

# Child Health Notes

Promoting early identification and partnerships between families, primary health care providers & the community.

Distributed by the Lewis County Interagency Coordinating Council (ICC) and Parent to Parent.

Contributors: UW Center on Human Development and Disability and Washington State Department of Health

## Simple Messages:

Be warm, loving, and respond to your child's cues

Talk, read, and sing to your child

Establish routines and rituals. They appreciate it and know what to expect.

Encourage safe exploration and play

Limit TV watching and computer screen time to 30 minutes / day for children younger than 7.

Use discipline according to your child's abilities and as an opportunity to teach

Choose quality child care and stay involved

Take care of yourself



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Washington State  
Department of Social  
& Health Services

Infant Toddler  
Early Intervention  
Program (ITEIP)



## EARLY BRAIN DEVELOPMENT

New and more powerful research tools have increased scientific knowledge about human brain development. These new tools confirm that genetic endowment, early experiences and the environment, **including the quality of relationships with caregivers, directly impact early brain development. The brain is vulnerable to developmental problems if the environment is especially impoverished or non-nurturing.**

### WHAT IS HAPPENING IN THE BRAIN DURING THE EARLY YEARS?

A newborn baby's brain is still very much a work in progress.

Although almost all neurons in the cerebral cortex are produced before birth, they are poorly connected.

A newborn's brain is only about one quarter the size of an adult's brain, and grows to 90% of an adult size by age 5 years. This growth is due primarily to the increase in the number of nerve cells, junctions or gaps between nerve cells and nerve insulation, known as myelination.

Brain development is gene- and activity-dependent. Experience determines which genes become inherited, how, and when.

Neural pathways that are used consistently are strengthened and those rarely used may be "pruned" away (a "use it or lose it" principle).

The final number of junctions and gaps, known as synapses, may increase or decrease depending on early childhood experiences.

### Why is Environment Important to Optimize Early Brain Development?

Everyone who interacts with young children and infants can have a lasting impact, positive or negative, on the way a child's brain grows and thrives. Children's early attachments and relationships with adults have a vital influence on their brain development. **Experience actually changes the structure of the brain.** In experimental animals, enriched environments lead to an increased density of synaptic connections, and especially to an increased number of neurons and volume of the hippocampus, a region important for learning and memory. In addition, there are critical periods during which some elements of development must happen or impairment will occur.

**What Else is Important to Optimize Early Brain Development?**

Nutrition affects brain development both prenatally and postnatally. Children who are truly malnourished between mid-gestation and two years of age often suffer lasting behavioral and cognitive deficits such as slower language and fine motor development, lower IQ, and poorer school performance.

**Good nutrition for mothers and children:**

- ?? Good nutrition in pregnancy to support adequate fetal growth
- ?? Give your baby breast milk to provide optimal nutrients for infant's brain growth
- ?? Screening for and treatment of iron deficiency to prevent cognitive deficits
- ?? Adequate fat intake in early childhood to support the rapid pace of myelination

**Internet Resources on Early Learning:**

**National:** Zero to Three – [www.zerotothree.org](http://www.zerotothree.org)

Born Learning – [www.bornlearning.org](http://www.bornlearning.org)

**WA State:** Early Care and Education Coalition – [www.earlyeducationcoalition.org](http://www.earlyeducationcoalition.org)

Foundation for Early Learning – [www.earlylearning.org](http://www.earlylearning.org)

**Parent Information Sheet:**

Ten Tips to Help a Child to Learn. Contact Children’s Hospital and Regional Medical Center (206) 987-5221 or 1-866-987-2500. Limited quantities available at no charge.

**SPECIAL NEEDS INFORMATION AND RESOURCES**

**Local:**

Lewis County Department of Health	(360) 740-1223
TOLL FREE:	(800) 562-6130 ext. 1223
Lewis County CSHCN Nurse	(360) 740-1257
Lewis County Parent to Parent	(360) 736-9558 or (360) 269-2269

**Regional:**

Center on Human Development and Disability, UW	1-877-685-3015 or 206-598-1800
Mary Bridge Children’s Hospital & Health Center	1-253-403-4141
Seattle Children’s Hospital	<a href="http://www.seattlechildrens.org">www.seattlechildrens.org</a>
Washington State Medical Home Website	<a href="http://www.medicalhome.org">www.medicalhome.org</a>
American Academy of Pediatrics	<a href="http://www.aap.org">www.aap.org</a>

We have many more resources on Children’s health. Please call us at the numbers on the other side.

**LOCAL RESOURCES FOR DEVELOPMENTAL SCREENING AND ASSESSMENT**

<b>For children under age three:</b>	<b>Contact:</b>
In any Lewis County School District	In-tot Developmental Center 748-4359 or 1-888-548-4359
In Centralia or Chehalis School District only	Growing Together 748-2277 or Student Support 807-7245

<b>For children age three and older:</b>	<b>Contact:</b>
Within Centralia Chehalis School Districts	Local school district
Outside Centralia Chehalis School Districts	Lewis County Special Education Coop 748-3384 or local elementary school

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