

**Building the Brain:
Supporting Children's Early
Brain Development**

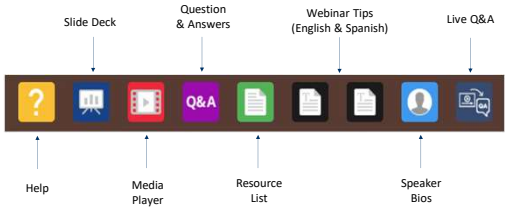
January 21, 2021

Presenter:
Amelia Bachleda, PhD
NCECDTL

National Center on
Early Childhood Development, Teaching, and Learning

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Webinar Features



Slide Deck

Question & Answers

Webinar Tips (English & Spanish)

Live Q&A

Help

Media Player


Resource List

Speaker Bios

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We Grow Our Brains



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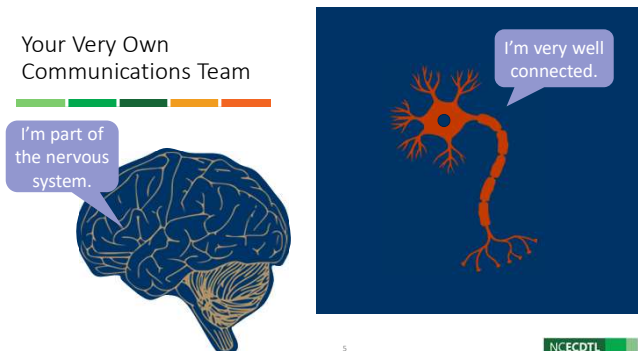
Learning Objectives

1. Identify the early stages of brain development and how experiences shape the brain.
2. Explore strategies and activities that support children's brain development.

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Your Very Own Communications Team



I'm part of the nervous system.

I'm very well connected.

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We Learn About the World through Our Senses




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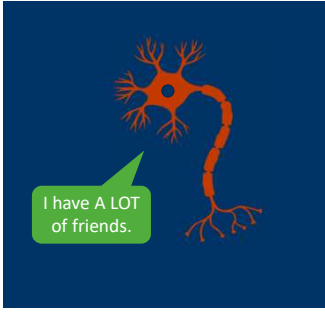
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Your Brain has 86 BILLION neurons



Most neurons are generated in the brain before birth.



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Early Brain Growth



Birth
25%

Gray's Clinical Neuroanatomy, 2010

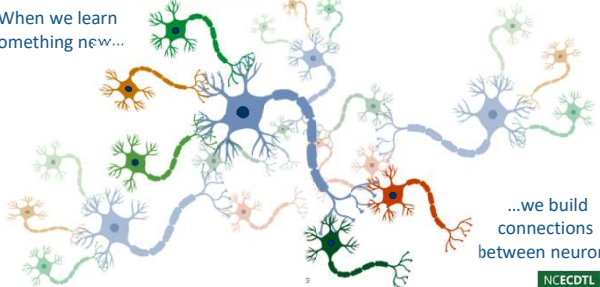
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Neurons Make Connections

When we learn something new...



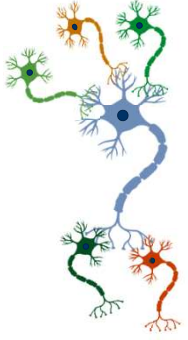
...we build connections between neurons

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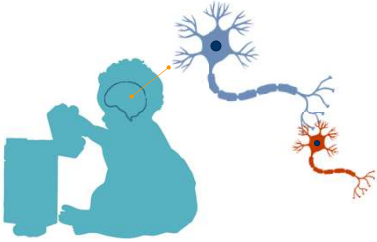
From birth to 3,
the brain makes
1 million
new connections
each second.



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Early Experiences Build the Brain




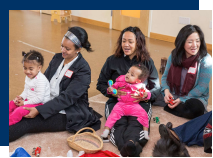
Neural connections
grow stronger with
experience

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We Grow our Brains in
Community

Children's brains are shaped by their
experiences in community.

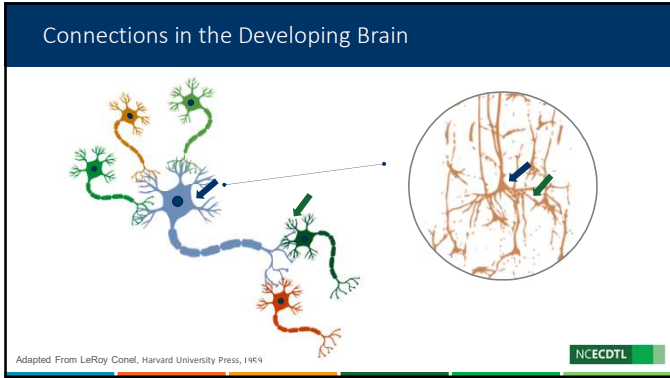


Each child has strengths rooted in their:

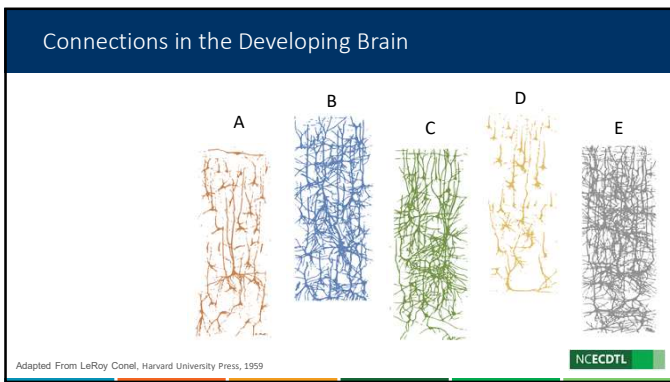
- family's and communities' cultures,
- backgrounds,
- languages,
- traditions, and
- beliefs.

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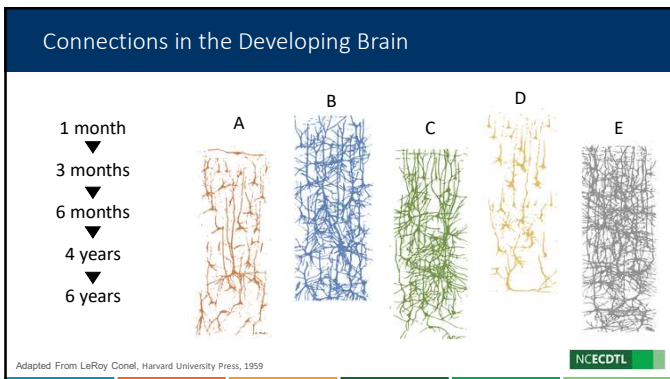
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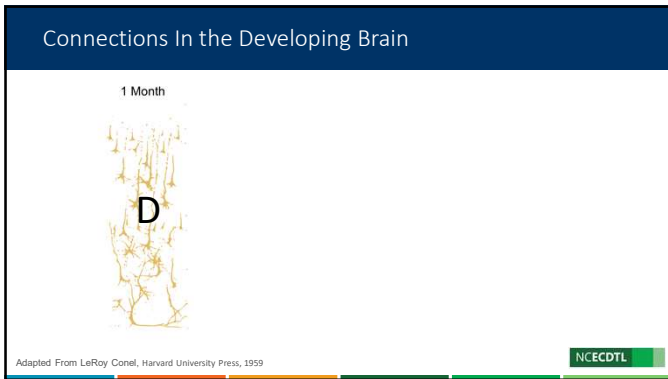
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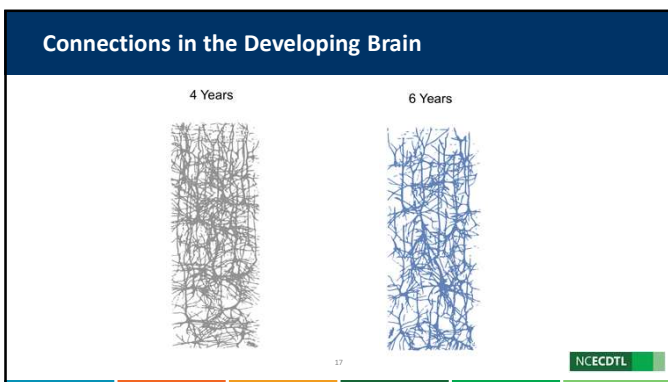
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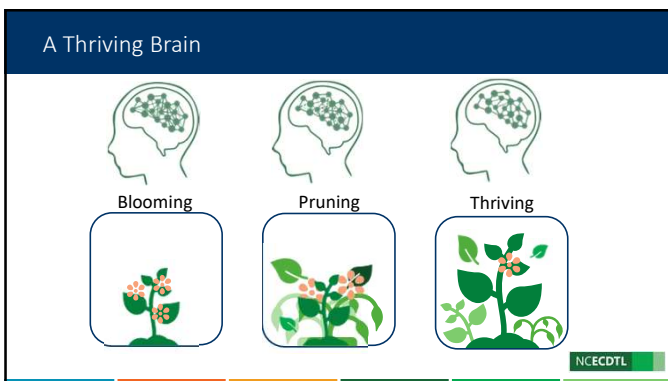
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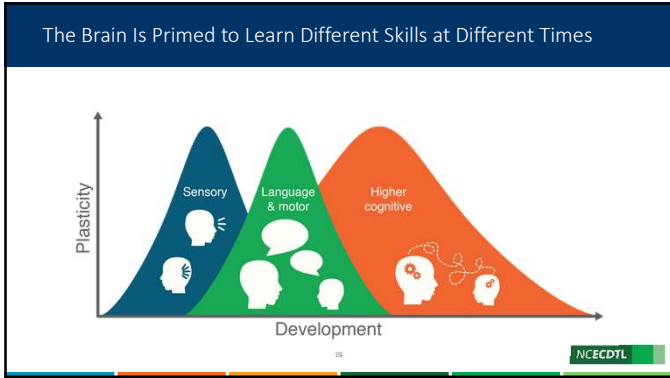
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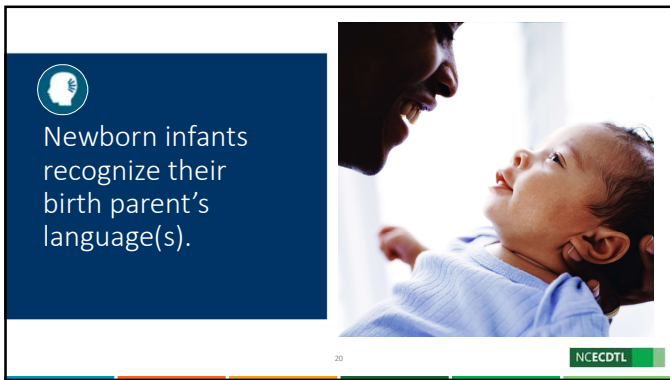
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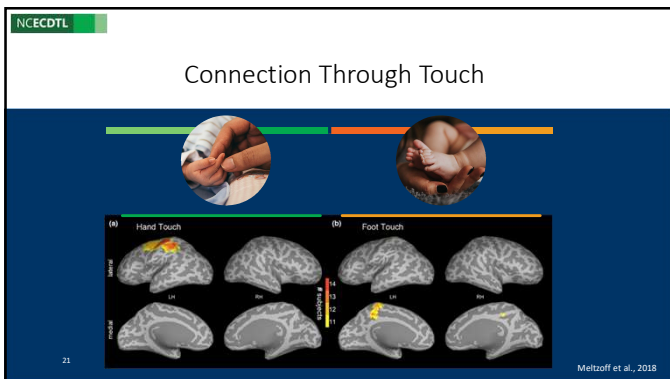
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Infant's brains
"practice" speaking
before they say
their first word.



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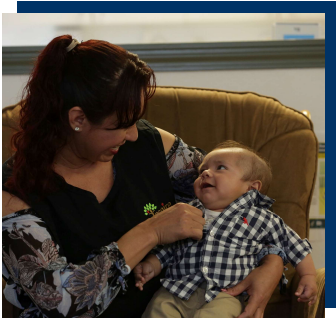
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Early Language Shapes
the Brain



By 11 months, children's brains
begin to specialize for the
language(s) they are learning.

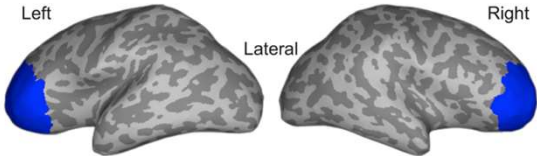
Early childhood is an important
window of opportunity for language
learning.



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Flexible Thinking




Left Lateral Right

Ferjan Ramirez et al., 2016

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Cognitive Flexibility




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Responsive care supports children's developing executive functioning skills.




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Nurturing children's Ideas and Initiatives


- Offer choices and encourage interests.
- Acknowledge perspective and feelings.
- Offer explanations.
- Make physical modifications and provide support.



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Nurturing children's Ideas and Initiatives

Offer children choices, encourage their interests, and follow their lead.

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Nurturing children's Ideas and Initiatives

Acknowledge children's perspective and recognize their feelings.

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Nurturing children's Ideas and Initiatives

Explain why you are asking the child for a specific behavior (complete a task, follow a rule, etc.).

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Nurturing children's Ideas and Initiatives

Making physical modifications to a space or provide extra support.

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Relationships are the most important factor in brain development.

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Relationships Act as Trauma Buffer

With the support of caring, responsive adults, children can heal and recover from traumatic experiences.

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Relationships Act as Trauma Buffer

Learn to recognize the signs of trauma and understand trauma-informed practices.

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Relationships Act as Trauma Buffer

Trauma is hard on all of us, lean on your networks and take time to care for yourself.

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Three Important Ways to Support Brain Development

- 1 Responsive Care
- 2 Child-centered, Social Interactions
- 3 Predictable Routines



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Responsive Care

Helps children recognize their feelings and regulate impulses.

Provides stability and consistency.





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Child-Centered, Social Interactions

Child-centered interactions:

- Help children build social, cognitive and language skills.
- Signal to children that their interests, needs, and presence matters.
- Vary across families and cultures.





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Predictable Routines

Routines help children feel more comfortable and secure.


Children have the chance to repeat something again and again and learn from it.



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Using the ELOF to Support Brain Development



	CENTRAL DOMAINS				
	APPROACHES TO LEARNING	SOCIAL AND EMOTIONAL DEVELOPMENT	LANGUAGE AND LITERACY	COGNITION	PERCEPTUAL, MOTOR, AND PHYSICAL DEVELOPMENT
▲ INFANT/TODDLER DOMAINS	Approaches to Learning	Social and Emotional Development	Language and Communication	Cognition	Perceptual, Motor, and Physical Development
● PRESCHOOLER DOMAINS	Approaches to Learning	Social and Emotional Development	Language and Communication Literacy	Mathematics Development Scientific Reasoning	Perceptual, Motor, and Physical Development

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Using the ELOF to Support Brain Development

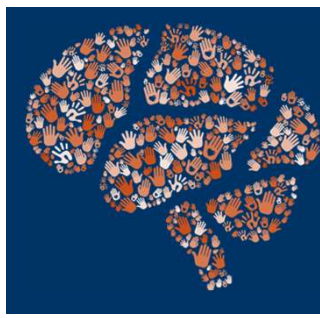


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Biology + Experience Build the Brain





- We grow and nurture our brains.
- Experiences shape our brains.
- Relationships are key.

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Q&A with presenter!




Amelia Bachleda, PhD


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Live Q&A



Thank You!

For more information, contact:
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or call (toll-free) 1-844-261-3752



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