



★ **Nine months, three trimesters:** A baby is in its mother's womb, or uterus, for about nine months from the time it is conceived. That nine-month period of time is divided into three sections called trimesters. Different development takes place during each trimester.

★ **Be realistic about a baby's development:** After birth, a baby grows and starts to learn how to use its arms, legs and other parts of the body. A baby reaches many physical milestones during the first three years. Not all babies reach all milestones at the same time. Every baby is different.

Many people think that a newborn baby is able to smile, coo, and laugh right away. Actually, it takes one or two months before a baby may smile and coo. Many young and especially teenage parents believe that a baby will love them back right away. A baby does bond with his or her parent, but a newborn is going to take much more than it gives back. A caregiver may get frustrated with a baby unless he or she knows what a baby can realistically do and at what age.

RealCare® Baby II represents a NEWBORN baby.

★ **Helping babies' brains develop:** Most brain development happens after a baby is born. An infant has 100-billion brain cells at birth, and a small child's brain is twice as active as an adult's! Some brain cells already have pathways to each other to help with breathing, heartbeat, and other life-sustaining functions. Other pathways that determine behavior, mental capacity, and emotional development must be made after birth.

The pathways the young brain cells make with each other are formed mostly during the first three years of life. The brain keeps track of which pathways are used most. If certain experiences are repeated many times, those pathways are more likely to remain strong throughout life. If a pathway is not used regularly, the brain gets rid of it.

★ **Communication and language:** To learn to talk, a baby must hear language. Many people think that talking to a baby is not important since the infants cannot understand the words. This is not true! Words and sounds heard during the first three years of life help the child learn to speak. Parents and caregivers who read and talk to their babies are helping to develop very important language pathways in the brain. After a while, the child will start to participate and "talk" back. Even "babbling" is repeating the sounds and syllables of words they hear.

★ **Routines and security:** A baby needs a safe, secure environment filled with loving care. Loving responses to each instance of crying makes a baby feel safe. The baby learns that his or her world is predictable. A positive relationship with a parent makes the baby feel safe and secure. Consistency is key. Predictable routines for eating and sleeping are good ways to establish security.

★ **Enriching experiences:** Parents do not need expensive, trendy educational toys and activities to help their babies' brain development. Any activity that stimulates one or more of the five senses will help build pathways.

5 senses
Sight
Sound
Touch
Smell
Taste

Activity

Watching and focusing on mom or dad's face, picture books

Listening to music

Feeling new textures (soft, hard, rough, smooth, fuzzy) or feeling fabrics

Cooking smells, flowers, fresh air

After a few months, tasting new foods every few days

Taking a baby for a walk while the baby is active and alert is a great way to provide a new experience for building pathways. Variety is important and so is repeating of activities. Many babies can tolerate only brief periods of active stimulation, whether it be for the eyes, etc. The infant will communicate when he has lost interest by fussing or turning his face away.



Children too small to be protected by seat belts ride in child safety seats, and infants use infant car seats. A newborn baby is not allowed to leave the hospital without an approved child safety seat.

★ **Infant-only seat**

- Birth to approximately 20 pounds and 1 year old.
- Allow the infant to be semi-reclined, not sitting upright.
- Infant faces the rear of the car.
- Small, portable, and fit newborns best.
- Three-point harness version has two straps at the shoulders and one strap at the crotch.
- Five-point harness version has two straps at the shoulders, two at the hips, and one at the crotch.
- Breastplate on the straps should be at armpit level.
- Some have the option of using a base that stays in the vehicle, fastened with the vehicle seat belt.
- Always follow car seat installation instructions.



★ **Convertible car seat**

- Used rear-facing for babies up to one year of age and up to 20 pounds.
- Turned around for toddlers who are both at least one year of age and at least 20 pounds.
- Bigger and heavier than infant seats, but can be used longer (up to 40 pounds).
- Rear facing: shoulder straps positioned at or below infant's shoulders, reclined seat position, and vehicle seat belt routed through the rear-facing belt path.
- Forward facing: shoulder straps positioned above the child's shoulders, upright position, and vehicle seat belt routed through the forward-facing belt path.
- Always follow car seat installation instructions.
- Five-point harness, a T-shield (a padded shield attached to shoulder straps), or an overhead shield (a padded shield that looks like a tray and swings down around the child).
- Some have the option of using a base that stays in the vehicle, fastened with the seat belt.



★ **Booster seat**

- Used by older children as a transition seat before sitting directly on the vehicle seat.
- Children from 40-100 pounds.
- Some seats use a separate harness system.
- Some seats have back support like the harness version, but use the vehicle seat belt and guide it on a correct path for a small child.
- Some are simply a seat with no back support that also uses the vehicle seat belt.



★ **Built-in seat**

- Car seats built right into the vehicle seat.
- Check vehicle owner's manual for weight and height restrictions.

A car seat, whether for an infant or an older child, must always be secured to the seat with a seat belt. If not secured, the car seat can be thrown through or from the car during a collision or a sudden stop.



- ★ **Breastfeeding promotes bonding with the mother.** Security develops as infants are held and cuddled in an exclusive relationship with the mother. In bottle feeding, someone else can substitute for the mother. The temptation is greater to prop the bottle in place while the parent does something else.
- ★ **Breastfeeding is soothing for the infant.** Breast milk soothes infants' intestines, while cow's milk (in formula) can be an irritant. Breast milk also contains chemicals that soothe infants, and endorphins that can suppress pain.
- ★ **Breastfeeding decreases the risk for a large number of health problems.** According to the American Academy of Pediatrics, breastfeeding decreases the incidence and/or severity of diarrhea, lower respiratory infection, ear infections, bacterial meningitis, botulism, asthma, and urinary tract infection. There are a number of studies that show that breastfeeding may protect against Sudden Infant Death Syndrome, insulin-dependent diabetes, lymphoma, Crohn's disease, and other chronic digestive diseases.
- ★ **Breastfeeding is good for infants' brain development.** Breastfeeding has been related to possible enhancement of cognitive development. An 18-year-long study in New Zealand found that breastfed infants had better intelligence (IQ) and academic achievement than formula fed infants.
- ★ **Breastfeeding makes over-feeding impossible.** The amount of sucking the infant does determines the amount of milk produced.
- ★ **Breast milk is easily digested.** Breast milk contains an enzyme that aids in digestion. It also forms softer curds in an infant's stomach than cow's milk (which many formulas are based on). Virtually all the protein in breast milk is readily available to the infant, compared to about half the protein of cow's milk.
- ★ **Breastfeeding helps jaws and teeth develop properly.** Infants who breastfeed have to use up to 60 times more energy to get milk than formula fed infants do from a bottle. This helps develop the jaw muscles.
- ★ **Breastfeeding decreases a girl's risk of developing breast cancer.** Girls who were breastfed as infants, even for a short time, have a 25 percent lower risk of developing breast cancer than women who were not breastfed.
- ★ **Breast milk is designed specifically for infant humans.** It's designed to build up the brain, and promote gradual physical growth.
- ★ **Breast milk is less likely to cause allergic reactions.** It is specifically for humans.

2. Non-fluffy bedding -- An infant should sleep on a firm mattress or surface. Avoid using fluffy blankets, pillows, sheepskins, or comforters under the infant. An infant under one year of age should not sleep on a waterbed or with soft stuffed toys.

3. Good prenatal care -- Good prenatal care includes proper nutrition, and avoiding alcohol, drugs, and smoking. Frequent checkups starting early in the pregnancy may help prevent or detect abnormalities.

4. No smoking -- Infants born to mothers who smoked during pregnancy are three times more likely to die from SIDS. Exposure to smoke after birth doubles an infant's chance of SIDS. Smoking also has a negative impact on an infant's lung development. Smoke-free environments are crucial for healthy development.

5. Cool room temperature -- Infants who are overheated are more likely to go into a deep sleep. It is hard to wake them. Research has found that infants who are allowed to overheat -- too much clothing, bedding that is too heavy, and a room that is too warm -- are at increased risk for SIDS.

6. Breastfeeding -- Studies have shown that SIDS in breastfed infants is less common. Breast milk can provide extra protection and immunity from infections that can trigger SIDS.

7. Regular health care -- Infants should receive regular checkups and have immunization shots on schedule. Research shows that SIDS may be hereditary, but the connection is not strong. If either parent has a history of infant death in the family, the doctor should be told. A genetic blood-screening test can be done to see if the parent is a carrier of a gene that may contribute to SIDS. The infant may also be tested after birth.

SIDS is:

- not contagious.
- not caused by immunization.
- not caused by child abuse.
- not caused by vomiting, choking, colds or infections.
- not the cause of every unexpected infant death.
- not anyone's fault.

SIDS statistics are changing. In the 10 years before 1992, there were between 5,000 and 6,000 SIDS deaths reported each year in the United States. In 1992 this number started to drop each year. The National Center for Health Statistics reported that 2,827 infants under one year of age died from SIDS in 1998. This number is lower than the 2,991 SIDS cases in 1997.

More information

Back to Sleep Campaign
www.nichd.nih.gov/sids
 (800) 505-CRIB

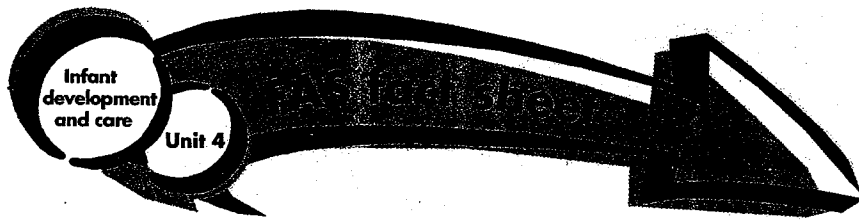
The SIDS Foundation
www.sidscanada.org
 (800) END-SIDS

National SIDS Resource Center
www.sidscenter.org
 (703) 821-8955

SIDS Alliance
www.sidsalliance.org
 (800) 221-7437

National SIDS & Infant Death
 Program Support Center
www.sids-id-psc.org
 (800) 638-7437





Name: _____

Class period: _____

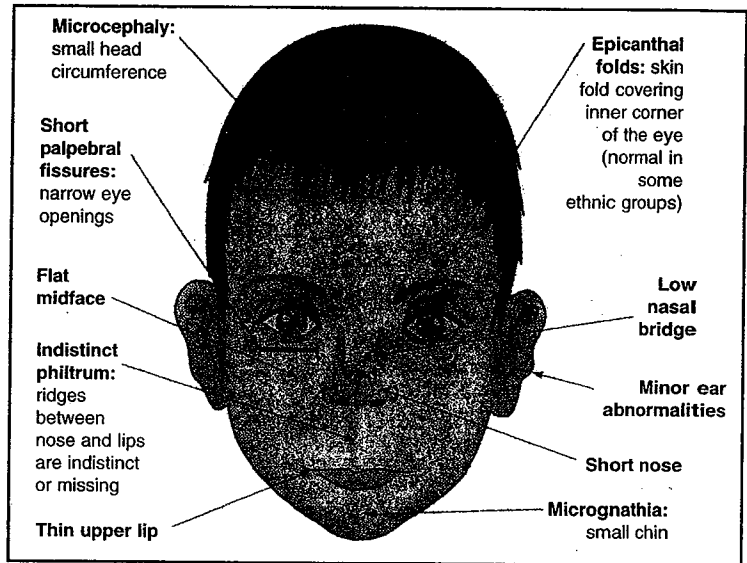
★ Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effect (FAE) are a set of birth defects and mental disabilities that occur when a mother drinks alcohol during any trimester of her pregnancy.

★ FAS and FAE always involve some level of brain damage. Physical defects may also be present, but sometimes are not.

★ FAS is the leading cause of preventable mental disabilities. There is no cure.

★ FAS is a condition that affects growth, the brain, and the face. There are often behavior problems, learning disabilities, slow growth, and specific facial abnormalities.

★ FAS is a problem found in all races and all socio-economic groups. In the United States, between 1,300 and 8,000 infants are born with FAS every year.



★ Not every child with a learning disability has a mother who drank during pregnancy.

★ FAS is hard to diagnose for several reasons.
 --No one symptom alone can identify FAS.
 --There are no widely accepted medical tests to diagnose FAS.
 --Some behavioral and mental problems often do not develop until a child is older.
 --It is hard to get a good assessment of the mother's alcohol use.
 --Many health care providers are not trained about alcohol use among pregnant women.

★ No safe amount of alcohol has been set for a pregnant woman.

★ Fetal Alcohol Effect is a term used to describe children who show some symptoms of alcohol effects but do not meet the full criteria for FAS.

★ FAS was first defined in 1973.

★ Alcohol passes from the mother's bloodstream to the fetus through the placenta. A fetus cannot process alcohol. As the mother's body processes it, alcohol is absorbed by the fetus's tissue with high water content (the brain, liver, pancreas, kidney, lungs, thymus and heart). The level of alcohol in the fetus's blood is often two times higher than in the mother's blood and stays in the fetus's blood twice as long.

★ Regular drinking by the father may damage his sperm, causing birth defects and/or miscarriage.

Remember: An infant with FAS may look normal, but still suffer from mental and behavioral problems associated with FAS. Physical symptoms may be present, but sometimes are not.

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The Baby Think It Over® Program with RealCare® Baby II
Unit 4: Four: Infant development and care

