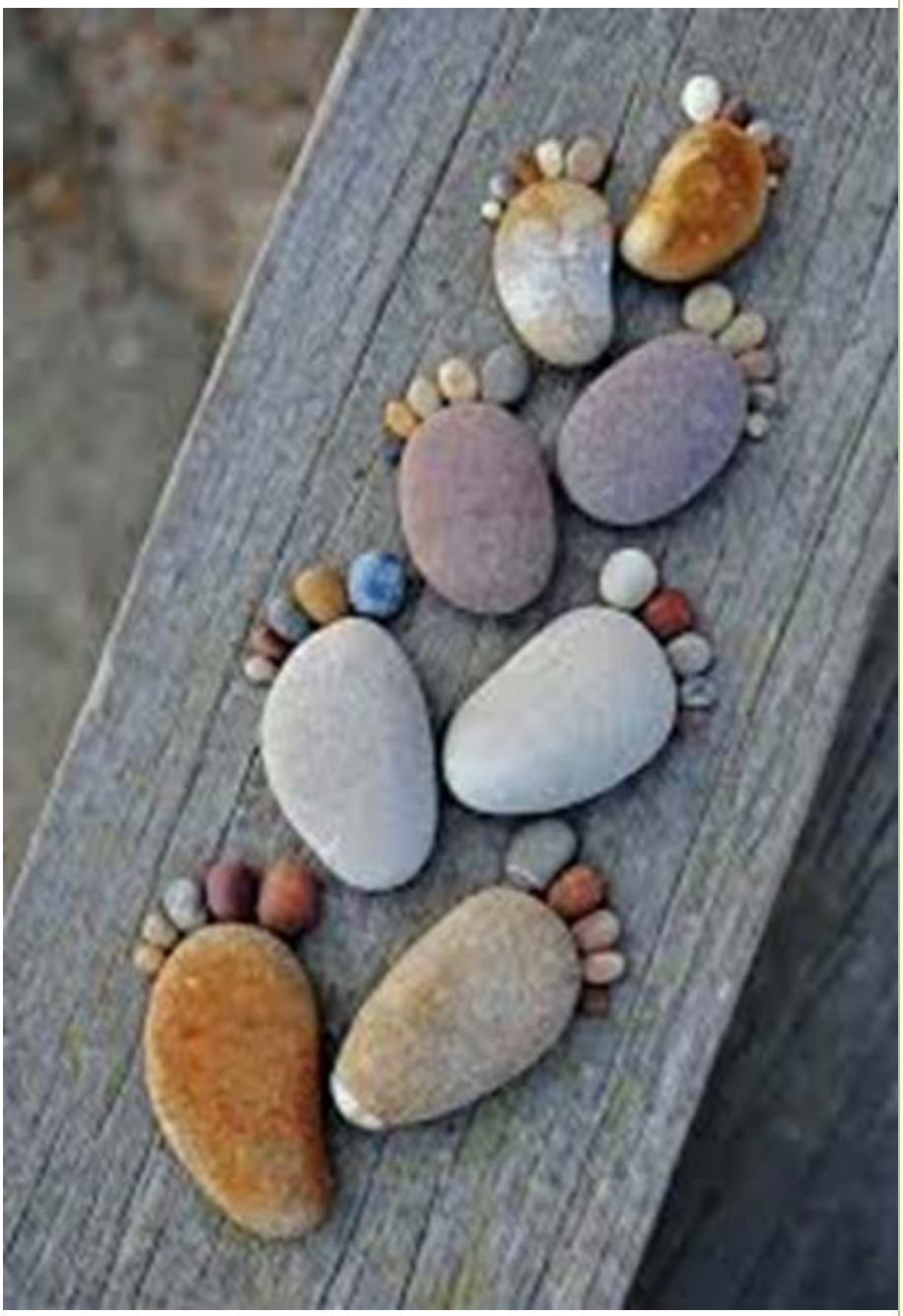
BABY STEPS

Caring for Babies with Prenatal Substance Exposure



Alberta Version

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Alberta Safe Babies Development Committee

Alberta Health Services/Covenant Health

Denise Clarke, RN, MN, NNP-BC
Neonatal Nurse Practitioner
Stollery Children's Hospital NICU

Stephanie Haire, MSW, RSW
NICU Social Worker
Grey Nuns Hospital
Covenant Health

Ministry of Human Services

Susan Patenaude, B.Ed., M.Ed. Psych
Coordinator
Safe Babies Project
Child & Family Services Division

Angela Ross, BSW, RSW
Program Consultant, Policy
Practice & Program Development
Child & Family Services Division

Susan D. Parker, MSW, RSW
Program Consultant, Policy, Practice &
Program Development
Child and Family Services Division

Julie Mann, BSW, RSW
Program Consultant
Child Intervention Outcome and Practice
Supports
Child & Family Services Division

Children and Youth Services (CFSA)

Donna Appelt
Supervisor
Specialized Services Supports
Edmonton and Area Child and Family
Services

Karen Morin, BSW, RSW
Regional Manager of Foster/Kinship Care
Programs and Yellowhead Youth Center
Edmonton and Area Child and Family
Services

Lori Mohr-Wells BSW RSW
Staff Development and Foster Care Training
Coordinator
Calgary and Area Child and Family Services

Joanne Wruth
Regional Training Coordinator
Edmonton and Area Child and Family
Services

Designated First Nations Authorities (DFNA)

Judy E. Pasquayak, BSW
Kinship Care Unit Supervisor
Wahkohtowin Child Care Society
Saddle Lake, Alberta

Lorraine Stamp
Facilitator/Support Worker
Wahkohtowin Child Care Society
Saddle Lake, Alberta

Agency Foster Care

Bruce Day, RSW
Executive Director
Children First Family Services
Foster Care Services
Edmonton, Alberta

Foster Parent Representation

Terri Grills
Foster Parent Representative
Children & Youth Services, Region 4

Linda Krauskopf
Board of Directors, Region 6
Alberta Foster Parent Association
Edmonton, Alberta

Advisors

Amanda Amyotte
Program Advisor
Fetal Alcohol Spectrum Disorder Initiatives
Ministry of Human Services

Emily Sand
Analyst
Performance Analysis and Improvement
Human Services
Edmonton, Alberta

Betty Evans
Foster/Adoptive Parent
Regional Caregiver Trainer
Edmonton and Area Child and Family Services

Dr.Gail Andrew MDCM, FRCP(C)
Medical Site Lead - Pediatrics
Glenrose Rehabilitation Hospital
Edmonton, Alberta

Jessica Fodor HBSW RSW
Regional Caregiver Trainer
Edmonton and Area Child and Family Services

Julia Giesen, R.SLP, M.Sc.SLP, S-LP(C)
Speech Language Pathologist
Glenrose Rehabilitation Hospital
Edmonton, Alberta

Dr. Leonora Hendson, MBBCh, M.Sc., FRCPC
Director - Neonatal and Infant Follow-up Clinic
Glenrose Rehabilitation Hospital
Edmonton, Alberta

Dr. Lionel Dibden, MBBCH, FRCP(C)
Medical Director
Child and Adolescent Protection Centre
Stollery Children's Hospital
Edmonton, Alberta

Dr. Tami Masterson RN, MD, FRCP(C)
Pediatrician, Child and Adolescent Health Clinic
Grey Nuns Hospital
Edmonton, Alberta

Pictures: Human Services Communications

Design and Format: Terri Harris

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Using This Booklet

This booklet is a resource for caregivers of babies who have been prenatally exposed to alcohol or other drugs. Information in this booklet was gathered from various sources, including parents, caregivers, professionals and published books and articles.

The information in this booklet is about the daily care of babies aged birth to 12 months who may have been exposed to substances in the womb.

The following information will not be covered in detail:

- ❒ Fetal Alcohol Spectrum Disorder (FASD)
- ❒ the long-term effects of substance exposure
- ❒ the care of babies with special medical needs (such as oxygen therapy and tube feedings)

Description of Different Caregivers in Alberta

In Alberta, family-based placements for children who cannot remain with their families are provided by foster parents, group care providers, kinship caregivers and adoptive parents.

Foster Care - Foster Parents provide a safe home for a child who cannot return to live with their biological parents. The child may live in the foster home for a short or long-term period.

Group Care
Group homes are staffed residential facilities most often operated by agencies that provide care to a child. They are considered when family based care and/or other community resources cannot meet the child's placement needs.

Kinship Care - Kinship Care is similar to fostering except that the Kinship parent has a pre-existing relationship with the child. If you are a relative, family friend or have some other relationship to the child, you could be a Kinship Care provider.

Adoption – When a child comes under the permanent care of the Province and cannot return to their biological parents the most preferred arrangement for a child is to be adopted - to have a permanent, loving family that can give the child a sense of belonging.

Disclaimer

The information in this booklet does not replace the advice given by a health professional (such as the baby's doctor).

PREFACE

Caring for Babies with Prenatal Substance Exposure
Caring for babies who have been prenatally exposed to substances requires knowing more than just baby care.

This requires:

- ❒ an understanding that in addition to alcohol and drugs, things like the mother's health, stress level, and nutrition impacts how a baby grows in the womb;
- ❒ an understanding of the importance of honoring the parent-baby relationship, the baby's cultural heritage, as well as family and community connections;
- ❒ an ability to make a special connection to a baby (infant attachment);
- ❒ an understanding about how to listen to babies and respond to their needs;
- ❒ caregiving strategies and tools for challenging times;
- ❒ an ability to recognize problems with growth and development early on so that help can be received as soon as possible;
- ❒ knowledge about how to access community resources that assist and support caregivers and babies; and
- ❒ recognizing that each baby is unique.

A BIRTH MOTHER'S STORY

Caring for an infant who has been prenatally exposed requires even more patience, skill, and supports than it does to care for most other infants. The information in this book, and the training that accompanies it, will help you do the best job you can. However, it is important that as caregivers, you not waste energy on blaming or judging the mothers, but focus instead on education and support.

Women drink while pregnant because they don't know they're pregnant, don't know better, have addictions, it's part of their accepted culture, or dozens of other reasons. Does this make them bad people? No. It means they need education and support.

As a 19 year old I was drinking after college classes, partying hard on weekends, and I was 12 weeks along before I knew I was pregnant. I vividly remember my doctor telling me "One glass of wine a day is fine because it is not good for the baby if you're stressed", and my family telling me things like "If you're going to breastfeed, beer will help your milk come in." So yes, I am one of "those moms" who had a child born prenatally exposed to alcohol.

However, nothing that anyone else could ever think about me would make me, or other mothers in this situation, feel more guilt than we already feel. Unless you've been there, you have no idea what it is like to have to live with the fact that your drinking caused irreversible brain damage to your child. My daughter is now 22 years old and continues to be the loving inspiration that motivates me to educate others about FASD.

I recently completed an in depth, 2 year college program on FASD, and have spent the last 11 years as a foster parent; currently caring for medically fragile children. Along with my life experience, this gives me a unique perspective on the complex issues around FASD. This is why I was honoured to be part of developing this training and want to encourage you to move forward today with no judgments, an open mind, and the willingness to expand your supports, so that you can provide the level of care these children deserve.

Anonymous

A FOSTER MOTHER'S STORY

I was honoured when my foster care worker asked me to write about our fostering experience. I was shocked she chose us. We have been fostering for so many years it is such a part of me, of my husband and of our family. There is no other way of life that we know or at least that we can remember.

It all began one day when I went to visit a friend. She told me I must come over and see what she had brought home. When I went into her home she had four cribs all lined up, and four babies. I thought to myself that this was strange as she could not have children. She caught my side ways glance. She let me in on her secret that she had started to foster. This was how she was going to raise a family.

Three months later our own story began. We have so many fond memories of the children that have come through our home. We have fostered more babies than one thought possible. My husband has also commented that he never thought he would be a father to so many children.

Some children have left to return home, to extended family and others we helped transition to adoption. One of the children has never left our home. She was born for our family and the perfect fit. She came into the world crying and would not stop. We tried everything to get her to stop and nothing could soothe her. A trip to the doctor seemed in order and that is when we became familiar with hospitals, doctors, and specialists. Our daughter has never been healthy because of the choices her mom made while she was pregnant. We have spent countless days trying to find a way to make our child's life the best it can possibly be.

She is well into her 30's and still lives at home with us. She wants so badly to be a mom. We give her the opportunity through continued fostering to help nurture the babies that still need us. This helps fill her void for the most part. We do grieve the life she could have had. However, we celebrate every day that she is with us. She is a joy, and the light of our life.

My husband and I will continue to foster until we are no longer able. I still feel that we are needed. When I can no longer take in babies I will go to the hospital to cuddle the babies that do not have homes to go to. I still have a lot of miles left in me to walk the floors while I cuddle the babies. I still have a purpose…..fostering.

I am a foster parent and my name is Doreen.

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CHAPTER 1
SUBSTANCE USE IN PREGNANCY

Although alcohol, tobacco, and many other drugs have been in common use for centuries, people throughout the world continue to debate the safety of using these substances during pregnancy. Many years ago, it was believed that the placenta protected the baby from harmful substances. We now know that the placenta is not a perfect barrier. Alcohol, street drugs, and most medications pass easily through the placenta to the baby.

In North America during the 1970s and 1980s, prenatal effects of substances such as heroin, cocaine, and alcohol became of great interest to the medical community, the media, and the general public. By the late1990s crystal meth was identified as a very dangerous street drug that is highly addictive and can trigger violent reactions in users. Today, we are seeing the same interest turned to newer street drugs such as 'bath salts' (composed of the synthetic stimulants mephedrone, MDPV, and methylone). In this case however, we do not currently have research to demonstrate the long term impact on the fetus or the user.

Although we are learning more about the impact of substance use in pregnancy there is still a lot of misinformation about this serious health issue, and much that we still do not know.

Today we know that:

- Alcohol and substance misuse is a complex issue. Women who misuse substances often struggle with:

    1. lack of support and protection from an early age
    2. a history of child abuse and/or neglect
    3. poverty
    4. homelessness
    5. mental illness
    6. intimate partner violence
    7. trauma
    8. chronic health issues

- Women from all social and economic groups may use substances while pregnant. However, women who are poor or visible minorities are more likely to come to the attention of child protection when using substances while pregnant.

- Some people are more likely to develop a dependence or addiction after first using alcohol or drugs. This is because alcohol and substance misuse has a biological and genetic component.

- Although some babies who are prenatally exposed to alcohol and substances will show immediate and long-term effects of this exposure, many are born without immediate obvious effects from prenatal exposure.

- Some symptoms may present after the baby is discharged from hospital.

- Newborn behaviours that cause concern for caregivers may or may not be related to substance exposure.

- All babies are different and each will respond in a unique way to caregiving techniques.
- Research shows that both *nature* (the baby's genetic or biological make-up) and *nurture* (the environment in which a baby lives and grows) are important influences on child development.
- Effective care for babies who have been exposed to substances in the womb requires communication and teamwork between well-informed parents, caregivers, families, case workers, and medical professionals.

Effects of Substance Use on the Baby

Prenatal substance use may cause premature birth, as well as short-term and long-term effects on the baby. The effects of substance exposure depend on:

- the mother's general health and biological makeup;
- the mother's life circumstances, including most importantly, her level of stress, safety, nutrition, and access to medical care;
- the amount of the substance that was used by the mother;
- the number and combination of substances used – we know that the use of multiple substances in pregnancy has a more negative effect than use of one substance alone (unless that substance is alcohol);
- when and how often in the pregnancy these substances were used; and
- the overall health and biological makeup of the fetus.

The type of substances or drugs used is also a factor to consider. One way of talking about different substances is based on the type of effects that they may have.

- *Teratogens are* substances that are known to cause birth defects.
- *Stimulants* are substances that speed up the body's central nervous system.
- *Depressants* are those that slow the central nervous system down.

Premature Birth

You may hear many medical terms that describe the baby at birth. This description can be based on how long the baby lived in the mother's womb (gestational age) or according to the baby's size or weight. A full-term baby is said to have a gestational age of 40 weeks. The premature (pre-term) baby is born before the 37th week of pregnancy.

Terms used to describe the differences in a baby's weight and size at birth include:

- Intrauterine Growth Restriction (IUGR): This means the baby is growing very slowly in the womb for some known or unknown reason.
- Low Birth Weight (LBW): This means a baby is under 2500 grams or 5 ½ pounds.
- Small for Gestational Age (SGA): This means the baby at birth is not as big as would be expected for his age.
- Some infants may be both premature and very low birth weight.

Often, premature babies weigh less than 2500 grams. Babies born prematurely may have organ systems that are not quite ready for the outside world. The earlier babies are born, the more help they will need in hospital to survive and grow.

The following systems may not be fully developed:

- brains and nerves (neurological system)
- lungs (respiratory system)
- stomachs and guts (gastrointestinal system)
- immune systems (for fighting infections)
- overall weight and body fat may not be developed adequately

After birth, these babies may experience:

- breathing problems
- difficulty in keeping warm (maintaining body temperature)
- side-effects from medical procedures and treatments
- tiring easily which can affect feeding and breathing
- feeding problems (uncoordinated sucking and swallowing)
- digestive problems (reflux and constipation)
- slow growth

In addition, many of these babies spend several days or weeks in a busy, and often over-stimulating, Neonatal Intensive Care Unit (NICU).Such an environment can affect their nervous systems and their ability to interact with their environment and multiple caregivers. They may not receive holding or cuddling from one “regular” caregiver.

Short-Term Effects

Withdrawal

Withdrawal symptoms that may be seen in the newborn are caused by the mother’s use of *depressant drugs*, which slow down the body’s central nervous system. These drugs are:

- a group called *opiates* (such as heroin, methadone, morphine and codeine)
- alcohol
- nicotine
- prescription medications for anxiety or sleep

Any of these drugs may cause withdrawal. Opiate drugs most commonly cause withdrawal that needs medical treatment. However, not all babies exposed to opiates experience withdrawal, and not all who do, require medical treatment. Babies do better when the caregiver is allowed to cuddle and hold the baby.

If withdrawal occurs, the symptoms will be seen in the newborn within the first few days of life. Exactly when the symptoms begin depends on how well the baby’s liver works, how long it takes for the particular opiate to leave the body, how much opiate was used and when it was last used. In general, heroin withdrawal will be seen within 1 to 3 days, whereas methadone withdrawal can begin 3 - 4 days after birth. However, symptoms can occur much later.

If the baby is experiencing intense withdrawal symptoms, she may be given a medication such as morphine for a period of time. Other tests may be done to be sure there is no other reason for these symptoms. Some babies are able to go home on morphine.

Common Withdrawal Symptoms

W	wakefulness, problems with waking/sleeping
I	irritability, difficulty self-calming and hard to comfort, high-pitched cry
T	tremors, twitching
H	stiff muscles (hypertonia),exaggerated startle reflex (hyperactive reflexes), high-pitched cry
D	diarrhea, sweating (diaphoresis), disorganized suck/swallow
R	vomiting (regurgitation), poor or weak suck, or frantic suck
A	stops breathing (apnea)
W	weight loss, failure to gain weight

Other Short-Term Symptoms

After 6 weeks, some babies may show symptoms such as:

- tremors
- poor feeding
- problems with digestion (the gassy baby)
- poor sleep
- high (stiff) muscle tone (hypertonic) or low (floppy) muscle tone (hypotonic)
- irritability
- high pitched cry

This is not withdrawal as described above, and is not treated with morphine. Some experts say these symptoms are due to the direct effect of some substances on the growing brain. It is a good idea to let the baby's doctor know about these symptoms, as they may want to do some additional medical testing. These symptoms usually improve as the baby gets older and the brain matures. Most caregivers notice that babies usually outgrow these symptoms from 4 to 12 months of age.

Long-Term Effects

Birth Defects ("teratogenesis")

Ateratogen is a substance that interferes with the normal growth of the fetus causing one or more abnormalities such as damage to the brain, heart, kidneys, and face. Alcohol is a known teratogen.

Fetal Alcohol Spectrum Disorder (FASD)

FASD is used to describe a variety of effects resulting from exposure to alcohol during pregnancy. Alcohol exposure can cause facial abnormalities, growth deficiencies, and hearing or vision impairments. It can also affect learning, behaviour, sleep, social and cognitive skills, and mental health. Babies never outgrow FASD.

Included under the diagnosis of FASD are: Fetal Alcohol Syndrome (FAS), Partial Fetal Alcohol Syndrome (pFAS), and Alcohol-Related Neurodevelopmental Disorder (ARND).

Fetal Alcohol Syndrome (FAS)

FAS is a medical diagnosis based on a confirmed or unknown history of the mother drinking alcohol during pregnancy, and the following three criteria:

- A pattern of facial abnormalities, including small eye openings, flat mid-face, flattened groove between nose and upper lip, and a thin upper lip.
- Low birth weight and slow growth rate throughout childhood, and small physical size continuing into adulthood.
- Damage to the brain, including small head size, structural abnormalities, neurological problems, and behavioural and learning problems. Prenatal alcohol exposure is thought to be responsible for about half of all diagnoses of mental retardation.

Partial FAS (pFAS) & Alcohol-related Neurodevelopmental Disorder (ARND)

- pFAS diagnosis requires some of the facial features and growth deficiencies (as seen with FAS), some evidence of brain impairment, and prenatal exposure to alcohol.

- ARND diagnosis means that there is a history of maternal alcohol use and evidence of brain impairment without the associated facial features or growth problems.

- pFAS and ARND are not necessarily milder forms of FAS. The delays may be just as severe as in FAS.

Alcohol exposure does not have the same impact on every infant and there are many factors that can affect the fetus. It is important to remember that each baby is an individual and they may be affected differently.

Growth and Developmental Delay

Some babies who have been exposed to substances in the prenatal period experience long-term effects on their overall growth and development. This includes learning disabilities that affect speaking and understanding, learning and remembering, paying attention for periods of time, and playing with or relating to others.

Other Health Risks

Other health risks include:

- Sudden Infant Death Syndrome (SIDS or crib death)

- failure-to-thrive (slower than normal weight gain)

- vision and hearing difficulties

- breathing problems

- infectious diseases, including Hepatitis B and C, HIV, methicillin-resistant Staphylococcus Aureus (MRSA), and Syphilis, if mother tested positive for these infections while pregnant

- Shaken Baby Syndrome or Abusive Head Trauma (because of caregiver stress when trying to soothe “high-needs” baby)

Common Substances of Concern

It is difficult to pinpoint the effects of individual substances on the developing baby for the following reasons:

- pregnant women who smoke cigarettes, misuse alcohol, or other substances may not want to admit to their substance use because of guilt or shame

- women who use alcohol and other substances frequently use more than one substance

- poverty, poor diet, abuse, and stress experienced by the pregnant mother may also affect the growing fetus

- physical and/or mental illness, as well as the medications to treat them, may also have an effect

- each person breaks down (metabolizes) and absorbs substances differently

- evidence on the short and long-term effects of various substances used during pregnancy remains incomplete in part because this kind of research is difficult to do

- new discoveries in brain science tell us that the human brain is “plastic” (able to be shaped and to change) throughout our lives, and especially in our early years

A child’s healthy environment effects their development positively. For children with prenatal exposure, this is especially true. If a child continues to experience ongoing trauma their development will be adversely effected.

Tobacco (nicotine)

Women who use alcohol and other substances often smoke as well. Tobacco use or exposure to second-hand smoke in pregnancy can damage blood vessels in the placenta leading to miscarriage and premature birth. Less oxygen is carried in the blood when cigarettes are smoked so babies may be born smaller (but still able to catch upon their growth).

They are also at increased risk of ear infections, bronchitis, and pneumonia, even if there is no cigarette smoke in their environment after birth. There is some evidence to suggest they may also be at increased risk of SIDS.

In the immediate period after birth, there may be signs and symptoms of withdrawal from nicotine. There is evidence that use of nicotine in pregnancy increases the symptoms of withdrawal in the baby. Some evidence suggests that physical effects later in life may include obesity, type II diabetes, smaller lung size, respiratory problems, and greater sensitivity to carbon dioxide. Tobacco use or exposure to second-hand smoke in pregnancy does not cause birth defects.

Alcohol

Alcohol can cause birth defects and other long-lasting developmental problems (see *Long-Term Effects* section of this chapter). The effects of alcohol on the growth and development of the fetal brain are considered permanent and irreversible. In the early hours after birth, some babies may experience acute intoxication from recent alcohol exposure, and possible withdrawal in cases of chronic use. Babies may be jittery, experience feeding and sleeping problems, show low muscle tone (floppy), and be sensitive to noise or touch.

Opiates

Opiates are drugs that are made from the poppy plant. These include opium and heroin as well as medications prescribed for pain control such as: codeine, morphine, Dilaudid, Oxycontin, and Demerol. Methadone is an opiate which is used for managing withdrawal from other opiates. Withdrawal is the main medical concern for babies exposed to opiates. They may be born prematurely and small for gestational age. These babies are at increased risk for SIDS.

Although few studies have followed the development of children exposed to opiates, some researchers suggest that children may experience behavioural and learning difficulties, and others have found no major developmental problems. These children tend to do better if they have not been exposed to other substances and if they are raised in a stable and loving home.

Pregnant women who use opiates are at an increased risk for complications of pregnancy. Chances of complications are greater when women use heroin by injection (needle). It is **not** recommended for pregnant women to stop their opiate use suddenly, or “cold turkey”. Women can be supported to stop the use of heroin and other opiates through medically prescribed methadone. Methadone is a synthetic or man-made form of opiate that can cause withdrawal in the baby. An advantage to an opiate replacement therapy like this is that it provides women with an opportunity to receive regular prenatal and medical care and counseling, and to avoid other dangers associated with getting and using street opiates. These benefits also contribute to the future health of the baby.

Street names for heroin include: smack, horse, pitch, mud, brown sugar, junk, black tar and big h.

Cocaine and Crack

Cocaine is a stimulant drug. Cocaine can be used by snorting, injecting, or smoking. Crack is a hard, rock-like drug that is a much less expensive form of cocaine. Most experts now agree that cocaine and crack do not cause early withdrawal symptoms in the baby as seen after opiate exposure. While some experts say that tremors, poor feeding, poor sleep, stiff muscles, irritability, and high-pitched cry are the results of the direct effect of cocaine on the developing brain, others say that research has not proven this effect. In the immediate hours after birth, the symptoms observed in the newborn may be due to intoxication and/or withdrawal from cocaine or crack if it was used recently.

Cocaine restricts or squeezes off blood flow in the blood vessels of the mother, placenta, and baby, creating a risk of miscarriage and premature delivery. Prenatally exposed infants are at risk for being born small, having a small head, and having problems related to the restricted blood flow to their growing bodies.

Some researchers say that this restricted blood flow can damage the heart and kidneys, cause small strokes in the brain, and affect development of the eyes. Experts do not agree on whether or not cocaine causes birth defects or other long-term effects such as problems with learning and paying attention. Longer-term outcomes for these infants are generally positive if it was the only substance used and supports for growth and development are received early in infancy.

Street names for cocaine include: coke, snow, nose candy, flake, blow, big c, lady, white, snowbirds, and powder.

Street names for crack cocaine include: crack, rock, freebase, and cookie.

Marijuana (cannabis)

Use of marijuana has increased far more than the use of any other drug in the last 20 years. Marijuana used today contains a much higher level of THC (a toxic substance) than a generation ago. Alberta drug experts are also reporting that it is often mixed with meth which, because of its highly addictive properties, helps create a buying market for the dealer.

Prenatal exposure to marijuana is associated with low birth weight and being born small for gestational age. There is some evidence suggesting that it also creates risk of preterm delivery. There may be some short-term symptoms, such as fine tremors, excessive crying, and hiccups in the hours after delivery.

Marijuana exposure may put babies at risk for SIDS. Some experts believe that there are no long-term effects, while others believe that children may have problems with learning and attention. THC also concentrates in breast milk, meaning that its levels in breast milk are even higher than in the mother's blood, creating a possible risk of significant THC ingestion by a breastfeeding infant.

Street names include: pot, reefer, grass, weed, dope, ganja, and Mary Jane**.**

Amphetamines and Methamphetamine

Amphetamines and methamphetamines are synthetic (man-made) stimulant drugs. Some amphetamines are prescribed as medication to treat Attention Deficit Disorder (ADD) or Attention Deficit/Hyperactivity Disorder (ADHD). These medications may be misused for their stimulant effects. The drug MDMA (often known as ecstasy, or E) is mainly used in dance club or party settings. Methamphetamine (often called speed or meth) is a very strong stimulant. It's crystallized and most impure form is known as crystal meth. Widespread use of crystal meth has increased dramatically in the last decade. In recent years, there has been a large increase in the number of babies born with prenatal methamphetamine exposure.

There is little research on the effects of prenatal methamphetamine exposure. Methamphetamine may decrease blood flow to the fetus and damage blood flow to the placenta. This means the baby will be born premature with a low birth weight, small size for gestational age, and a small head. It has also been suggested that crystal meth may affect the development of the fetal intestines, abdomen, eyes, and brain. Babies may have low interest in feeding, problems with sucking and swallowing, and excessive and deep sleep, with difficulty waking to feed. Other potential problems include: sleep apnea (unusual pauses in breathing when sleeping), SIDS (Sudden Infant Death Syndrome), difficulty tuning out repetitive sound in the environment, and difficulty with touch and texture (sensory integration). Later effects are not known for certain, but are thought to possibly include difficulty with attention, learning, and behaviour.

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Street names for amphetamines include: speed, uppers, ups, black beauties, pep pills, co-pilots, bumblebees, hearts, and footballs.

Street names for methamphetamine include: crank, crystal meth, crystal methadrine, and speed.

Inhalants and Solvents

Inhalants are teratogens and can cause birth defects. Commonly available products that can be sniffed or inhaled to cause intoxication, drowsiness, or dizziness may include: glue, gasoline, paint thinner, cleaning fluids, hairsprays, and spray paint. Pregnant women who use inhalants can have kidney damage, high blood pressure, irregular heartbeat, nausea and loss of appetite, and increased risk of miscarriage and premature delivery. Infants can be born small in size, have small heads, and have kidney problems.

Newborns may be seen with symptoms such as tremors, floppy muscle tone, feeding and sleeping problems, irritability, and high-pitched cry. Older children may experience delays in development, slow physical growth, and behavioural difficulties.

The Benefits of a Stable and Loving Home

Research is showing that the following factors are necessary for the healthy growth and development of all babies:

- stable, loving homes
- protection from over-stimulation
- physical stimulation through sound, touch, and sight
- social stimulation through play and interaction
- healthy, balanced nutrition
- good health practices
- recognition of problems with growth and development early on
- help for these problems as soon as possible

When babies need foster or kinship care, the goal is to achieve permanency as soon as possible. Permanency is defined as placements outside of government care, such as reunification with biological family, private guardianship or adoption. Babies should have as few moves (placements) as possible to promote healthy attachment and bonding with their caregivers.

KEY MESSAGES
CHAPTER 1

1. Tobacco use or exposure to second-hand smoke, in pregnancy does not cause birth defects but can lead to premature birth, miscarriage, low birth weight, and is a risk factor for SIDS.

2. The effects of alcohol exposure include: birth defects, FASD, FAS, and pFAS. Alcohol causes more harm to the baby than probably all other drugs combined.

3. Opiates such as opium, heroin, codeine, morphine, Dilaudid, Oxycontin, Demerol and Methadonemay or may not have impact on the developing fetus but it is known the children do best when there is no other drug exposure and they are raised in a stable home.

4. Research on the effect of exposure to cocaine and crack has also produced conflicting results in terms of long term consequences for the child but outcomes are generally positive if it was the only substance used and supports for growth and development are received early in infancy.

5. The use of marijuana has increased far more than the use of any other drug in the last 20 years. Marijuana used today contains a much higher level of THC (a toxic substance) than a generation ago. Marijuana use is associated with low birth weight, premature and short-term symptoms, such as fine tremors, excessive crying, and hiccups in the hours after delivery. THC is transmitted though breast milk in even more toxic levels.

6. Amphetamines (often prescribed for ADD/ADHD) and methamphetamines (crystal meth) are stimulants. Effects of crystal meth exposure, in particular, appears to include extensive birth defects, increased risk for SIDS, sleep disorders, and learning problems.

7. Inhalants and solvents have similar effects as crystal meth including birth defects.

8. The long term outcomes for may drug exposed children can sometimes be mitigated by protection from over-stimulation, physical stimulation through sound, touch, and sight, social stimulation through play and healthy interaction, balanced nutrition and early developmental assessment intervention.

ADDITIONAL INFORMATION

FASD Clinical Services – Alberta Health Services
albertahealthservices.ca

FASD Resources
fasd.alberta.ca

HealthLink Alberta
Toll-free: 1.866.408.LINK (5465)
Edmonton: 780.408.LINK (5465)
Calgary: 403.943.LINK (5465)

MyHealth Alberta
myhealth.alberta.ca

CHAPTER 2
SOCIAL AND EMOTIONAL DEVELOPMENT

Attachment is the connection that babies form with their caregivers. When a baby becomes attached to a caregiver in a healthy way, the baby feels safe, secure, and protected on physical, emotional, and mental levels. This happens when the caregiver is able to sense and respond to baby's cues for comfort and care. Caregivers need to respond consistently, promptly, and lovingly most of the time for a healthy attachment to occur. This is particularly important when the baby is sick, upset, or hurt. Attachment relationships are unique to each baby and caregiver based on their day-to-day interactions. Every healthy attachment relationship that a baby develops with a caregiver is beneficial for development and future relationships. Securely attached babies feed well, settle well, and grow and learn well.

Helping Babies Form a Secure Attachment

You can do many things to help babies form a secure attachment. Please think about the following:

Give yourself permission to parent and care for the baby. Allow yourself to attach to the baby, even if he is with you for a short time.

Freely give comfort when needed. Always respond quickly when the baby is crying, ill, upset, or hurt. This does not "spoil" a baby – it ENSURES secure attachment. They are totally dependent on you and need to know you are there to protect them.

Be sensitive to the baby's cues and signals. Every baby is different, so it takes some time to learn what each baby is trying to tell you. Babies give *engagement cues* when they want to be with you. Easy to see cues include:

- stilling (the baby stops moving)
- looking at your face
- smooth movements of arms and legs
- reaching out to you
- turning eyes towards you
- smiling
- making feeding sounds
- cooing, babbling, talking
- opening eyes wide and bright

Babies give *disengagement cues* when they need a break. Easy to see cues include: turning the head away, crying, pulling away, and fussing.

Babies show signs of *stress* by arching the back, shaking (tremors), sleeping for long periods, having red-and-pale blotching of the skin (mottling), and vomiting.

Understanding the baby's cues and meeting her needs accordingly helps to develop a secure attachment between the caregiver and the baby.

You may need to work harder at understanding, interpreting, and meeting the needs of some babies who have been prenatally exposed to substances, particularly those who cry a lot, sleep a lot, or are overly sensitive to touch. Here is a simple way to learn about the baby's cues:

> **WATCH** the baby's face and body.
> **WAIT** to see what the baby is going to do (watch for cues).
> **WONDER** about what the baby might be thinking, feeling, or needing from you and respond to cues.

For example, you are holding the baby and trying to play, and baby is arching his back and turning his head to the side. You notice this cue, guess that the baby may be over-stimulated, stop playing, and gently hold the baby instead. You note the baby's cue in response to this. If the baby becomes calm and more relaxed, then your understanding of the baby's cue was correct.

Be aware of the baby's history and experiences of the world and respond accordingly. When babies have experienced traumatic events (e.g., lengthy hospitalization, family violence), inconsistent care giving, or multiple placements, they may display signs of stress and may over-respond to things around them. Be aware of triggers for the baby, such as certain sounds, smells, tastes, sensations, and environments. Help them to slowly learn to tolerate these events without stress. Try to eliminate those triggers but if they cannot be eliminated permanently slowly reintroduce them with lots of support for the child.

Maltreated children with attachment problems are very sensitive to changes in schedule, transitions, surprises, chaotic social situations, and, in general, any new situation.

They benefit from:

- eye contact;
- spontaneous gentle touch;
- predictable routines; and
- smiles.

As they get older, they also need:

- well-defined boundaries;
- clear expectations;
- highly structured environments;
- age-appropriate rules with clear, predictable consequences; and
- open, mutually respectful communication.

Use eye contact and gentle touch whenever possible. Some babies may not want too much eye contact, or may be sensitive to holding and snuggling. Again, watch the baby's signals to determine when to use eye contact and gentle touch.

Build and support healthy emotional regulation. When caregivers respond sensitively to a baby's physical and emotional needs, they are laying the foundation for future social emotional development.

Consistent and predictable daily routines (for instance--routines for sleeping, feeding, playing, and bathing) help babies gain trust in their world and the people in it.

Limit the number of caregivers for the baby. Frequent changes in caregivers cause stress for babies. Attempt, as much as possible, to use the same qualified childcare and respite providers.

Temperament

Every person has a temperament. It is our way of approaching the world, our style or personality. Temperament can change over time with experience and development.

We all have different ways of responding to high activity levels and new situations. We all have different ways of adapting to changes, dealing with distractions, and developing new skills. These are just a few different aspects of temperament.

Sometimes caregivers and babies temperaments match well, sometimes they do not, and this can be challenging. It is important to not to label the baby's behaviour. **There is no bad or good, or right or wrong way to be.**

For example, if you are person who likes to be spontaneous and not plan too far ahead you will need to make adjustments when caring for a baby (or an older child) who needs structure and predictability in their day. As the adult it is your responsibility to adapt by avoiding changing plans and routines without preparing the child.

Understanding your baby's temperament helps you successfully plan activities as well as introduce new people and things. The way you respond to a baby helps her to strengthen her personality.

KEY MESSAGES
CHAPTER 2

1. When a baby becomes attached to a caregiver in a healthy way, the baby feels safe, secure, and protected on physical, emotional, and mental levels.

2. Caregivers need to respond consistently, promptly, and lovingly most of the time for a healthy attachment to occur.

3. Every healthy attachment relationship that a baby develops with a caregiver is beneficial for development and future relationships.

4. When babies have experienced traumatic events (e.g., lengthy hospitalization, family violence), inconsistent care giving, or multiple placements, they may display signs of stress and may over-respond to things around them.

5. Give yourself permission to parent and care for the baby. Allow yourself to attach to the baby, even if he is with you for a short time.

6. Freely give comfort when needed.

7. Be sensitive to the baby's cues and signals.

8. Be aware of the baby's history and experiences of the world and respond accordingly.

9. Use eye contact and gentle touch whenever possible.

10. Build and support healthy emotional regulation.

11. Limit the number of caregivers for the baby.

12. Every person has a temperament. It is our way of approaching the world, our style or personality. Temperament can change over time with experience and development. There is no bad or good, or right or wrong way to be. As the adult it is your responsibility to adapt to, and work with, the child's temperament.

ADDITIONAL INFORMATION

Look into programs such as those offered through the **Public Health Agency of Canada.**
phac-aspc.gc.ca

Your local health unit as well as **Parent Link Centres** typically offers information about child development and strategies for encouraging healthy development.

Child Encyclopedia
child-encyclopedia.com

CHAPTER 3
INFANT SLEEP

Adequate sleep is important for the baby's developing brain and body. There are two factors that affect the quality and quantity of sleep of all babies:

- the baby's own natural sleep cycles; and
- their surroundings.

Sleep cycles in infants are approximately 60 minutes long and gradually increase to 90 minutes by the age of 5 years. The sleep cycle consists of REM (rapid eye movement) and NREM (non-rapid eye movement). There are four states of NREM sleep ranging from a drowsy state to deep sleep. REM sleep consists of periods of rapid eye movement, brain activity and dreaming, muscle twitches, and vocalizations. During sleep, babies progress through sleep states, spending about 50 percent of their sleep cycle in the REM and 50 percent in NREM. It is very important that babies sleep long enough to spend time in each sleep state and complete sleep cycles. Naps of less than 60 minutes on an on-going basis will not be enough for the baby to be properly rested.

Sleep patterns begin to develop prenatally. In the first few months of life, it is common for the baby to wake up several times a night to feed. The baby's stomach is small and breast milk/formula is digested quickly. Newborns sleep approximately 16-20 hours per day. They usually sleep for short periods and do not follow a schedule.

Signs That the Baby Is Tired

Babies show they are sleepy or drowsy by: less activity

- slower motions
- slower and weaker sucking
- drooping eyelids
- yawning

The baby may show signs of being over-tired later that include:

- fussing
- rubbing his eyes
- becoming irritable and cranky

Normal Sleep Patterns

Newborn to one year of age

The total sleep time is about 16 hours each day (range is from 11 - 23 hours). This time slowly decreases to 14-15 hours at three months and 13 - 14 hours at 6 months. Sleep time occurs more during the night as the baby becomes older.

As newborns, babies do not have a sleep-wake routine that is predictable. This will change at about 3 months where you will see day and night sleep patterns. Babies need to nap during the day so they can sleep better at night. The more rested the baby is during the day, the better they sleep at night!

Four to 12 months of age

Daytime sleep is organized into 2 or 3 long naps. At 4 months, babies are typically sleeping 6-8 hours at night. Every baby is unique and may have longer or shorter sleeping patterns. Most full-term healthy infants over the age of 6 months do not need to be fed during the night. It is usually a habit at that point and not a need for nutrition. Babies have periods of semi-wakefulness that occur 5 - 7 times per night (sleep cycles) that may last from 1 - 5 minutes. They may open their eyes and look around. An infant is usually able to go back to sleep after these brief periods of wakefulness. As they are getting older and becoming aware of their surroundings, they may have changes in their night wakening.

Effects of Prenatal Substance Exposure on Sleep

Researchers are not in agreement on whether or not prenatal substance exposure affects baby's sleep. Some research shows that babies who were prenatally exposed to cocaine may have altered sleep time with more waking and less active sleep. Other research has found no difference in sleep patterns between babies who were exposed to substances and not exposed. Prenatal alcohol exposure can disrupt sleep organization and can cause more periods of wakefulness. More frequent waking can lead to less overall sleep time for babies (and their care providers!). Lack of sleep can cause a reduction in normal sleep movements, increased risk of SIDS, and increased fussiness during day time.

Other factors that could contribute towards sleep problems include: baby's temperament, lack of predictable routine, and the baby's level of ability to move between sleep wake cycles without help from a caregiver. Caregivers can help babies by creating a sleep promoting environment.

Helping Babies Sleep

Caregivers can do many things to help babies sleep. These include:

- Encouraging consistent bedtime and naptime routines - put your baby down in her crib as soon as she shows signs of tiredness. Routines like bath, story, and feeding may help babies settle down and learn it's time to go to sleep.
- Encouraging regular feeds during the day and using other settling methods when baby is fussy but not hungry (cuddling, activity, soothing).
- Turning lights on during day (except during nap) and off at night (keep room darkened with less noise).
- Placing baby to sleep in a crib in a quiet area of the home.
- Encouraging self-soothing behaviours (putting baby to sleep drowsy, but awake, and allow baby to suck on hands/fist when hands are near the mouth).

If older babies are fed and comforted by a caregiver to fall asleep, they depend on the same type of comforting to go back to sleep when they wake up in the middle of the night. Encouraging self-soothing will help your baby go back to sleep on his or her own.

Gradually delaying your reaction to baby fussing (for babies over 3 months) can give the baby an opportunity to put himself back to sleep.

Soothing strategies include:

- **Touch**: massage, kissing, rocking, warm bath
- **Sound**: singing, humming, playing music, white noise (fan or vacuum)
- **Sight**: mobiles, dim lights, darkness
- **Motion**: swings, cradles, rocking chair, going for a walk, baby carriers

Self-soothing: letting baby fall asleep on his own can promote longer and better sleep. Babies are self-soothing when they are put down to sleep drowsy, but awake, and are allowed to suck on their hands/fist to settle themselves.

What Does Not Work to Promote Sleep

- Keeping the baby awake more during the day will not promote more sleep at night. Over-tired babies have more difficulty falling and staying asleep.
- Research shows that early introduction of solid foods does not help baby sleep longer.
- Sleeping through the night is a myth; night sleep consists of many repeated sleep cycles. Between each sleep cycle there could be 5 - 7 periods of semi-wakefulness.

Persistent Sleep Problems

Many outside influences and developmental milestones may affect a baby's sleep habits. Factors include:

- pain and illness
- stress and trauma
- changes in routine

Sleep Position: Reducing the Risk of Sudden Infant Death Syndrome (SIDS)

When a healthy baby less than 1 year old dies suddenly, and no reason for the death can be found, we say that the baby died of Sudden Infant Death Syndrome, also known as SIDS or crib death. SIDS occurs most often in the first 6 months of life; babies aged 2 to 4 months are most at risk of SIDS.

Recently, medical examiners across Canada have decided to no longer identify the sudden unexplained death of a baby as SIDS because they were concerned that SIDS was seen as real condition causing death. In fact, SIDS was used when the cause of death was actually unknown. Now, medical examiners will refer to the cause of these deaths as "undetermined".

Other babies at a higher risk for SIDS include:

- premature birth, especially infants with a low birth weight;
- a SIDS death of a sibling;
- being born to a mother who smoked, or used drugs and/or alcohol during pregnancy; or
- exposure to second hand smoke.

SIDS occurs more often among male babies, and in the winter months of the year. Other risk factors for SIDS have to do with a baby's sleep environment and sleep position. We know now that caregivers can do a lot to reduce a baby's risk of SIDS. When a baby dies and the cause is undetermined, but the medical examiner believes an unsafe sleep practice may have played a factor, the death will be referred to as "undetermined – sleep related".

"EVERY SLEEP COUNTS! NAP TIME, NIGHT TIME, HOME, OR AWAY."

Alberta Safe Sleep Guidelines

1. Always put babies to sleep on their backs. If a baby is able to roll over on his own, it is okay for the baby to remain in that position. The practice of putting babies to sleep on their backs has greatly reduced the incidence of SIDS in the last 15 years. ***If there are medical reasons why a baby cannot sleep on her back, follow and document your physician's recommendations about alternate sleeping positions.***

Some babies can have a temporary flat spot on the back of their heads (plagiocephaly) from sleeping on their backs. To avoid this, change the baby's head position from day to day so that the baby spends some time facing both to the left and to the right. Giving the baby "tummy time" while awake and under your supervision is very important for helping the baby build stronger neck muscles and gain more control over their head movements. Consult with your public health nurse or baby's physician if you have any concerns.

2. A crib is the safest place for a baby to sleep. Visit the Health Canada website to ensure the crib meets the Canadian Safety Standards. The crib should have a **firm, flat** mattress (with no cracks or tears) that fits tightly against the crib slats, with only a fitted sheet placed on top.

- There should be no bumper pads on the crib. Do not place pillows, wedges, loose bedding or padding, or stuffed toys in the crib.
- For general safety, make sure that no straps, cords, or window blinds are near the baby's crib.
- Make sure that the height of the mattress is adjusted appropriately to the age and developmental stage of the baby.
- The baby should never be put to sleep on a soft surface such as a sofa or cushion.
- Keep pets away from the baby's sleep area.

3. Room Sharing

Place the crib beside your bed for the first 6 months if possible. Your baby is safest when his or her sleeping area is close, but separate, from where you sleep. When you are in the same room you are more aware of the baby's cues.

4. Bed Sharing
It is not considered safe to sleep with the baby while sitting or lying on a sofa, recliner, or chair, as the baby could fall between cushions and suffocate. Also, sharing a bed or other sleep surfaces with the baby can increase the risk of suffocation, over-heating or strangulation.

5. Do not let a baby sleep in car seat, swing, playpen, stroller for extended periods of time.
When the baby falls asleep, place the baby in a crib as soon as possible. Watch your baby until she can be moved to a safe sleep surface.

6. No Smoking
Smoking during and/or after pregnancy increases the risk of SIDS. Caregivers must keep their homes and vehicles smoke - free.

7. Keep babies at a comfortable temperature - **not too hot, not too cold.**
One guideline is to dress the baby in one more layer of clothing than you are wearing. For sleep, dress your baby in a sleeper and use only a light blanket to cover while sleeping. Use a light blanket tucked firmly under the bottom and sides of the mattress, with the baby's arms free. Overheating caused by clothing, blankets, or room temperature, puts a baby at risk for SIDS. Do not dress the baby in hats or toques indoors. Keep baby's room cool and well-ventilated.

KEY MESSAGES
CHAPTER 3

1. Two factors affect the quality and quantity of sleep of all babies: the baby's own natural sleep cycles and their surroundings.
2. Newborns to one year of age usually sleep a total of 16 hours each day (range is from 11 - 23 hours). This time slowly decreases to 14 - 15 hours at three months and 13 - 14 hours at 6 months.
3. After about 4 months of age daytime sleep is organized into 2 or 3 long naps. At 4 months, babies are typically sleeping 6 - 8 hours at night.
4. Researchers are not in agreement on whether or not prenatal substance exposure affects baby's sleep. Caregivers can help babies by creating a sleep promoting environment. Encourage consistent bedtime and naptime as well as regular feeding.
5. Turn lights on during day (except during nap) and off at night (keep room darkened with less noise).
6. Place baby to sleep in a crib in a quiet area of the home.
7. Encourage self-soothing behaviours (putting baby to sleep drowsy, but awake, and allow baby to suck on hands/fist when hands are near the mouth).
8. Follow Safe Sleep Guidelines:

    - Always put babies to sleep on their backs.
    - A crib is the safest place for a baby to sleep.
    - Do not let a baby sleep for extended periods of time in a car seat, swing, playpen, or stroller.
    - Do not expose the baby to second hand smoke.
    - Do not share a bed.
    - Prevent your baby from overheating.

ADDITIONAL INFORMATION

Please contact your baby's physician, public health nurse, or your case worker if you need support in handling your baby's sleep problems.

You can also call **HealthLink Alberta**
Toll-free: 1.866.408.LINK (5465)
Edmonton: 780.408.LINK (5465)
Calgary: 403.943.LINK (5465)

MyHealth Alberta
Myhealth.alberta.ca

Public Health Agency of Canada
hc-sc.gc.ca

Alberta Safe Sleep Guidelines
albertahealthservices.ca

The Canadian Foundation for the Study of Infant Deaths - **Safe Sleep Education for Parents**
sidscanada.org

CHAPTER 4
NORMAL CRYING BEHAVIOUR

The first few weeks and months after a new baby is born can be a time of excitement and joy, as well as anxiety. Caregivers can be surprised by how much their baby cries. Babies cry for many reasons. For example, babies cry because they are hungry, need a diaper change, need to be cuddled, don't feel well, or need to release tension.

It is normal for a baby's crying to increase at about 2 weeks of age. The crying will gradually peak around 2 months and then start to decrease at 3 to 4 months of age. During this stage, all babies will have times when they can't stop crying no matter what you do to try to soothe them.

Some infants cry as little as 20 minutes each day and some cry up to 5 hours (these babies would previously have been called colicky); both can be normal. You may not always be able to figure out why a baby is crying.

When your baby cries it does not mean that your baby is being bad or that he is angry with you. It also does not mean that you are a bad caregiver. Not being able to stop a baby from crying can leave caregivers feeling frustrated or even angry.

Your baby's crying can be very upsetting. It is important for you to plan ahead so you are ready for the times when the crying becomes too much.

How Babies Comfort Themselves

Babies comfort themselves by sucking, moving arms and legs, and changing body positions.

Caregiving skills that help babies include:

- understanding your baby's needs and cues;
- knowing how to comfort the baby;
- understanding how to support babies' attempts to comfort themselves; and
- knowing when to do something to comfort a baby and when to let a baby try comforting himself, this is often the most difficult skill to learn.

Helping Babies Comfort Themselves

Some babies like to suck on a soother and others like to suck on their hands, fists, or fingers to calm themselves. Learn to read the baby's signs or cues that say I cannot do this on my own and I need your help.

- Position the baby so that she is able to bring her hands to her mouth. You can also use a soother.
- Try some music or white noise (a fan or ticking clock).
- Decrease stimulation in the environment (i.e. noise, light, etc.).

When Babies Cry a Lot

Caring for a baby who is hard to calm can be very difficult. Sometimes just holding the baby and walking the floor can get the baby, and you, through this difficult time. On other occasions, however, all your attempts to soothe the baby may not work. In these cases, it is a good idea to step back and reconsider your options.

Soothing the Baby

1. Think about what the baby is trying to tell you.

- Are there physical causes for the crying? (hungry, wet, tired, cold/hot, clothing uncomfortable, tired of being touched, over stimulated)
- What else can I do to help the baby?
- Could someone else help me solve this problem?
- Should I call someone else in to help?

2. Pay attention to early warning signs that the baby is stressed.

- turning away
- change in muscle tone (stiffness or floppiness)
- increase in random movements
- hiccups, sneezing
- blotchy skin
- tremors
- spitting up

Identify and respond quickly to the baby's signs of stress and irritability. If babies are allowed to reach a frantic state, it is much more difficult to settle them. **Babies who are not able to comfort themselves should not be left to "cry it out".**

3. **Try one comfort strategy at a time**. When you change strategies, wait a little while to see if one works. Changing strategies too quickly or too often may further upset the baby.

- **Allow the baby to look away**. Don't try to get his attention. Some babies may prefer to be held facing away from you, looking at a blank wall or uncluttered space. In this position they feel secure but they do not have the extra stimulation of your face. The baby will return to looking at you when she can tolerate it.

- **Use smooth and gentle motions when handling the baby.** Give him time to adjust to changes in position. Sudden movements can startle a baby. For a baby who startles easily or is sensitive to touch, a large sheet or receiving blanket can be placed under him to use for lifting. This avoids startling the baby and allows him to stay in a curled (flexed) position when being lifted.

- **Walk back and forth holding the baby close to your body**. An infant carrier may be helpful.

- **Try a warm bath.** Warm baths settle some babies, while others may find baths too stressful.

- **Use gentle massage (if tolerated)**.The benefits of massage for babies who have been prenatally exposed to substances include: increased weight gain, improved sleep patterns, decreased irritability, and more relaxed muscles for babies with high muscle tone (stiff muscles). Regular gentle touch can contribute to bonding and the development of a trusting relationship. If you are interested in learning more about baby massage, ask to learn about local training opportunities. Most public libraries and public health units may have books and DVDs available.

- **Swaddling** Drug exposed infants cannot do three things simultaneously. They cannot control their bodies, breathe and suck at the same time. If they are focused on trying to control the discomfort in their bodies, they cannot focus on feeding or sleeping. We can help them do that by swaddling or wrapping them snugly to control their movements and provide comfort. Swaddling can be a risk factor for hip dysplasia and SIDS so it is important to not let the baby over heat or wrap him so tightly he cannot move his legs. See the safe swaddling video at hipdysplasia.org for information about safe swaddling.

- **Head-to-Toe Movement** Common techniques like back and forth rocking, a swing, and bouncing your infant are not recommended. These motions are jarring and stimulating to a drug-affected baby's nervous system. A slow, rhythmic swaying following a line from head-to-toe can be more easily tolerated.

- **Vertical Rock** When you are holding a baby who is frantic and very hard to calm, hold the baby directly in front of you, with the infant two inches away from your body and facing away. Then slowly and rhythmically gently move the baby up and down. This head-to-toe movement is soothing to the baby's neurological system, as is keeping the baby away from your body.

- **Clapping** By cupping your hand and gently clapping or patting baby's bottom slowly and rhythmically, you will be able to feel the baby's muscles relax.

- **Feeding** Always feed in a low-stimulus environment -- no bright lights, music, noise or other distractions.

- **Controlling the Environment** An environment that is comfortable for an infant is also created by the soothing and calm presence of the caregiver. Routine is very important. The baby will respond more positively when caregivers use soft voices and speak and move slowly.

- **Introducing Stimuli** Introduce stimulation in small doses and on a schedule dictated by the baby's individual ability to adjust. It is best to go slowly and introduce stimuli one at a time.

Take Care of Yourself

To be a healthy caregiver you must take care of yourself as well. If you are stressed and exhausted you cannot be the best parent you can be. No matter how skilled and experienced you are, you are also human.

REMEMBER: IT IS STRENGTH TO BE ABLE TO RECOGNIZE WHEN YOU ARE REACHING YOUR LIMIT.

Be aware of other stressors in your life such as:

- family problems
- financial issues
- health problems
- work problems
- recent losses

Pay attention to the early warning signs that you are stressed:

- Physical Signs – headaches, stomach aches, exhaustion, sore shoulders and neck, sleeplessness, or no benefit from sleep, etc.
- Emotional Signs – frustration, anger, overwhelmed, alone, depressed, anxious, hopeless, etc.
- Intellectual Signs - memory problems, fuzzy thinking, trouble making decisions, thoughts of:
  I can't cope with this anymore.
  This baby is making me crazy.
  No one ever helps me.
  I just need to shut this kid up.

Take a Break…Don't Shake

Before your emotions get out of control, place the baby in a safe place like the crib, leave the room and shut the door. Set the oven timer and take a 15 minute break to give yourself a chance to relax and calm down before you make another attempt to console the baby. Letting him cry for a **few minutes** is not harmful. Babies easily pick up on stress in their caregivers so continuing to try and soothe him may not be helpful.

Think about coping strategies that work for you – hot bath or shower, listen to or play music, do some stretches, concentrate on something like a puzzle.

See the **Crying Plan** under resources at the end of the manual, fill it out and keep it on your fridge for other caregivers to see when they are caring or the baby.

Plan ahead with someone you trust for regular breaks from childcare and get some rest. Speak to your caseworker/support worker regarding respite care.

Make a plan to have someone you trust come over immediately if the crying becomes too much to handle. Keep his or her phone number handy for use by you and any other caregiver.

Know you can trust the baby's other caregivers. Crying can also be frustrating for other people who look after the baby. Make sure you explain to them about whatever stage the baby may be going through and how you usually cope with it. This is true for crying and any other behaviours as well. Make sure they know that if they get frustrated they should call you or another designated person right away, and that calling for help is the sign of a responsible caregiver.

Keep yourself calm. Use strategies such as taking deep breaths or purposely relaxing your muscles.

Don't take the baby's behaviour personally. The baby is not crying because you are a bad parent or because he doesn't like you.

Shaken Baby Syndrome and Abusive Head Trauma

In recent years there has been controversy within medical and legal communities about the use of the term Shaken Baby Syndrome (SBS). We know that violently shaking an infant for even a few seconds can cause life-long damage and even kill a child. Because babies' heads are large compared to the rest of their bodies, and their neck muscles are not strong, violent shaking may cause serious brain injury with consequences which include blindness, deafness, paralysis, permanent brain damage, or death. These injuries can occur with as little as 2 seconds of shaking.

Proving in court that a child was shaken can be challenging. It is easier to establish that a child has head injuries that could only have been caused by abuse thus the term Abusive Head Trauma (AHT) is more often used now in court and for medical purposes. Not all AHT is caused by shaking. AHT occurs when an infant's head is intentionally struck against, or, with a hard object. Shaking is one way in which that might happen.

AHT and SBS happen most often when a baby's caregiver loses self-control out of frustration with his or her crying. Babies with prenatal substance exposure may be at increased risk for SBS, AHT, and abuse of many kinds because of the additional stress experienced by caregivers coping with a baby with complex needs.

KEY MESSAGES
CHAPTER 4

1. Remember, this period of intense crying often seen between 4 and 16 weeks of age will end as the baby matures, usually declining at about five months.

2. Learn about ways to sooth you're a baby.

3. Learn about ways to sooth yourself when you are frustrated or exhausted.

4. Talk to others who care for the baby about how to safely handle the baby.

5. Make a plan for how you will cope with the baby who cannot stop crying.

6. Know that inconsolable crying is not anyone's fault. Rule out the possible causes of crying but sometimes babies just need to cry for a few minutes.

7. Talk to all of a baby's caregivers about shaken baby syndrome and abusive head trauma, and about what to do when they have reached their limit. **Everyone who cares for the baby must know this rule: take a break don't shake.**

ADDITIONAL INFORMATION

If you are concerned about your baby's crying or feel frustrated and don't know what to do—contact the following:

HealthLink Alberta
Toll-free: 1.866.408.LINK (5465)
Edmonton: 780.408.LINK (5465)
Calgary: 403.943.LINK (5465)

You can also call the baby's doctor or local public health office.

Caregiver Association Support Line
Monday – Sunday from 4:30pm – 8:15am
Ph: 1.800.667.2372
afpaonline.com

MyHealth Alberta
myhealth.alberta.ca

CHAPTER 5
INFANT FEEDING

Babies have inborn instincts and reflexes that guide their feeding behaviours. They must be able to co-ordinate sucking and swallowing with breathing. Feeding is a skill that involves all the senses. Babies need to receive consistent cues and be able to sense and respond appropriately to cues in their environment in order to feed well. Their bodies must be ready to eat, with enough energy, strength, stable breathing and awake times to sustain eating. Infants are the most comfortable and stable in the environment of a familiar caregiver's arms. It is essential that families receive support in order to help babies learn to eat well to give them the best start. If babies are born too early, or if their reflexes have been disrupted by prenatal drug exposure, they may need more patience and guidance when feeding.

Breastfeeding

Breastfeeding has a number of recognized benefits for mother, baby, family, and community. A mother's milk has the optimal balance of nutrients a baby needs. Breastfeeding builds up a child's immune system. It protects them from bacterial infection, intestinal illness, respiratory illness, asthma, allergy, SIDS, diabetes, leukemia, obesity, circulatory disease, and heart disease. A mother's milk is the easiest for a baby to digest and for its body to use. Breastfeeding also helps with jaw development, brain development, and mother-infant bonding.

The benefits of breast milk and breastfeeding increase with the length of time breastfed, so that mothers and babies who breastfeed longer benefit the most. The World Health Organization recommends exclusive breastfeeding for the first 6 months of life, with continued breastfeeding along with the gradual introduction of solid food for two years or more. Mothers should not breastfeed if the baby has a genetic disorder called galactosemia or if the mother has active, untreated TB, HIV, is taking chemotherapy or radioactive drugs, or is actively taking street drugs. Mothers taking most prescription medications - including methadone, at any dose - can breastfeed. Mothers with Hepatitis B or C can breastfeed. Babies of mothers with Hepatitis B should receive immunizations against Hepatitis B as well as immunoglobulin at birth. Mothers who smoke cigarettes can also breastfeed. Mothers' breastfeeding plans should be discussed with their health professionals (family doctor, lactation consultant).

When appropriate, mothers should be encouraged to breastfeed during visits or provide their babies with expressed breast milk when they are not together.

Formula Feeding

Commercial formulas come in three forms: powder, liquid concentrate, or ready-to-serve. If your baby has a weakened immune system, is premature or has a low birth weight, and is under 2 months of age, consult the baby's physician if a specific form is preferred.

Generally babies should continue using the type of formula they have been on when you begin caring for them if they have been tolerating it well. If you have concerns about a baby's tolerance of a particular type of formula, discuss the issue with your public health nurse, the baby's doctor, or a community nutritionist before making formula changes. Babies who are under 12 months should never be given ordinary cow's milk, goat's milk, or soy drink in place of formula or breast milk, as they have inadequate amounts of vitamin E, essential fatty acids and iron, as well as excessive amounts of protein, sodium and potassium, which the infant's system cannot handle.

Choose BPA-free baby bottles or bottle liners. These are made of non-polycarbonate plastic. Read packaging carefully.

How much formula does a baby need?
The amount of formula needed by babies depends on their age, how well they are growing, their activity level, and their general health. Some babies who were exposed to substances in the womb and/or were born prematurely may need extra energy to help gain weight. The baby's doctor or local public health nurse can monitor the baby's weight, length, and head size on a regular basis. This will help determine how well the baby is growing.

Babies also know how to let caregivers know when they are full. A baby does this by slowing down her sucking, turning away from the bottle, sealing her lips or just getting more interested in other things. For most healthy babies, it is not a good idea to force them to eat more than they want (see *When Babies Don't Feed Well* section of this chapter). Never force the nipple into the baby's mouth.

How long do I have to keep boiling and sterilizing?
Until baby is four months old, only use sterilized water to mix with baby's formula. To sterilize water, use cold tap water and bring it to a boil for two minutes. Cool the sterilized water before mixing it with formula and giving it to the baby to drink. Boiled water can be stored in a covered sterile container for up to three days in the fridge, or 24 hours at room temperature.

If you get your water from a well, sterilization may not be enough to make it safe. Contact your community health centre to have the water safety tested. Distilled water is not sterilized water.

May I heat bottles of milk in my microwave?
No! Bottles of formula should not be heated in a microwave. Microwaves heat liquids unevenly, producing hot spots in the milk that could burn a baby's mouth. It is best to warm a bottle in a container of warm water. Always test the temperature of the milk on the inside of your wrist before feeding the baby.

How long do I need to continue using formula for the baby?
It is recommended that formula fed babies receive formula until they are at least 12 months old. After 12 months, the baby can be fed whole (3.25%) milk unless directed by the baby's doctor or nutritionist.

When Babies Don't Feed Well

Weak or Poor Suck

Normal infant feeding is seen as a rhythm of suck-swallow-breathe. This rhythm may be difficult for babies who are born prematurely and have immature brain, nervous, and muscle systems, and/or for babies who have been prenatally exposed to substances. Babies who have trouble coordinating this sucking action may not be getting the quantity of food they need.

Feeding difficulties related to weak or poor suck may include:

- sloppiness and constant dribbling due to an ineffective seal on the nipple and a weak suck
- sucking too quickly and not being able to keep up with the milk flow
- trouble getting the nipple positioned correctly in the mouth (they don't seem to know "what to do" with the nipple)
- high sensitivity to touch in or around the mouth (oral hypersensitivity)
- taking a long time to eat due to slow, weak sucking
- small frequent feeds

Helping the Baby to Suck and Feed

If the baby has mild difficulties with feeding, consider the following:

1. **Read the baby's signs**
   - Feed the baby when he shows early signs of hunger. Try not to let him wait too long or he will become too frantic to feed well.
   - Gently stroke the baby's cheek to encourage rooting and mouth opening. Touch the nipple to the baby's lip so he opens the mouth wide. Ensure the tongue tip is down before inserting the nipple.
   - During feedings some babies are not able to tolerate extra stimulation (for example: rocking, touching, eye contact, noise). If necessary, swaddle the baby in a light blanket on your lap, allowing the baby to look away into an uncluttered space. This position will reduce stimulation and allow the baby to focus on feeding. Remove the blanket when the feed is finished.
   - If the baby tends to fall asleep when being fed, you may need to un-wrap him for feedings and you may also need to remove his clothes. A baby who uses deep sleep as a way of taking a break may need to be woken up to feed.
2. **Prepare the environment**
   - Whenever possible, choose a calm, quiet environment that is free from distractions. Some babies can only handle one activity at a time.
   - Use a soft, gentle voice during feeds.
   - Try to establish regular feeding routines.
   - Avoid bright light shining in the baby's eyes.

- Collect all the equipment you need (e.g., bottle, towel, pillow) before you start to feed the baby.

- You may try using a variety of nipples and bottles until you find one that works for the baby. Keep in mind that if the hole in the nipple is too large, milk will flow too fast and the baby will not be able to keep up. If the hole in the nipple is too small, the baby may tire out before completing the feed, or get frustrated that he is not getting enough milk. But give the change a few days so that the baby can get used to the change and adapt to it. Changing nipples or bottles too frequently can confuse the baby.

- If the baby is a slow feeder, keep the milk warm throughout the feed to make it acceptable. This is especially important with specialty formulas that may taste different.

- The present recommendation on infant feeding is to always hold a baby during feeds in a semi-upright position. **NEVER PROP A BOTTLE**. If the baby does not feed well when being cuddled, it is acceptable to do the following: place the baby in a semi-upright position (such as in a bouncer seat), hold the bottle in his mouth, support his cheek and jaw if needed, and constantly observe the feeding. Take the opportunity to cuddle the baby when you are burping him after a feed. **NEVER LEAVE THE BABY UNATTENDED DURING FEEDS**.

3. Position and Care During Feeding

There is benefit to recording feed amounts, start times, length of feeds and any observed behaviour as it provides caregivers with data they can share with the dietician and baby's doctor. This can be very important for infants with feeding issues and can help doctors in determining diagnosis.

Bottle Feeding

Keep the baby's chin tucked in (neither too far down or too far back) throughout the feeding. This position makes sucking and swallowing easier. Angle the bottle to help the flow and prevent the baby from swallowing air bubbles. Do not grip the baby's chin too firmly as the baby may need to give you cues that she needs a break.

For some babies, an angled bottle also helps keep the chin tucked in. This feeding position provides the baby with head and neck support and gentle support of the chin.

The picture below demonstrates a **poor** feeding position. The baby is not being held in a flexed or C position, and her head is left unsupported (chin not tucked in). If a baby often arches back while feeding, it is a sign of discomfort or pain and should be discussed with the baby's doctor.

When feeding, use positions that will help keep the formula down. Keep the baby in a slightly elevated position (head up, semi-sitting) for 30 minutes after a feed. Bouncer seats work well for this. Avoid extra stimulation during this time. A baby may also need to be supported on either side of his body (e.g. by using towel rolls) so that she doesn't fall sideways.

Spitting Up (regurgitation)

Most babies spit up small amounts of milk on occasion, particularly at the end of a feeding or when being burped. As long as babies are gaining weight well, spitting up is not usually a concern. Spitting up becomes a concern when it:

- results in poor weight gain
- is seen with other symptoms such as increased discomfort, breathing problems (aspiration or respiratory distress)

The baby's doctor should make sure that this is spitting up/regurgitation rather than a condition that requires other medical attention or surgery.

Helping the Baby Who Spits Up

To help the baby who spits up a lot, try the following:

- Maintain a quiet environment during feeding.
- Give smaller feeds more frequently.
- Use feeding techniques that help reduce the swallowing of air. Try the following suggestions:
  - ❒ feed the baby before he gets frantic with crying
  - ❒ make sure the formula is not flowing too fast - this may lead to gulping of both formula and air
  - ❒ make sure the hole in the nipple is not too large
  - ❒ burp frequently using a gentle circular motion on the back, do not pat vigorously on the back
- Use positions that will help keep the formula down. Keep the baby in a slightly elevated position (head up, semi-sitting) for 30 minutes after a feed. Bouncer seats work well for this. Avoid extra stimulation during this time. A baby may also need to be supported on either side of his body (e.g. by using towel rolls) so that he doesn't fall sideways.

Babies suck for two reasons - to eat and to calm or settle themselves (non-nutritive sucking). Some babies are satisfied with a little sucking to calm themselves, while others need a lot. If sucking is always seen as a sign of hunger, the baby can end up being overfed. Overfeeding can lead to a cycle of eat-gas-regurgitate (spitting up). You can encourage non-nutritive sucking (comfort sucking) by allowing a baby to suck on her hand, fingers, or a soother. Refer to the section in Chapter 4 on *Infant Crying* for strategies on calming babies.

Other Things to Consider

- Keep the baby's skin clean and dry. Stomach acids that the baby spits up can be irritating to the skin. Change the baby's clothes as often as necessary.
- Have the baby's doctor or public health nurse monitor the baby's growth.
- Always check with the baby's doctor before changing the baby's formula. A dietician is also a great resource for discussing the need for a different formula or added calories.
- Give changes time to work (several days). Frequent changes can confuse babies, caregivers and doctors.

Gas

Babies can get gas from frantic sucking or crying (swallowing air), and fast feeding or overfeeding.

- Use a nipple that provides the best seal, so that the baby does not get too much formula at once.
- Burp frequently, if tolerated by the baby.
- Hold the baby in a semi-upright position for 30 minutes after a feed.
- Ensure the baby is tolerating the formula. Consult your community nutritionist, public health nurse or the baby's doctor if you think he is not able to digest the formula.
- Seek the advice of baby's doctor if the problem persists.

Formula Intolerance and Food Allergies

Some babies do not tolerate cow's milk-based formulas. This may be due to lactose (milk sugar) intolerance or food allergy. **True lactose intolerance and food allergies are rare**. Frequent spitting up, gassiness and irritability related to feeding (that improves with time) might be seen in some babies where an exact cause is not known and may not be due to allergies.

What Are Possible Signs of Food Allergies in Babies?

Signs of allergies can range from mild to severe. Signs of a reaction can appear within minutes and often within two hours of exposure to food. Sometimes, the reactions can occur hours or days later (this is rare).

Signs would include the following:

- frequent stools or diarrhea
- bloody stools
- failure to gain weight

Food allergies to foods other than milk such as fruit, nuts, peanut butter or fish can result in:

- hives, swelling, redness and rash
- stuffy or runny nose with itchy watery eyes
- vomiting, sometimes combined with diarrhea
- trouble breathing, lips turning blue

Helping the Baby with Formula Intolerance

- Monitor the baby for signs of formula intolerance.
- If you are concerned that the baby is experiencing a formula intolerance, talk to the baby's doctor or public health nurse. Do not make any formula changes without discussing it with the baby's doctor.
- If a new formula has been started, remember that it may take at least 3 days before you notice any change in the baby.
- Use other available community resources for information and support such as nutritionists or community dietitians, or call Health Link Alberta at1.866.408.LINK (5465).

Red Flags

Consult the baby's doctor or public health nurse if the following red flags are noticed in the baby:

- forgetting to breathe at times during feeding
- frequent gagging, coughing, or choking when feeding
- noisy or difficult breathing during feeding
- a history of respiratory illnesses (pneumonia, frequent chest colds, etc.)
- lack of weight gain
- frequent spitting up or vomiting
- difficulty in starting the suck
- frequent agitation and crying
- poor sleeping
- feedings that last a long time (over 30 minutes)

Introduction of Solid Foods

The recommended age for starting solid foods is 6 months, or 6 months adjusted age in a baby born prematurely. Babies are ready for solid food when they are able to sit up with some support, open their mouths when they see food coming, and move soft food from the front of the tongue to the back of the mouth to swallow. There is information on the introduction of solids on the MyHealth and Alberta Health Services websites.

Call your public health nurse, dietitian, or the baby's doctor as a resource to get more information about starting solid foods for the baby. Seek help if the baby always refuses food, is fussy, gags, coughs after swallowing, chokes or vomits after eating.

Nut butters (peanut, almond, hazelnut, etc.) honey and eggs should not be introduced until the baby is at least 1 year old. Introduce such foods in small amounts and watch for signs of allergy reactions such as those noted above under *What are possible signs of food allergies in babies?* Extra caution should be taken if the baby is already known to have allergies to other substances.

KEY MESSAGES
CHAPTER 5

1. If babies are born too early, or if their reflexes have been disrupted by prenatal drug exposure, more patience and guidance may be required when feeding.

2. A mother's milk has the optimal balance of nutrients a baby needs.

3. If you have concerns about a baby's tolerance of a particular type of formula, discuss the issue with your public health nurse, the baby's doctor, or a dietician before making formula changes.

4. Some babies who were exposed to substances in the womb and/or were born prematurely may need extra energy to help gain weight. Discuss this with the baby's doctor or dietician.

5. Babies who have trouble coordinating this sucking action may not be getting the quantity of food they need.

6. If the baby has mild difficulties with feeding, consider the following: read the baby's signs, prepare the environment, and provide the best position and care while feeding.

7. To help the baby who spits up a lot, try the following: maintain a quiet environment during feeding, give smaller feeds more frequently, use feeding techniques that help reduce the swallowing of air, use positions during and after feeds that will help keep the formula down.

8. Babies can get gas from frantic sucking or crying (swallowing air), and fast feeding or overfeeding.

9. Signs of a reaction or intolerance to solid foods can appear within minutes and often within 2 hours of exposure to food. Sometimes, the reactions can occur hours or days later (this is rare). Signs would include the following; hives, swelling, redness, and rash; stuffy or runny nose with itchy watery eyes; vomiting sometimes combined with diarrhea; or trouble breathing, lips turning blue.

10. Consult the baby's doctor or public health nurse if the following red flags are noticed in the baby: difficulty coordinating breathing and sucking, frequent spitting up or vomiting, difficulty in starting the suck, frequent agitation and crying, poor sleeping, feedings that last a long time (over 30 minutes) and/or short/variable duration feed (less than 10 minutes).

11. The recommended age for starting solid foods is 6 months. Babies are ready for solid food when they are able to sit up with some support, open their mouths when they see food coming, and move soft food from the front of the tongue to the back of the mouth to swallow. Nut butters (peanut, almond, hazelnut, etc.) honey and eggs should not be introduced until the baby is at least one year old. Introduce such foods in small amounts and watch for signs of allergies.

12. Projectile vomiting can indicate allergies or a structural problem with the opening into the stomach. Consult the baby's doctor.

ADDITIONAL INFORMATION

Talk to your pediatrician about a referral to a dietician for help with feeding issues for children with special needs.

HealthLink Alberta
Toll-free: 1.866.408.LINK (5465)
Edmonton: 780.408.LINK (5465)
Calgary: 403.943.LINK (5465)

MyHealth
myhealth.alberta.ca

Healthy Alberta
healthyalberta.com

CHAPTER 6
INFANT DEVELOPMENT

Babies who are healthy reach their milestones in a typical and predictable pattern. For example, babies usually learn to lift their heads when put on their tummies, will then roll, then sit, then crawl, move in and out of positions like sitting and lying, and then pull to stand and walk.

Babies who were born prematurely, had low birth weight, and/or were exposed to substances are at risk for delays in development. It is important to remember that infants can be at risk for developmental problems without ever developing them.

Developmental delays in early infancy do not necessarily result in long-term delays.

There are simple screening tools that the public health nurse and Parent Link Centres can use to help you see how your baby is developing. If the baby seems to be having trouble with development, a physiotherapy consultant can provide with additional support, information, and activities to help your baby learn these skills.

Growth and Development

Here are some of the milestones a baby usually reaches throughout the first year of life.

Birth – 3 months	**3 – 6 Months**
▪ lifts head and chest on tummy/holds head steady when carried ▪ moves arms and legs equally ▪ may keep hands closed (fisted) a lot ▪ grasps your finger/hands to mouth ▪ smiles when spoken to ▪ looks at you and starts to follow toys ▪ usually in flexed or curled postures	▪ rolls over to back, then to tummy ▪ plays with hands/reaches for toys/holds a toy ▪ starts to babble (baby talk) ▪ starts taking weight on legs when held ▪ visually aware and interested ▪ responds to noises with interest ▪ enjoys—playing with you ▪ grasps knees then feet in play when lying on the back
6 – 9 Months	**9 – 12 Months**
▪ sits steadily without support ▪ moves in and out of sitting, lying, and crawling positions ▪ holds a toy in each hand and passes toys hand to hand ▪ likes peek-a-boo ▪ starts to crawl on tummy, then on hands and knees ▪ notices strangers ▪ babbles and laughs	▪ pulls to stand at furniture ▪ walks by holding hands or alone ▪ picks up small things with fingers/points with index finger ▪ knows words such as up and bye-bye ▪ says mama, dada ▪ plays with toys longer ▪ starts showing preference for toys

Vision

From birth, babies are able to figure out shapes, patterns and variations of light and dark. When the young baby is in the quiet alert state, he can focus on objects 7 to 18 inches away for brief periods. They are most interested in familiar faces. By 3 - 4 months, babies can focus on objects that are moving slowly in front of them; toys that have faces and high contrasts in color (light and dark) are most interesting. Until about 4-5 months of age, it is normal for baby's eyes to wander or cross at times, especially if the toy is too close. This stops when the baby's eye muscles become more mature. It is **not** normal if you see the baby's eyes bouncing or if one turns in or out when he is trying to follow a toy. See the baby's doctor if you notice this. Children should have their eyes checked by an optometrist by the age of 3 years or as early as possible if there is a family history of vision impairment. Substance affected babies may require eye exams as infants – check this with the baby's doctor.

Hearing

Although babies can hear just like an adult, their ability to respond to sounds develops gradually. Babies respond to loud sounds by startling, and will quickly learn to recognize voices. Good hearing is an important part of learning to talk. If your baby is not making lots of different sounds by 8 months, their hearing should be checked. Infants with signs and symptoms of hearing loss should see their physician.

Risk factors for hearing loss include:

- a family member with permanent hearing loss that occurred in childhood
- very low birth weight – less than 3 pounds (1360 gm)
- serious infections at birth such as herpes, toxoplasmosis, rubella, or cytomegalovirus (cmv)
- unusual appearance of baby's head, face, or ears
- an exchange blood transfusion meaning a baby may have had very high levels of jaundice
- serious infection early in life (such as meningitis or encephalitis)
- serious injury to the head
- disorders of the brain or nervous system
- repeated ear infections
- prenatal substance exposure
- use of certain medications for the premature baby
- delays in speech and language development

Speech and Language

Some Basic Patterns of Speech Development

- **By age 6-7 months**, you should start hearing some babbling and the baby should start to look at you when you call his name.
- **By age 1,** children use single words and understand simple directions.
- **By age 2,** children should be using 50 words, be combining words in phrases, and be understandable one-half of the time to strangers.
- **By age 3,** children should use short sentences and be understandable three-quarters of the time to strangers.

How You Can Support Speech Development

- Talk to the baby as much as possible (and as tolerated).
- Respond to the baby, as he coos or babbles to you, with eye contact and a smiling face.
- As the baby gets older, name items aloud on a regular basis and read books together.
- Learn about normal speech and language development. Information pamphlets are available from most health units.

Sometimes a growing child will have behaviour and emotional challenges because of difficulties with speech, language, and hearing. A baby or toddler should be referred to a speech and language pathologist if he does not use single words at 1 year and is not combining words by 2 years. If you suspect a problem, **do not delay in getting help!** The baby's doctor or public health nurse will refer the baby for further testing.

Early Reflexes

Newborn babies are born with automatic responses called *primitive reflexes*. These reflexes generally disappear when the baby is about 3-4 months of age. Examples of these common reflexes are:

- **Rooting Reflex:** The baby will turn towards the touch and open her mouth when stroked along the side of the mouth.
- **Moro Reflex**: This is often called a startle reflex. This happens when the baby hears a sudden loud sound or is moved suddenly. The baby will open her arms widely and then flex them in towards the chest. The baby may also cry when this reflex occurs.
- **Grasp Reflex:** The baby will grasp a finger placed in the palm and hold it automatically (called the palmar grasp). The baby's toes will curl under when pressure is placed on the sole of the foot between the toes (called plantar grasp).
- **Stepping Reflex:** This is also described as automatic standing. It occurs when the baby is held in a standing position. The baby's legs strongly extend with hips and knees straight and sometimes the toes point downwards. This reflex should disappear by 2-3 months.

- **Asymmetrical Tonic Neck Reflex**: This reflex is also called the fencing pose. When the baby is lying on his back, his head is turned toward the outstretched arm with the other arm bent close to the ear. It is seen on both the arms and legs.

Other unusual movements, such as slight jitteriness or sudden jerking in a very young baby are normal. These reflexes should disappear by about 4 months of age, but may not fade away in the babies born prenatally exposed to drugs and alcohol, or born prematurely. They can interfere with the baby's ability to develop normal movements and postures. By 4 - 6 months of age, a baby's movements become more smooth and controlled, allowing the baby to reach for toys, roll, and explore his body.

Muscle Tone

Muscle tone is the ability of a muscle to reach to stretch. It can range from high tone (muscles feel stiff/the baby has trouble moving his limbs) to low tone (loose and floppy/baby seems to lack strength to move). It can also be different in different parts of the body (asymmetry).

Some babies who are prenatally exposed to substances may show either high or low muscle tone. Most babies outgrow this problem by 12 -18 months of age. However, during that time, the abnormal muscle tone can interfere with development. For example, a baby whose arms and legs are stiff may not be able to bring her hands to the mouth and may arch, preventing sitting balance, and may stand on very stiff legs, or on the toes when placed in standing. This can interfere with crawling and walking.

Babies with low tone may have trouble lifting their heads and pushing up when placed on their tummies to crawl and roll and may flop forward when trying to sit. These babies may have trouble bearing weight on their legs when standing.

In a few babies, these abnormalities in tone do not fade away. These babies require special handling and positioning to develop their movements, and need referrals to early intervention and physiotherapy services through the baby's doctor.

Arching, Tremors, and Other Signs of Stress

Babies who are prenatally exposed to substances can find things like sounds, hunger, and various forms of stimulation stressful. Babies can show early signs of being stressed before crying. One common sign is arching. The baby strongly extends the spine and shoulders and often the legs. The baby may seem to be very stiff (high tone) during this time. This may interfere with the baby being able to be held and cuddled, as well as being fed. Sometimes, trying to cuddle the baby when he feels like this can increase the symptoms instead of settling him. Some babies may feel more relaxed if they are put into their beds in a quiet room for a while.

Another sign of stress can be tremors. This is when the baby's arms and legs and sometimes mouth appear to be jittery. Tremors are not seizures. Other stress signs can include yawning or hiccups. Some babies show stress by looking away, closing their eyes, becoming listless, or stretching out their hands and arms (finger splaying).

These and other signs of stress can mean the baby is having trouble coping with the stimulation around him. It may be the baby's way of telling you that he needs a break. Some babies feel more comfortable when swaddled or held for a while. Each baby has different ways of soothing and it sometimes takes some time to learn the best ways for each baby.

How You Can Encourage Infant Development

While doing the activities suggested below, it is important to watch the baby for how much he can tolerate. It is important to stop before the baby becomes too tired or over stimulated. The best time is after the baby is fed and rested. It is OK if the baby can only do the activity for a few minutes at a time.

Some suggestions:

- Help the baby get used to being carried in flexed or curled positions to reduce the arching.
- Several short periods of playing with the baby each day are much better than trying to do too much at one time. The goal is for the baby to enjoy playing with you.
- Limit the number of toys at any one time. Having too many toys, room decorations, and people can become too stimulating and stressful for the baby.
- Try to decide what system (vision, hearing, movement, playing with hands, talking) you are working with and limit each play session to one area.
- Allow the baby to play in a variety of positions including on the back, on the tummy, and in supported sitting, to allow her to explore her body and learn how to move. **"Tummy time" is very important** for developing neck and upper body strength, but can be difficult for some babies. Try to introduce this position early but gently.
- Place the baby on your chest when you are reclining in a chair so his body is slanted with the head up. By holding the baby's elbows under him, he can lift his head to look at your comfortably. You can also try a soft cushion or rolled towel on the floor to support the chest once the baby can begin to lift the head. Floor play on a blanket is very important. Make sure the baby is encouraged to use both sides of the body to roll back to tummy and back. Tummy time does not have to be flat on the floor; it is easier for the baby to be on an inclined surface.
- Sit on the floor with the baby sitting supported between your legs. Put toys in front and also on either side to encourage movement forward but also to the side.
- When baby can hold his head up when on the tummy, place the toys a short distance away to encourage him to move and crawl.
- **Avoid too much time in car seats, bouncy chairs, and lying on the back.** This can cause a flattening of the baby's head**.**
- Encourage activities where the baby brings his hands together or uses his hands to pull on toes. Use lightweight toys that make quiet, gentle sounds. This is called midline activities.
- For babies with high tone (stiff legs/arching) **avoid activities that promote extension (arching), such as holding the baby in a standing position or using walkers, Exersaucers, jolly jumpers, and baby treadmills.** This will not teach the baby to walk, but will only make the baby stiffer.
- Some children do well playing in a high chair or floor chair where they can sit up comfortably but still see you.

Tummy time on flat (right) and inclined (left) surfaces.

POSITIONS TO ENCOURAGE FLEXION

Substance affected babies may have high muscle tone making them quite rigid or stiff, holding the baby in various positions encouraging curling as well as stretching of neck, legs, and arms can be beneficial.

KEY MESSAGES
CHAPTER 6

1. Developmental delays in early infancy do not necessarily result in long-term delays.

2. Until about 4 - 5 months of age, it is normal for baby's eyes to wander or cross at times, especially if the toy is too close. This stops when the baby's eye muscles become more mature.

3. It is **not** normal if you see the baby's eyes bouncing or if one turns in or out when he is trying to follow a toy. See the baby's doctor if you notice this.

4. If your baby is not making lots of different sounds by 8 months, their hearing should be checked.

5. Some basic patterns of speech development: by age 6 - 7 months, you should start hearing some babbling and the baby should start to look at you when you call his name. Generally by age 1, children use single words and understand simple directions.

6. Newborn babies are born with automatic responses called *primitive reflexes*. These reflexes generally disappear when the baby is about 3 - 4 months of age.

7. Some babies who are prenatally exposed to substances may show either high or low muscle tone. Most babies outgrow this problem by 12 - 18 months of age. However, during that time, the abnormal muscle tone can interfere with development. For example, a baby whose arms and legs are stiff may not be able to bring her hands to the mouth and may arch, preventing sitting balance, and may stand on very stiff legs, or on the toes when placed in standing.

8. Babies who are prenatally exposed to substances can find things like sounds, hunger, and various forms of stimulation stressful. Babies can show early signs of being stressed before crying by arching, tremors, or disengaging from stimulation.

9. There are numerous ways to encourage development but it is important to stop before the baby becomes too tired or over stimulated. The best time is after the baby is fed and rested. It is OK if the baby can only do the activity for a few minutes at a time.

ADDITIONAL INFORMATION

HealthLink Alberta
Toll-free: 1.866.408.LINK (5465)
Edmonton: 780.408.LINK (5465)
Calgary: 403.943.LINK (5465)

MyHealth Alberta
myhealth.alberta.ca

Parenting Counts - Developmental Timelines
parentingcounts.org

Your local health unit as well as **Parent Link Centers** typically offers information about child development and strategies for encouraging healthy development. You can also call the baby's doctor or local public health office.

CHAPTER 7
INFANT HEALTH & ILLNESS CARE

Reducing the Risk of Infection

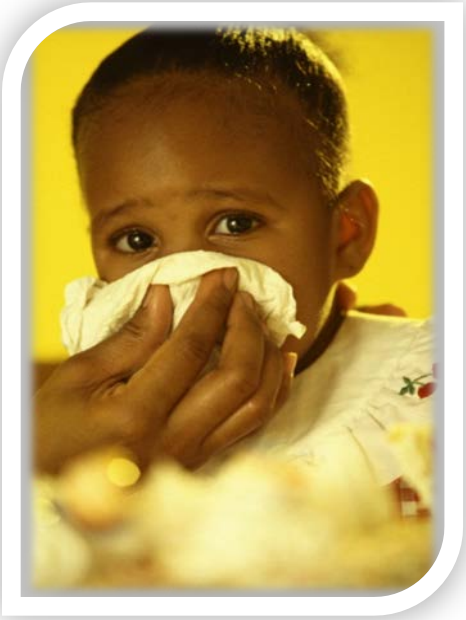
Protecting babies from illness and infections is an important role for all caregivers. Here are some things you can do to help reduce the risk of infection:

- Use universal precautions (see below) at all times, including hand washing before and after caring for the baby.
- Discuss immunizations and flu shots with your caseworker.
- Limit the time you keep your baby in crowded areas, such as malls, especially during the winter cold and flu season.
- Restrict visits from people with known infections, such as the flu.

Universal Precautions

Routine practices are steps we must take to protect ourselves when we come into contact with the blood or body fluids of other people. This includes:

- Washing your hands thoroughly with soap and water for at least 20 seconds.
- Using disposable gloves (latex, vinyl, or rubber) when handling body fluids that may contain blood.
- Cleaning spills of blood or body fluids by using disposable absorbent material such as paper towels. Wipe the area with a disinfectant (1 part household bleach mixed with 10 parts water to use as a good disinfectant).
- Teaching others (especially children) about universal precautions, such as hand washing and not sharing toothbrushes and other personal care articles.



Immunizations from Birth to One Year of Age

Immunizing babies and children against harmful vaccine-preventable diseases is their best protection. Vaccines (shots) work well and are very safe. No parts of a vaccine will harm a child or give a child any diseases. It is much safer for a child to get their shots than to get sick. Vaccines help protect children against the following diseases that can do harm to the brain, lungs, heart, and other parts of the body.

Routine Immunization Schedule

Visit the Alberta Health website for the most current information.

Age	Vaccine
2 months	• Diphtheria, Tetanus, acellular Pertussis, Polio and Infant Haemophilus type B • Pneumococcal conjugate (PCV13) • Meningococcal conjugate (Men C)
4 months	• Diphtheria, Tetanus, acellular Pertussis, Polio and Infant Haemophilus type B • Pneumococcal conjugate (PCV13) • Meningococcal conjugate (Men C)
6 months	• Diphtheria, Tetanus, acellular Pertussis, Polio and Infant Haemophilus type B • Pneumococcal conjugate (PCV13) (for high risk children only)
6 months and older	• Influenza(Annually, during influenza season)
12 months	• MMRV (Measles, mumps, rubella, and varicella) • Meningococcal conjugate (Men C) • Pneumococcal conjugate (PCV13)

Note: Each bullet represents one vaccine/injection unless otherwise noted.

Get All Children's Shots on Time

Babies need to get their shots starting at 2 months of age. Some babies, with health conditions, may be started sooner and be on a different plan (schedule). After 2 months of age the next shots are given at: 4 months, 6 months, 12 months, 18 months, and age 4 to 6 years. Vaccines will also be offered at their school for ones needed at that time. Some vaccines provide protection against more than one disease. For example, one of the first vaccines a child receives covers six diseases in one shot.

For vaccines to work their best, and to protect babies as early as possible when they are most at risk, it is best to start getting immunized on time and keep to the plan of the baby in your care. Children's plans are based on their current health status.

Schedules can change. For the most up-to-date routine schedule for children in Alberta and for more information about immunizations, visit the Alberta Health website or speak to your public health nurse or the baby's doctor.

Immunization appointments can be booked at a public health centre near you. Be sure to keep a record of all the vaccines the baby receives while in your care.

Infectious Diseases

Babies are at increased risk for infectious disease if their mothers use intravenous (IV) drugs, are sex trade workers, or are positive for Hepatitis B, Hepatitis C, Syphilis, or HIV. Mothers who receive prenatal care are tested for Hepatitis B and C. Some mothers are also tested for HIV. Depending on the mother's infection status, the baby may or may not be followed up with future testing.

Hepatitis B

Hepatitis B is a virus that attacks the liver. Babies who are born to mothers who are hepatitis B positive receive Hepatitis B immunoglobulin and Hepatitis B vaccine at birth. Babies born to mothers who have not received prenatal care will receive a Hepatitis B vaccine at birth. These babies will receive 3 additional Hepatitis B vaccines at 2, 4, and 6 months. Infants who received the Hepatitis B vaccine at birth will need to have a Hepatitis B blood test done 1 month after their 6 month shots. Since a vaccine is available to protect against Hepatitis B, caregivers should consider this immunization for themselves.

Hepatitis C

Hepatitis C is a virus that attacks the liver. At the present time, there is no vaccine available for Hepatitis C. If a mother tests positive for Hepatitis C, her baby's blood will be tested after birth.

At 6 weeks of age the PCR test (detects presence of virus itself) is done. If negative, an antibody test is done again at 12 months. If positive, another test is done at 18 months and the infant should be referred to a pediatrician.

Only 4 percent of prenatally exposed infants become infected with Hepatitis C. If the baby is found to be Hepatitis C positive, a vaccine to prevent Hepatitis A is given at 12 months of age.

HIV

Since 1995, there have been no cases of HIV transmitted from mother to baby if the mother received prenatal care that included HIV testing and follow-up. If a pregnant woman is positive for HIV, she can be given special medications (antiretroviral) to reduce the chance of transmitting HIV to her baby. A baby born to a mother with HIV (HIV positive) is given special medications right after birth and is followed closely by the baby's doctor or the HIV clinic. If a mother uses IV drugs, or is a sex trade worker, and has not been tested for HIV, her baby may be started on HIV medications right after birth.

Syphilis

Syphilis is a communicable disease caused by the *TreponemaPallidum*organism. If untreated, it is a lifelong infection with progressive stages. Congenital (present at birth) Syphilis is caused by the presence of an active infection in the mother during her pregnancy. Syphilis screening is a routine part of pregnancy blood work screening. The infection can be treated during pregnancy with antibiotics, and protects the fetus. However, pregnant women may not receive prenatal care and/or may be re-infected with Syphilis after treatment. If appropriate prenatal treatment is completed before the last month of pregnancy, the infant is examined and blood work (non-RPR and RPR) is done on both the infant and mother. If the baby's RPR results are the same or less than the mother's, the RPR blood test is repeated at 3 and 6 months with repeat testing at 12 and 18 months, if the 6-month test still shows reactivity. In some cases, the infant is given an antibiotic injection. Because of the complexity of syphilis as a disease and the risk of serious harm to the infant, the *Safe Babies* program now strongly recommends that the mother's prenatal care providers be involved in the medical care of the syphilis-exposed infant to the age of 6 months.

Remember: Hepatitis B, Hepatitis C, HIV, and Syphilis are spread mainly by blood. Caregivers cannot be infected from a baby who is Hepatitis B or C positive, or has Syphilis or HIV through day-to-day contact such as touching, bathing, hugging, and kissing. Precautions (see above) should be a routine practice.

Methicillin-Resistant Staphylococcus Aureus (MRSA)

Staphylococcus aureus is a common bacteria that is found on the skin and in the noses of many healthy people. About 30 percent of healthy people will carry the bacteria at any given time. Most people do not know that they are carrying the bacteria. MRSA are strains of bacteria that have become resistant to some antibiotics that are commonly used to treat these infections.

The most common way MRSA spreads from person to person is by direct contact. A child may have been exposed to MRSA from his biological parent or in the hospital. If you are healthy and caring for an infant who is MRSA positive, your chances of becoming sick with MRSA are very low. The most important thing you can do to protect yourself is to wash your hands for at least 20 seconds using warm water and soap before and after handling the baby.

If a young child is carrying MRSA in his nose or on his skin and is healthy, ***he does not need treatment and should continue with normal activities.*** You should consult with your physician if your infant has red, painful bumps under the skin; blisters filled with fluid; a cut that is swollen and filled with pus or has honey-colored crusts; red, firm, and warm skin area that is painful and getting bigger; or fever and chills.

A child with MRSA may go to the child care centre or groups as long as there is not a draining skin infection. ***You do not need to disclose*** to anyone that your child has MRSA; this is personal information. However, if your child is a carrier and is going to be admitted to hospital, it is **very** important that you inform the hospital staff so that steps can be taken to protect patients and hospital staff from MRSA infection. Inform your case worker as soon as possible if a child in your care is diagnosed with MRSA.

Dental Care

Tooth decay can be prevented. Here are some tips to prevent tooth decay:

- Keep your own mouth healthy and clean to prevent spreading tooth decay bacteria to baby. Never put nipples, soothers, or other utensils for the baby in your mouth.
- Start mouth care early by wiping baby's gums every day with a wet cloth.
- Don't put anything sweet on pacifiers/soothers.
- Never let baby fall asleep with formula/milk/juice in their mouth once they have teeth.
- Children need to have their teeth brushed morning and night.
- Make sure you can see into the mouth when brushing.

Position yourself behind your child to brush their teeth.

Use a small, soft toothbrush and a rice grain size amount of fluoride toothpaste when they are under 36 months.

- Brush where the teeth and gums meet.
- Brush all sides of the teeth and be sure to reach any back teeth.
- If you are having difficulty brushing, ask another adult to help.
- Don‘t give up! Brushing can be difficult.
- Schedule a first dental visit by 12 months. Pediatric dentists are more likely to thoroughly assess a child’s teeth prior to 3 years of age.
- Dental hygienists are available to assess and apply fluoride to teeth at 18 months through the public health units.

Teething

- Children are teething when their first set of teeth (baby teeth) break through the gums.
- Teething starts around 6 months, but is normal to start any time between 3 and 12 months.
- Children usually have all 20 primary teeth by the time they are 3 years old.
- Teething is a normal process that does not cause fevers or diarrhea.
- Some babies may be fussy, irritable, and sleepless, or have a rash on the chest, face or chin but some may not.
- Some babies may have sore and tender gums when teeth begin to erupt.
- If teething seems to be causing discomfort, offer a clean, chilled wet face cloth or teething rings and a little extra attention and comfort!
- Throw away any teething rings that are cracked or worn. Never tie a teething ring around the baby’s neck.
- Avoid giving teething cookies or biscuits – these can cause tooth decay.
- Only use teething gels or ointment on the **advice of the baby’s doctor or dentist**. Consult a healthcare practitioner prior to use for children less than 2 years of age.

Caring For the Baby Who Is Ill

Recognizing when a baby is ill is a key caregiving role. Start by getting to know the baby's health and behaviour norms. You can do this by noticing and writing down a baby's normal temperature, feeding patterns, skin colour (including any special birth marks), sleeping/waking patterns, and general personality. Knowing these norms will allow you to quickly recognize signs and symptoms of illness.

You know the baby best. If you just don't "feel right" about something, get it checked out by the baby's doctor.

Caregivers should have basic first aid training specific to caring for children**.**

Signs of Illness

One or more of the following symptoms (some children, who were prenatally exposed and have significant CNS damage, may not show the typical signs of illness, like fever or pain). For this reason it is important to pay attention to the child's overall behaviour.

- fever
- breathing problems
- diarrhea
- vomiting
- dehydration
- Candida infections (yeast, thrush)
- feeding problems
- rashes that will not go away or keep coming back
- skin breakdown that does not heal
- behaviour changes
- seizures (see *Seizures* later in this chapter)

Fever

Fever is an important part of the body's immune response to infection and is common in infancy and childhood. Low-grade fevers can occur when a baby is overdressed, is teething, or is being cared for in a room that is too hot. Some babies experience fever after an immunization.

To take a baby's temperature place a thermometer (digital preferred) under the baby's armpit (axilla) for 5 minutes. Normal body temperatures, taken under the armpit, range from 36.4°C (97.6°F) to 37.2°C (99°F).

Warning signs for fevers that need medical attention include:

- A temperature more than 37.2°C for babies under 3 months.
- Temperatures more than 38.5°C for longer than 24 hours for babies older than 3 months.

Breathing Difficulties

Babies take about 30 to 60 breaths a minute. You may notice their abdomen (tummy) move up and down as they breathe. Irregular breathing (quick breaths mixed with longer slow breaths) can be normal.

How you can help babies with breathing difficulties

It is not normal for babies to work hard at breathing. Breathing patterns may change when a baby is ill.

- Get to know the baby's usual breathing pattern.
- Minimize stress for the baby.
- For nasal congestion try humidifying the baby's room. You could also try saline nose drops 4-8 times per day for a stuffy nose. Discuss the use of decongestants and nose drops with the baby's doctor.
- Make sure the baby's room has good ventilation.
- Avoid the use of baby powder. Babies can breathe in the small powder particles.

You need to seek immediate medical help if you notice the following:

- The baby is struggling to get enough air.
- In-drawing or sucking in seen under the ribcage (chest area) and/or under the Adam's apple (bottom of the neck area).
- Breathing that sounds wheezy, crackly, or grunty.
- Baby's lips and nail beds changing to a bluish colour.

Diarrhea

Babies are said to have diarrhea when there is a significant increase in the number of stools per day and the stools become watery or unformed. Although many different germs can cause diarrhea, the most common cause is a virus. Antibiotics are not usually helpful unless the diarrhea is caused by a bacterial infection.

Diarrhea can be dangerous if not treated properly. When the amount of fluid lost through the stool is greater than the amount of fluid the baby drinks, dehydration may occur. Babies need special attention when they have diarrhea, as they can quickly become dehydrated.

How you can help babies with diarrhea:

- Become familiar with the normal pattern and appearance of the baby's stools so that you will be able to notice if there is a change.
- Call the baby's doctor for advice.
- Follow guidelines for dehydration as outlined on next page.
- Diaper rash is common after diarrhea. Use a diaper cream to protect the baby's skin.

Vomiting

Vomiting (throwing up) refers to the forceful ejection of stomach contents through the baby's mouth. Vomiting may be a sign of a serious health condition. It is important to consult with the baby's doctor, especially if the baby is starting to look dehydrated, if there is blood or green bile in the vomit or if the vomiting is so forceful that it shoots across the room (projectile vomiting). The main dangers associated with vomiting are breathing the vomit into the lungs and dehydration from fluid loss.

Dehydration

Dehydration can occur if the amount of water lost through fever, diarrhea or vomiting is more than the formula or fluid the baby is able to take in. It can also occur when babies are not able to take enough fluids needed for their body to work. Dehydration occurs much more quickly in babies than in older children or adults.

Warning signs of dehydration in a baby include:

- dry skin
- sunken fontanel (soft spot on the top of the head)
- dry mucus membranes (e.g., in the mouth)
- dry, cracked lips
- fewer wet diapers than normal, diapers not as wet as usual, and dark yellow urine
- lethargy (baby becomes very sleepy)
- weak cry
- weight loss

Preventing Dehydration When the Baby Is Ill

Call the baby's doctor right away and follow those recommendations which may include:

- If the diarrhea gets worse (larger, more frequent stools), or if the child is vomiting, consult with the baby's doctor and possibly use children's oral rehydration drink with their doctor's recommendations (Pedialyte or store brand).

- Start by giving the oral rehydration drink and then slowly add the baby's usual feeds within 6 to 24 hours. Keep giving the oral rehydration drink until the diarrhea slows down and then offer the usual diet in small, frequent feedings. Return to the usual amount of feeds within another day.

- Give 120-240 ml (4 - 8 ounces) of fluid for each large loose stool.

- Do not use sports drinks, fruit juice, or soda. These drinks contain too much sugar and not enough of the electrolytes that are being lost.

- Do not use rehydration drinks as the only source of fluid for more than 12 to 24 hours.

After 24 to 48 hours most children can start their normal diet. Allow the child to eat what he wants. However, avoid high-fibre foods (such as beans) and foods with a lot of sugar (such as juice and ice cream).

Constipation

A baby is constipated when stools are hard, dry and difficult to pass. Infrequent, soft stools in older babies are not signs of constipation.

Constipation in babies 4-6 weeks of age

No bowel movement in 2 days and showing signs of discomfort, such as straining, trying hard to stool with no results, fussiness and gassiness.

Babies from 4-6 weeks until starting solid foods

No bowel movement in 3-5 days and showing signs of discomfort.

Babies who have had hard, dry, difficult-to-pass, pellet-like stools or rectal bleeding (sometimes seen as blood in diaper with dry, hard stool) on previous occasions are more likely to be constipated.

Some causes of constipation include:

- baby's formula is not mixed with the right amount of water;
- introducing whole cow's milk before 12 months of age;
- baby is not getting enough fluids, especially in hot weather when fluid needs may increase; or
- giving infant cereal and or solid food before baby is ready (before 5-6 months) or eating too much infant cereal.

What you can do for babies who are constipated

Call the baby's doctor right away and follow those recommendations which may include:

For babies less than 4 months of age:

- Make sure you are following label instructions for mixing the formula.
- Use massage (of the tummy area) and exercise techniques. You can learn this from classes on baby massage.
- Place the baby in a warm bath.

For babies who have started solid food:

- Switch from rice cereal to barley or oat cereal.
- Limit infant cereal to 4 tablespoons a day.
- If baby has started eating fruits and vegetables (solids), offer pureed prunes. Start with 1 tablespoon a day. Increase to a maximum of 4 tablespoons a day **and only if needed.**
- Offer water after age 6 months.

If the baby has hard, pellet-like stools, rectal bleeding, or white chalk-like stool talk to the baby's doctor. Do not use medications or suppositories without their doctor's advice.

Candida (yeast) Infections

Candida or yeast (a fungus) grows in warm, wet places, such as the mouth or the diaper area. Thrush is a yeast infection of the mouth and appears as a whitish coating (patches) on the tongue, inside the cheek and mouth, and on the gums. In severe cases, babies may be too uncomfortable to feed properly.

What you can do for a baby with oral (mouth) thrush

- Thrush is very difficult to treat without medication. Talk to the baby's doctor for a diagnosis and treatment.
- Thrush is usually treated with an antifungal medication (e.g. liquid Nystatin) that is applied directly inside the mouth to the gums, cheeks, and tongue following a feed or as advised by the baby's doctor. Use a Q-tip to apply the liquid medication.
- Contact the baby's doctor if there is no improvement in a few days.
- Boil bottle nipples and soothers for 10 minutes every day.

- A breastfeeding mother needs to see her doctor for treatment as candida can be passed between mother and baby during feedings.

- Candida may also appear as a bad diaper rash in the groin and/or buttock area, especially in the skin folds and creases. The rash is usually very red with a clearly defined border and small red spots close to the large patches. This rash may be painful for the baby. Rashes from urine or stool are not usually seen in the creases.

What you can do for the baby with candida diaper rash

- See the baby's doctor for diagnosis and treatment. An antifungal cream or ointment is used for this type of rash.
- Wash the diaper area with mild soap and water. Rinse and dry well. Do not use baby wipes.
- Apply antifungal ointment as prescribed.
- Wash hands carefully after every diaper change.
- Expose the baby's buttocks to air occasionally.
- Wash the baby's clothes in hot water if possible.
- Keep pressure off raw areas by changing the baby's position regularly.
- See the baby's doctor if the skin is not healing.

Feeding Problems

See Chapter 5--*When Babies Don't Feed Well.*

Skin Breakdown/Rashes

A newborn rash that can be seen on the face or body is normal and usually goes away after the first month. A newborn's skin might also peel and look dry.

Skin breakdown is most commonly seen on the buttocks; however, it may also occur on the knees, feet, elbows, hands, nose, chin, and mouth.

Babies are at risk for skin breakdown when they:

- frequently rub their arms, legs, knees and elbows on sheets and blankets when irritable
- are frequently sweaty
- have loose, explosive stools or diarrhea
- spit up a lot
- have candida (yeast) infections, or other bacterial infections
- have eczema (see below)

How you can help babies to maintain healthy skin

- A daily bath is helpful, especially for babies who sweat a lot.
- Dry all skin creases and folds well.
- Check diapers frequently and keep skin clean.
- Use unscented wipes, diapers, creams, oils, and lotions.
- Switch to using water and cloth for cleaning diaper area if you think a rash is starting.

- Use mild laundry soap for clothes and cloth diapers. Rinse well.
- Keep babies' fingernails short.
- Dress baby in soft loose clothes. Some caregivers recommend using 100 percent cotton clothing for babies with sensitive skin.
- Consider using a zinc-based barrier cream if rash is starting and seek medical advice if rash does not improve in 2 days.

Eczema

Eczema (atopic dermatitis) is a type of sensitive, dry skin that can also look rough, flaky, red, crusty and/or wet and weepy. The skin or area can get very itchy leading to skin breakdown, bleeding and infection. Eczema is most often seen in the creases of the elbows, wrists and knees. In babies 2 - 6 months old, you may notice eczema on the cheeks. Although the cause of eczema is not known, it is most often seen in babies and children who have a family history of allergic conditions such as asthma, hay fever, food allergies, or eczema.

The condition can be triggered or can flare up when the baby is in contact with an allergen or irritant. Examples of allergens include: dust mites, animal dander, pollens, molds, and foods. Irritants include: smoke, soaps and detergents, solvents and cleaners, perfume, wool and synthetic clothing, weather changes, infections, dry skin, and stress. Flare-ups can be kept to a minimum by identifying and reducing triggers, keeping the skin clean and moist, keeping finger nails short to avoid skin damage from scratching, and using a prescribed medicated cream as soon as irritation is noticed.

Skin Care for Children with Eczema

- Bathe the baby daily in warm water for 10 minutes.
- Avoid soaps and bubble baths. If soaps are used, try special unscented gentle soaps made for sensitive skin.
- After bathing or washing the baby, gently pat extra water off the skin and apply moisturizer and/or special medicated cream. Moisturizers can be used when skin looks dry or itchy. You can keep applying the non-medicated moisturizers even if the skin looks clear.

Behaviour Changes

Extreme drowsiness, floppiness, low energy, fussiness, and inconsolable crying that is not usual.

Seizures

Seizure occurs when there is a temporary, unusually high level of electrical activity in the brain.

Signs of a seizure may be subtle or dramatic and include:

- abnormal eye movement, such as eye lids flickering
- rhythmic thrusting of tongue or rhythmic mouthing
- "cycling" of extremities (repeated circling movements)
- changes in skin colour
- rhythmic movements of fingers or feet and the movement cannot be stopped with gentle touch
- no response to your stimulation (for example, seems like baby cannot hear or see you)

If you suspect that the baby is having a seizure:

- Remain calm.
- Protect the baby from injury by placing him on his side in the crib or on another flat surface.
- Stay with the baby to make sure he is safe.
- Observe the baby during the seizure.
- Don't put anything in the baby's mouth.
- Don't try to forcibly hold the baby down or stop his body movements other than to protect the baby from harm (stairs, sharp objects, etc.).
- Once the seizure is over, document the length of the seizure, the symptoms you observed, and the way in which the baby recovered. A doctor should see the baby as soon as possible. If the baby has had previous seizures and there is a care plan in place, follow the guidelines set down in the care plan. Some babies are very tired after a seizure and they may sleep for several hours.

Giving Medication for Infant Illness

Babies may need to take medicine on an occasional or regular basis. Here are some tips on giving medications:

- Never mix medicine into the baby's food or bottle.
- Keep medications safely out of reach of children.
- Always read the label on the bottle. If you have more than one medication stored in the same place read label prior to dosing every time.
- If you find it difficult to get the baby to be still when you give the medicine, swaddle her or have another person hold her still for you.
- When using a dropper for eye, ear or nose drops, make sure the dropper does not touch the eyelid, ear, or nose. Wash the dropper after every use.
- Give all medications as prescribed (how, how much, when and for how long).
- Have a drink ready to take away the taste of the medicine.
- Record all medications that you give on a worksheet.
- Report any side effects to the baby's doctor and follow up with the doctor as instructed.

KEY MESSAGES
CHAPTER 7

1. Hand washing is the single best way to prevent the spread of germs from one person to another, and should be done before and after you care for the baby, especially with feeding and diaper change.

2. Hepatitis B, Hepatitis C, HIV, and Syphilis are spread mainly by blood. Caregivers cannot be infected from a baby who is Hepatitis B or C positive, or has Syphilis or HIV through day-to-day contact such as touching, bathing, hugging, and kissing. Routine precautions (see above) should be a routine practice.

3. If you have concerns about your infant's health call Health Link Alberta, the baby's doctor, or go to your local emergency room.

4. Seizures - call 911 if: this is the baby's first seizure, the seizure lasts longer than five minutes, the baby has difficulty breathing or turns blue, or the seizure reoccurs.

ADDITIONAL INFORMATION

HealthLink Alberta
Toll-free: 1.866.408.LINK (5465)
Edmonton: 780.408.LINK (5465)
Calgary: 403.943.LINK (5465)

Alberta Health - Disease and Conditions
health.alberta.ca

Canadian Pediatric Society – Immunizations
caringforkids.cps.ca

Dental Care – A Parent's Guide to Healthy Teeth for Children
health.alberta.ca

MyHealth Alberta
myhealth.alberta.ca

Health Canada – Advisories and Warnings
Teething rings and gels and other products intended for use in children under two years old, such as oral teething gels or body lotions.
hc-sc.gc.ca/ahc-asc

Public Health Agency Canada - **Immunization & Vaccines**
phac-aspc.gc.ca

Infectious Diseases
phac-aspc.gc.ca

Giving Medication - If you are not sure how to give drops and medications, check with your local pharmacist or public health nurse. You can also call the baby's doctor or local public health office.

CHAPTER 8
BRINGING BABY HOME

Bringing the baby home requires careful preparation. The following information may be helpful.

Taking Care of Yourself

Caring for babies can be very stressful, and many caregivers forget to look after themselves. To do a better job in the long run, caregivers need to look after themselves both physically and emotionally and have a good support system in place.

To look after yourself, consider the following suggestions:

- Eat nutritious meals and snacks.
- Make time for regular exercise such as walking or gardening and learn relaxation techniques.
- Have a system of support (family, friends, babysitter and neighbours) in place.
- Get regular breaks, even if you feel fine.
- Spend time with your partner and close friends.
- Arrange one-to-one time with your other children.
- Take naps whenever you can.
- Hire a trained and approved babysitter or relief person who is experienced in infant care or is willing to get training from you.
- Keep family members, friends, and babysitters up to date on helpful baby care strategies so they can provide support and relief for you.
- Do not think that you need to do it all. Ask for help, learn to delegate, or let some things go.

Getting Your Home Prepared

Before the baby is discharged from hospital, it is important to get your home prepared.

Baby Equipment and Supplies

- All baby equipment should meet current safety standards. If you are buying used items from second hand stores and/or garage sales, keep the baby's safety in mind. Used items such as car seats, cribs, high chairs, and playpens may not be safe. You should check with Health Canada's website for current recall information. It is also recommended that you mail in the warranty cards for the new equipment you purchase so you are notified of safety concerns.

- Supplies: formula and bottle/nipple systems, diapers, mild unscented soap, barrier cream, sheets, receiving blankets, facecloths, blankets, and baby clothes.

- Car seat: visit the Alberta Seat Belts website for information on the Alberta Occupant Restraint Program.

Other items that may be helpful include:

- baby swing
- rocking chair
- baby stroller
- baby monitor
- snuggly

Safety Considerations in Your Home

Babies learn by exploring what is around them. For example they love to touch, taste, move and crawl. It is important that babies have a safe environment to grow and learn in without getting hurt or injured. The 5 biggest areas of injury for a baby are from falls, burns or scalds, poisoning, choking (e.g. from food or small toys) and suffocation (e.g. getting caught in cords from blinds).

Some things for you to consider:

- As the baby is growing and learning new skills, think ahead and be prepared for what could become dangerous. For example, a cup with hot coffee on the table may not be a temptation for a newborn but will soon become a safety concern as the baby gets into the grabbing stage. Hot liquids should be kept out of any child's reach and should be in a travel mug with a lid that can be shut securely.
- When getting hand-me-downs or buying used items, think of safety (e.g., outdated, recalled or broken but fixed items should not be used).
- If you have an e-mail address, consider getting Health Canada updates (see resources section) on items that are recalled.
- Pets should always be supervised around children.

Keep your baby safe during a bath by doing the following:

- Have everything you need within easy reach before you start. Never leave your baby or young child alone, even for a few seconds.
- Check the temperature of the water with your wrist or elbow before you put your baby in the bath. The water should feel warm to your touch, not cold or hot.
- Avoid putting oil in the bath water. This will make your baby too slippery for you to handle safely. Try to put a small amount of vegetable oil on dry spots after the bath.
- Hold your baby carefully, especially in her early months.
- Avoid using bath seats and bath rings. They aren't safe.

Refer to the sleep and resource sections of this booklet for more information on safety and resources.

Bringing the Baby Home

Before the baby comes home:

- Begin visiting the baby in the hospital as soon as possible. Visiting often and for long periods of time will give you and the baby some time to get to know each other. Ask the hospital staff if you can bring in other family members who will be involved in the care of the baby. By discharge, the baby will know your voice, your smell, and the special way you care for him.

- Determine how and what the baby will be fed at home. As a caregiver, your help and support will be needed if a mother is breastfeeding her baby (either at mother's breast or through expressed breast milk by bottle).

- If the baby will be formula fed, find out which formula will be used and which bottle systems work best.

- Bring in items from home, such as a light receiving blanket or music that the baby can get used to before going home.

- Work closely with the hospital staff to learn effective care giving strategies that you can use at home. Be sure to get the baby's health and medical information on immunizations given, prescriptions needed, and follow-up appointments with specialists.

The Baby's First Few Weeks At Home

Leaving the hospital to come into a home environment can be a big change for babies, who may need a longer time to adjust to new things. A baby placed with caregivers may be parting from a mother who has been caring for him and perhaps breastfeeding her baby. The baby may also have had frequent visits from other family members and friends.

When the baby comes home he will:

- need to adjust to a new home and new caregivers

- experience small changes, such as different nipples or soothers, different clothing, different levels of noise and light, different caregiving routines, different smells, and even the sounds of a different language

- experience a busy schedule including appointments with doctors, public health nurse

It may take the baby a week or two to adjust to his new environment. To create a supportive environment for the baby, try the following:

- Spend as much one-on-one time with the baby as possible.
- Get to know the baby's likes and dislikes.
- Delay the use of relief workers or babysitters (other than your partner) until the baby has settled in. Once the baby has had time to adjust to his new home, adjusting to other caregivers will be easier.
- Listen to the baby's cues on how much noise, light, stimulation, and activity he is able to handle.
- Use one or two consistent relief caregivers. It might be a good idea to have the relief caregiver come to your home instead of taking the baby to theirs when caring for your infant for a few hours.

Community Follow-up

There are a variety of services in the community that can be very helpful. These support persons can provide health and developmental monitoring, information, support, and guidance as you care for the baby.

All babies who have been prenatally exposed to substances should receive health and developmental follow-up from their doctor, pediatrician and public health nurse.

Other team members for the baby's care may include the case worker, the community nutritionist, the audiologist (hearing screening), the speech and language pathologist, the physiotherapist, and occupational therapist.

IF YOU ARE AT ALL CONCERNED ABOUT THE BABY'S GROWTH AND DEVELOPMENT, SEEK HELP AS SOON AS POSSIBLE.

KEY MESSAGES
CHAPTER 8

1. Take Care Of Yourself. Caring for babies can be very stressful, and many caregivers forget to look after themselves. To do a better job in the long run, caregivers need to look after themselves both physically and emotionally and have a good support system in place.

2. As the baby is growing and learning new skills, think ahead and be prepared for what could become dangerous.

3. It may take the baby a week or two to adjust to his new environment.

ADDITIONAL INFORMATION

HealthLink Alberta
Toll-free: 1.866.408.LINK (5465)
Edmonton: 780.408.LINK (5465)
Calgary: 403.943.LINK (5465)

MyHealth Alberta
myhealth.alberta.ca

You can also call the baby's doctor or local public health office.

Online Resources

ABORIGINAL RESOURCES

Alberta Health Services - Aboriginal Health Programs
albertahealthservices.ca

Alberta Native Friendship Association
anfca.com

Métis Nation Association of Alberta
albertametis.com

Stilettos to Moccasins
addictionresearchchair.ca

ADDICTION RESOURCES

Alberta Health Services – Parent Information Series
albertahealthservices.ca

Canadian Centre for Substance Abuse
ccsa.ca

FASD Community of Practice
fasdcommunity.ca

FASD Resources
fasd.alberta.ca

CHILDRENS MENTAL HEALTH

Alberta Health Services - Mental Health Help Line
Ph: 1.877.303.2642
albertahealthservices.ca

Edmonton Zone– Referral Information
albertahealthservices.ca

Bounce Back Books
albertahealthservices.ca

FOSTER CARE

Alberta Caregiver Association
afpaonline.com

Casey Family Programs
casey.org

Delegated First Nation Agencies
humanservices.alberta.ca

Foster Parents Test
fosterparentstest.com

GRANDPARENTS (KINSHIP CARE)

Cangrands – National Kinship Support
cangrands.com

Grandparents Raising Grandchildren
parentsupportbc.ca

Iowa Foster & Adoptive Parents Association
ifapa.org

MySenior Site
myseniorsite.ca

HEALTH AND SAFETY INFORMATION

A Parent's Guide to Healthy Teeth for Children
health.alberta.ca

Alberta Health Services
albertahealthservices.ca
- **Aboriginal Health Programs**
- **Programs and Services**
- **Public Health Centers**

Canadian Pediatric Society
cps.ca

Caring for Kids
caringforkids.cps.ca

Healthy Alberta
healthyalberta.com

Health Parents Healthy Children
healthyparentshealthychildren.ca

MyHealth Alberta
myhealth.alberta.ca

Parenting Counts – Developmental Timelines
parentingcounts.org

Public Health Agency of Canada
phac-aspc.gc.ca
- **Immunization & Vaccines**
- **Child Care Equipment and Children's Furniture – Safety Information**

Routine Immunization Schedule
health.alberta.ca

Safe Kids Canada
safekidscanada.ca

The Canadian Foundation for the Study of Infant Deaths-Safe Sleep Education for Parents
sidscanada.org

IMMIGRANT RESOURCES

Immigrant Serving Agencies
humanservices.alberta.ca

PARENTING RESOURCES

A Parent's Guide to the Teen Brain
teenbrain.drugfree.org

Alberta Health Services – Parent Information Series
albertahealthservices.ca

Alberta Network for Safe and Healthy Children
safechildren.ca

Bloom magazine for parents of children with disabilities - Holland Bloorview Kids Rehabilitation Hospital in Toronto
issuu.com/hollandbloorview

Casey Family Programs
casey.org

Child-Care Look-up Tool
humanservices.alberta.ca

Encyclopedia on Early Childhood Development
child-encyclopedia.com

Family and Community Support Services Association of Alberta
fcssaa.ab.ca

FASD Tips for Parents and Caregivers
skfasnetwork.ca

Growing Miracles – Birth to 6 years
calgaryhealthregion.ca

Parent Link Centers
parentlinkalberta.ca

Public Health Agency of Canada-Funded Agencies
capc-pace.phac-aspc.gc.ca

TRAUMA AND CHILDREN

Canadian Child Welfare Research Portal
cecw-cepb.ca
Information sheets
Assessing Emotional Neglect in Infants (2008)
Emotional Trauma in Infancy (2009)

Centre for Children and Families in the Justice System
lfcc.on.ca

Child Trauma Academy
childtrauma.org

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Province of British Columbia. (2005). Baby's Best Chance: Parent's Handbook of Pregnancy and Baby Care

Province of British Columbia. (2011). — Every Sleep Counts! Nap Time, Night Time, Home or Away.

Riordoan, J. (2005). Breastfeeding and Human Lactation (3rd ed.) Mississauga, Ontario. Jones and Bartlett.

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When baby can't stop crying ... what can you do?

All babies cry. It is how they tell you they need something.
A crying baby may:

- Be hungry or gassy
- Have a wet or soiled diaper
- Be sick or in pain
- Be lonely.

Sometimes babies cry for no apparent reason.
Sometimes babies can't stop crying no matter what you do.
When this happens, feeling frustrated is normal.
Having a plan to cope with crying can help.

Here are some ideas you can try. Be sure to add your own ideas and the phone numbers of people you know can help you.

To soothe the baby, I can ...

- check if he is sick or in pain
- feed her slowly & burp her often
- change his diaper
- take her for a walk
- wrap him in a blanket
- play soothing music
- run the vacuum
- gently massage his tummy or back
- snuggle her against my chest
- gently rock him
- sing, read or talk softly
- put him in a baby swing
- carry her in a carrier or sling
- give her a warm bath
- encourage him to suck
- reduce noise, light and movement

NEVER shake a baby for any reason

Sometimes babies just need to cry.

To calm myself, I can ...

- gently put baby where he will be safe, like his crib, and leave the room
- listen to music
- call a friend or relative
- take a shower or bath
- exercise
- do housework, shake a rug
- read
- write down the 5 best things about myself
- write down the 5 best things about baby
- close my eyes and take deep breaths
- count to 100
- ask a friend to come and help
- talk to someone about my feelings
- concentrate on something like a crossword puzzle
- use positive self-talk, like "I can calm myself" and "the baby knows I am trying"
- Remember, it's more important to stay calm than stop the crying.

It's OK to ask for help.

I can call anytime during the day ...

_____

_____ _____

Other ideas to soothe baby...

_____

_____

_____

_____

_____

I can call anytime 24 hours a day...

Health Link Alberta to get health advice from a nurse:
In Calgary at **(403) 943-5465**
In Edmonton at **(780) 408-5465**
Or call toll-free in Alberta at **1-866-408-5465**

_____

Other ideas to calm myself...

_____

_____

_____

_____

_____

Take a break, don't shake

www.cryingbaby.ca

Parents:

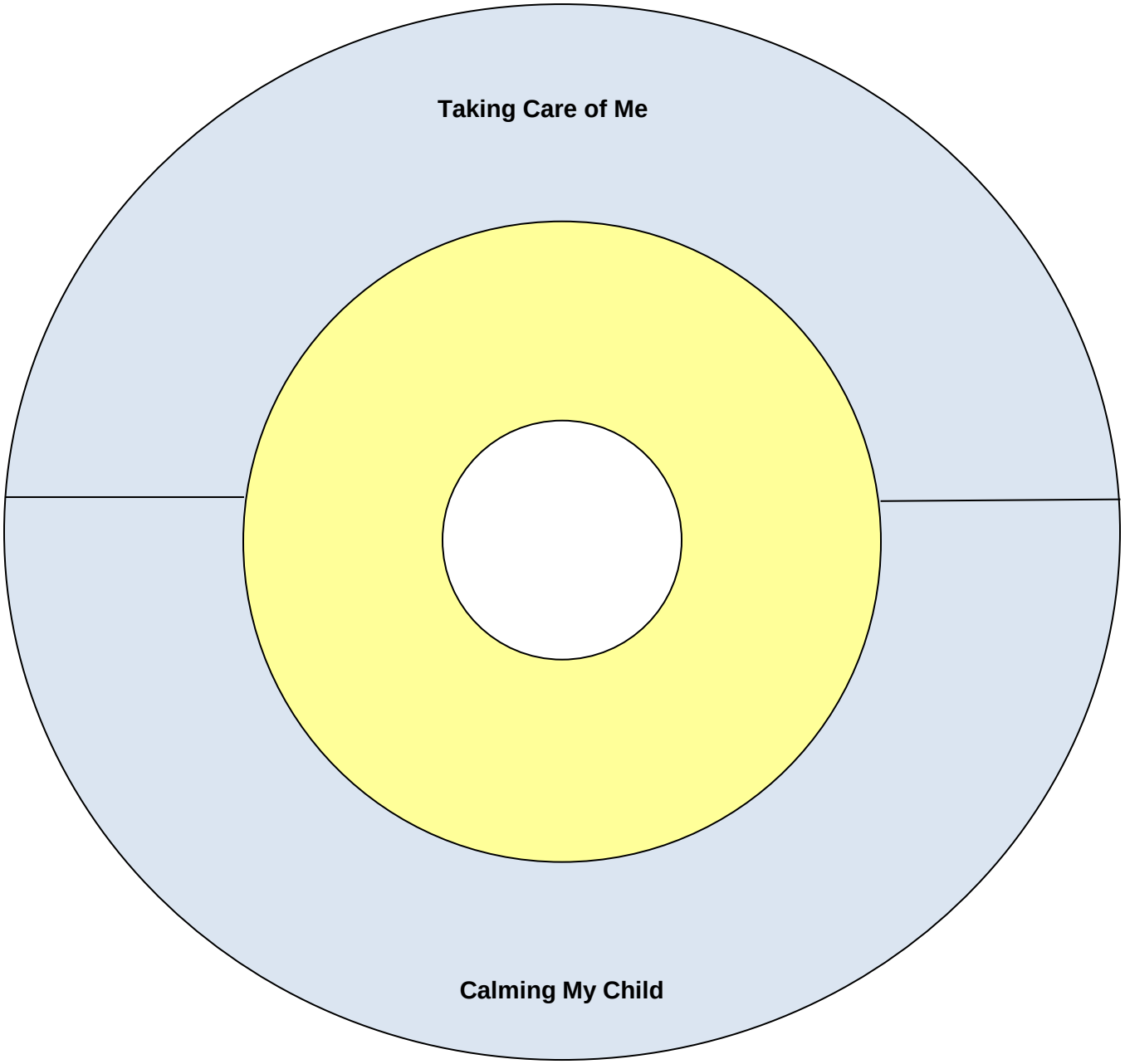
Please show this to everyone who cares for your baby.

CRYING PLAN

In the inner circle, write the names and phone numbers of people and places you can call **anytime**, day or night, for help. E.g., close friends and family or HealthLink. This is a small circle because it is often a small number of people.

In the middle circle, write the names and phone numbers of people or places you can call primarily daytime and weekdays. E.g., friends, family, counseling services, support groups.

In the largest circle, write down the things you can do to keep yourself healthy and calm and the things you can do to help your child stay calm.



"Nobody can go back and start a new beginning.
But anyone can start today and make a new ending." Maria Robinson