is retained, ATNR & STNR will be retained)	A B C D E	F. Impacts the development of socialization – personal space, mirror movements; language comprehension

PRIMITIVE REFLEXES	AREAS OF OVERLAP	IMPACTS ON NEWBORN IN FIRST 4 – 12 MONTHS OF LIFE IF THEY ARE NOT INTEGRATED INTO THE BRAIN & CNS
Babkin Palmonmental Reflex – Foundation for Sensory Motor Complex	A B D E F	A. Impacts communication between lower and higher brain, between the right and left hemispheres and the formation of the corpus callosum.
Spinal Perez Reflex (Influences functioning of STNR reflex)	A B C D	B. Impacts motor development – upper and lower gross and fine movements – hand-eye coordination
Asymmetrical Tonic Neck Reflex (ATNR)	A B C D E	C. Impacts combining movement with senses – tendency toward hypo- or hyper-sensitivity, impulsivity
Spinal Galant Reflex	B C D E F	D. Impacts the development of the vestibular and proprioceptive systems – awareness of body in space
Symmetrical Tonic Neck Reflex (STNR)	A B C D E	E. Impacts the development of the visual and auditory systems – distance, depth, 3-D, binocular, binaural
Trunk Extension Reflex	A B C D	F. Impacts the development of language – movements of facial muscles that support speech and expression

GO ON TO THE NEXT PRESENTATION



The Story of
AUTISM



PART 4:
MOVEMENT
AND
MILESTONES
REALLY
MATTER