

# baby steps

Caring for Babies with Prenatal Substance Exposure



Vancouver Coastal Region



# baby steps

## caring for babies with prenatal substance exposure

Ministry of Children and Family Development  
Coast Fraser Region

*In partnership with:*

Ministry of Children and Family Development  
Vancouver Coastal Health  
Vancouver Aboriginal Child & Family Services Society



Ministry of  
Children and Family  
Development



## acknowledgements

## acknowledgements

### **3<sup>rd</sup> Edition updated August 2011**

Charlotte Nelson BSN, RN; Radhika Bhagat, MN, RN; Kate Browning, BSN, RN; Leslie Mills, BSN, RN; Ministry of Children and Family Development (MCFD)

#### **Review and Contributions:**

- **Foster Parents:** Vancouver Coastal Safe Babies Advisory Committee
- **Infant Development Program:** Bonnie Barnes, IDP Consultant, Vancouver; Lynn Rogers, Physiotherapist Consultant
- **Ministry of Children and Family Development, Coast Fraser Region:** Lyna Kiviste, Resources Team Leader, Sandi Karmel, Resources Social Worker
- **Vancouver Coastal Health Authority:** Sarah Payne, Sheway Program; Barbara Crocker, Community Nutritionist; Tana Wyman, Dental Program Coordinator; Marianne McCormick, Audiology Program Coordinator; Tamsin Morgana, RN, Regional Immunization Leader; Kelly Yu, RN Educator, Infection Prevention and Control
- Dr. Lenora Marcellus, PhD, RN, University of Victoria School of Nursing

**Photos:** Charlotte Nelson

**Design and Format:** Erin Guilteneane

**The 1<sup>st</sup> Edition of this guidebook was produced as:** Safe Babies: A caregivers guide to daily care for infants exposed prenatally to alcohol and drugs (2000). Lenora Marcellus (Ed.), BC MCFD.

Copyright status: reproduction of this material is permitted for teaching purposes. Citation of the source is appreciated.

### **2<sup>nd</sup> Edition updated December 2003**

Ministry of Children and Family Development (MCFD), Vancouver Coastal Health, and Fraser Health, British Columbia  
Radhika Bhagat, MN, RN, & Pam Munro, MSN, RN

## using this booklet

### using this booklet

This booklet is a resource for parents and 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. Detailed information on topics such as fetal alcohol syndrome, the long-term effects of substance exposure on the growing child, or the care of babies with special medical needs (such as oxygen therapy and tube feedings) is not covered in this resource.

### disclaimer

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



# **caring for babies with prenatal substance exposure**

**C**aring for babies who have been prenatally exposed to substances requires knowing more than just “baby care”.

Caring for babies who have been prenatally exposed to substances requires:

- An understanding that other than alcohol and drugs, other things like the mother's health, stress level, and nutrition impacts how a baby grows in the womb
- An understanding of the importance of preserving the parent-baby relationship, the baby's cultural heritage, and family and community connections
- An understanding of the importance of infant attachment
- An ability to make a special connection to a baby
- 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
- Recognizing that each individual infant is unique.

*The authors of **Baby Steps** wish to express their heartfelt thanks to Jamie, birth mother, and to Tina, foster parent, for sharing their experiences with us.*

## **Jamie's story**

**W**hen I was asked to write something that was to be included in this guide, I wasn't sure I had anything to offer. After all, I am not a professional and most of the time I feel like I don't have a clue what I am doing!

Being a parent is the hardest job anyone will ever have and in my case perhaps even harder because my child was born addicted. The guilt I live with is at times completely overwhelming, but for my son's sake I must find a way to make the best of things. I do that every day by staying clean and sober.

As I thought about what to write, I realized that I do have a message to convey. The message is simple: having my baby was the best thing that ever happened to me. It didn't seem that way at first, but I have come to believe that he was sent to me for a reason – to save my life. When he was born I was given a reason to live. It was the most difficult thing I have ever done to stop using drugs, and lots of times I wanted to give up. I had a lot of help along my journey to recovering and all I had to do was ask.

My son is five years old and he is so beautiful that at times I look at him and I just start to cry. I thank God everyday for the life I have and I know it's because of my son.

If you are about to begin this journey I urge you to ask for help and say a prayer. If you are willing, this could be the best thing that ever happened to you and you are in for the ride of your life. God bless you.



## **Tina's story**

**I** am a foster parent. I have the ability to love and nurture other women's babies.

These are not ordinary babies with ordinary problems. I must always remember that every child is first a child; everything else is secondary. I must also love and nurture the child within the body. I will persist and insist that we connect at a deeper level than the physical. I know that with time and patience the sound of my voice, the touch of my hand, and the beating of my heart will become their soothing balm. They will respond to me, each in their own unique way. Only when we have connected can we move forward together on our journey to explore the world.

Over the years these babies have enriched my life and given me many opportunities to learn. I have learned to recognize the miracle of their birth. I have learned to celebrate our differences. I have learned to have a deep respect and appreciation for the power of the life force surging through their little bodies. I have learned to see perfection in imperfection. I have learned to see them as survivors rather than victims.



I have also learned to let go and trust that each little person must find his or her own way through the life experience. I have learned to allow myself to grieve deeply and fully for each little child that leaves my care.

I have learned that I, too, am a survivor.

I am a foster parent.

## table of contents

### table of contents

<u>Acknowledgements</u>	I
<u>Using this booklet</u>	II
<u>Preface</u>	III
Table of contents	IV
<b>1 CHAPTER 1 - SUBSTANCE USE IN PREGNANCY</b>	1
<b>Effects of substance use on the baby</b>	2
<i>Premature birth</i>	3
<i>Short-term effects</i>	4
<i>Long-term effects</i>	6
<b>Common substances of concern</b>	8
<i>Tobacco</i>	9
<i>Alcohol</i>	9
<i>Opiates</i>	10
<i>Cocaine and crack</i>	11
<i>Marijuana (cannabis)</i>	11
<i>Amphetamines and methamphetamine</i>	12
<i>Inhalants and solvents</i>	12
<b>The benefits of a stable and loving home</b>	13
<b>2 CHAPTER 2 - SOCIAL &amp; EMOTIONAL DEVELOPMENT</b>	14
<b>Helping babies form a secure attachment</b>	14
<i>Temperament</i>	17

## table of contents

<b>3</b>	<b><u>CHAPTER 3 - INFANT SLEEP</u></b>	18
	<b>Signs that baby is tired</b>	18
	<b>Normal sleep patterns</b>	19
	<b>Effects of prenatal exposure on sleep</b>	20
	<b>Helping babies sleep</b>	20
	What does not work to promote sleep	22
	Persistent sleep problems	22
	<b>Sleep position: reducing the risk of SIDS</b>	23
	What you can do to prevent SIDS	24
<b>4</b>	<b><u>CHAPTER 4 - INFANT CRYING</u></b>	26
	<b>Normal crying behaviour</b>	26
	<b>Helping babies comfort themselves</b>	27
	<b>When babies cry a lot</b>	28
	Comforting techniques (pictures)	31
	<b>Shaken baby syndrome and abusive head trauma</b>	32
<b>5</b>	<b><u>CHAPTER 5 - INFANT FEEDING</u></b>	34
	<b>Normal feeding patterns</b>	34
	<b>Breastfeeding</b>	35
	<b>Formula feeding</b>	37
	<b>When babies don't feed well</b>	39
	Helping the baby to suck and feed	40
	Bottle feeding...helping the feeding muscles (pictures)	42
	Helping the baby who spits up	43
	Gassiness or intolerance	45
	<b>Introducing solid foods</b>	47

# table of contents

<b>6</b>	<u>CHAPTER 6 - INFANT DEVELOPMENT</u>	48
	<b>Growth and development milestones</b>	49
	<i>Vision</i>	50
	<i>Hearing</i>	50
	<i>Speech and language</i>	51
	<i>Reflexes and muscle tone</i>	52
	<i>Muscle tone</i>	53
	<b>Signs of stress</b>	54
	<b>Encouraging infant development</b>	55
	<i>Positions to encourage flexion (pictures)</i>	57
<b>7</b>	<u>CHAPTER 7 - INFANT HEALTH &amp; ILLNESS CARE</u>	58
	<b>Reducing the risk of infection</b>	58
	<b>Routine practices</b>	58
	<b>Immunizations</b>	59
	<b>Infectious diseases</b>	61
	<b>Dental care</b>	64
	<i>Teething</i>	65
	<b>Caring for the baby who is ill</b>	66
	<i>Fever</i>	67
	<i>Breathing difficulties</i>	68
	<i>Diarrhea</i>	69
	<i>Vomiting</i>	70
	<i>Dehydration</i>	70
	<i>Constipation</i>	72
	<i>Skin breakdown</i>	74
	<i>Candida (yeast) infections</i>	75
	<i>Eczema</i>	76

# table of contents

## 7 CHAPTER 7 - INFANT HEALTH & ILLNESS CARE CONT'D...

<b>Seizures</b>	77
<b>Giving medication for infant illness</b>	78

## 8 CHAPTER 8 - BRINGING BABY HOME 79

<b>Getting your home prepared</b>	80
Safety considerations in your home	82
<b>Bringing the baby home</b>	83
The baby's first few weeks at home	84
<b>Community follow-up</b>	85

## RESOURCES 86

<b>Websites</b>	86
<b>Community agencies</b>	89
<b>Bibliography</b>	90



## 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 about 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 the 1970s and 1980s, the prenatal effects of substances such as heroin, cocaine, and alcohol became of great interest to the medical community, the media, and the general public. Today, we are seeing the same interest turned to newer street drugs such as crystal meth. 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 poverty, homelessness, mental illness, violence, trauma, ill health, and have often experienced abuse and a lack of support and protection from an early age. Women from all social and economic groups may use substances while pregnant. However, women who are poor or visible minorities are more likely to be identified when using substances while pregnant.
- Alcohol and substance misuse has a biological and genetic component. Some people are more likely to develop a dependence or addiction after first using alcohol or drugs.
- Although some babies who are prenatally exposed to alcohol and substances will show effects of this exposure, many are born healthy. Also, babies who initially show effects from prenatal substance exposure may not later on as children or adults.
- Newborn behaviours that cause concern for caregivers may or may not be related to substance exposure.

Continued on page 2...

# substance use in pregnancy

Continued from page 1...

- 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 or caregivers, families, and 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 depends on:

- The mother's general health and biological makeup
- The mother's life circumstances, including her level of stress, safety, nutrition, and access to medical care
- The amount of drug that was used by the mother
- The number and combination of drugs used. It is certain that the use of multiple substances in pregnancy ("polysubstance use") has a more negative effect than use of one substance alone (unless that substance is alcohol)
- When and how often in the pregnancy these drugs were used
- The health and biological makeup of the fetus.

The type of drug or drugs used is also a factor to consider when discussing the possible effects of prenatal substance exposure. One way of talking about different substances is based on the type of effects that they may have. Substances that are known to cause birth defects are called *teratogens* (generally, illegal drugs are not among these substances). *Stimulants* are substances that "speed up" the body's central nervous system, while *depressants* are those that slow it down.

# substance use in pregnancy

## premature birth

You may hear many medical terms that describe the baby at birth. This description can be 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 37<sup>th</sup> week of pregnancy.

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

- 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
- Intrauterine growth restriction (IUGR): this means the baby is growing very slowly in the womb for some known or unknown reason
- Some infants may be both premature and very low birthweight.

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. Their brains and muscles (neuromuscular system), their lungs (respiratory system), their stomachs and guts (gastrointestinal system), their immune systems (for fighting infections), and their overall weight and body fat may not be developed adequately.

After birth, these babies may experience:

- Breathing problems
- Feeding problems, such as uncoordinated sucking and swallowing, and digestive problems
- Slow growth
- Tiring easily, which can affect feeding and breathing
- Difficulty in keeping warm (maintaining body temperature)
- Increased pressure and/or bleeding in the brain
- Side-effects from medical procedures and treatments

In addition, many of these babies spend several days or weeks in a busy and often over-stimulating Neonatal Intensive Care nursery (NICU), which can affect their nervous systems and interaction with their environment and multiple caregivers. They may not receive holding or cuddling from one 'regular' caregiver.

# substance use in pregnancy

## short-term effects

### withdrawal

Withdrawal symptoms (formerly called Neonatal Abstinence Syndrome or NAS) 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, and prescription medications for anxiety or sleep. Any of these drugs may cause neonatal withdrawal (withdrawal experienced by a newborn after birth). Opiate drugs are those most commonly cause neonatal withdrawal that needs medical treatment. However, not all babies exposed to opiates experience withdrawal, and not all who do require medical treatment for it. Babies do better when the mother is allowed to cuddle and hold her baby and have the baby with her in the room.

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. If the baby is experiencing intense withdrawal symptoms, she may be given a medication such as morphine for a short period of time. Other tests may be done to be sure there is no other reason for these symptoms. The infant should not be discharged from hospital until at least 5 days after their final dose of morphine.



# substance use in pregnancy

## 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** hypertonia (stiff muscles); hyperactive reflexes (exaggerated startle reflex); high-pitched cry
- D** diarrhea; diaphoresis (sweating); disorganized suck/swallow
- R** regurgitation (vomiting); poor or weak suck, or frantic suck
- A** apnea (stops breathing)
- W** weight loss; failure to gain weight

## other short-term symptoms

After 6 weeks, some babies may show symptoms such as tremors, poor feeding and problems with digestion (the “gassy baby”), poor sleep, high or low muscle tone (stiff or floppy muscles), irritability, and 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 doctor know about these symptoms, as she 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 out-grow these symptoms from 4 to 12 months of age.



# substance use in pregnancy

## long-term effects

### birth defects (“teratogenesis”)

A teratogen 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 (as seen with cleft lip and palate).

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, behavior, 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. FAS is easier to diagnose than pFAS and ARND. A diagnosis of FAS is made based on a confirmed or unknown history of the mother drinking alcohol during pregnancy, and the following 3 criteria:

- A pattern of facial abnormalities, including small eye openings, flat midface, 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

# substance use in pregnancy

## 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.

**A**lcohol 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 & developmental delay

**S**ome 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

**O**ther health risks include:

- Sudden Infant Death Syndrome (SIDS or crib death)
- Failure-to-thrive (slower than normal weight gain)
- Infectious diseases, including Hepatitis B and C, HIV, methicillin-resistant *Staphylococcus aureus* (MRSA), and Syphilis, if mother tested positive for these infections while pregnant
- Vision and hearing difficulties
- Breathing problems
- Shaken Baby Syndrome or Abusive Head Trauma.

# substance use in pregnancy

## common substances of concern

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

- Women who use alcohol and other substances frequently use more than one substance (“polysubstance use”).
- Poverty, poor diet, abuse, and stress experienced by the pregnant mother may also affect the growing fetus. Physical and mental illness in pregnancy—and medications taken to treat them—may also have an effect.
- Pregnant women who smoke cigarettes and/or misuse alcohol and other substances often feel guilty and ashamed and may not want to admit to their substance use.
- Each person absorbs and metabolizes substances differently
- Research evidence on the short and long-term effects of various substances used during pregnancy remains incomplete, and 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. For these reasons, the effects of prenatal substance exposure are truly unknown for each infant at birth. The personal outcome later in life for any infant born—prenatally exposed or not—will depend significantly on the environment, care, and education of that individual.



# substance use in pregnancy

## tobacco

Tobacco use, or exposure to second-hand smoke, in pregnancy does not cause birth defects. It 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 up” in their growth). They are also at increased risk of SIDS, ear infections, bronchitis, and pneumonia, even if there is no cigarette smoke in their environment after birth. 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. Women who use alcohol and other substances often smoke as well.

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.

## 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.

## awareness in action

It is important to remember that alcohol causes more harm to the baby than probably all other drugs combined.

Alcohol is a legal and accessible drug and its use is accepted by society.

# substance use in pregnancy

## opiates

Opiates are drugs that are made from the poppy plant. These include opium and heroin, and medications prescribed for pain control (such as codeine, morphine, Dilaudid, Oxycontin, and Demerol), or for managing withdrawal from other opiates (methadone). Withdrawal is the main medical concern for babies exposed to opiates. They may be born prematurely and small for gestational age. 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 counselling, and to avoid other dangers associated with getting and using street opiates. These benefits also contribute to the future health of the baby.



# substance use in pregnancy

## cocaine and crack

**C**ocaine 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.

## marijuana (cannabis)

**U**se 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 (toxic substance) than a generation ago. 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.

# substance use in pregnancy

## amphetamines and methamphetamine

Amphetamines and methamphetamines are synthetic ("man-made") stimulant drugs. Some amphetamines are prescribed as medication to treat Attention Deficit (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. Its 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.

## 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.

# substance use in pregnancy

## 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 (e.g. immunizations)
- Recognition of problems with growth and development early on
- Help for these problems as soon as possible.

**For babies needing foster care, the goal is to have as few placements as possible with a strong effort for them to join their birth or adoptive family.**



# social and emotional development

**A**ttachment 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 occur between each baby and caregiver uniquely through 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

**Y**ou 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 she is with you for a short time.

### **Freely give comfort when needed**

Always respond quickly when the baby is crying, or ill, upset, or hurt. This does not 'spoil' a baby – it ENSURES secure attachment.

### **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," and opening eyes wide and bright. Babies give *disengagement cues* when they need a break. Easy to see cues include turning 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.

## social and emotional development

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.

# **social and emotional development**

## **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 caregiving, 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.

## **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, listen to the baby about how much and 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. Try your best to use the same qualified childcare and respite providers.



## social and emotional development

### temperament

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

There are different aspects of temperament. For example, some babies respond more strongly than others, some are easy-going, some are less active, some are easily frustrated, some love to meet new people, and some are more sensitive to change. Sometimes caregivers' and babies' temperaments match well, and 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. The way you respond to a baby helps him or her to strengthen the positive aspects of her personality.

### awareness in action

Look into programs offered by the Infant Development Program (IDP), Aboriginal Infant Development Program (AIDP), or your health unit that will help you talk to and understand the baby.

The *Parent-Child Mother Goose Program* is one such resource. This program may be held at various locations in your community, such as the IDP, Health Unit, library, family resource centre or family place, community centre, and neighbourhood house.

You may want to consider specialized caregiving support and education programs available to foster parents.

## infant sleep

Adequate sleep is important for the baby's developing brain and body. There are 2 factors that affect the quality and quantity of sleep. These are the baby's own natural sleep cycles and their external sleep promoting environment. 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% of their sleep cycle in the REM and 50% in NREM. It is very important that babies sleep long enough to spend time in each sleep state and complete sleep cycles.

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 age one year:

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 changes by 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.

However, 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).

Continued on page 21...

## infant sleep

Continued from page 20...

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:

- Teething
- Stress
- Illness
- Changes in routine.

## awareness in action

Please contact your baby's physician, public health nurse, HealthLink BC (8-1-1) or your social worker if you need support in handling your baby's sleep problems.

### sleep position: reducing the risk of 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.

Other babies at a higher risk for SIDS include those:

- Born prematurely, and with a low birth weight
- With a brother or sister who died with a SIDS diagnosis
- Whose mothers smoked, or used drugs or alcohol, during pregnancy
- Who were, or are, exposed to second hand smoke (e.g., mother or care-giver smoked).

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.



**“Every sleep counts! Nap time, night time, home, or away.”**

## what you can do to prevent SIDS

### **1. Always put babies to sleep on their backs for the first year.**

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. Alternate baby's head placement to the other end of the crib. Putting the baby on his tummy **while awake** and **under your supervision** will also help avoid these temporary flat spots. If you are concerned about flattening of the baby's head or his head shape, consult with your public health nurse, IDP consultant, or baby's physician.

### **2. A crib is the safest place for a baby to sleep.**

Place the crib beside the parents' bed for the first 6 months. A crib must have been manufactured after 1986, be in good condition (all parts must be present and intact), and assembled according to manufacturer's instructions. Make sure there were no safety recalls for the crib (for example, no cribs with drop-sides). 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.

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 with the baby can increase the risk of smothering him. Your baby is safest when his or her sleeping area is close, but separate, from where you sleep.

## infant sleep

### **3. Do not let a baby sleep in car seat, swing, playpen, stroller, sofa, or bed.**

If the baby falls asleep outside the crib, place the baby in a crib as soon as possible to sleep. Watch your baby until she can be moved to a safe sleep surface.

### **4. Smoking or second hand smoke increases the risk of SIDS.** Keep your house and car “smoke free”. Older-style woodstoves can also contribute to indoor smoke levels.

### **5. 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.

### awareness in action

1. Always put babies to sleep on their backs for the first year.
2. A crib is the safest place for a baby to sleep, beside the parents' bed for the first 6 months.
3. Do not let a baby sleep in a car seat, swing, playpen, stroller, sofa, or bed.
4. Smoking or second hand smoke increases the risk of SIDS.
5. Prevent your baby from overheating.

## infant crying

### normal crying behaviour

Babies cry as a way of talking or communicating to us. Research now tells us that all babies go through a developmental phase known as *The Period of PURPLE Crying*. The acronym **PURPLE** (developed by physician and researcher Dr. Ron Barr) helps describe this type of crying as follows:

- P** **P**eak of crying: baby may cry more each week, the most at 2 months, and less at 3-5 months
- U** **U**nexpected and **U**nexplained: crying can come and go and you don't know why
- R** **R**esists soothing: your baby may not stop crying no matter what you try
- P** **P**ained look on baby's face
- L** **L**ong-Lasting: crying last as much as 5 hours per day
- E** **E**vening crying: the baby may cry more in the later afternoon and evening

The word *period* means that the crying has a beginning and an end (this means the baby will not be crying like this forever!).

Crying can mean that a baby is tired, hungry, cold, hot, sick, bored, scared, wants a break from activity, or just wants to be with you. Some infants cry as little as 20 minutes each day and some cry up to 5 hours (these babies who would previously have been called "colicky"); both can be normal. You may not always be able to figure out why a baby is crying.



## how babies comfort themselves

**B**abies comfort themselves by sucking, moving arms and legs, and changing body positions.

Caregiving skills that help babies include:

- Knowing how to comfort the baby
- Understanding how to support babies' attempts to comfort themselves
- 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, especially when babies cry to a point where it is extremely hard and feels impossible to calm them.

## helping babies comfort themselves

**S**ome babies like to suck on a soother. 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) .
- Swaddling may be a risk factor for SIDS. Infants must be observed if they are swaddled for a short period. Do not swaddle an infant for sleep.



## 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. When soothing techniques such as snuggling, rocking, singing, and letting the baby to comfort himself do not work, try the following:

### 1. Ask yourself the following questions:

- Are there physical causes for the crying?
- Are there other strategies that might help?
- Could someone else help me solve this problem?
- Should I call someone else in to help?

### 2. Respond quickly

**Be aware of early signs of stress in the baby**, such as turning away, change in muscle tone (stiffness or floppiness), increase in random movements, hiccups, sneezing, blotchy skin, tremors, or 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".

**Try to anticipate the baby's needs.** Be ready to feed the baby or change his diaper so that a "hunger cry" or a "discomfort cry" doesn't become frantic.

**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.

## infant crying

**Use smooth and gentle motions when handling the baby.** and give him time to adjust to changes. 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.

**Rock the baby.** Most babies prefer cuddling activities where they are held close and rocked side to side. Some babies may prefer a technique called vertical rocking, in which they are rocked in an up-and-down movement. Vertical rocking can be done with the baby in several positions: over your shoulder, facing away from you, over your arm and against your hip or abdomen, on your knee, or in a baby carrier. Be sure to support the baby's head when rocking. Rock gently and slowly. A gentle swinging motion comforts some babies. There are some swings on the market that have an up-and-down swinging option. You can also buy a rocking cuddle seat that rocks and vibrates (like going for a car ride).

**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 an infant development consultant to learn about local training opportunities. Most public libraries and public health units may have books and DVDs available.

### 3. Modify the environment.

**Keep the surroundings as settled as possible.** This includes turning off the television and turning down the lights if necessary. Play soft music or talk to the baby in a quiet voice. Use mobiles and music only if the baby can tolerate it.

**Decorate the room so it is soothing.** Use paint colors and wallpapers that are light and calming. Use pictures and wall decorations that can be easily removed. You can add or remove these decorations according to how much stimulation the baby can handle.

### 4. Take Care of Yourself

Keep yourself calm. Babies easily pick up on stress in their caregivers. Use strategies such as taking deep breaths or purposely relaxing your muscles.

Call your partner, friend, or support person if you need a break.

Don't take the baby's behaviour personally. It is **not** a reflection of your caregiving

Foster parents can use their Resource Social Workers for support.

## awareness in action

If the crying is louder than usual or the baby has a fever or is vomiting, call your doctor or phone HealthLink BC at **8-1-1**

Remember, this period of intense crying will end as the baby matures, usually declining at about five months. Have all of a baby's caregivers watch BC's DVD *The Period of Purple Crying*, available to all infant caregivers in the province.

## comforting techniques



### Rock the baby

*Be sure to support the baby's head when rocking. Rock gently and slowly.*

### Allow the baby to look away.

Some babies may prefer to be held facing away from you, looking at a blank wall or uncluttered space.



## shaken baby syndrome and abusive head trauma

Shaken Baby Syndrome (SBS) is the name given to injuries that result from shaking a baby or young child. Abusive Head Trauma (AHT) occurs when an infant's head is struck against hard surface. Because babies' heads are large compared to the rest of their bodies, and their neck muscles are not strong, any shaking or quick motion that makes a baby's head roll or snap back and forth may cause serious injuries including: blindness, deafness, paralysis, permanent brain damage, or death. These injuries can occur with as little as 2 seconds of shaking. SBS and head trauma injuries happen most often when a baby's caregivers lose self-control out of frustration with his or her crying. Babies with prenatal substance exposure are at increased risk for SBS and AHT.

### Things you can do to help the baby:

- Understand and recognize "Purple Crying".
- Watch BC's DVD, *The Period of Purple Crying*, and ensure that your family members and all caregivers for a baby have watched it.
- Talk to others who care for baby about how to safely handle the baby.
- Make a plan for how you will cope with the baby who cannot stop crying.
- Rule out causes of crying, and know that inconsolable crying is not your fault or baby's fault.



# infant crying

## **What to do when you have reached your limit**

Be honest with yourself about admitting when the baby's crying is interfering with your ability to care for her. Remember – it is a strength to be able to recognize when you have reached your limit.

It is exhausting looking after a constantly crying baby. Ask a support person, such as a partner, relative, friend, or neighbour to help you care for the baby. If you have exhausted all options in attempting to soothe the baby, professional resources to call include HealthLink BC at 8-1-1, your family doctor, the Foster Parent Support line, and your Resource Social Worker.

## awareness in action

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:

**NEVER, NEVER, NEVER SHAKE A BABY!**

## infant feeding

### normal feeding patterns

Babies have inborn instincts and reflexes that guide their feeding behaviours. They must be able to co-ordinate sucking and swallowing with breathing. 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.

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).



## breastfeeding

### Why support breastfeeding?

**B**reastfeeding has a number of recognized benefits for mother, baby, family, and community. For babies, breastfeeding protects them from bacterial infection, intestinal illness, respiratory illness, asthma, allergy, SIDS, diabetes, leukemia, obesity, circulatory disease, and heart disease. It 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 2 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. Mothers who smoke can also breastfeed. Mothers' breastfeeding plans should be discussed with their health professional.

### How can foster parents help?

When mothers and babies are separated, breastfeeding and/or breast milk feeding can continue with the help of foster parents. Mothers should be encouraged to breastfeed during visits and to provide their babies with breast milk when they are not together.



# infant feeding

## How can breast milk be stored?

Breast milk is easy to store. Freshly pumped breast milk can be kept at room temperature for 4 hours. Breast milk can be kept fresh in the refrigerator (not in the door) for up to 3 days. Breast milk freezes well and lasts for 6 months in a refrigerator freezer and from 6 to 12 months in a deep freezer. Breast milk should be gently thawed by putting it in the refrigerator and warmed for use by putting the container under warm running water or in a bowl of warm water. Breast milk should never be microwaved or heated on the stove. Thawed milk can be kept in the refrigerator for up to 24 hours and should be used within 1 hour of leaving the fridge. Breast milk should not be re-frozen.

It is important not to expect breast milk to look or smell like homogenized cow's milk. Breast milk is a living and dynamic fluid that can change according to the time of day it was collected, the age of the baby when it was collected or the foods the mother has recently consumed. It is normal for milk to look thin and watery or thick and creamy. Stored milk can separate, forming a layer of fat or cream on the top, or it can appear to be lumpy or clumpy. It can be gently mixed or stirred before feeding. Milk can appear to have a blue or yellow tint. It can also take on a hit of green or pink, red, or orange. Breast milk usually has a mild, slightly sweet smell, but it can also take on some of the odours of foods the mother has eaten, such as garlic. This is normal, and most infants don't mind; in fact, they like it better! Sometimes stored milk will have a soapy smell that is also normal. Spoiled milk has a distinct and unmistakable sour odour.

If foster parents have concerns about giving expressed breast milk to babies in their care, they can talk to the Safe Babies coordinator, public health nurse, or resource social worker.

## What about vitamin D?

Breastfed babies need to be given vitamin D. If a baby is taking breast milk only, the baby will need 400 I.U. of vitamin D daily. Babies who are partially breastfed will need vitamin D. Formula-fed babies may need a vitamin D supplement. Call 8-1-1 and ask for a dietitian to discuss the amount of vitamin D your foster baby needs.

### formula feeding

Commercial formulas come in 3 forms: powder, liquid concentrate, or ready-to-serve. If your baby has a weakened immune system, is premature or low birth weight under 2 months of age, use ready-to-feed or concentrated liquid formula whenever it is available. Powdered formula is not sterile. Discuss with your family doctor, public health nurse, or dietitian (8-1-1 – HealthLink BC)

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. Babies between the ages of 9 – 12 months, who are eating a variety of iron-rich solid foods, can be given small amounts of whole milk (3.25% M.F.).

### awareness in action

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

Continued on page 38...

Continued from page 37...

## **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 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.

## **How long do I have to keep boiling and sterilizing?**

You need to always boil water and sterilize the bottles. Boil all baby bottle equipment in a clean uncovered pot for 2 minutes. Liquid concentrate and powdered formula needs to be mixed with previously boiled water. Water should come to a rolling boil and boil for 1 minute. When mixing powdered formula, use hot water that is at least 70 degrees Celsius, quickly cool it after mixing, and store unused prepared bottles in the refrigerator.

## **May I heat bottles of milk in my microwave?**

**No!** Bottles of formula should not be microwaved. 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 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. At 9-12 months of age, you can introduce small amounts of whole milk (3.25 % MF) into a baby's diet if baby is eating a variety of iron-rich foods. After 12 months, the baby can be fed whole milk.

## when babies don't feed well

### Weak or poor suck

Normal infant feeding is seen as a rhythm of “suck-swallow-breathe”. This coordinated “suck-swallow-breathe” 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. This may lead to a frustrated baby who sucks frantically.

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
- High sensitivity to touch in or around the mouth (“oral hypersensitivity”).



## 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.
- 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 unwrap 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 soft music with a slow beat if the baby is okay with other sounds. Sometimes classical music helps. Try to establish regular feeding routines.



# infant feeding

## **For Babies who are being bottle-fed:**

- Collect all the equipment you need (e.g. bottle, towel, pillow) before you start to feed the baby.
- 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.
- 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 cuddle 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. Help the “feeding muscles”**

- Sometimes, massaging the cheeks before starting the feed helps a baby close her lips so that milk does not dribble from the sides of her mouth.
- Make sure her tongue is down under the nipple during feeds. Some babies continually try to keep their tongues up on the roofs of their mouths. Gentle support of the chin and cheeks may help.

See examples of techniques on page 42...

# infant feeding

## Bottle feeding...helping the feeding muscles

- ✓ 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.



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

- ✗ This is 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).



## 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:

- Increases in amount
- Is seen with other symptoms such as increased discomfort, diarrhea that is red (blood) or green (bile) in colour, breathing problems (respiratory distress), and mucus production
- Becomes vomiting that is “projectile” or forceful (i.e., “shoots across the room”).

## 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:
  1. Feed the baby before he gets frantic with crying
  2. Make sure the formula is not flowing too fast - this may lead to gulping of both formula and air
  3. Make sure the hole in the nipple is not too large
  4. Burp frequently. Use a gentle circular motion on the back.  
Do not pat vigorously on the back.

## awareness in action

Projectile vomiting can indicate allergies or a structural problem with the opening into the stomach. Call your doctor or HealthLink BC (8-1-1) if this happens.

Dial 8-1-1 and ask to speak to a dietitian, who will provide helpful guidance on food allergies.

## infant feeding

- Use positions that will help keep the formula down
  1. Keep the baby in a slightly elevated position (head up, semi-sitting) for 30 minutes after a feed. Cuddle 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 and put extra pressure on his stomach.
  2. You may need to elevate the head of the crib 4 to 6 inches. This should be done with the baby's doctor's advice only. If the baby is less than 6 months of age and is not yet pulling to sit, try using blocks under the legs of the crib or folded blankets under the mattress. Check with your doctor about this recommendation.

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 by allowing a baby to suck on her hand, fingers, or a soother. Refer the section on "Infant Crying" for strategies on calming babies.

Babies suck for two reasons:

- To eat
- To calm or settle themselves (non-nutritive sucking).



# infant feeding

## 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 your doctor or public health nurse monitor the baby's growth.
- Always check with the doctor before changing the baby's formula. Your community nutritionist (at your local health unit) is also a great resource for discussing this.

## 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.
- Gently massage the baby's tummy, if tolerated. This should not be done right after feeding.
- Ensure the baby is tolerating the formula. Consult your community nutritionist, public health nurse or 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, colic, and irritability related to feeding (that improves with time) might be seen in some babies where an exact cause is not known.

## 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 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.

## 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 your doctor or public health nurse. Do not make any formula changes without discussing it with your 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 8-1-1 and ask to speak to a dietitian.

## awareness in action

For help with feeding issues for children with special needs, talk to your pediatrician about a referral to the dietitian at the Outpatient Clinic, Feeding and Swallowing Clinic, or Complex Feeding Program at BC Children's Hospital (**604-875-3294**) or Sunnyhill Health Centre Feeding Resource Team (**604-453-8300**), or your local health unit and hospital.

# infant feeding

## Red flags

Consult your 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. 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 tongues to the back of the mouth to swallow. There is information on the introduction of solids in *Baby's First Foods*, a BC Healthfile, and in *Toddler's First Steps* (see Resources). Call your public health nurse, dietitian, or community dietitian 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.



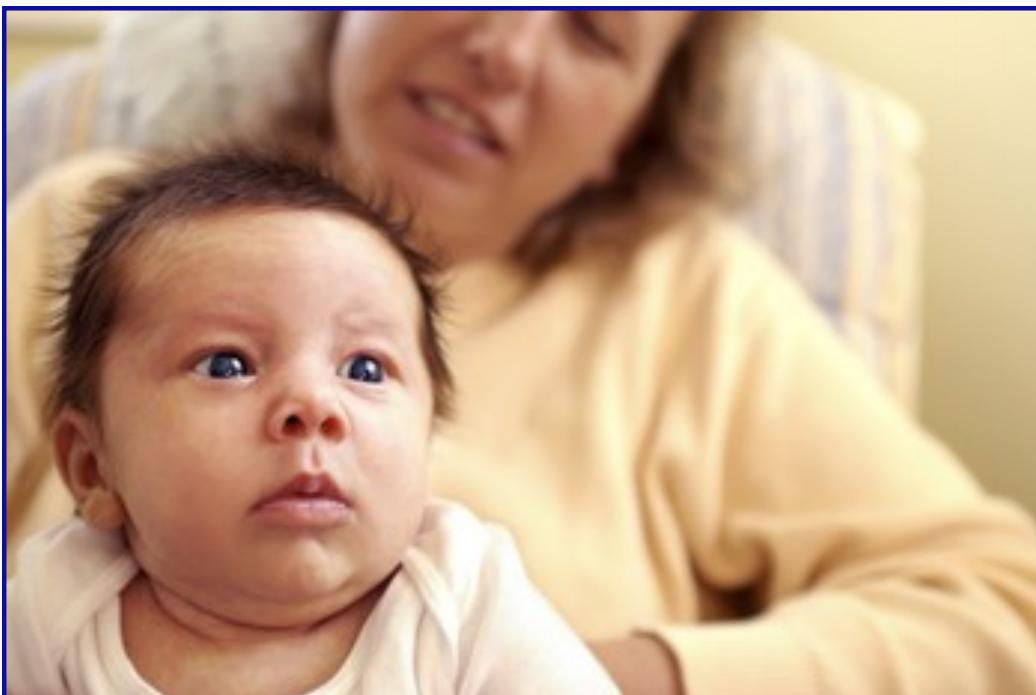
## infant development

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, 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, Infant Development Consultant, or Aboriginal Infant Development Program 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.



# infant development

## growth and development

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

### Birth – 3 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

### 3 – 6 Months

- 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

- 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

### 9 – 12 Months

- Pulls to stand at furniture
- Walks by holding hands or alone
- Picks up small things with fingers/ points with index finger
- Knows words:"up" and "bye-bye"
- Says "Mama", "Dada"
- Plays with toys longer
- Starts showing preference for toys

# infant development

## 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 your doctor if you notice this. Children should have their eyes checked by the age of 3 years.

## 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.

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.

# infant development

All babies born in BC receive newborn hearing screening through the BC Early Newborn Hearing Program (BCEHP).

The BCEHP provides the following:

- Screening all newborns in the hospital or shortly after in the community
- Follow-up services as needed. Foster parents will be notified of this by their community audiology clinic.

Infants with signs and symptoms of hearing loss after this can be



referred to their community audiology clinic by their foster parents, physicians, social worker, public health nurse or other involved professionals.

## speech and language

**Here are 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.

Continued on page 52...

# infant development

Continued from page 51...

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).
- **Neonatal Positive Supporting Grasp:** 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.

Continued on page 53...

# infant development

Continued from page 52...

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**

**M**uscle 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. You can make the referral directly, or your public health nurse or doctor can help complete it for you.

# infant development

## 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 awhile.

Another sign of stress can be tremors. This is when the baby's arms and legs and sometimes mouth appear to be "jittery". 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 awhile. Each baby has different ways of soothing and it sometimes takes some time to learn the best ways for each baby.



# infant development

## 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 do the activity for a few minutes at a time.

### Some suggestions:

1. Help the baby get used to being carried in flexed or curled positions to reduce the arching.
2. 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.
3. 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.
4. Try to decide what system (vision, hearing, movement, playing with hands, talking) you are working with and limit each play session to one area.
5. 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 her body is slanted with the head up. By holding the baby's elbows under him, he can lift his head to look at you 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.

Continued on page 56...

# infant development

Continued from page 55...

6. 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.
7. 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.
8. **Avoid too much time in car seats, bouncy chairs, and lying on the back.** This can cause a flattening of the baby's head.
9. 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".
10. For babies with high tone (stiff legs/arching) **avoid activities that promote extension (arching), such as holding the baby in standing or using walkers, exersaucer, jolly jumpers, and baby treadmills. This will not teach the baby to walk, but will only make the baby stiffer.**
11. Some children do well playing in a high chair or floor chair where they can sit up comfortably but still see you.
12. The Infant Development Program and the physiotherapy consultant can design an activity program and work with you for babies who need extra help.



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

# infant development

## positions to encourage flexion



## 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 routine practices (see below) at all times, including hand washing before and after caring for the baby.
- Keep all immunizations up to date. This includes the baby and you.
- 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.
- Get yearly flu shots. Ask your public health nurse about this.

### routine practices (“universal precautions”)

Routine practices are steps we should 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 routine practices, such as hand washing and not sharing toothbrushes and other personal care articles.

### awareness in action

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.

## immunizations

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. In British Columbia, vaccines that protect children against certain diseases are given free of charge (or “publicly funded”). Vaccines help protect children against the following diseases that can do harm to the brain, lungs, heart, and other parts of the body.

- Chicken pox (Varicella)
- Diphtheria
- Haemophilus influenzae type b (Hib)
- Hepatitis B
- Human papillomavirus (HPV - girls in grade 6 only)
- Influenza (flu)
- Measles
- Meningococcal
- Mumps
- Pertussis (whooping cough)
- Polio
- Pneumococcal
- Rubella
- Tetanus (lock jaw)



# infant health & illness care

## 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 6 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. Your public health nurse or doctor will advise you of the best plan for the baby in your care.

Schedules can change. For the most up-to-date routine schedule for children living in BC, and for more information about immunizations, visit: [www.immunizebc.ca](http://www.immunizebc.ca) or speak to your public health nurse or doctor.

Immunization appointments can be booked at a community health centre near you, or you can go to your family doctor. Be sure to keep a record of all the vaccines the baby receives while she is in your care.

## Want to learn more?

If you wish to learn more about immunizations, an easy to read book called *Immunization: An Important Choice You Make for Your Child* can be found by going to the Vancouver Coastal Health website at:

[http://www.vch.ca/your\\_health/health\\_topics/immunization & vaccination /educational materials/vancouver coastal health - public health - immunization & vaccination - parent resources](http://www.vch.ca/your_health/health_topics/immunization_&_vaccination/_educational_materials/vancouver_coastal_health_-_public_health_-_immunization_&_vaccination_-_parent_resources)

## Learn more about sneezes and diseases

*Sneezes & Diseases* is a good resource book for those who care for children. The book includes prevention information, facts about diarrhea, vomiting and fever, facts about childhood diseases, and bug infestations.

This book can be found online at:

[http://www.vch.ca/your\\_health/health\\_topics/communicable\\_diseases /communicable diseases](http://www.vch.ca/your_health/health_topics/communicable_diseases/_communicable_diseases)

# infant health & illness 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% 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.

# infant health & illness care

## 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 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 will be started on HIV medications right after birth. The medication is stopped if the mother or baby is found to be HIV negative.

## Syphilis

Syphilis is a communicable disease caused by the *Treponema Pallidum* 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 bloodwork screening. The infection can be treated during pregnancy with antibiotics, and protects the fetus. Pregnant women may not receive prenatal care and may be re-infected with Syphilis after treatment. If prenatal treatment is completed before the last month of pregnancy, the infant is examined and bloodwork (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 2, 4, and 6 months. In some cases, the infant is given an antibiotic injection.

**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. Routine precautions (see above) should be a routine practice.

## awareness in action

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.

## infant health & illness care

### 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% 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.



# infant health & illness care

## 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.
- 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 in their mouth once they have teeth.
- Children need to have their teeth brushed for them morning and night.
- Make sure you can see into the mouth when brushing.

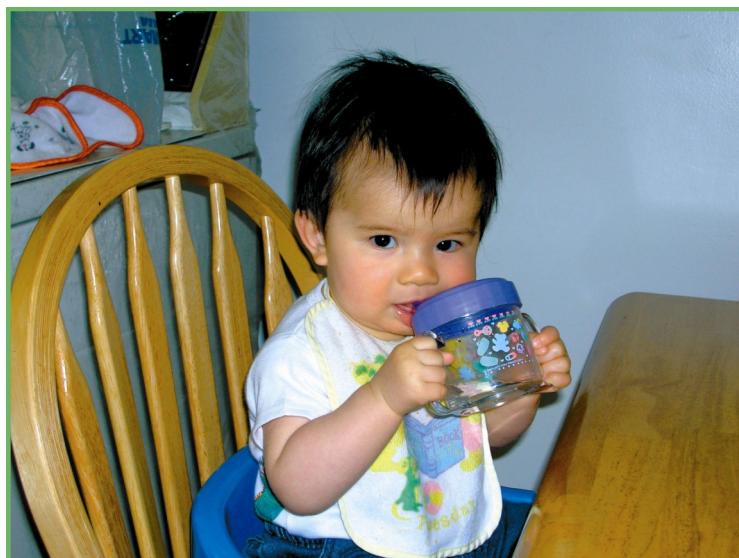


Position yourself  
behind your child to  
brush their teeth

- 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 to check on how brushing is going and to see if additional fluoride is recommended.

### 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, 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 ring to chew on, and a little extra attention and comfort!
- Throw away any teething rings that are cracked or worn.
- Avoid giving teething cookies or biscuits – these can cause tooth decay.
- Only use teething gels or ointment on the advice of a doctor or dentist. See *Toddlers First Steps* for more information.



## 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.

### Signs of illness include:

- Fever
- Breathing problems
- Diarrhea
- Vomiting
- Thrush (yeast infection in the mouth)
- Feeding problems
- Rashes that will not go away or keep coming back
- Skin breakdown that does not heal with the usual "home" techniques
- Extreme drowsiness, floppiness, low energy, fussiness, and inconsolable crying that is not usual
- Seizures (see *Seizures* later in this chapter).

## awareness in action

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 and should update their infant CPR skills every second year.

## fever

**F**ever 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 36.4C (97.6F) to 37.2C (99F).

### **Warning signs for fevers that need medical attention include:**

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

### **And some or all of the following symptoms:**

- A sudden increase in temperature
- Rapid breathing, or a baby who is working hard to breathe
- A baby that is listless, not interested in feeding or interacting, or looks ill
- Difficulty swallowing or drooling a lot (not related to teething)
- The appearance of a new rash
- Wheezing or coughing
- Earache (older babies who have earache will rub or pull at their ear)
- Waking from a deep sleep with loud crying (older baby)
- Vomiting and/or diarrhea
- Sore, stiff neck, headache, or confusion (older baby)
- Seizures.

## 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

- 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.

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

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

- Baby is struggling to get enough air
- Indrawing or dipping 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.

## awareness in action

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 your 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

**V**omiting ("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 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

**D**ehydration 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
- Not enough wet diapers, diapers not as wet as usual, and dark yellow urine
- Lethargy (baby becomes very sleepy)
- Weak cry
- Weight loss.

## awareness in action

If you think the baby is dehydrated, or the diarrhea is not improving, seek help immediately. Call 8-1-1, your doctor, or go to your local emergency room.

### preventing dehydration when the baby is ill

#### **For babies less than 3 months old:**

- Call your doctor right away.

#### **For babies aged 3 months to 2 years:**

- If the baby is breastfed, continue with the breast milk. Breast milk is easily digested and may even slow down the diarrhea.
- If the diarrhea gets worse (larger, more frequent stools), or if the child is vomiting, consult with the doctor and possibly use children's oral rehydration drink with the doctor's recommendations (Pedialyte or store brand).
- Start by giving the oral rehydration drink and then slowly add the baby's usual feeds (formula or breastmilk) 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 (rehydration drink or breast milk) 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 9-12 months of age
  - Baby is not getting enough fluids, especially in hot weather when fluid needs may increase
- Giving infant cereal and or solid food before baby is ready (before 5-6 months) or eating too much infant cereal.



# infant health & illness care

## What you can do for babies who are constipated

### **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 and gently massage the outside anus area with a facecloth (as you would when cleaning the baby's bottom after a bowel movement) to help relax the muscles in the area.

### **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.
- Offer water after age 6 months.

## awareness in action

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

## skin breakdown

“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, other bacterial infections or tend to get re-infected with yeast and other bacterial infections (see below)
- 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 diapers, creams, oils, lotions, or powders.
- If using baby wipes, unscented ones are best.
- Switch to using plain water and cloth for cleaning diaper area if you think a rash is starting.
- Use mild laundry soap for clothes & cloth diapers. Rinse well.
- Keep babies' fingernails short.
- Dress baby in soft loose clothes. Some caregivers recommend using 100% 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.

## 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 doctor. Use a Q-tip to apply the liquid medication.
- Contact the 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 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.
- Use a gentle blow dryer (cool setting only).
- Wash the baby's clothes in hot water if possible.
- Keep pressure off raw areas by changing the baby's position regularly.
- See the doctor if the skin is not healing.

# infant health & illness care

## 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, hayfever, 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.



## seizures

A 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
- Flickering of tongue or rhythmic mouthing
- "Cycling" of extremities (repeated circling movements)
- Changes in skin colour
- Rhythmic movements of fingers or feet
- 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 hold the baby down or stop his body movements.
- 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.

## awareness in action

### call 9-1-1 if:

- This is the baby's first seizure
- The seizure lasts longer than five minutes
- The baby has difficulty breathing or turns blue
- The seizure reoccurs.

### 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 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 use if it touches these areas.
- 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 your doctor and follow up with the doctor as instructed.

If you are not sure how to give drops and medications, check with your local pharmacist or public health nurse.



## 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 babysitter or relief person (who has had a criminal record check and is CPR level B trained) 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.
- Consider hiring someone or getting a family member to help with the household chores, especially during times when you will be very busy with the baby (e.g., when baby first comes home).
- Do not think that you need to do it all. Ask for help, learn to delegate, or let some things go.

# bringing baby home

## 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 ([www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)) 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. You will need the following equipment and supplies:

- **Crib/baby bassinet:** Infants should sleep in a crib or bassinet beside the parents' bed for the first 6 months. Babies may feel more secure in a bassinet as opposed to a full size crib.
- **Car seat:** Babies are not discharged from hospital without an approved car seat. Look for a car seat with the Canadian Motor Vehicle Safe Safety Standards (CMVSS) label. It is recommended that you do not buy a used car seat or buy a car seat in the USA. ICBC is an excellent resource for information on infant car seats. You can call the Car Seat Information line at **1-877-247-5551** for more information, or check [www.childseatinfo.ca](http://www.childseatinfo.ca).
- **Baby swing:** Some babies enjoy the motion of a baby swing. Look for a baby swing that runs on batteries. Wind up swings can be very noisy and often startle babies. Walkers, Jolly Jumpers, and Exersaucers are not recommended (review chapter on *Infant Development*).
- **Rocking chair:** A must!
- **Baby stroller:** A large hood on the stroller is preferable.
- **Baby monitor**
- **Snuggly:** is great for holding the baby close to your body
- A **camera** – for great memories!
- Other Items: formula and bottle/nipple systems, diapers, mild unscented soap, barrier cream, sheets, receiving blankets, facecloths, blankets, and baby clothes.

## bringing baby home

### setting up the baby's primary sleeping area (from 6 months to 1 year)

- At nighttime, set up the baby's sleeping area beside the parents' bed for the first 6 months.
- After 6 months, the baby's room needs to be away from the busy areas of the house (e.g., the kitchen).
- The room should have curtains or blinds and a light dimmer or night-light to control the lighting.
- Use paint colours and wallpapers that are soothing.
- Decorate with removable pictures so you can adjust the environmental stimulation according to the baby's needs.
- Use mobiles and music boxes as tolerated by the baby.
- Keep cats and other pets away from the baby's sleep area.
- **KEEP YOUR HOME SMOKE FREE!**



## bringing baby home

### 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 be OK for a newborn but will soon become a safety concern as the baby gets into the “grabbing stage”. You may want to consider using a travel mug with a lid that can be shut.
- 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.

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



# bringing baby home

## bringing the baby home

**B**efore 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 an alternate caregiver or foster parent, 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 caregiving 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.
- Your resource social worker will provide you with a copy of the infant's Safe Babies referral form.



# bringing baby home

## 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 alternate caregivers or foster parents 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 the doctors, public health nurse, IDP consultant.

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.

# bringing baby home

## 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, public health nurse, and AIDP/IDP consultant. Your local public health nurse will be contacting you shortly after the infant is discharged from hospital. It is recommended that all foster babies discharged from hospital should be seen by their public health nurse.

Other team members for the baby's care may include the social worker, the community nutritionist, the audiologist (hearing screening), the speech and language pathologist, the physiotherapist, and occupational therapist. Birth parents may be eligible for support through lay home visiting programs in their area.

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



## resources

### Websites

<http://aia.berkeley.edu/> National Abandoned Infants Assistance Resource Centre.

<http://web.uvic.ca/icwr/home.htm> Indigenous Child Welfare Research Network.

[www.aadac.com/547\\_1229.asp](http://www.aadac.com/547_1229.asp) Alberta Alcohol and Drug Commission (now part of Alberta Health Services). Women's addition information.

[www.albertahealthservices.ca](http://www.albertahealthservices.ca) has a series of information sheets from the Alberta Alcohol and Drug Abuse Commission. Format includes "plain language" version as well as in-depth, detailed information on various substances.

[www.bariumsprings.org/pilotFiles/pdfdocuments/files/Working%20With%20Birth%20Parents.pdf](http://www.bariumsprings.org/pilotFiles/pdfdocuments/files/Working%20With%20Birth%20Parents.pdf) Jordan Institute for Families: visitation information.

[www.bccewh.bc.ca/](http://www.bccewh.bc.ca/) BC Centre of Excellence for Women's Health.

[www.bcchildrens.ca/kidsteensfam/childsafety/safestart/](http://www.bcchildrens.ca/kidsteensfam/childsafety/safestart/) an excellent resource about home safety, car seats, resources, choking prevention, burn prevention.

[www.bcfosterparents.ca](http://www.bcfosterparents.ca) BC Federation of Foster Parent Associations.

[www.BestChance.gov.bc.ca](http://www.BestChance.gov.bc.ca). Baby's Best Chance: Learn about babies 0 – 6 months. Toddlers First Steps – Toddlers 6 – 36 months.

[www.camh.net](http://www.camh.net) Centre for Addiction and Mental Health. Affiliated with the University of Toronto.

[www.canfasd.ca/networkActionTeams/womens-health-determinants.aspx](http://www.canfasd.ca/networkActionTeams/womens-health-determinants.aspx) Canada Northwest FASD Partnership Network Action Team on FASD Prevention.

[www.caringforkids.cps.ca](http://www.caringforkids.cps.ca) Website with infant/child health and care information.

[www.ccsa.ca](http://www.ccsa.ca) is the Canadian Center for Substance Abuse. This site has information related to FAS/pFAS.

[www.cecw-cepb.ca/](http://www.cecw-cepb.ca/) Canadian Child Welfare research site. Articles and publications available on the effects of child abuse and trauma in young children.

[www.cecw-cepb.ca/sites/default/files/publications/en/EmotionalNeglectInfants59E.pdf](http://www.cecw-cepb.ca/sites/default/files/publications/en/EmotionalNeglectInfants59E.pdf) Centre of Excellence for Child Welfare. Information sheets: Assessing emotional neglect in infants (2008).

[www.cecw-cepb.ca/sites/default/files/publications/en/InfantTrauma75E.pdf](http://www.cecw-cepb.ca/sites/default/files/publications/en/InfantTrauma75E.pdf) Emotional Trauma in Infancy (2009)

## Websites

[www.cecw-cepb.ca/sites/default/files/publications/en/Healthyattachment56E.pdf](http://www.cecw-cepb.ca/sites/default/files/publications/en/Healthyattachment56E.pdf) Supporting the Social-Emotional Development of Infants and Toddlers in Foster Care (2008).

<http://childtrauma.org> Child Trauma Institute. Provides resources and articles on the effects of trauma and abuse on young children.

<http://cps.ca> Canadian Pediatric Society. Articles on various pediatric health-related topics.

[www.cwlc.ca/](http://www.cwlc.ca/) Child Welfare League of Canada.

[www.fafp.com](http://www.fafp.com) Federation of Aboriginal Foster Parents.

[www.faslink.org/](http://www.faslink.org/) FASlink Fetal Alcohol Disorders Society: Research, Information, Support and Communications.

[www.fasdconnections.ca/](http://www.fasdconnections.ca/) FASD Connections.

[www.fasdconnections.ca/id57.htm](http://www.fasdconnections.ca/id57.htm) FASD Toolkit for Aboriginal Families.

[www.fpsss.com](http://www.fpsss.com) FPSS Foster Parent Support Services Society.

[www.gov.bc.ca/mcf/](http://www.gov.bc.ca/mcf/) This website is for the BC Ministry of Children and Family Development. The site has documents such as The FAS Community Action Guide and FAS: A Guide to Daily Living (under their publication section).

[www.hanen.org](http://www.hanen.org) The Hanen Center has resources and programs around language development for parents and professionals

[www.healthlinkbc.ca](http://www.healthlinkbc.ca) The BC Ministry of Health with information called "Health Files" on several communicable disease and many other health issues. Health topics. BC Health Guide.

[www.hertohelp.bc.ca/](http://www.hertohelp.bc.ca/) Here to Help – BC resources for mental health and addictions.

[www.hcip-bc.org/](http://www.hcip-bc.org/) Act Now BC Healthy Choices in Pregnancy.

NFHS-pg.org is a site for the Northern Family Health Society (Prince George) with resources and links related to FASD.

### Websites

[www.mcf.gov.bc.ca/fasd/](http://www.mcf.gov.bc.ca/fasd/) BC Ministry of Children and Family Development

[www.mdf.gov.bc.ca/fasd/pdf/FASD\\_TenYearPlan\\_WEB.pdf](http://www.mdf.gov.bc.ca/fasd/pdf/FASD_TenYearPlan_WEB.pdf) Government of British Columbia FASD Provincial Plan 2008 – 2018.

[www.medlineplus.gov](http://www.medlineplus.gov) good for getting updated medical information

[www.motherisk.org](http://www.motherisk.org) produced by the Motherisk Program at the Hospital for Sick Children, Toronto. This website has research reviews related to alcohol and substance use during pregnancy. Phone #: 1-877-327-4636.

[www.nida.nih.gov/](http://www.nida.nih.gov/) National Institute on Drug Abuse (USA) that has information sheets on substances and extensive list or resources related to prevention and treatment.

[www.parentssupportbc.ca/grandparents.html](http://www.parentssupportbc.ca/grandparents.html) Grandparents raising grandchildren.

[www.peele.net](http://www.peele.net) Addiction Research Foundation. This site has an extensive collection of literature.

[http://www.perinatalservicesbc.ca/sites/bcrcp/files/Guidelines/Health\\_Promotion\\_and\\_Prevention/Infant\\_Sleep\\_Environment.pdf](http://www.perinatalservicesbc.ca/sites/bcrcp/files/Guidelines/Health_Promotion_and_Prevention/Infant_Sleep_Environment.pdf) Health Promotion Guideline 1 : Safe Sleep environment Guideline for Infants 0 – 12 months of Age, Perinatal Services BC, February 2011.

[www.phac-aspc.gc.ca/fasd-etcaf/index-eng.php](http://www.phac-aspc.gc.ca/fasd-etcaf/index-eng.php) Public Health Agency of Canada FASD website.

[www.safekids.com](http://www.safekids.com) This is a great site for all infant/child safety related information.

[www.sccfs.com](http://www.sccfs.com) Surrounded by Cedar Child and Family Services.

[www.tsfbvcaa.com](http://www.tsfbvcaa.com) BCAA Traffic Safety Foundation. Fact sheets, recall notices, links and resources.

[www.vch.ca/media/SneezesDiseases.pdf](http://www.vch.ca/media/SneezesDiseases.pdf) A resource book for caregivers and parents. Comes with fact sheets about communicable diseases, diarrhea, vomiting - infestations fact sheet and immunizations etc. Produced by VCH.

## community agencies

### **The Asante Centre for Fetal Alcohol Syndrome**

103 - 22326 (A) McIntosh Avenue, Maple Ridge, BC V2X 3C1

Phone: 604 467 7101      Fax: 604 467 7102

<http://www.asantecentre.org/>

### **Autism Society of BC**

301-3701 East Hastings, Burnaby, BC V5C 2H6

Phone: (604) 434-0880

<http://www.autismbc.ca/>

### **BC Aboriginal Network on Disability Society**

1179 Kosqusum Crescent, Victoria, BC V9A 7K7

Phone: (250) 381-7303      Toll-free: 1-888-813-5512

<http://www.bcands.bc.ca/>

### **Children's & Women's Health Centre of BC**

4500 Oak Street, Vancouver, BC V6H 3N1

Phone: (604) 875-2000

<http://www.cw.bc.ca/>

**Dial-a-Dietitian:** 8-1-1 (HealthLink BC) Monday through Friday, 8:00 am to 5:00 pm  
(funded by the BC Ministry of Health)

<http://www.HealthLinkBC.ca/dietitian>

### **HealthLink BC**

Dial 8-1-1

<http://HealthLinkBC.ca>

### **Health Units** (for contacting a Public Health Nurse)

Look under Health Authority in the blue pages of the phone book

### **Federation of Aboriginal Foster Parents**

[www.fafp.ca](http://www.fafp.ca)

**Foster Parent resources and support.** A forum for Safe Babies Caregivers.

[www.fosterhub.ca](http://www.fosterhub.ca)

**Health Canada.** Safety recalls, reports and safety information.

<http://www.hc-sc.gc.ca/cps-spc/pubs/cons/child-enfant/index-eng.php>

# bibliography

## bibliography

American Academy of Pediatrics. (2005). Policy Statement: Breastfeeding and the use of human milk. Pediatrics, 115(2), 496-506.

Babycenter.ca (2010), Establishing good sleep habits 0 to 3 months.

Barr, Ronald G., The Period of Purple Crying, National Center on Shaken Baby Syndrome (2004 – 2009), [www.dontshake.org](http://www.dontshake.org).

Boyd, Susan C. (2004). Mothers and Illicit Drugs: Transcending the Myths. Toronto, Ontario. University of Toronto Press Incorporated.

British Columbia Reproductive Care Program. (2006) Guidelines: Tobacco Use in the Perinatal Period. <http://www.perinatalservicesbc.ca/sites/bcrcp/files/Guidelines/SubstanceUse/TobaccoGuidelines.pdf>.

British Columbia Reproductive Care Program. (2005). BCRCP Guidelines for Alcohol Use in the Perinatal Period and Fetal Alcohol Spectrum Disorder. <http://www.perinatalservicesbc.ca/sites/bcrcp/files/Guidelines/SubstanceUse/Alcoholguideline.pdf>.

Cloak.C.C., et al. Lower Diffusion in White Matter of Children with Prenatal Methamphetamine Exposure. Neurology, June 2009;72:2068 – 2075.

Duke, C.S. (1998). Common Concerns When Storing Human Milk. New Beginnings, 15(4),109. Retrieved April 23, 2009 from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1207098/>.

Frincu-Mallos, Crina. Prenatal Drug Exposure Linked to Sleep Problems Throughout Childhood, SLEEP 2008, Abstract 0251, Presented June 10, 2008.

Hall, Wendy, RN, PhD. Sleep Patterns and Problems in Infants Toddlers. Power-Point Presentation to Foster Parents, October 2009.

Hanft, Alan, et al. Sleep Architecture of Infants in Substance Abusing Mothers. Infant Mental Health Journal, Vol 27(2), 141-151 (2006).

Health Promotion Guideline 1 : Safe Sleep environment Guideline for Infants 0 – 12 months of Age, Perinatal Services BC, February 2011.

Hiscock, Harriet, et al. Adverse Associations of Sleep Problems in Australian Preschoolers: National Population Study. Pediatrics 2007;119:86 -93.

# bibliography

## bibliography

Jansson, L.M., Velez, M., and Harrow, C. Methadone maintenance and lactation: A review of the literature and current management. Journal of Human Lactation, 20, 62-71. (2004).

Kim, J., and Krall, J. (2006) Literature Review: Effects of Prenatal Substance Exposure on Infant and Early Childhood Outcomes. Berkeley, CA: National Abandoned Infants Assistance Resource Centre, University of California at Berkeley.

Lester, Barry M., et al. (2002). The Maternal Lifestyle Study: Effects of Substance Exposure During Pregnancy on Neurodevelopment Outcome in 1-Month Old Infants. Pediatrics, 2002; 110:1182-1192. <http://www.pediatrics.org/cgi/content/full/110/6/1182>.

March of Dimes. Quick Reference: Fact Sheets. Illicit Drug Use During Pregnancy. [http://www.marchofdimes.com/professionals/14332\\_1169.asp#head1](http://www.marchofdimes.com/professionals/14332_1169.asp#head1).

The Maternal Substance Abuse and Child Development Project. Emory University, Publications. <http://www.psychiatry.emory.edu/PROGRAMS/GADrug/publications.html>.

The Maternal Substance Abuse and Child Development Project. (2002). Neonatal Withdrawal Syndrome. MSA Newsline, 2(3). <http://www.psychiatry.emory.edu/PROGRAMS/GADrug/Children/Children%20%Cocaine/Neonatal%20Withdrawal.pdf>

Platzman, Kathleen, et al. Assessment of the Caregiving Environment and Infant Functioning in Polydrug Families: Use of a Structured Clinical Interview, Infant Mental Health Journal, Vol 22(3), 351-373 (2001).

Pregnancy-Related Issues in the Management of Addictions. Specific Substances. <http://www.addictionpregnancy.ca>

Province of British Columbia. (2005). Baby's Best Chance: Parent's Handbook of Pregnancy and Baby Care (6<sup>th</sup> ed. Revised). Ministry of Health, Province of British Columbia. <http://www.health.gov.bc.ca/library/publications/year/2005/babybestchance.pdf>

# bibliography

## bibliography

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

Province of British Columbia, Ministry of Health, Toddlers First Steps – A Best Chance Guide to Parenting Your 6 – 36-Month-Old Child, (2<sup>nd</sup> ed. 2008).

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

Roberts, E.A., and Young, L. (2002). Maternal-infant transmission of hepatitis C virus infection. Hepatology, 16(5), S106-S113.

Sadeh, Avi, et al. Parenting and Infant Sleep. Sleep Medicine Reviews (2009), doi:10.1016/j.smrv.2009.050.003.

Sadeh, Avi, et al. Sleep and Sleep ecology in the First 3 years: a Web-Based Study, 2008 European Sleep Research Study. Journal of Sleep Research (2009) 18, 60 -73.

Schuetze, Pamela, et al. Prenatal Cocaine Exposure and Infant Sleep at 7 months of Age: The Influence of the Caregiving Environment. Infant Mental Health Journal, Vol.27(4), 383-404, (2006).

Torese, Marcia, et al. Sleep Fragmentation and Evidence for Sleep Debt in Alcohol-Exposed Infants. Early Human Development (2008) 844, 577-585.

Vancouver Coastal Health, Resource for Parent Infant Groups – 2008, Section D: Sleep.

Vancouver Coastal Health, Telephone Protocols for 0 – 2 years, Section N: Assistance with Sleep Concern. (Updated and Revised: January 2008.)

Wang, M. (2008). Perinatal Drug Abuse and Neonatal Drug Withdrawal. eMedicine, Web MD, January 10, 2008. Retrieved September 16, 2008. <http://www.emedicine.com/ped/topic/1631.htm>



2011