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Expectations: A Guide for Childbirth Education at Logan Regional Hospital

Janet Radford Bergeson

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EXPECTATIONS: A GUIDE FOR

CHILDBIRTH EDUCATION AT

LOGAN REGIONAL HOSPITAL

by

Janet Radford Bergeson

A Plan B Project submitted in partial fulfillment of the requirements for the degree of
Masters of Science in
Family and Human Development

Approved:

UTAH STATE UNIVERSITY
Logan, Utah
1991
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Finally, to my husband, Lars, and to my children, Nils, Maren, and Peter, I appreciate your patience. Without your support, none of this would have been accomplished.
ABSTRACT

Expectations: A Guide for Childbirth Education at Logan Regional Hospital

by

Janet Radford Bergeson
Utah State University, 1991

Major Professor: Dr. Thomas R. Lee
Department: Family and Human Development

The purpose of this project is to develop a childbirth education handbook for expectant parents that specifically follows the ongoing childbirth classes taught at Logan Regional Hospital. At present, much of the information that is provided to expectant parents comes from companies that advertise their products through childbirth education brochures. It is desirable that the students be provided with a complete, objective handbook to supplement the instruction received in the classroom.
Introduction

Of all the life choices men and women make, none is more important for society, none has more far-reaching consequences, none represents a more complete blending of economic, social, biological, and emotional forces than the decision to bring another life into the world. (Fuchs, 1983, p. 15).

Although birth can be described as a biological phenomenon, it is perhaps more importantly, a social process. From the time that a person decides to have a child, the social act of parenting begins (LaRossa, 1986). Parenting is a function of one's own social and cultural designs, and is a significant step in the individual's developmental process. As one embarks on the road to parenthood, the cultural or social behaviors that make up the institution of parenthood mold the behavior of that individual. Concurrently, these same social behaviors shape the institution of parenthood (LaRossa, 1986). These social and biological processes work together, interacting with one another. Neither occurs in a vacuum (Rossi, 1984).

In terms of developmental processes, the birth of a child marks the beginning of one of the stages in the concept known as the family life cycle. The notion of the family life cycle is important in that it provides us with a longitudinal view of the family from beginning to end, and allows us to keep in perspective the various ongoing relationships throughout the cycle.

In Duvall's (1948) description of the stages of the
family life cycle, she designated "childbearing families" as Stage 2 in her eight-stage family life cycle. This childbearing stage and the accompanying developmental tasks of each family member in the network is rather complex. For example, new parents are involved in tasks such as developing parenting skills, providing the infant with a safe environment, maintaining family relationships, and planning for the future. At the same time, marital relationships must be maintained or reestablished in spite of the fact that there is a new member in the family.

The adjustments to parenthood evolve over time. These adjustments may be anticipated even before conception. Once the pregnancy is confirmed, the concept of "social pregnancy" is underway. Miller (1978) described the concept of social pregnancy, dividing it into 3 stages. The first stage takes place in the first couple of months as the woman begins to notice changes in her physical body. She begins to see herself as an "expectant parent." The second stage of social pregnancy (second through sixth month) occurs when the woman is "sure" in her mind that she is pregnant. Movement of the baby helps to solidify this. Preoccupation with labor and delivery characterizes the third social stage of pregnancy. The nursery is readied, names are picked out, and it is likely that this will be the time for the parent(s) to seek a formal childbirth class. It is this third "social" stage of pregnancy, particularly the
attendance at a childbirth preparation class that is of interest here.

Aside from particular medical conditions or aberrations beyond the control of the parent or physician, there are certain predictors for a positive childbirth experience. While there is conflicting evidence whether participation in childbirth classes provides medical advantages to expectant parents, there do appear to be some psychological advantages to childbirth preparation. Factors that seem to be most predictive of a positive childbirth experience include knowledge, confidence, and interestingly, anxiety (Crowe & von Baeyer, 1989). Mothers with realistic fearfulness about the labor and delivery process before and even after attending classes are often very competent in their overall knowledge of labor and delivery.

Fearfulness and pain surrounding childbirth seem to be experienced across different cultures although interpretations of the pain differ. Some cultures continue to shroud the event with privacy, while others deal with it more candidly. Much of the secrecy surrounding birth can be linked to the sexual taboos of the culture (Gennaro, 1988). In the United States, the prevailing attitude continues to focus on the pain. Humenick (1981) challenges the typical position of health care professionals who equate a good birth experience with the reduction of pain. She suggests that perhaps we should be enhancing the laboring woman's
sense of mastery and accomplishment, and has developed the following model for research.

Fig. 1

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It appears from several studies that the woman's desire to be an active participant in the decisions surrounding her birth experience is perhaps the most important factor contributing to a positive childbirth experience (Davenport-Slack & Boylan, 1974; Willmuth, 1975). Childbirth education classes have been shown to positively affect how the participants view themselves as control agents (Felton & Siegelman, 1978). Today, most approaches share this emphasis on the development of a sense of control and mastery.
Purpose of the Project

As previously stated, there are psychological advantages to being prepared for childbirth. In Cache County, the growing interest in attending childbirth preparation classes has increased to such a degree that all classes are constantly full, and more classroom space is on the master plan for future expansion at Logan Regional Hospital. At all times there are five prenatal classes being taught concurrently, and much information is covered in these six week classes.

For many years, it has been the desire of the prenatal instructors to offer the classroom information in some form of workbook prepared especially for Logan Regional Hospital. It is felt that a childbirth workbook could provide the students with review material, and would enhance the educational process.

The purpose of this project is to compile educational material for childbirth preparation into one easy reference manual or workbook. This workbook will be geared to assist those participating in a childbirth preparation class, and will follow an outline that has already been established based on the learning needs of expectant parents (Walls, 1983; Maloney, 1985). At present, many childbirth educators are inundated with free literature and samples from various organizations that advertise their products through prenatal classes. One classic example of this advertising is the
promotion of various infant formulas through sample "gift pax" which contain formula samples and discount coupons. Although there may be useful information provided by these companies on topics ranging from breastfeeding to the transition to parenthood, their information booklets are heavily laden with advertisements for their products. For example, a new mother that is having some difficulty in nursing her baby may refer to a breastfeeding booklet for guidance. If this booklet is published by a formula company and includes several pages of formula advertisements, the not-so-subtle message is to switch to formula. There is a need for a more complete, objective handbook that deals with the subjects surrounding the childbirth, as well as the early months of parenthood.
Review of Literature

Current Approaches in Childbirth Education

The last two decades have brought many changes to the area of childbirth education. The demand to have more control over one's body, partly brought on by the women's movement, has led health practitioners to slowly change the way childbirth is handled. Still popular today are specific methods of childbirth that became popular in the 60's and 70's, particularly Lamaze, Bradley, and Dick-Read. Over the past decade, however, there has been a shift away from these "methods" of childbirth to a more eclectic approach (Nichols, 1988). Childbirth educators are applying scientific methods to determine which areas of childbirth education are regarded as most important to clients. Additionally, there is a growing appreciation by the medical community of the effects of choice and alternative coping styles used by expectant parents. Now that we are moving into the present decade, these techniques are being refined. Childbirth educators are beginning to shift their class content to reflect these changes, and are drawing from a variety of sources. Without abandoning the traditional ways of teaching, childbirth education today reflects the instructor's particular areas of interest, as well as current medical knowledge.

With this refinement comes some new and important aspects of childbirth education. It is apparent that
characteristics of the clients as well as those of the community come into play as the instructor refines her teaching techniques. Expectant parents come to childbirth classes with many different backgrounds; they have different belief systems, different styles of learning, and different motivations for attending childbirth classes. Taking all of this into consideration, the childbirth instructor must approach the job of teaching by relying on a conceptual framework to guide the particular curriculum. To accomplish this task, some general or demographic data must be gathered from her clients. Educational level, age, and motivation for taking childbirth classes are all important. Since adult education hinges on the particular strengths and weaknesses of the learner as well as the learner's past experiences, the role of the instructor is to provide accurate information about alternative routes to reach the particular goals of the student (Jimenez, 1984). Not to be forgotten is the importance of identifying and discussing the possible risks of these chosen routes.

Additionally, the childbirth educator must be a consumer advocate. She must facilitate competence in her clients to enable them to make informed choices about their obstetrical experience. She needs to be able to communicate effectively and freely with other health care professionals, while being able to deal with criticism in a constructive manner (Nichols & Humenick, 1988). Once these tasks are
accomplished, the instructor needs to look at her own philosophy of childbirth education.

**Characteristics of the Instructor**

What is the purpose of the childbirth instructor? Is it to prepare her students intellectually and emotionally for childbirth? Is it to provide them with means for pain management? What about her role as a change agent? Is she to use her role to influence the health care system? Answers to some of these questions help the educator as she structures her particular classes. Also important is her personal philosophy about childbirth education. Individual philosophies are important in that they help provide direction. It is important to note that philosophies do change as the instructor's experience and knowledge base increases. Since needs of the client also change, periodic changes in presentation must likewise require modification. The educator is forced to view her class as a statement of her own philosophy, assuring that the material presented is appropriately meeting the specific needs of the clients. Personal philosophies can help establish a link between those educators that share belief systems, and they help to clarify expectations about childbirth education with others (professional and laypersons) in the community.

Beyond the effects that personal philosophies have on teaching style, there are other important areas that become
part of the make-up of instructors. It is apparent that a teacher can have either a positive or a negative effect on the learner. In the case of the childbirth educator, students should be given the motivation and confidence to choose the most appropriate path for their obstetrical experience. However, they may become too dependent on the instructor, never fully understanding the importance of their individual roles. In order to provide quality education, the childbirth educator needs to do more than stay current on childbirth issues. She must also be aware of the principles of adult learning.

Health Education

What all the great teachers appear to have in common is love of their subject, an obvious satisfaction in arousing this love in their students, and an ability to convince them that what they are being taught is deadly serious. (Epstein, 1981, p. xii).

The instructor must stimulate excitement, making an emotional impact on the learner. Fortunately, the childbirth education classroom is often filled with those anxiously awaiting this event in their lives. Many are highly motivated to "soak up" anything and everything that comes their way.

Several decades ago, Trow, Zander, Morse, & Jenkins (1950) described three important roles of the teacher. The "instructional role" employs the instructor to be the facilitator, encouraging the students to think on their own. The second role, the "democratic strategist" involves the
instructor in the group process as she manages the clients through the class. And finally, the "therapist role" requires that a rapport is established with each student, thus creating a supportive atmosphere.

Beyond the roles established by Trow and her colleagues (1950), three more points are added by Posner and Strike (1976). In order to have a successful education program, the classes should have: 1) a clear purpose; 2) certain objectives that are laid out; and 3) the material should be presented in a sequential manner.

The purpose of childbirth education is rather specific. But, to say that the purpose is to provide the expectant parents with a positive childbirth outcome is insufficient by itself. The instructor must know how this outcome will be achieved. To do this, it is best to structure one's classes around a specific conceptual framework. A conceptual framework is helpful in that it guides the instructor in the selection of topics and overall objectives of the class. With the use of a conceptual framework, the educator can organize current facts about childbirth education into a meaningful framework. A conceptual framework is also helpful in that it gives the students those skills that allow them to respond to their own unique childbirth experience, as well as teaching them decision making skills that may be needed if unexpected situations should arise. This framework guides the specific objectives
that the instructor wishes to obtain as she makes decisions about specific course content.

This brings us to the second point described by Posner and Strike: clear objectives. General class objectives might include statements such as "clients will feel free to ask questions in class;" while a more specific individual class objective might state, "client will demonstrate the expulsion technique." Nonetheless, it is evident that the objectives which are derived from a strong theoretical base provide the most direction for the instructor in terms of class content.

Related Theories

Although several different theories may be applicable to childbirth education classes, only two will be discussed here. The Crisis Theory as described by LeMasters (1957), reported that the birth of the first child constituted what he described as a crisis event. Hill's (1949) well-known ABCX model of crisis can easily be applied to the childbirth event. Referring to his ABCX model, A, the stressful event (childbirth) interacts with B, the individual's crisis-meeting resources, which interacts with C, or the definition the person makes of the event. The particular hardships of the event (A) lie outside of the individual's control, but the second and third variables (B and C) lie within the individual and/or family unit, and can be altered. If an unexpected event should occur during the labor process, a
state of crisis (X) could result, especially if the family was unprepared to deal with the event.

According to this theory, the goal of childbirth education would be to prevent a crisis situation through providing resources in terms of increased knowledge and improved parenting skills. Participation in childbirth preparation class is designed to impact B and C, thus reducing the chances of experiencing a crisis.

It is important to note that subsequent research by others, including Miller and Sollie (1980), did not find the event of birth to be the "crisis" event described by LeMasters, nor even a "normal crisis" (Rapoport & Rapoport, 1964). From this foundation comes the "transition to parenthood" literature which indicates that there are rewarding as well as stressful elements in this stage of the family life cycle (Russell, 1974).

The Competence Model is the second model that is appropriate for the childbirth education field. Nichols (1984) proposed that the goal of this model is to increase one's level of competence surrounding birth. Her three specific areas of competence as they relate to childbirth are: psychomotor competence, which would be reached through teaching breathing/relaxation and expulsion techniques; interpersonal competence that evolves from increasing one's confidence in making appropriate responses to stressful stimuli; and cognitive competence, would assist expectant
parents in obtaining, classifying, and interpreting information. Depending on the individual students, different emphasis may be placed on these components. For example, the instructor who teaches an adult class of expectant couples may give equal emphasis to all three areas. However, the instructor teaching a group of teenage mothers may need to place more emphasis on the psychomotor aspect than in the cognitive area. It is believed that the cognitive developmental level of the teens restricts their ability to translate information learned to the actual childbirth event (Nichols, 1984).

Both theories underscore the importance of increasing the expectant parents' resources to enhance a sense of mastery and control. Childbirth is then less likely to be perceived as a crisis.

Sequence of Instruction

After determining the particular theory-based objectives for her class, the instructor must then select the individual topics that need to be included in her instructions. Beyond this, she must also decide the sequencing of these topics. Posner and Strike (1976) state that debate has been going on for years about the sequencing of general educational information, and it is apparent that the "answer" to this problem may be difficult to obtain. Therefore, it is recommended that the information is presented in a logical form, and that the topics flow from
one to another. This is relatively easy in the case of childbirth education since events usually follow a natural sequence. Posner and Strike (1976) do point out some important guidelines in terms of presenting information. They suggest that the delivery of information should move from the basic to the more specific; that one should move from known facts to new facts; and that the class content should flow from the beginning of a process to its conclusion. Furthermore, they add that subject material should start at a concrete level, moving toward a more abstract level of understanding and problem solving.

It is important that each class begins with information that reduces anxiety, and ends with topics that do not produce anxiety. These guidelines promoted by Posner and Strike (1976) are most appropriate in the childbirth education field.
Methodology

In developing a workbook for pregnancy and childbirth, it becomes apparent that learning needs change during the course of pregnancy (Nichols, 1988). At the beginning of pregnancy, expectant parents often focus on the physical and emotional changes brought on by the pregnancy. As the pregnancy progresses, these concerns may change to those of the developing fetus and the needs of the newborn. During the last trimester, the actual labor and delivery becomes the primary focus of expectant couples. For the purposes of this project, it is the last trimester that will be targeted for the development of this workbook. It is during this last trimester that expectant couples enroll in childbirth classes. Sections on the first two trimesters of pregnancy will be added at a later date. Eventually, it is hoped that many different sections can be added and compiled into one hospital-provided looseleaf binder to cover preconception through adolescence - an "owner's manual for parents," if you will.

Childbirth workbook contents

Since the course of events surrounding pregnancy occurs in a fairly predictable fashion, it is relatively easy to establish an outline for the class. The workbook will follow the existing class schedule in order to enhance the classroom instruction.
Evaluation

Physician/administrative approval. It is the desire of the childbirth educators at Logan Regional Hospital that the information provided to expectant parents meets with the approval of labor and delivery personnel, with physicians delivering obstetrical and infant care, and with hospital administration. Before publication, the workbook will be provided to designated representatives from these areas for review.

Expectant parent feedback. Most importantly, the workbook must meet the needs of the expectant parents enrolled in childbirth classes. Before publication, and completion of this project, feedback will be sought from expectant parents using the workbook.
References


Appendix
(Inside cover) LOGAN REGIONAL HOSPITAL

CHILDBIRTH EDUCATION CLASS

Name __________________________ Prenatal Instructor: _______
Address ________________________
Phone __________________________ Important phone numbers:
Hospital ........... 752-2050
Labor & Delivery ..ext.5510
Women's Center .... 750-5375
Due Date ________________
Nursery ............ ext.5502
Physician ________________
Emergency Room .... ext.5465
Physician's Phone _______
Center for Health Info/
Notes
and Wellness .... 750-5310

Prenatal Class Meeting Times:

_________________________________________________________________________
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CHAPTER 1

SO YOU'RE GOING TO HAVE A BABY!

Prepared Childbirth

Why prepare for childbirth? Childbirth education provides us with a tool that will help us understand this very important event in our lives. Many have found that a good understanding of the birth process helps to alleviate some of the fears that most of us have about labor and delivery. Although your baby will be born with or without attendance at childbirth classes, being more informed may help you feel more in control, and more able to enjoy this remarkable experience of childbirth.

Over the last several decades, there has been a great increase in the number of childbirth classes available to expectant parents. Most hospitals today offer some form of childbirth preparation class. Many things have changed in how we perceive labor and delivery. Prior to the 1970's, it was unusual for the laboring mom to have her husband or coach present at the delivery. Today, it is unusual to find a laboring mother without a support person. In addition to your support person, remember that there are highly qualified doctors and nurses readily available to help you along the way.

We want your birth experience to be a happy event. Our entire hospital staff remains ready to assist you in any way!
Fetal Development

Pregnancy lasts on the average about 280 days, 40 weeks, or about 9 calendar months. Dramatic changes are occurring in both the fetus and in the mother as the months progress.

[Graphic: Changes occurring in mother and fetus]

Physical Changes During Pregnancy

You no doubt have noticed that your body has been changing in many ways. Along with these changes come various physical symptoms. Some of the more common symptoms include:

Frequent Urination

As the fetus grows, more pressure is put on the bladder. Although your bladder may not be full, it will feel as though it is. Frequent trips to the bathroom are very common in pregnant women!

Fatigue

Fatigue is just a fancy word for feeling tired. Many women experience fatigue at the beginning of the pregnancy, but get better during the second trimester. During your last trimester, you may have trouble getting comfortable in bed and resting well.

Getting up during the night to go to the bathroom only
adds to your sleeplessness. Naps may be very helpful during this time. You may want to sleep with extra pillows situated in ways to help you rest more comfortably. Practice relaxation techniques that you learn from childbirth classes, and avoid caffeine.

Morning Sickness

Many women experience some morning sickness during their first trimester. For an unfortunate few, this morning sickness lasts longer. Eating crackers before getting out of bed may be useful. Some moms find that keeping a supply of mints handy can also provide some relief. Avoid having your stomach completely empty, and switch to eating 5 or 6 smaller meals during the day.

Breast Changes

As your body prepares for the delivery of your baby, you will notice that your breasts become larger. This is due in part to an increase in the fat layer in the breasts. You may also find that your breasts are more tender, and that the areola (the pinkish-brown area around the nipple) becomes darker. These changes are normal as the breasts are being readied for nursing. Some women also experience the leakage of colostrum, the yellowish fluid which comes before your mature milk. This fluid comes whether or not you plan to nurse your baby, and is nature's way of protecting
newborns by providing them with antibodies to help fight infection. The colostrum may leak out on its own, and sometimes leaks with sexual excitement.

Normally, there is no special care needed for your breasts. A good support bra with wider straps may provide some relief as they enlarge. If you plan to nurse, you may want to purchase a nursing bra during your last trimester. Begin wearing it before your baby is born. It is no longer recommended that you prepare your breasts for nursing by vigorously scrubbing them with a wash cloth or sponge. There is not enough evidence that this really toughens them for nursing.

Some women have nipples that project inward, and these are called retracted nipples. If you plan to nurse your baby, you may want to gently roll your nipples between your thumb and forefinger to get them to protrude more. There are also devices called "nursing cups" that can be worn inside your bra during pregnancy. These may help inverted or flat nipples to protrude. If you are concerned about your ability to nurse your baby, you may want to consider a prenatal consultation with a lactation specialist, someone who has received extra training in helping new mothers nurse their babies. Call the Women's Center at the hospital for a referral.
**Constipation**

Constipation is a common complaint during pregnancy. Because of hormonal influences during pregnancy, food does not pass through the digestive tract as quickly. Drink plenty of fluids (water and fruit juices), eat lots of foods high in fiber such as raw fruits and vegetables, and take a daily walk. Remember, do not take laxatives without first checking with your doctor.

**Hemorrhoids**

Constipation often leads to hemorrhoids. Basically, hemorrhoids are varicose veins of the rectum, and often occur from straining with constipation. The best thing to do is to try to prevent hemorrhoids altogether. Follow the same directions concerning diet and exercise for constipation.

**Indigestion**

Another common complaint during pregnancy is indigestion. Hormonal changes result in a slowing down of the digestive process, and the relaxation of the muscle that keeps digested foods and stomach acid in your stomach. This, coupled with the growing uterus that is taking up space, can lead to the burning sensation that rises up into your throat. It is best to avoid spicy and greasy foods, chocolate and sodas. Switch to eating 5 or 6 smaller meals,
and avoid bending over and lying down after meals for at least an hour. Your doctor may recommend an antacid for relief, but always ask before taking any medication during pregnancy.

Skin Changes

Some women notice brownish blotches on their nose and cheekbones. This is called chloasma and is caused by hormonal changes in pregnancy. They usually fade when your hormonal levels return to a non-pregnant state.

It is also normal to develop a dark line that runs vertically on the abdomen. Doctors call this the linea nigra. Stretch marks are common in pregnant women as the skin stretches with the extra weight. Most often stretch marks are found on the abdomen, the buttocks, and the breasts. There is no way to prevent stretch marks. It seems that some people have more elasticity in their skin than others, and this is probably an inherited trait. Stretch marks will fade after pregnancy, but may not go away.

Swelling (Edema)

Most women experience some swelling during the last few months of pregnancy, and this usually occurs in the ankles and legs. Elevation of the legs, and mild exercise such as walking and riding an exercise bike may help alleviate some
of the problem.

It is important to know that swelling can sometimes be a symptom of a more serious problem called \textit{pre-eclampsia (toxemia)}. If you notice swelling in your face and hands, notify your doctor.

\textbf{Groin Pain}

The round ligaments that support the uterus stretch as the uterus grows. This may result in sharp pains in the abdomen, or a dull aching sensation. Extra rest and a change in your position may help.

\textbf{Leg cramps}

During the last few months of pregnancy, you may notice a greater tendency for leg cramps. At one time it was believed that cramps were due to an insufficient amount of calcium in the diet. This is no longer believed to be the case, and it is recommended that leg stretches, \textit{without} pointing your toes, may be helpful. Pointing your toes can sometimes cause leg cramping.

\textbf{Emotional Changes During Pregnancy}

Hormonal changes that accompany pregnancy may result in mood swings. A minor problem may turn into a crisis, and you may find yourself short-tempered with your partner. Fatigue only adds to the problem. You must understand that
while pregnancy may be a very happy time for you, it also brings with it, many new worries. For instance, you may not be so pleased with your "new" body. You may feel fat and unattractive, and wonder if your body will ever be the same again! You may be concerned about whether you will be able to tolerate labor and delivery. Perhaps you are concerned that the baby will not be perfect, or that you will not be a good parent. These are very common anxieties that most of us have. Think of the new life that you have created and the remarkable things that are going on inside you. Remember, childbirth is a natural experience, and most babies are born healthy.

Fathers also experience anxieties with regard to their new role. They have been known to experience weight gain and sympathetic morning sickness, too! Generally, dads are concerned with many of the same issues as their partners. They wonder if they will be good fathers. Often, there are financial concerns, especially if the household income will be dropping after the birth of the baby.

Keep the lines of communication open. Try to take time out on a weekly basis to spend a couple of hours together. Find a trustworthy baby sitter so you can leave your baby for a short period of time. You will find that a little time away from your baby will be beneficial to your marriage, and to your ability to be a good parent.
Sex and Pregnancy

There is no reason why you cannot continue to enjoy sexual relations during pregnancy. Couples often express fears of harming the baby during intercourse, and are afraid that they may cause a miscarriage. Remember, the baby is well protected by a sac of amniotic fluid, and remains cushioned inside.

Some mothers complain of some discomfort or tenderness during intercourse, and this may be resolved by experimenting with different positions. There are other forms of sexual expression which may be satisfying to you both. Open communication is vital during this time.

There are certain conditions when your doctor may recommend that you reduce, or abstain from sexual activity:

* History of miscarriage or premature delivery
* Infection, bleeding, or pain
* Ruptured amniotic sac, or leaking amniotic fluid

Remember, if you have any questions or concerns about sexual activity, please ask your health care provider.
Exercise

Exercise is important during pregnancy. It eases some of the discomforts, leads to better posture, and enhances your overall well-being. Although there is no medical proof that exercise will guarantee an easier labor and delivery, it may increase your stamina and assist in the recovery process. Many people have been quite active before pregnancy, and if there are no medical problems, they can continue with their normal activities. However, this is not the time to start a vigorous exercise program.
The American College of Obstetricians and Gynecologists' General Guidelines for Exercise During Pregnancy:

* Regular exercise (3 times per week) is better than spurts of heavy exercise followed by periods of inactivity.

* Decrease your level of exercise if the weather is particularly hot and humid, or if you are ill with a cold or flu.

* Stay away from high-impact and jarring motions.

* Deep knee bends, full sit-ups, double leg raises, and straight-leg toe touches should be avoided since they could cause connective tissue damage to leg and back joints.

* After 20 weeks of pregnancy, avoid exercises that require lying on your back on the floor for more than a few minutes. Lying flat on your back causes the heavy uterus to put pressure on the vena cava, a major blood vessel that carries blood back to the heart.
ACOG's Guide to Exercising in Pregnancy, continued...

* A slow 5 minute "warm up" period is important before you engage in more intense exercise. The intense exercise should be limited to 15 minutes, and should be followed by a 5-10 minute "cool down," that includes gentle stretching.

* Exercise during pregnancy makes your body work harder, and you may find that your heart rate is higher even with less strenuous exercise. Find out your target heart rate, and stay within the limits set by your doctor.

* Slowly get up from the floor to avoid dizziness.

* Drink water during exercise to avoid dehydration.

* Women who were not engaged in regular exercise before pregnancy should begin at a low intensity, and gradually move to a higher level.

* If any of the following symptoms should occur, stop your activity and consult your physician:

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<td>Very rapid heartbeat</td>
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<td>Dizziness</td>
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<td>Pubic pain</td>
</tr>
<tr>
<td>Irregular heartbeat</td>
<td>Difficulty walking</td>
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Kegel Exercises

Kegel exercises are useful in strengthening the muscles around your vagina, anus, and urethra (the tube that carries urine to the outside of your body). Improving the strength in these muscles can be useful if you are having problems with leaking urine during your pregnancy. After the birth of your baby, Kegel exercises can help tone the muscles that have been stretched from the delivery.

To perform a Kegel exercise, tighten the muscles used to stop a flow of urine. It is best if you can "Kegel" in an "elevator fashion." In other words, gradually increase muscles tightness in a 5-step method, as if you were riding up an elevator. Come down the elevator the same way, stopping at all 5 floors. The good thing about Kegel exercises is that they can be done anywhere, and at anytime. Practice them about six times a day.

Logan Regional Hospital has an exercise program designed for pregnant women, as well as one that is effective for getting back into shape after the baby arrives. There are also pregnancy and post-partum videos available for check-out through our library. For more information, call the Center for Health Information and Wellness at 750-5310.

Remember, moderation is the key. Walking and swimming
are great exercises during pregnancy. If you were jogging or playing tennis before pregnancy, you may continue to do so in moderation. Make sure that you are aware of changes in your balance, and remember to drink water to replace fluids lost during exercise.

Exercises that pose some risk during pregnancy include snow skiing and water skiing. Consult with your physician before participating in these activities.

Relax!

One of the most important and beneficial "exercises" you will learn in your childbirth class is the technique of relaxation. With practice, you can learn to relax your muscles, and conserve energy for labor and delivery. Not only is relaxation invaluable during labor, you can incorporate these same techniques into your everyday living.

How to Relax

To start, you will need to find a place where you will not be disturbed. Some find that a darkened room is helpful. You may want to have soft music in the background. Get comfortable by propping yourself up on several pillows. Close your eyes, and imagine a peaceful setting - perhaps a place you have experienced in your past. Envision the sounds and the smells that accompany your peaceful scene.
Breathe slowly and rhythmically for several minutes until you begin to feel relaxed.

Begin to progressively tense and relax the muscles in your body, starting with your head, then working toward your toes. Scrunch up your face tightly, and keep it this way for a few seconds before completely letting the muscles totally relax. Next, tightly draw your shoulders up to your ears, holding this position for a few seconds before completely letting go. Continue down your body, following these guidelines:

**Progressive Relaxation**

- Scrunch face
- Shrug shoulders
- Tighten fists and arms
- Squeeze buttocks
- Flex toes toward head
  
  **DO NOT** point toes!

Remember to breathe slowly and evenly during this exercise. After completing your relaxation exercise, allow your entire body to feel heavy and limp. Imagine that you are sinking into the floor. Continue this relaxation exercise as long as necessary to achieve the desired benefits.

When you are finished, remember to roll to your side.
and push yourself up to a sitting position. Stand up slowly to avoid dizziness.

**Diet and Pregnancy**

**Importance of Good Nutrition**

The best way to ensure that you and your baby get off to a good start is to have a good diet before pregnancy. Healthy eating should be a way of life. If your diet has not been perfect, it is not too late to make changes. Although you cannot go back to make up for major deficiencies that may have occurred in the first part of your pregnancy, you must understand that the baby undergoes rapid growth during the last trimester. You can make a difference now.

We often hear that we must "eat for two." This does not mean that you need to consume two plates of everything! Choose your calories with care! Your diet should include smart choices, keeping in mind that pregnancy does require an increase in most nutrients.

**Calories**

Energy needs during pregnancy require an increase of about 300 calories per day over the usual 2100 to 2400 calories. This extra energy is needed to promote adequate growth. Breast-feeding requires an additional 200 calories,
or 500 calories above non-pregnant needs.

**Protein**

Protein is important because it provides the essential nutrients that are needed for growth and repair of body tissue. It is needed for the growth of the baby, and the development of the placenta. Protein is also needed for the increased blood volume during pregnancy, and for the formation of amniotic fluid.

You should eat about 60 grams of protein each day, and good sources of protein include milk, cheese, eggs, and meat.

**Vitamins and Minerals**

Vitamins and minerals are important for the building of tissue, and also serve as "enzyme partners." This means that they help in the regulation of these building processes. There is some concern that pregnant women do not consume enough of certain vitamins and minerals, particularly calcium, iron, magnesium, and vitamin B6. It is important that you eat a wide variety of foods to ensure that you get the nutrients needed during pregnancy.

**Fluids**

We often forget about the importance of water, when in fact, we couldn't live without it! Water is essential in
building new tissue, carrying nutrients throughout the body, and in eliminating waste products. You should drink 6-8 glasses of liquids daily, and good choices include water, milk, and fruit juices. Limit your consumption of coffee, tea, and sodas because they contain caffeine, and have no nutritional value.

Weight gain

Although many of us don't like the thought of gaining weight, weight gain is important during pregnancy. Generally, a healthy woman of normal weight can expect to gain about 30 pounds. Underweight women and those expecting twins need to gain more, while overweight women may need to gain less. It is important to understand that the quality of the weight gain is more important than the quantity.

Many things contribute to your weight gain. Increases in your blood volume, breast tissue, and body fluid as well as the weight of the uterus, placenta, and baby make up the overall weight gain.

[Graphic: Where the weight goes]

Pregnancy is not a time to diet. If you have gained more weight than suggested by your physician, it is still important to gain one pound per week toward the end of pregnancy for adequate growth of your baby. Your doctor
will assist you in determining the most appropriate weight gain for you.

**Prenatal Vitamins**

Your doctor probably prescribed a prenatal vitamin for you. You should take these as prescribed throughout your pregnancy, and continue to take them while breast-feeding. Never take more than the recommended amount because large doses of vitamins can be harmful.

**Smoking, Drinking, and Drug Use**

These substances are harmful for both you and your baby. Tobacco, alcohol, and drug use during pregnancy can cause damage to the fetus during the critical time when organs are forming. Even social drinking may be harmful to your baby. Often, women who use these substances suffer nutritionally because there is a decrease in their appetite for healthy foods. Ask your doctor for help if you are using any of these substances.

[Graphic: Daily nutritional guidelines, weight gain chart, and sample menu]
CHAPTER 2
A LABOR OF LOVE

Testing in Late Pregnancy

Your doctor may recommend various tests throughout your pregnancy. The purpose of testing in pregnancy is to determine the overall well-being of the fetus. Although these tests cannot guarantee a healthy baby, they can alert your doctor to potential problems.

Ultrasound

Ultrasound creates a picture of your baby by using high-frequency sound waves. These sound waves are bounced off internal organs and fetal tissue inside the body, and images are sent to a television screen. An ultrasound examination is painless. You may be instructed to have a full bladder before the exam. This provides the examiner with a landmark for locating pelvic organs.
Ultrasound is Useful for the Following Reasons:

* Assists in determining the age of the fetus, especially if due date is in question
* Checks the growth of the fetus
* Determines the placement of the placenta
* Checks fetal position
* Provides information about fetal movement, breathing, and heart rate
* Checks for single or multiple fetuses
* Can identify some birth defects

Amniocentesis

Amniocentesis is accomplished by inserting a very slender needle into the amniotic sac, and withdrawing a small amount of amniotic fluid. Your doctor uses ultrasound to ensure that the needle is inserted into the proper place. Fetal cells from the fluid are then analyzed. For certain medical conditions, your doctor may feel that it is best for your baby to be delivered as soon as possible. Amniotic fluid obtained by amniocentesis can be analyzed to see if the baby's lungs are mature enough for an earlier delivery.

Non-Stress Test (NST)

Normally, the fetal heart rate increases temporarily with fetal movement. For this particular test, an external
monitor is used, and the baby's heart rate in relation to the baby's own movements is charted. This test is usually done in late pregnancy, and its purpose is to check the overall well-being of the baby.

**Stress-Test or Oxytocin Challenge Test (OCT)**

This test is often used as a follow-up to the NST, especially if there is no change in the fetal heart rate when the fetus moves. Mild contractions are induced either by giving the mother the drug oxytocin, or by having her stimulate her nipples. (Note: Do not attempt to start labor with nipple stimulation! You will need to be monitored during this type of induction). An external fetal monitor measures the baby's heart rate in response to the contraction. A contraction causes a temporary decrease in the blood supply to the placenta, and a healthy placenta continues to give the baby adequate oxygen during contractions. A normal response without prolonged decreases of the baby's heart rate would indicate that the baby is receiving enough oxygen. The doctor would be concerned if the baby's decrease in heart rate was slow in returning to normal.
Labor and Delivery

When Does Labor Start?

Most pregnancies last between 37-42 weeks from the beginning of your last period, and labor that begins in this time frame is considered to be normal.

[Graphic: Time line for pregnancy: 0-42 weeks]

Your prenatal visits will be weekly toward the end of your pregnancy, and your doctor may wish to perform a pelvic exam during a routine visit to determine if your body is readying itself for delivery. This is a good time to make sure that you know the answers to some important questions before you go into labor.
Can You Answer These Questions?

* When does my doctor want to be notified?
* Who should I contact after office hours?
* Should I go directly to the hospital?
* Are there any specific directions that I need to follow?
* How far is it to the hospital? How long will it take to get there? Usually there is plenty of time with first pregnancies, so don't panic!
* Will someone be available to get you to the hospital at any hour?
* Because of our particular climate, are there any weather-related problems that might interfere with getting you to the hospital?
* If you have other children, have there been arrangements made for them?
Packing Your Suitcase

* Socks. They help to keep feet warm during labor.
* Chapstick. This is helpful during labor when lips get dry.
* Tennis ball. Great for counter-pressure on your back during labor.
* Watch with second hand for timing contractions.
* Journal. Helps you to record the big event!
* Hard candy/breath mints for dry mouth in labor. (Check with your doctor first).
* Camera. Don't forget the flash and extra batteries!
* Nightgown. If nursing, a nursing gown is helpful, or one that buttons down the front.
* Robe and slippers.
* Personal care items. This includes favorite shampoo, hair dryer, deodorant, make-up, etc.
* Bra. Bring a nursing bra, or a good support bra if your are not nursing.
* Pillow(s). You may feel more "at home" with your own pillow. Colorful pillow cases will avoid mix-up with the hospital pillow cases.
* Baby clothes. The hospital volunteers will take newborn pictures that can be purchased. Your baby will also need clothes for the trip home.
* Birth announcements, needlework, reading material - things to occupy your time.
How Labor Starts

No one is quite sure what triggers labor. In any event, most women know when the time has come. Sometimes women experience false labor which is characterized by irregular contractions and no real progress towards delivery. You may have noticed some tightening of your abdomen from time to time, especially with physical activity. These contractions are called Braxton-Hicks contractions, and they can become uncomfortable at times. Many anxious parents come to the hospital believing that labor has begun, only to be sent home. This is nothing to be embarrassed about! It may be that you are in the very early stage of labor. A chart is provided to help you determine the difference between true and false labor.

[Graphic: True vs. false labor]

Signs of Impending Labor

Prior to the start of labor, some women experience lightening, or the sensation that the baby has "dropped." This indicates that the baby's head is now settled into the pelvis, and this can occur anytime from a few weeks to a few hours before labor starts. If lightening does occur, you may feel as though you can breathe more easily. Some women do not experience "dropping" before the start of labor.

Another sign of impending labor is the discharge of the
mucous plug, a thick plug of mucous which has been at the cervical opening. As the cervix starts to open, the plug is discharged. Many women never see a mucous plug. Even though this is a sign of impending labor, your baby may not arrive for several more days.

Your membranes may rupture ("water breaks"), although many women labor with their membranes intact. Some women experience a gush of fluid, while others have only a slow leak or trickle. If your membranes rupture, you will need to be admitted even if your labor has not begun. The amniotic sac and fluid have provided your baby with protection against infection. Once this is broken, the chances for infection are increased. Your doctor will want to start your labor if you do not go into labor on your own. Women that have a very slow leak of amniotic fluid may be unsure if they are indeed leaking fluid. It is sometimes confused with the leakage of urine, a common occurrence with the uterus pressing on the bladder. Amniotic fluid is relatively clear and odorless. If you are unsure, notify your doctor or the nurses on labor and delivery. They can check the fluid with a special strip of paper that will determine if you are leaking amniotic fluid. Your doctor would much rather see you and send you home after a false alarm, than wish you had sought treatment.
[Graphic: How labor begins - signs, what it means, when it happens]

**Danger Signs That Should Be Reported to your Doctor**

* Vaginal bleeding  * Severe headache, especially in forehead
* Abdominal pain  * Visual disturbances
  (other than contractions)  (sometimes described as flashes of light or streaking)
* Chills, fever  * Swelling fingers/face
* Persistent vomiting  * Painful urination

**True Labor**

When true labor begins, the cervix begins to dilate, or enlarge. The cervix is the thick muscular mouth of the uterus that must thin and dilate for the passage of the baby. The uterus begins to contract at regular intervals, and you will need to time your contractions. This is done by noting how long it is from the start of one contraction to the start of the next. Also determine how long each contraction lasts (typically 30-70 seconds). Contractions at the onset of labor may be spread apart, occurring every 15-30 minutes. As labor progresses, they become closer together.
Other changes take place, and you may want to become familiar with some of the terminology that your doctor and the labor and delivery nurses will use.

**Effacement** refers to the thinning of the cervix. It is measured in percentages, and can range from 0% to 100%. Your doctor may determine that the effacement and dilatation process has already begun during one of your routine prenatal check-ups. Your cervix is fully effaced at 100%.

**Dilatation** refers to the gradual opening of the cervix. It is measured in centimeters ranging from 0cm to 10cm. To deliver your baby, your cervix will be dilated to 10cm.

**Station** describes the relationship of the baby's head to the ischial spines, some bony structures in your pelvis. Station is usually measured from -3 (highest) to +3 (lowest). Zero station, the midpoint, occurs when the baby's head becomes engaged firmly in place for the delivery.

[Graphic: Cervical dilatation (1-10cm), effacement chart]

[Graphic: Effacement, dilatation, station]

**Admission Procedure**

As a general rule, first time mothers should go to the hospital when their contractions are regular, and are about 5 minutes apart. When you are having difficulty talking
through a contraction, and if your membranes have ruptured, report to labor and delivery. Mothers who have had babies before should report to labor and delivery when the contractions are regular, and/or if your water breaks. Here, the nurses can examine you and notify your doctor. If it is determined that you should be admitted, your partner can complete the admission paperwork. Make sure that you have turned in your pre-admission form to the hospital ahead of time. This makes the admission process much easier.

Delivery Options

Logan Regional Hospital has a total of 6 labor rooms, with 5 of the rooms being designated as "birthing rooms." This means that you have the option of laboring and delivering in the same room. The beds are designed so that they can be adjusted for the delivery. If you prefer to deliver in one of the birthing rooms, you need to make your wishes known to your doctor before you go into labor. Please notify the nurses upon admission if you wish to deliver in the birthing room. Extra time is needed to properly prepare the room.

In addition to the birthing rooms, there are 2 traditional delivery rooms. These rooms are always set up for a delivery. Any labor complication would warrant delivery in the traditional delivery room where there is better equipment, better lighting, and more room. You will
be able to see both types of rooms when you take the hospital tour.

**What to Expect**

Once admitted to the labor and delivery area, you will be asked to remove your clothing, and will be given a hospital gown. Reserve your own gowns brought from home for later, after the baby is born. The hospital gown will get soiled, and it's best to let the hospital worry about the laundry!

The nurse will perform a pelvic exam to determine how your labor is progressing. Depending on your wishes, and on those of your doctor, an intravenous infusion (IV) may be started. This is accomplished by inserting a needle into a vein in your arm. When the IV is in place, the needle is withdrawn, leaving a flexible tube or catheter in the vein. This catheter is attached to a bag of intravenous fluid which is used to supply your body with fluids and medication, if needed, throughout labor and delivery.

It is no longer routine to shave around the vaginal opening, or to give enemas. This would be done only if specifically requested by your doctor.

In addition to the IV, the nurse will also attach an external electronic fetal monitor to check on the condition of your baby. This is carried out by placing two belts around your abdomen, and hooking the sensors up to the
monitor. One belt measures the baby's heart rate, and the other measures your contractions. External fetal monitoring can alert your nurses and your doctor to any changes in the baby's heart rate which might indicate problems. If there are no problems with you or your baby, you are welcome to labor in any position that is comfortable to you. You may even unplug the monitor to walk to the bathroom when needed.

**Internal monitoring** is sometimes indicated if the doctor or nurse feels that more accurate information about the baby's condition is needed. A small electrode is inserted through the birth canal and is attached to the baby's scalp. This allows the doctor to have an accurate record of the baby's heart rate.

[Graphic: Electronic fetal monitoring picture and actual strip]

Internal monitoring can also be used to determine the strength of the mother's contractions. A small catheter is placed in the uterus to carry out these measurements. Your membranes must be ruptured in order for internal monitoring to take place. You may be asked to stay in bed if you are being monitored in this manner. Both external and internal monitoring work by relaying information to the monitor. This information is traced onto graph paper. This allows the nurse and doctor to look at your baby's heart rate in
response to the contractions, and then determine how your baby is responding to labor.

In addition to fetal monitoring, the nurses will be keeping a close watch on you. Your vital signs (heart rate and blood pressure) will be checked periodically, and the nurse will be carrying out pelvic examinations as needed. Her job is to assist you through your labor and delivery. Please feel free to ask questions or request assistance if needed.

Stages of Labor

For first pregnancies, labor and delivery typically lasts 12-14 hours. Subsequent deliveries are usually shorter. Labor is divided into three stages, and each stage has its own special characteristics. Remember, just as you are different from anyone else, your labor will also be unique.

[Graphic: Stages of labor]

[Graphic: Breathing during labor]

The Role of the Coach

Much needed emotional and physical support during labor and delivery can come from a support person - your "coach". Although the coach is usually the father of the baby, you can just as easily choose a close friend or family member.
It is helpful to have the coach attend childbirth classes in order to learn what to expect throughout the labor and delivery process. The coach can be invaluable in offering support and encouragement along the way. When delivery is imminent, your coach will need to change into scrubs, removing all clothing except underwear. During delivery, your partner will be offered a seat at your head in order to offer you support, and to witness the delivery of your baby. After delivery, s/he can take the baby to the nursery, and can also take pictures of the baby.

**Pain Relief**

Every woman experiences pain differently. Childbirth preparation classes are helpful in that they assist you in learning how to cope with the pain. You will learn to respond to a contraction by using various breathing and relaxation techniques. Breathing and relaxation won't take the pain away, but they can help you to better respond to your contractions. Some women are able to get through childbirth without medication by using these techniques learned in class. Other options are available for pain relief, including the use of medications. A more complete discussion of medications can be found in Chapter 4. You will want to investigate the various options for pain relief before your labor starts. Your health care provider can help you with your decision. Most importantly, keep your options open. You can never really know how you will react.
to labor and delivery. If necessary, decisions about pain relief can be altered during labor to best suit your needs. These decisions are made in consultation with your doctor and nurses.

When Labor Needs a Little Help

There are times when labor may need to be started, or "induced." This can be accomplished by rupturing the membranes with a special device similar to a crochet needle, or by the use of a medication called oxytocin.

Some conditions when labor may need to be started:

* Membranes are ruptured but not followed by labor
* Post-term pregnancy
* High blood pressure
* Medical problems

The Delivery

When your cervix is fully dilated (10cm), the baby will begin to move down the birth canal. Many women feel a strong urge to push at this point. It is helpful to begin your "pushing" style of breathing learned in prenatal class. By pushing with the contractions, you can assist in bringing your baby into the world. There may be a point when your doctor will ask you to stop pushing, and you will need to return to the panting, or "hee-hee-hoo" style of breathing.
Episiotomy

When the baby's head crowns, or is bulging at the vaginal opening, your doctor may make the decision to perform an episiotomy. Episiotomy refers to a small incision or cut into the vagina and surrounding tissue. This is done if the doctor feels that the tissue is stretched to such a degree that there is concern that the muscle tissue will tear. It is felt by most doctors that tissue that has been neatly cut and stitched heals much better than tissue that has torn in a jagged fashion. In the United States it is very common for first-time mothers to have an episiotomy. If you have questions about this procedure, discuss your concerns with your doctor.

[Graphic: Episiotomy]

Forceps and Vacuum Extraction

There are some situations that can arise during delivery that warrant the use of forceps or vacuum extraction. Occasionally the mother is exhausted and unable to help push the baby out. Or, if the baby is starting to show some problems such as a decrease in heart rate, the doctor will want to hasten the delivery.

Forceps are inserted on either side of the baby's head, and gentle traction is used to help the baby out.

Vacuum extraction is carried out by placing a suction
cup on the baby's head, and a vacuum pump gently helps pull the baby from the birth canal.

[CGraphic: Forceps and Vacuum Extraction]

Cesarean Section

Occasionally, it becomes apparent that it is not safe to deliver the baby vaginally. There are many reasons that indicate that cesarean section (c-section) may be the safest way to deliver your baby. You should not feel as though you are a failure if your baby is delivered in this manner. Remember, your goal is to have a healthy baby.

[Graphic: Indications for Cesarean]

If your doctor feels that your baby needs to be delivered by cesarean section, the nurse will prepare you by shaving the lower part of your abdomen. A urinary catheter will be placed in your bladder. If you don't already have an IV in place, the nurse will start one for the operation. Generally, epidural anesthesia is used for cesarean delivery. Your anesthesiologist (the doctor that specializes in pain relief) will give you an extra amount of medication through your epidural catheter. You will not feel pain during the operation, although you may feel occasional tugging and pulling. Your coach will be allowed
into the operating room unless the cesarean is considered to be an extreme emergency. To perform a cesarean delivery, the doctor makes an incision in the abdominal wall, then progresses through the layers of fat and muscle, then into the uterus. The baby is delivered once the uterus is opened. In most cases, a horizontal or transverse incision is preferred, and is made into the lower part of the uterus. However, there are certain conditions and emergencies that indicate the need for a vertical incision.

[Graphic: Cesarean birth incisions]

The operating room at Logan Regional Hospital is located directly behind the Labor and Delivery area. An operating room is not much different in appearance from a traditional delivery room. You need to be aware that there will be a number of people in the operating room, all performing different, but related tasks. A cesarean delivery is performed by an obstetrician, and there will be another doctor to assist with the surgery. In addition, your anesthesiologist will be present, along with a doctor to care for your baby. Operating room and newborn nursery personnel will also be in the room. Be aware that the medical personnel will probably be carrying on routine conversation during the surgery. Things won't seem as solemn and serious as portrayed on TV! This does not mean
that the doctors aren't acutely aware of what they are doing. They are ready to respond to any situation that may arise.

If the baby is born strong and healthy, you will be able to hold your baby in the operating room for a short while. Your partner can then carry the baby to the nursery. Should there be some concern about the baby's well-being, s/he will be taken directly to the nursery for observation.

A cesarean delivery is rather quick, but sewing the layers back together may take awhile. Before your doctor has completed the operation, the anesthesiologist may give you a dose of morphine through your epidural catheter (Duramorph). This medication will provide you with pain relief for the first 24 hours after the surgery. If you are allergic to morphine, or to any other medications, please notify your doctor.

When the surgery is completed, a sterile dressing will be placed over the incision. You will be transferred to the recovery room for approximately 1 hour where nurses will keep a close watch over you. You will then be moved to the Women's Center. If you feel up to it, and if your baby is doing well, you may have your baby in the room when you get settled in bed. This is a good time to breast-feed your baby, if you plan to nurse.

Cesarean section is major surgery, and recovery time will be longer. The normal stay following a cesarean
section is three to four days. However, it may take four to six weeks before you will feel like you have recovered.

If you have a cesarean with this delivery, this does not necessarily mean that future deliveries will be by c-section. The reason for the cesarean delivery is important. If you have any special concerns about this type of delivery, please discuss them with your doctor.

Premature Labor

For reasons that are often unknown, labor sometimes begins before the baby has had time to fully mature. Labor that begins before the 37th week of pregnancy is said to be premature labor. Some of the risk factors that can be associated with premature labor include smoking, alcohol consumption, drug abuse, inadequate nutrition, and infection. However, it can occur in the absence of these risk factors.

It is important to be aware of the signs and symptoms of premature labor. If diagnosed early, delivery can often be postponed with the use of medication. Postponement of the delivery increases the likelihood that your baby will be born healthy. Don't hesitate to call your doctor if you have any of the warning signs.
Warning Signs of Premature Labor

* Menstrual-like cramping. Nausea and diarrhea may or may not be present
* Regular contractions or tightening of the uterus
* Dull, lower back pain
* Aching or pressure in the pelvic area, thighs, or groin
* A change in the vaginal discharge, especially if it is watery, pinkish, or brown blood
* Ruptured membranes
CHAPTER 3
YOUR QUESTIONS

Financial Cost of Having a Baby

This section was prepared to answer some of the most commonly asked questions that arise during the hospital tour. We highly encourage you to ask questions at anytime during your prenatal classes, or during your stay at the hospital. Remember, we are here to assist you during this important time in your life.

How much does it cost to have a baby?

Not only will your new bundle of joy bring you pleasure and much happiness, your baby will also bring hospital and doctor bills! It is best to be prepared for the financial responsibilities that come with parenthood.

Many people have some type of insurance that covers part of the hospital costs. However, most insurance companies do not cover 100% of the charges. It is typical for an insurance company to require you to pay a deductible (an established amount up-front), and to pay a certain percentage of the bill.

You will receive separate hospital bills for you and your baby. The hospital will be happy to file claims to your insurance company for you. You will be responsible for the portion that your insurance company doesn't pay. You
may use your Master Card or Visa card to pay your bill. If you are unable to pay your portion in one lump sum, please check with your business office representative to set up a payment plan. Please be aware that your doctor, your baby's doctor, and the anesthesiologist (if you have one) will be sending you his or her own bills. These will be separate from the hospital bills.

There are some things that are not covered by insurance. For example, many insurance companies do not cover the cost of circumcision. In this example, the hospital has a supply charge for the circumcision equipment, and there is a separate doctor's fee for the surgery itself. It will be helpful to check with your particular insurance company to see what items are covered.

Please stop by the Business Office (by the 2nd floor elevators) to meet with your billing representative. Feel free to call him or her if you have any questions regarding your bill.

**Commonly Asked Questions from the Hospital Tour**

**May I have visitors while I am in labor?**

It is best to have just one or two visitors while you are in labor. Labor is really not a "spectator sport," and you may find that you cannot concentrate if visitors are in and out of your room. There is a nice waiting area located
on the second floor, between labor and delivery and postpartum. There, your visitors can watch TV and wait in a comfortable atmosphere.

Can I nurse the baby in the delivery room?

Yes you may. Some women feel a little awkward trying to position the baby on the breast if the doctor is delivering the placenta or repairing an episiotomy. If so, you can ask for your baby when you get settled in your postpartum room. It is best to breast-feed your baby as soon as possible after the delivery. Babies are often very alert during the first few hours after birth.

Can I have my baby stay in the room with me?

As long as there are no medical conditions (with you or your baby) that would make it unsafe, you can "room-in" with your baby. The nursery nurses will request that you bring your baby back to the nursery for assessments, and for a daily baby bath.

What if I can't "bond" with my baby after delivery?

In the early 1970s, the notion of "bonding" became popular. It was felt that if babies couldn't be with their mothers immediately after birth, there might be some later problems. We know now that this isn't true. Babies do enjoy being held, and mothers need to hold their babies.
But sometimes there are medical conditions affecting you or the baby that keep you apart after the delivery. This will not have a long-term effect on your relationship. You and your baby will grow to love each other just like any mother and baby. If your baby has to be in the intensive care unit, you can visit as much as you wish, and you can show your love by stroking and talking softly to your baby.

Can I nurse my baby during the night?

Yes! Notify the nurses that you want to nurse your baby during the night, and they will bring your baby to you for feedings. Or, if you prefer, the nurses can feed your baby so you can rest.

Can my other children visit me and the baby in my room?

As long as your children don't have any contagious diseases, they may visit you in your room.

What are the visiting hours on the Women's Center?

Visiting hours are from 11:00am to 8:00pm. Although you can have visitors at any time during these hours, you may find that having visitors can be very tiring. Your stay in the hospital is very short, and it is a time for you to rest, and to get to know your baby. Encourage visitors to wait and visit you at home.
What if I don't want any visitors?

Your are often tired from labor and delivery, and may not feel up to having company. Let your nurse be the "bad guy." She can even put a "NO VISITORS" sign up for you, if you wish.

How long will I stay in the hospital?

This all depends on your medical condition. Following an uncomplicated delivery, most stays are 2 days. There are some insurance companies that are offering incentives (such as paying your deductible) for an early discharge, 24 hours after delivery. Normal stay in the hospital following a cesarean section is 3-4 days.
Pain Relief in Labor and Delivery

Breathing and relaxation techniques learned in childbirth classes can be helpful for labor and delivery. Some women are able to make it through labor and delivery using only these techniques. Others will find that breathing and relaxation combined with the use of medication is needed to relieve the discomfort. Each woman is different, and each experiences labor and delivery differently. You will want to remain flexible about this issue, and seek the advice from your doctor and nurse in order to make the decision that is best for you.

Medications for labor and delivery fall into 2 categories: analgesia and anesthesia. Analgesia refers to medication that reduces pain without a total loss of sensation. Anesthesia results in a loss of sensation.

Systemic Analgesia

This type of medication is usually given either IM (intramuscular), or IV (intravenous). If it is given IV, you will receive it through the IV that is already running, so you avoid an additional needle stick. An example of this type of medication is Demerol, a synthetic narcotic. Although the pain doesn't go away, narcotics help to take
the edge off the pain so you can relax more between
contractions. These medications do cross over the placenta,
and can affect the baby. The nurses would avoid giving this
medication close to the delivery because of the increased
risk of having a very sluggish baby. Although there are
medications to reverse the effects on the baby, it is best
to avoid narcotics when you are close to delivery.

**Pudendal Block**

This method of pain relief is given just before birth. Medication is injected into the pudendal nerve on either side of the vagina, and is useful in relieving the pain as the baby descends through the birth canal.

**Paracervical Block**

Although not commonly used today, this type of pain relief works by injecting medication into the tissues around the cervix. It wears off quickly, and can potentially slow the baby's heart rate.

**Epidural Block**

This type of anesthesia is the most commonly used method of pain relief at Logan Regional Hospital. It is administered by an anesthesiologist (doctor specializing in pain relief). You must be in active labor (dilated between 4-6cm) before an epidural is administered. This is because
there is a potential problem that labor will slow following administration. Other side effects include hypotension, or low blood pressure. For this reason, you will receive an extra boost of IV fluids prior to administration. You must have an IV in place if you choose this type of anesthesia.

Epidurals are administered by injecting medication into the lower back, into the epidural space, which is outside the spinal column. Your anesthesiologist will have you curl up on your side in the bed, or have you sit up and bend over. After the area is cleansed with antiseptic soap, you will receive some numbing medicine before the epidural needle is inserted. This numbing medicine will sting like a bee for a few seconds. Once the needle reaches the epidural space, a tiny, flexible tube or catheter is left in place, and the needle is withdrawn. This way you can receive repeat doses should you need them. Epidurals take about 10 minutes to take effect, and cause a loss of sensation in the lower body from your navel down. You will still be aware of your contractions, but the pain will be gone.

Complications from epidural anesthesia are very rare, and because of the nature of the administration, there is no direct effect on the fetus.

The anesthesiologist must remain in the hospital once your epidural is in place. Immediately after the delivery, the catheter will be removed before you are sent to your post-partum room. (Note: You will be billed separately by
the anesthesiologist for the administration of the epidural, and then on an hourly basis for as long as the catheter is in place).

**Local Anesthesia**

The purpose of local anesthetics is to numb a particular area of your body, such as the episiotomy site. Local anesthetics do not relieve the pain of the contractions.

**General Anesthesia**

In the event of an emergency delivery, general anesthesia may be used. Should it become evident that the baby needs to be delivered immediately, and there is no time to wait for an epidural to take effect, general anesthesia may be utilized. General anesthesia is administered by an anesthesiologist, and there is a total loss of sensation. Since this type of anesthesia can have some negative effects on the baby, it is rarely used.

**What Happens to the Baby After Delivery?**

As soon as the baby's head is out, the doctor will quickly suction the baby's nose and mouth with a bulb syringe. This is done before the baby takes that first breath of air. When the baby is completely out, the cord will be clamped and cut. If Dad or the coach wants to cut
the cord, please notify the doctor beforehand. Your baby will be quickly dried off, examined, and then you can hold your new little baby. This is a good time to take pictures. Cameras and videos can be brought into the delivery room (or operating room should you have a cesarean delivery), but the personnel have requested that you take only pictures of your family. Some of the personnel prefer not to be photographed.

If there are any medical problems with your baby, the nurses will need to take her to the nursery. Otherwise, you can hold your baby while the doctor is delivering the placenta.

**Apgar Scores**

In assessing the overall health of your new baby, the nurse or doctor will use a method called an Apgar score. Developed by Dr. Virginia Apgar, this assessment scores five important characteristics that are assigned a number between zero and two. The scores for the 5 areas are added together for a total score. Two scores are obtained. The first is obtained at one minute after delivery; the second at 5 minutes. A perfect score at 1 minute and at 5 minutes would be written like this: 10/10. However, most babies don't receive perfect scores, especially at one minute. It takes some adjustment for the baby to switch from intrauterine life to being totally on her own.
Post-Partum

Once the baby is out, the placenta will also need to be delivered. This usually takes between five and thirty minutes. If you had any tears or an episiotomy, the doctor will repair them after the placenta is delivered. You will then be rolled onto a stretcher, and if you had an epidural, the catheter will be removed. The nurse and your coach can push you over to the Women's Center where you will be situated in your room. This is where the recovery process will take place. The nurse will be checking your vital signs, and your vaginal bleeding (lochia). Your uterus will be massaged in order to reduce the risk of heavy bleeding. Your flow will be heavier than a period at first, and you may pass some occasional clots, especially when you stand up. The bleeding will gradually decrease, and it will change to a pinkish, more watery flow. You may continue to have some bleeding from four to six weeks after the delivery.

Some women begin ovulating, and can have their first period about six weeks after delivery. This is more likely to occur in those women not breast-feeding. It is wise to be thinking about birth control before resuming sexual relations.

Your nurse will encourage you to get up and shower as
soon as you are feeling up to it. You will be instructed about cleansing your bottom with a wash bottle, and will be given a supply of sanitary napkins. If your bottom or episiotomy is especially sore, you may want to ask for some medication. Your doctor will have some prescribed for you.

Many mothers feel ravenous after delivery, and your nurse will be happy to get you some food, no matter what time it is! There are also juices and soft drinks available, and you are encouraged to help yourself.

There are two classes that are offered routinely on the Women's Center. Infant Care and Breast-feeding classes are held in the Women's Center conference room. In addition, there are videos on various topics related to child care which can be viewed in your room. Ask your nurse for details.

You will be asked to complete your baby's birth certificate while you are in the hospital. In addition, you can choose to apply for your baby's social security number at the same time. This is a great service that will save you much time down the road. It will take approximately three months for your baby's social security card to arrive.

Post-partum blues

Many new mothers experience a mild depression after having a baby. This is called "baby blues." One mother
recalled her own experience with baby blues. She had been home from the hospital for only one week when her husband left on a business trip. She ended up in the hospital parking lot, crying for the nurses to take her and her baby back. Years later she can laugh at her experience, but at the time, she was dead serious.

It's no wonder these types of experiences occur. Think of what you have been through! Not only is your body suffering from hormonal changes and lack of sleep, you now have new responsibilities as a parent. In fact, everyone in the family must learn their new roles. This takes time. It is helpful to have a spouse or family member pitch in until you are feeling better. Housework, including laundry and cooking should be done by someone else until you get your feet back on the ground. Responsibilities need to be shared.

There are some other things you can do to speed up the recovery process. You will need to learn to nap when the baby naps, instead of trying to catch up on housework. Exercise (walking is great!), and diet are still important in the post-partum period. You must take care of yourself. It won't be long before things will seem more normal.

Occasionally, this depression doesn't go away, and lasts longer than it should. If you seem to have a problem adjusting to your new roles, please talk to your doctor.
Newborn Appearance

What? She doesn't look like the Gerber baby? Many new parents are surprised at the appearance of their newborn. At birth, babies are covered with a white, cheesy coating that is called vernix. This greasy substance has protected the baby's skin while inside the uterus. You may also notice traces of blood on the skin from the delivery. Some babies have peeling skin, and most have little white bumps (milia) over their nose and cheeks. Their skin color may be uneven, and the feet and hands may be blue. Also, your newborn's eyelids will probably be puffy, and he or she may appear to be cross-eyed. The head might be elongated (molded) from squeezing through the birth canal. These conditions are all normal, and are nothing to be worried about.

There are other things you might notice about your newborn. Both boys and girls have swollen breast tissue. The scrotum on little boys is usually quite swollen, and little girls may have a whitish discharge from their vagina. These conditions are due to the hormones that crossed the placenta, and will soon go away. Don't worry! Your baby will be much more attractive in a day or two.
Your Amazing Newborn

You need to be aware that your baby comes into the world equipped with amazing capabilities. Babies can see, hear, taste, smell, and feel pain. They are born with a rooting reflex, which means they can turn their heads and open their mouth for nourishment. Of course, we all know that they have a sucking reflex! In addition, babies can also grasp, turn their heads to sounds, and exhibit a startle reflex. Your doctor will check all of these reflexes to make sure that your baby is neurologically intact.

Getting to Know Your Baby

The first time you hold your baby will be a special moment. Talk softly to her, and hold her close. You will find that she molds right into your body. Most new parents want to examine their baby, just to make sure that everything is there. Feel free to do so! This is your baby, and you have gone through a lot to get her here.

Newborn Circumcision

Should you have a baby boy, you will need to decide whether or not you want him to be circumcised. Circumcision refers to the removal of the foreskin that covers the tip of the penis. In most cases, circumcisions are done before the baby leaves the hospital.
There has been much controversy over the years about the need for circumcision. Although routine newborn circumcision is common in the United States, it is not in the rest of the world, except in Jewish and Moslem cultures. In these cultures, circumcision is performed for religious reasons.

Over the years there have been different reasons cited in favor of circumcision. These include infection, cancer of the penis, cleanliness, and urinary tract infections. However, many medical experts report that there is lack of evidence to support these claims. In Sweden, where circumcision is not usually performed, these problems rarely exist. It seems that arguments for and against circumcision are based on circumstances that rarely occur.

Circumcision is uncomfortable, and there is some risk, although slight. A local anesthetic is usually administered before the procedure. There are two main methods - the plastic bell (Plastibell) method, and the clamp method (Gomco). If your baby has the Plastibell method, he will go home with a plastic ring on his penis, held in place by a string. As the skin heals, the plastic ring will fall off (5-10 days). No special care is required other than cleansing with water.

The clamp method will require no plastic ring, but you may be instructed to place some gauze with vaseline over the head of the penis for a couple of days. This is to prevent
the raw area from sticking to the diaper. You will be
instructed about proper care before leaving the hospital.
It is common for the circumcision site to have yellow crusts
for a few days. This is normal. Abnormal signs include
increased swelling, redness, and inability to urinate.

Circumcision is not always an easy decision. Most
people make their decisions based on personal choices. Some
people want their baby to look like Dad, or like their
peers. Read as much as you can on the subject, and ask your
doctor for advice.

Nursery Lab Procedures

State law requires all babies to be checked for three
diseases. PKU, Hypothyroidism, and Galactosemia are all
hereditary conditions that can cause either brain damage, or
growth and development problems. All are treatable diseases
if diagnosed early. The nursery nurses will obtain a blood
sample by pricking your baby's heel. A repeat sample will
be obtained by your baby's doctor during the 2-week check-
up. Your doctor will notify you if your baby's results are
positive.

Getting Your Baby Home Safely

Motor vehicle accidents are the leading cause of deaths
in the one to four year range. All 50 states now have a
mandatory car seat law that requires all infants to be
properly restrained in an approved car safety seat. These seats are different from standard infant carriers. You will want to purchase a car safety seat before the baby is born, and install it in your car according to the manufacturer's instructions. All car seats made after January 1981 meet required safety regulations, and those made since February 1985 also meet airline safety standards.

Newborn infants ride in a rear-facing, semi-reclined position, and the safest place is in the middle of the back seat. Your baby must ride home from the hospital in a safety seat. If you are unable to afford one, there are local agencies such as the Bear River Health Department that rent car seats.

Please, never ride in the car holding your infant. Even if you are strapped in, crash tests have proven that you cannot hold onto your baby. You may never get over the loss and the guilt if your child is injured or killed from not being properly restrained. And remember, buckle yourself in. Your baby will appreciate it.

Emergency! Choking and CPR

As a new parent, you are concerned about the safety of your baby. You need to learn how to give assistance and potentially save the life of your baby, should an emergency arise. We show the CPR and choking video in class to encourage expectant parents to sign up for our Red Cross
certification course. We are unable to spend the needed
time certifying you on CPR and choking techniques, so you
will need to sign up for this six hour, informative class.
Classes are ongoing, and you can get more information by
calling the Center for Health Information and Wellness, 750-
5310. Guidelines for CPR and Choking can be found at the
back of this workbook.

**Childhood Immunizations**

Infants are born with a natural resistance to diseases,
but this doesn't last forever. They must be immunized for
diseases such as measles, mumps, diphtheria, pertussis, and
tetanus. More recently, HiB vaccinations have become
available for a type of bacterial infection which can be
life-threatening. A vaccine for chicken pox is forthcoming.

Most babies start their series of vaccinations at 2
months. An immunization record will be required for your
child to enter school. You can get your baby immunized at
the Bear River Health Department for a minimal fee.
However, you will not be denied immunizations if you are
unable to pay. Please talk to your physician if you have
any questions or concerns.
Breast-feeding

Breast-feeding has many advantages. It is the natural way to feed your baby, providing her with exactly what she needs for proper growth. In addition, breast milk furnishes your little one with some immunities to help protect her from infection. It is cost-effective too!

Most women can breast feed. You may have heard friends or relatives describe negative experiences with breast-feeding, but many of these "problems" are a result of wrong information. There is a lot to learn about breast-feeding, and you can begin by reading as much as possible. There are books and videos on the subject available through the hospital library. Take time to be prepared.

The First Feeding

The first time your nurse your baby, cradle her in your arms. Talk softly to her. A pillow or two may help position the baby properly. You shouldn't have to strain your muscles trying to hold her in position. If the baby is bundled in a blanket, you will want to remove it to avoid it bunching up between you. Turn the baby toward you so that you are tummy-to-tummy. You can lay the blanket over the two of you. Body contact will help keep her warm. Take
your breast and touch it to the middle of her bottom lip. When she opens her mouth wide, quickly draw her in so that she latches on far back onto the areola (the pinkish-brown area around the nipple). A proper latch is important to stimulate milk production, and to prevent soreness. If your baby is latched on properly, you will see jaw movement in front of the ears. If your baby is smacking and her dimples show, she is not latched on properly. Insert a clean finger into her mouth to break the suction, and start over. Once she is latched on properly, you can let her nurse for up to 15 minutes on each side.

The Sleepy Baby

Many babies are very alert in the first hours after delivery, so this is the best time to establish nursing. After that, it is not uncommon for them to be very sleepy for a day or two. To gently awaken a sleepy baby for nursing, make sure that you remove the blanket from around him. You will want to lay the blanket over the two of you. You can also change his diaper, and talk softly to him as you do so. If you are still having problems, talk with your nurse. Avoid giving bottles of formula because your baby seems too sleepy to nurse. He may become more interested in the bottle.
Supplemental Feedings

In the first few days, supplemental feedings of formula or dextrose water should generally be discouraged until nursing is well-established. However, there are exceptions to this rule. Smaller and larger babies may need extra calories. Doctors vary in their opinions about supplemental feedings, so you will want to discuss this issue with your baby's doctor. Once the baby is nursing well, you may want to offer your baby a bottle of formula or pumped breast milk each day. This will allow you some freedom, and will give another member of the family some time to spend with the baby.

Is Baby Getting Enough?

In general, your baby is getting enough if he seems content after a feeding, if he is having 6-8 wet diapers a day, and if he is gaining weight. It is normal for term babies to lose weight initially after birth. At the two-week check-up at your doctor's office, your breast-fed baby's weight will probably be similar to his birth weight.

Breast-feeding Myths

There are many myths surrounding breast-feeding. Some of the most common include: (adapted from American Baby, March 1991)

* Women with inverted nipples shouldn't breast-feed. If
you think that your nipples are flat or inverted, there are some things that you can do. You may be able to get them to protrude by stimulating them, and you can wear the plastic, dome-shaped nipple shields inside your bra. The Women's Center can refer you to a local lactation consultant if you have any questions.

*A small-breasted woman will not produce enough milk.* The size of your breasts has nothing to do with milk-production. The more your baby nurses, the more milk you will produce. Milk production is based on supply and demand. If you choose to follow breast-feeding with formula, you may not produce as much milk.

*Drinking beer stimulates milk production.* The original thought behind this myth was that the yeast in beer increased milk production. There is no scientific proof that this is true. Alcohol may also interfere with the letdown process - the heaviness noted in your breasts when the milk moves toward the nipples. Keep in mind that alcohol ends up in the breast milk, so it's best to stay away from it.

*Sore, cracked nipples can be prevented by nipple preparation before birth, and by using nipple creams afterwards.* Most of the evidence indicates that nipple preparation makes little, if any difference. It may even cause damage. Creams may clog the Montgomery glands on your nipples. The best way to avoid sore
nipples is to position the baby properly on the nipple. In the beginning, limit the baby's nursing time until your nipples are used to nursing. In the first days of nursing, it takes at least 5 minutes for you to have a letdown of colostrum (early milk). Lactation consultants now recommend that you nurse your baby for long, frequent sessions of 15-20 minutes every one-and-a-half to three hours. Limiting your nursing time can potentially delay the milk from coming in.

*Nursing leads to sagging breasts.* Unfortunately, just like other parts of our body, gravity causes the sagging. A well-fitted bra may help.

*Nursing will delay weight loss after delivery.* As long as you are not overeating, most women are back to their pre-pregnancy weight three months post-partum. Nursing moms do have a tendency to hold onto the last few pounds, but this is for nourishing the baby.

*Breast-feeding without formula supplementation is an effective birth control measure.* Although there may be some protection, there is no guarantee! Make sure that you discuss birth control measures with your doctor at your post-partum appointment.

*When a mom starts menstruating, she should stop nursing.* The thoughts behind this myth are that the baby will reject the taste of the milk, and that the loss of iron with menstruation will leave mom with an
inadequate amount for herself. Although the sodium content of milk increases slightly during menstruation, it is rare that a baby will reject the milk. The iron loss during menstruation is so minimal, it should not cause problems with the mother.

* Breast-fed babies do not get colic. Unfortunately, colic can occur in breastfed babies as well as in those fed with formula.

Working Mothers

In addition to these common myths, many new mothers are concerned that they will not be able to return to work if they are breast-feeding. This is not true. Many women today can successfully balance their work schedule with nursing. You can purchase a breast pump during your stay at the hospital (most insurance companies will cover the cost), and begin practicing until you can pump your breasts rather efficiently. Instructions for manually expressing milk can be found at the end of this section.

After returning to work, you should pump your breasts on about the same schedule that the baby would nurse. If your work schedule is such that pumping is impossible, you can wean the baby slowly from the normal feedings during your absence, and have the baby's care-giver substitute formula during those times. You can still nurse your baby during the time when you are home - usually the morning and
bedtime feedings.

**Storing Breast Milk**

Perhaps the easiest way to store pumped milk at work is to pour the milk into plastic nurser bags. Use a wire twist to close it tightly. If you have a refrigerator at work, the milk should be stored there. If you do not have access to a refrigerator, you may want to purchase an insulated container that can keep your milk on ice until you get home.

Breast milk is good in the refrigerator for up to 48 hours. If you store your milk in the freezer compartment, it will last 4-6 months. Deep freezers that have constant temperatures can store frozen milk safely for up to a year. You will want to place the pumping date on your bags to ensure that you use the oldest milk first.

![Graphic: Breast milk storage]

**Thawing Frozen Breast Milk**

Breast milk usually thaws rather quickly if the bag is placed in a bowl of warm water. It is not recommended that you microwave breast-milk. It destroys the antibodies, and causes "hot spots." You will gently need to mix the milk together as the cream will separate and rise to the top. After the colostrum is gone, you will find that your "mature" breast milk is very thin and watery in appearance,
and sometimes has a bluish cast due to the presence of casein.

**Engorgement**

For first-time mothers, the milk will come in between 3-5 days. Until this time, you have been supplying your baby with the important colostrum, the forerunner to "true milk." For some, the milk seems to come in all at once, making your breasts extremely hard and tender. This swelling is also due to the extra blood and fluid present as the breasts adjust to milk production. Frequent nursing is the cure. Breast-feeding babies typically nurse between one-and-a-half and three hours. If your nipples are too hard for the baby to grasp, pump out some of the milk to soften them. To aid with the discomfort, place warm wash cloths on your breasts before nursing. You may also want to take a non-aspirin pain reliever. Remember, engorgement is a temporary condition. It lasts only 24-48 hours.

**Plugged Ducts**

On occasion, moms experience a tender lump in their breasts. This is often due to a plugged milk duct. Careful attention to the problem will decrease the chance of mastitis. Frequently nurse your baby, and gently massage the lump. Heat to the site may be beneficial. Change the baby's position at the breast in an attempt to unplug the
duct. If this doesn't work, call the Women's Center for a referral to a lactation specialist.

**Mastitis**

It is not uncommon for plugged ducts to progress to a condition called mastitis. Characteristics of mastitis include tender breast(s), and flu-like symptoms such as fever and achiness. Antibiotics are usually recommended. It is important to continue nursing your baby.

**Weaning**

It is always best to wean your baby from the breast gradually. It will be easier on both of you. You may start by dropping one daytime feeding. Substitute a bottle during that time if your baby is not old enough to drink from a cup. After a week, drop another feeding. Continue until you are nursing just in the morning, and at bedtime. You will want to decide which of these feedings to drop first, depending on each of your needs. You will find that weaning will be much easier if you do it bit-by-bit, and you will avoid engorgement by doing so.
Bottle Feeding

Sometimes breast-feeding isn't right for everybody, and that is OK. If you feel really uncomfortable with nursing, it is probably best that you feed your baby an infant formula. You can feel just as close to your baby if you cuddle him during feedings.

Over the years, formula companies have been busy trying to copy the components of breast milk, and the formulas of today provide your baby with the essential nutrients for the first year of life.

Formula comes in three basic forms: powder, concentrated liquid, and ready-to-feed. Powder is the most economical, and ready-to-feed is the most expensive. When prepared properly, all are equal in nutritional value. Please make sure that you follow preparation instructions on the can. It is easiest to prepare all of the bottles needed for the day at one time. Store the extras in the refrigerator. Because of potential bacteria growth, don't let your baby drink from a bottle that has been out of the refrigerator for over two hours.

Your baby's doctor can advise you about the amount your baby should receive. He will also advise you about whether or not to sterilize the water for formula preparation. Well water can be analyzed for safety. Contact the Health Department for information regarding the testing of well water.
Remember, never prop a bottle to feed your baby, and never put your baby to bed with a bottle. The sugar in the milk can lead to dental problems even before your baby has teeth.

**Bathing Your Baby**

There is not one best way to bathe your baby, but there are some tips that will make the job easier.

First, you do not have to bathe your baby everyday, but you might be surprised that babies don't naturally smell sweet. You have to work at it! Between dirty diapers and spitting up, babies fall short of being sweet-smelling little angels.

After bringing your baby home from the hospital, you will want to find a draft-free area for bathing. The bathroom and kitchen sinks are ideal spots. You will need to give your newborn a "sponge bath" until the cord falls off and heals. You can purchase special infant bathtubs, but these aren't necessary. If you don't have an infant tub, you can bathe your baby on a thick towel beside the sink.

Gather the items that you will need so that you won't have to hunt them down in the middle of the bath. The following list of items are helpful at bath time:
**Bath Time Essentials**

- Soft towel (hooded towels are great)
- Liquid baby soap or mild bar soap
- Baby washcloths
- Soft brush or toothbrush
- Alcohol
- Q-tips
- Diaper

Water temperature should be comfortably warm to your elbow. Keep your baby covered with a towel as much as possible during the bath. Starting with the face, clean with only water - no soap. Clean each eye with a different part of the wash cloth to avoid spreading any infection that might exist. Make sure that you clean the neck creases and folds. Move quickly down the body, using soap to wash your baby's body and arms. Roll her gently to the side to wash her back. Rinse and dry each area before moving to the next.

Next, wash the genital area. For little girls, always clean from front to back. You may see some whitish or blood-tinged discharge. This is a result of your hormones that crossed the placenta, and it will go away.

For little boys, the scrotum may be swollen from the hormonal influence. The swelling will gradually disappear.
If your little boy has been circumcised, gently squeeze some warm water over the tip of the penis. If your baby has not been circumcised, no special care is needed. DO NOT force your baby's foreskin back. It will eventually be retractable in two to three years.

To complete the bath, wrap your baby in a dry towel and hold him in a football hold. Rub a small amount of soap into his hair, and brush through it with a soft brush or toothbrush. Don't be afraid to gently scrub the soft spot. The tissue at the soft spot is quite tough. Hold your baby over the sink and pour warm water over his head to remove the soap.

**Cord care**

You will need to clean around the base of your baby's cord four times a day with a Q-tip dipped in rubbing alcohol. There will be some drainage and a small amount of bleeding as the cord falls off (7-10 days). Continue to clean the cord site until there is no more drainage. Keep the area dry by folding the diaper below the cord. If there is any pus or red streaking around the cord, there may be an infection. Notify your baby's doctor.

**Lotions, powders, and baby oil**

Many doctors recommend no baby powder and oil for babies. Powders have a tendency to get into your baby's
lungs, and oils can be irritating. Use lotion sparingly. Although many babies have dry, cracked skin after birth (especially around the ankles), new skin will soon appear.

**Diapering**

You basically have three choices when it comes to diapering. You may use disposable diapers, cloth diapers that you wash yourself, or you may want to use a diaper service.

The most expensive alternative is the disposable diaper. Disposable diapers are perhaps the easiest to use, but there are some environmental issues that may be of concern.

Cloth diapers have the advantages of being "recycled," and you can choose to wash them yourself, or investigate a diaper service. Diaper services are more expensive than doing your own, but less expensive than disposable diapers. Today's diaper services require no rinsing by you, so the messy part is avoided. There are also velcro diaper covers available for use with cloth diapers, thus eliminating the need for diaper pins.

When diapering your newborn, make sure that the diaper is below the cord until the cord has fallen off and healed. Frequently change your baby to avoid diaper rash. If a rash should occur, various diaper creams and ointments are available. A stubborn, bright red rash may be caused by
When to Call the Doctor

You will probably get to know your baby's personality rather quickly, and will be aware of any particular change. There are times when you should call the doctor. Parental instinct usually helps you make decisions about when to take your baby to the doctor. Remember, it is always best to be on the safe side.

Reasons to Call the Doctor:
* A floppy baby, or one who is difficult to arouse
* Lack of interest in eating
* Irritability, and crying that cannot be consoled.

Taking Your Baby's Temperature. Learn to check your baby's temperature. Digital thermometers are great because they are easy-to-read, and there is no risk of shattering, like the glass thermometers. Glass thermometers need to be shaken down to below 96 degrees. For babies, temperatures can be taken under the arm, or rectally.

When taking the temperature under the arm with a glass or a digital thermometer, tuck the thermometer into your baby's armpit. Fold the baby's arm across his chest. Try to leave a glass thermometer in place about three minutes.
Many digital thermometers will signal you with a beeping sound when the temperature is recorded. Generally, a temperature taken under the arm will be one or two degrees lower than a rectal temperature.

To take a rectal temperature, lubricate the tip and hold your baby on her side. Insert the thermometer about one-half inch into the rectum. Hold a glass thermometer in place for about two minutes before reading.

It is important to tell your doctor if the temperature was taken under the arm, or rectally. Your baby's doctor can give you further information about when s/he wants to be notified. Generally, if your baby has any of the above symptoms, and/or a rectal temperature greater than 100.4F, you should notify the doctor.

The Crying Baby

All parents will have to deal with a crying baby on more than one occasion. There are many reasons that babies cry, and you will want to ensure that your baby doesn't have a physical condition that is causing pain.

We often hear people say that their baby has "colic." Babies are generally said to have colic when they cry for several hours at a time, often in the evenings. Some parents report that their babies draw their knees up as if in pain. Although we don't know the actual cause of colic, there are some ways to deal with the crying. Some parents
find that placing a warm water bottle on the baby's tummy is successful. Others report that a baby swing is helpful. Rides in the car (always in a car seat!), running the dishwasher or vacuum cleaner (they like the sound), and carrying them around in a pack may work for you.

There is a school of thought that believes that colic is over-diagnosed. Some behavioral pediatricians believe that fussiness is a product of an overstimulated baby, or perhaps more accurately, the baby not being able to deal with the stimulation. They theorize that babies need to learn to "self-calm", which they propose is a developmental milestone just like learning to sit and crawl. Furthermore, they suggest that parents can help their babies to learn to self-calm. There is an interesting book on this subject in the hospital library entitled, *The Self-Calmed Baby* (Samuels). You may enjoy reading this.

### Sibling Adjustment

A new baby brother or sister can be lots of fun, but they can also be the source of behavioral problems in siblings. Younger siblings need to be aware that they must be careful with the new baby. Acting out and regression to earlier behaviors (such as bed-wetting) are not uncommon. Patience and a lot of foresight on your part can help siblings adjust. For example, you can plan read to them when you nurse the baby. Perhaps Dad or a family member can
watch the baby while you spend some private time with other children.

Logan Regional Hospital offers a special class for siblings that are expecting a new baby in the house. For more information about the "Big Brother/Big Sister Party," contact the Center for Health Information and Wellness.

Remember, a new baby in the house is cause for celebration, but it is also a time for adjustment for everyone. There are resources in the valley that are ready to assist you with your specific needs.
GLOSSARY

**Abruptio Placentae:** The condition when the placental separates from the uterus before the birth of the baby.

**Amniocentesis:** A procedure in which a needle is inserted into the amniotic sac, and fluid is withdrawn for analysis.

**Amniotic Fluid:** The fluid that surrounds the fetus in the mother's uterus. It is largely made up by the baby's own urine.

**Analgesia:** Pain relief without the total loss of sensation.

**Anesthesia:** Pain relief with the loss of sensation.

**Antibody:** A substance that is produced by the body that triggers a response to fight infection.

**Apgar Score:** Measures the baby's response to life outside the uterus. Measured at one and at five minutes.

**Areola:** The darker area that surrounds the nipple.

**Braxton-Hicks Contractions:** False labor pains.

**Breech:** The position of the fetus is such that the feet or buttocks is positioned at the birth canal.

**Cephalopelvic Disproportion (CPD):** The baby's head is too large to pass safely through the mother's pelvis.

**Chloasma:** Patches of darkened facial skin during pregnancy.

**Colostrum:** The fluid that is excreted from the breast before the mature milk.

**Edema:** Swelling caused by fluid retention.

**Electronic Fetal Monitoring:** Instruments are used to record the fetal heart rate and the mother's contractions.

**Epidural:** Anesthesia that numbs the lower part of the body.

**Episiotomy:** A surgical procedure used to widen the vaginal opening for delivery.

**Forceps:** Instruments that are placed around the baby's head to help guide the baby down the birth canal.

**Jaundice:** A condition caused by the build-up of bilirubin in the baby. It causes the skin to become yellow.
Linea Nigra: The line that runs vertically from the navel to the pubic hair during pregnancy.

Lochia: Vaginal discharge following delivery.

Non-stress Test: A test in which the fetal heart rate is monitored in relation to fetal movement.

Oxytocin: A drug that is used to start contractions.

Paracervical Block: An injection of pain medication around the cervix to relieve pain in childbirth.

Placenta: The tissue that connects the mother and the fetus. It's purpose is to nourish the fetus and carry wastes from the fetus.

Placenta Previa: A condition where the placenta is located low in the uterus so that it covers (partially or fully) the opening to the birth canal.

Post-term Pregnancy: A pregnancy lasting greater than 42 weeks.

Preeclampsia: A condition in pregnancy characterized by high blood pressure, swelling, and protein in the urine.

Pre-term: Born before 37 weeks.

Pudendal Block: An injection given at delivery for pain relief.

Quickening: The mother's first feeling of movement of the fetus.

Retracted Nipple: A nipple that pulls inward.

Ultrasound: A test used during pregnancy to examine the fetus.

Vacuum Extraction: A special instrument placed on the baby's head to guide the baby through the birth canal.

Vernix: The white coating on a newborn. It protects the baby's skin while in utero.