

THE PARENTING EDUCATION PROGRAM

PRENATAL CARE AND DEVELOPMENT

The role of parents begins even before a baby is born. The ways in which parents care for their children can affect a child for life. This is especially true for the fetus (baby) in the womb. The fetus lives and grows inside of the mother and is totally dependent on her for its very existence. Although the fetus' mother is directly attached to, and responsible for caring for the unborn child, the father's role during this time in baby's life is very important. Fetuses are very sensitive to their surroundings and/or environment. One of the ways in which fathers can care for their unborn child is to help provide a nurturing, safe, stable and calm environment around their baby and baby's mother. Since fetuses are carried around inside of their mother, they are also carried into mother's world and experiences. More and more, research is showing that fetuses are not only affected by what physically happens to mother, but by the mother's stress and emotions in relation to what happens to her. To some degree, whatever happens to the mother, also happens to the baby. Prenatal care, which refers to the healthcare of the baby before birth, is an important role for both mother and father. As the fetus develops and grows in the womb, it goes through many changes. Likewise, a pregnant woman also experiences many changes in her body.

The nine month period of pregnancy is broken down into three trimesters, with each trimester being three months long. In the first trimester, during the first three weeks after fertilization, many changes occur that establish the environment in the womb for the fetus to grow in. The amniotic sac develops. This sac is filled with a clear watery liquid that cushions the fetus and allows it to move around and change positions. The placenta is also formed. The

placenta is an organ through which nutrients are processed and passed from mother to fetus.

Nutrients are passed from mother's blood to the placenta for processing and then through the umbilical cord to the fetus. The waste products from the fetus are also passed through the umbilical cord to the placenta and into the mother's bloodstream.

During the first trimester the fetus grows to about 3 inches in length and weighs less than 1/2 ounce. During this stage of growth, a heartbeat begins, most internal organs are formed, and the head, face, arms and legs begin to develop. The fetus even has a grasp reflex. During the weeks three through nine, the fetus is especially sensitive to things that might cause damage to the tissues and organs while they are forming. Drugs, alcohol, tobacco smoke and environmental toxins, all can have serious damaging effects on the fetus. The fetus is also affected by the mental and emotional state of the mother, what she eats and/or her nutrition. Many mothers and fetus suffer from malnutrition which is a lack of enough food, or poor nourishment from the food eaten. Malnutrition weakens the body's ability to fight off illness and disease and makes both mother and baby more susceptible to a variety of illness and diseases. For the health of both mother and baby, good nutrition is vitally important.

Most of the changes the mother's body goes through during the first trimester are internal and not easily visible. Most women do not begin to show their pregnancy until after the first three months or during the second trimester. Common early symptoms of pregnancy are a missed period or the stopping of the menstrual cycle, and morning sickness. Morning sickness may include nausea, vomiting, headache, or loss of normal appetite. It is also not limited to occurring only during the morning, but can occur at any time of the day or night. Many women experience no discomfort, or at the least, very little discomfort from morning sickness. Morning sickness usually stops close to the beginning of the second trimester of pregnancy. Many women discover a greater need for more sleep during the beginning of their pregnancy. Good prenatal care is important for

the healthy development of the fetus and the health and comfort of the pregnant woman. Good prenatal care includes proper nutrition, rest, medical checkups, prenatal vitamins, and adjustment of the mother's life-style and environment to insure the health of the fetus.

It is important for prenatal care to begin within the first few weeks of pregnancy since this is such a critical time in the development of the fetus.

Most healthy pregnant women can and should continue to be active throughout most of their pregnancy unless advised differently by their doctor or unless problems arise. Physical activity and moderate exercise are healthy for the mother's body and emotional state. Doctors and other medical personnel should be advised of any medical conditions the mother had prior to pregnancy, and any illnesses or conditions that arise during pregnancy. Likewise the use of all drugs and medications including over the counter pain relievers, cold remedies and anti-acids should be discussed with the prenatal care doctor before their use.

Fathers play an important role during the early stages of pregnancy in helping mother to adjust to the pregnancy. Fathers can also help to ensure that mother and fetus receive good prenatal care. Providing the pregnant woman with a stable, calm, healthy environment helps to ensure the health of mother and baby. The physical, mental, and emotional stability and health of the pregnant woman greatly affects the level of comfort and ease that both mother and father may experience through out the pregnancy.

During the second trimester, a woman's body has made several adjustments to the pregnancy. As these adjustments are made, most women regain their previous sense of physical well being. Morning sickness usually stops, previous levels of energy return and needs for sleep level off. Many women will experience an increase in appetite, which is normal since more nutrition is required during pregnancy. During this stage of pregnancy, mothers begin to experience the movement of the fetus. At first they feel like twitches, or bubbles or even tickles inside. As the baby grows and becomes more active

these movements are felt more strongly. The physical shape of the pregnant woman begins to change and reveals her pregnant condition. Mother's beliefs about pregnancy, how she should look and feel and what she is told by others around her can have a dramatic impact on her pregnancy.

Women who view pregnancy as a normal process rather than an illness usually feel better physically and emotionally during their pregnancy. The ways pregnant women think about themselves and are talked about influences their mental and emotional health. The large abdomen of a healthy pregnant woman is normal and is due to the baby growing in her womb, not fat in the womb. Pregnant women deserve the respect and recognition that there is a difference between being pregnant and being fat.

During the second trimester, the fetus has developed eyes, ears, nose, mouth, hair and fingers, and toes. It begins to suck and swallow and is sensitive and reacts to touch. The six month old fetus sucks its thumb, moves about, rests and grows. The fetus is about 10 inches and almost 2 pounds by the end of the second trimester. From the fifth month until the end of pregnancy, the fetus grows about 1 inch every 10 days. At this stage, the fetus has still not developed enough to survive outside of the womb.

The average fetus grows from 10 inches and 2 pounds to about 20 inches and 7 or 8 pounds during the last trimester. The organs complete their development and begin functioning as the fetus becomes prepared and capable of surviving outside of the womb. During the last month of pregnancy, the mother passes antibodies from her blood to the fetus. These antibodies protect the fetus from many diseases during the first few months after birth. From conception to birth is generally about 38 weeks and a fetus carried until the end of this time is called a full-term fetus or baby. As the baby reaches full-term, baby and mother prepare for the birth process. It is important for fathers to also prepare for the birth of their child. Fathers provide in a very important way by preparing the house and offering understanding and support for the new mother. Childbirth classes

offer an opportunity for both mother and father to learn and prepare for their new baby and share the experience of becoming parents together.

About 10 to 14 days before delivery, the baby's head drops down into the pelvic area. Some irregular contractions may begin which is known as false labor. The amniotic sac may break and the fluid may discharge, this is commonly known as the water breaking.

The birth process is referred to as labor. At the beginning of labor the contractions may be short, irregular and several minutes apart. As labor progresses, the contractions become stronger, lasting up to 90 seconds and coming 2 to 3 minutes apart. Labor contractions prepare and enlarge the neck of the birth canal for the baby to pass through. The average time for this part of labor is 14 hours for a woman delivering her first baby. For a woman who has previously delivered a baby, the average time is 8 hours. However, both of these times can vary greatly. During the actual birth, the baby's head passes through the birth canal and the vaginal opening. Next, one of the baby's shoulders is born, and then the rest of the body easily slides out. At this time most of the attention changes from the mother to the new born baby. However another important part of the birth process continues with the delivery of the placenta or afterbirth. The baby is cared for, checked and cleaned while the mother is cared for also. Occasionally complications may arise which require that the baby be born through a surgical process called a Cesarean delivery.

The participation of the father during the delivery process can add to the wonderful experience of birth for both mother and father. At this time the father can take an active role by offering his support and encouragement and comforting the mother during the birth process. It also creates an opportunity for father to bond sooner with his new baby.

Every parent wants to deliver a healthy, normal baby free from defects. Some complications occur during pregnancy or delivery that are out of the control of parents which result in harm to the baby.

However many of the problems afflicting new born babies can be prevented with medical treatment or proper prenatal care. Babies who are born weighing less than normal or average are referred to as low birth weight babies. Low birth weight babies have a much higher mortality or death rate and suffer more from complications after birth. Low birth weight complications are associated with one fourth of infant deaths. There is also a considerably higher risk of mental or physical impairment for low birth weight babies.

Many factors are associated with low birth weight such as the age of the mother, prenatal care, nutrition, and alcohol and drug use.

Mothers under 17 are have a greater risk of delivering a baby with neurological damage, low birth weight, premature birth or death during the first year, often due to their own physical immaturity. Mothers under 19 are less likely to begin prenatal care during the critical first trimester of their pregnancy. If these young mothers also fall into low income categories greater health risks associated with poverty will likely affect them and their babies. However older women also experience complications that are associated with their age. Mothers over 40 are more likely to give birth to a baby with a birth defect of Down's syndrome which causes mental retardation and some physical problems. Good prenatal care and modern medical procedures can help to reduce the risks of severe fetal defects.

Good prenatal care helps to insure that the fetus is supplied with proper nutrition from the mother's diet or vitamin supplements. These nutrients are critical to the development of healthy, tissues and organs for the fetus. Good prenatal care also insures that babies are not exposed to environmental toxins and chemicals or radiation that can damage the fetus. Research even shows that men exposed to some hazardous environments may have a greater chance of fathering a baby with birth defects or of sterility or miscarriages. The use of drugs and alcohol can significantly damage a fetus. Even over-the-counter drugs such as cold remedies, pain relievers and appetite suppressants can be damaging to the fetus.

Mothers who chronically use narcotics risk not only damaging their fetus, but also giving birth to a drug addicted baby. Addicted babies chances of survival are very small and the financial cost for their medical care and treatment can run well over \$100,000. Alcohol consumption during pregnancy can also result in a baby being born with fetal alcohol syndrome or FAS. Symptoms of FAS are low birth weight, malformed face, eyes, ears and mouth and brain damage. Moderate alcohol use of 2 to 3 ounces a day can produce some symptoms of FAS. Heavy consumption of alcohol, especially during the last trimester severely increases the chances of FAS and brain damage.

Even cigarette smoking by pregnant women can have damaging effects on the fetus and can result in low birth weight. The mental, emotional, and psychological stability of the pregnant woman impact the fetus and the experience of the pregnancy. Negative self-attitudes increase anxiety and irritability which are cycled through the bloodstream to the fetus during pregnancy. Women who have a positive outlook on their pregnancy and provide more stable personalities and surroundings are more likely to have a shorter labor and fewer complications during labor and delivery. Fathers and family members can make a great contribution to the stability of the surroundings. On a social stress scale, pregnancy is listed as the 12th most stressful life event. It can be a stressful time for not only the pregnant woman but the father and the entire family. Financial costs of having and raising a baby often add stress to the parents. Changes in the relationship between mother and father with the addition of a child also can be stressful. The anticipation and excitement or dread and worry associated with the pregnancy have an impact on the entire family. Both mothers and fathers can experience conflicting emotions. It is normal to feel pride and anxiety. For those whose pregnancy is unplanned or unwanted additional conflict may arise. Guilt, insecurity, obligation, excitement, and pride add stress to the job of making choices.

Fathers can strengthen their relationship with their partner by being understanding and supportive throughout the pregnancy. This is especially important during the last trimester when mothers physical discomfort increases. This is also a time when fathers can nurture and care for their new baby before it is born by caring for the mother. Even for fathers who do not maintain a lasting relationship with the mother of their child, their role as a father has a lasting impact on their child.

STUDY QUESTIONS - STUDY GUIDE TWO
PRENATAL CARE AND DEVELOPMENT

1. The role of parents begins:
 - a) after the baby is born
 - b) before the baby begins to walk
 - c) before the baby is born
 - d) in the delivery room

2. A fetus is:
 - a) a one year old baby
 - b) a baby in the womb
 - c) an unfertilized egg in the womb
 - d) any small child

3. Providing a nurturing, safe, stable and calm environment:
 - a) is not necessary or important
 - b) is entirely the mothers responsibility
 - c) is only important for small children
 - d) is one way fathers can care for the unborn child

4. What is the purpose of the placenta:
 - a) processes and passes nutrients from mother to fetus
 - b) cushions the fetus
 - c) allows the fetus to move and change positions
 - d) none of the above

5. During weeks three through nine, the fetus is:
 - a) not at all sensitive
 - b) only sensitive to light
 - c) especially sensitive to things that might cause damage to tissues and organs that are forming
 - d) highly sensitive to loud noises

6. Malnutrition for a pregnant woman is serious because:
 - a) it affects her ability to fight off illness
 - b) it affects the baby's ability to fight off illness
 - c) it affects both mother and baby's ability to fight off illness
 - d) none of the above

7. Good prenatal care is important for the health and comfort of the mother and:
 - a) the healthy development of the fetus
 - b) determining the sex of the baby
 - c) does nothing for the fetus
 - d) the adjustment of the family to the new baby

8. Good prenatal care does not include:
 - a) prenatal vitamins
 - b) taking over the counter pain medications
 - c) proper nutrition
 - d) medical checkups

9. It is important for prenatal care to begin:
 - a) just before delivery of the baby
 - b) during the second trimester of pregnancy
 - c) during the third trimester of pregnancy
 - d) within the first few weeks of pregnancy

10. Fathers play an important role during early stages of pregnancy by:
 - a) helping the mother to adjust to the pregnancy
 - b) ensuring that mother and fetus receive prenatal care
 - c) providing a healthy environment for mother and baby
 - c) all of the above answers

11. Mother's beliefs about pregnancy:
 - a) have an impact on the pregnancy
 - b) has nothing to do with the pregnancy
 - c) is not at all important
 - d) is not influenced by what she is told by others

12. Most women feel better physically and emotionally during their pregnancy if:
 - a) they don't have to make any changes in their life
 - b) they recognize that pregnancy is an illness
 - c) they view pregnancy as being a normal process
 - d) don't do any exercise

13. Pregnant women deserve the respect and recognition that there is a difference between being pregnant and being fat.
 - a) true
 - b) false

14. During the second trimester the fetus grows about:
 - a) 1 inch every day
 - b) 1 inch every 10 days
 - c) 1 pound every 10 days
 - d) 1 inch every month

15. At the end of the second trimester, the fetus:
 - a) has not developed enough to survive outside

- b) almost completed all of its growth and development
 - c) not yet developed eyes, ears or nose
 - d) is still not able to move about
16. The mother passes antibodies from her blood to the fetus:
- a) during early pregnancy
 - b) during the second trimester
 - c) at the beginning of labor
 - d) during the last month of pregnancy
17. The purpose of antibodies being passed from mother to fetus is:
- a) to help the mother get rid of toxins
 - b) to begin the labor process
 - c) to protect the fetus from many disease during the first few months after birth
 - d) to protect the mother from diseases from the fetus
18. Childbirth classes can help:
- a) prepare parents to share the experience of becoming parents together
 - b) prepare the fetus for birth
 - c) fathers to pay for medical bills
 - d) only mothers with parenthood
19. _____ prepares and enlarges the neck of the birth canal for the baby to pass through.
- a) false labor
 - b) the amniotic sac
 - c) the doctor
 - d) labor contractions
20. During labor and the birth process, father can take an active role by offering support and encouragement and:
- a) staying out of the delivery room
 - b) comforting the mother during the birth process
 - c) not talking to the mother during delivery
 - d) telling the mother to push harder
21. Babies who are born weighing less than normal or average are referred to as:
- a) low birth weight babies
 - b) preemies
 - c) deformed babies
 - d) light weight babies

22. _____ babies have a much higher mortality or death rate and suffer more complications after birth:
- a) light weight babies
 - b) caesarian babies
 - c) low birth weight babies
 - d) large babies
23. Which factor is associated with low birth weight babies?
- a) the age of the father
 - b) alcohol and drug use
 - c) the sex of the baby
 - d) all of these are factors
24. Low birth weight babies have a higher risk of:
- a) mental or physical impairment
 - b) being born addicted to drugs
 - c) giving illness to their mothers
 - d) weighing too much at birth
25. Avoiding environmental toxins, chemicals and radiation are also a part of:
- a) birth defects
 - b) addicted babies
 - c) good prenatal care
 - d) modern medical procedures
26. Mothers who chronically use narcotics risk:
- a) damaging their fetus
 - b) giving birth to a drug addicted baby
 - c) all of these
 - d) having a low birth weight baby
27. At what time during pregnancy is heavy alcohol consumption most likely to result in brain damage:
- a) during the last trimester
 - b) during the first few weeks
 - c) during the second trimester
 - d) During the third month
28. What causes fetal alcohol syndrome:
- a) babies that are allergic to alcohol
 - b) environmental toxins
 - c) radiation
 - d) alcohol consumption during pregnancy

