

LABOR

of Love and Delivery of a Pain Management Strategy

Pain Management Strategy

How well do I deal with pain?

What are the RISKS?

Epidural

Behavioral vs. Medical

Breathing Techniques

What are the BENEFITS?

What are my options?

Inside:

- Learning about your different pain management options
- **Risks and Benefits** to Mother and Baby
- Selecting a Strategy

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4 Pain Management Options

Describes the different options available

Instructional Time: 7 minutes

10 Risks of Pain Management Strategies

Recognize implications of different risks

Instructional Time: 9 minutes

18 Benefits of Pain Management Strategies

Define and identify benefits and personal gratification

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30 Fetal and Maternal, Risks and Benefits

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37 Selecting a Strategy

Select a pain management strategy based on risks and benefits

Instructional Time: 9 minutes

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It is called labor for a reason.

The energy and effort that goes in to delivering a baby can be overwhelming and chaotic so it is important that you, the expectant couple (EC) come in with a plan, especially when it comes to managing pain. This instructional module focuses on selecting a pain management strategy for labor and delivery in a hospital setting. It covers pain management options, risks and benefits to mother and baby, weighing the options, and lastly selection of a pain management strategy. All these components will help you to become a well-informed patient, have less conflict with the healthcare team, and turn this process into a labor of love.

Let the love and learning begin.

**Brought to you by:
Dr. Tod Aeby • Anuhea Nakahara • Jenny Tanaka
Spring 2011 - ETEC 613**

Pain Management Options

Think about some ways you relieve pain.

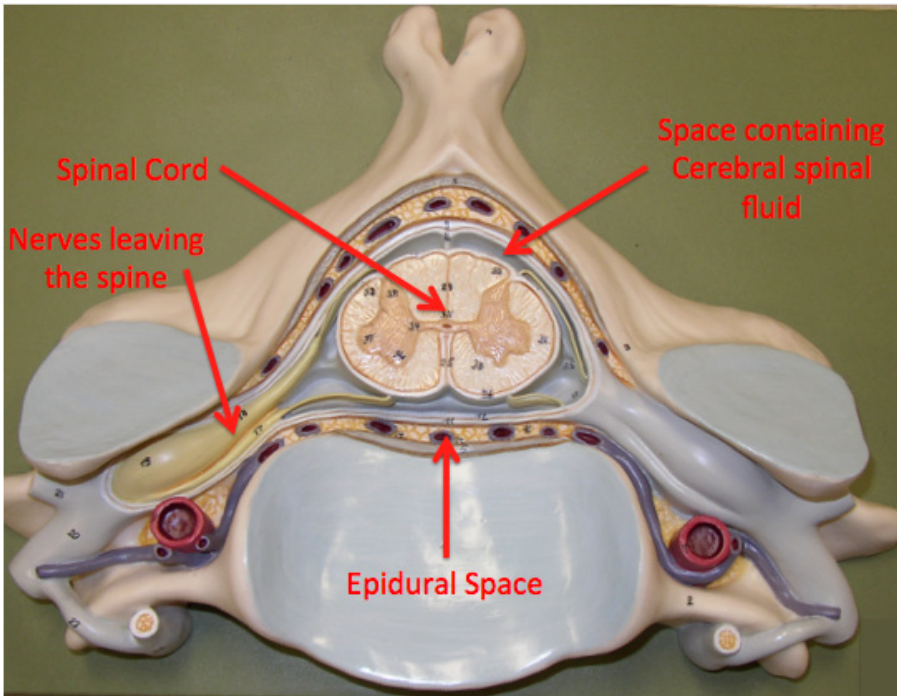
In medicine, we ask patients to rate their pain on a scale from zero to ten, with zero being no pain and 10 being the worst pain you ever had. What would be your 10? What would be a 3? In this section, we will be talking about different ways to treat pain.



Narcotics

Narcotics are a powerful class of pain relievers that are derived from the opium poppy. Commonly used narcotics include morphine, demerol, oxycodone and codeine. Newer, largely synthetic narcotics include fentanyl and stadol. Other pain relievers, like tylenol, aspirin and ibuprofen are not narcotics and they are not as strong.

Narcotics are often used to relieve pain during the labor and delivery process and they can be given either as an intramuscular shot or through an IV. The milder narcotics like codeine are usually given as a pill for discomfort after the baby is born.



EPIDURAL

Another way to treat moderate to severe pain in labor is through the use of an epidural anesthetic. There are two spaces surrounding the spinal cord. The first is closest to the spinal cord and contains the cerebral spinal fluid, which bathes the brain and spinal cord. The second is the epidural space, which contains the major nerves as they leave the spine. Epidural anesthesia is a medical pain relief method that involves the placement of numbing medicine in that epidural space. The anesthesiologist will thread a catheter through a needle into the epidural space. The catheter will remain in place to allow future injections of the numbing medicine. During labor, epidural anesthesia is used to block nerves leaving the spine in the lower half of the body, providing pain relief during the labor and delivery process. With an epidural, patients have pain relief, but can usually move their legs.

Epidural anesthesia is often confused with spinal anesthesia, which involves placing a needle into the space containing the cerebral spinal fluid. A catheter is not used and patients with spinal anesthesia are usually completely numb from the waste down and they cannot move their legs. Spinals are often used for anesthesia during a cesarean section.

The illustration below shows important structures in the spinal column. Note the space immediately around the spinal cord. This is where numbing medicine is placed for a spinal anesthesia. The next space after that is the epidural space. Note the nerves that exit the spine and pass through this space. These are the nerves that are numbed when medicine is passed through a catheter into this space.

RELAXATION METHODS

Non-medical methods used by women in labor to gain relaxation, control and pain relief refers to a variety of natural techniques that are usually taught during a birthing class or learned from an experienced woman who has used non-medical methods during her labor and delivery process. Birthing classes that cover these techniques are Lamaze, Bradley, and Natural Birthing classes.

A common strategy for the non-medical method during labor is the use of breathing techniques. As a woman goes through the pain of the labor and delivery process, it is possible to use breathing techniques to overcome and bear the pain. If a woman knows how to breath through the pain she may not need to use medical methods for pain relief.

Another strategy may include the use of a focal point. A focal point allows the laboring mother to focus on a specific object as she breathes through the pain. It also helps to keep her eyes open to remain focused as she is breathing.

Effleurage is an action done by the mother. While still maintaining her breathing and focal points, the relaxation is enhanced by effleurage. By doing effeurage, the woman is slowly stroking her stomach rather than clenching her fists and fighting the pain of a contraction.

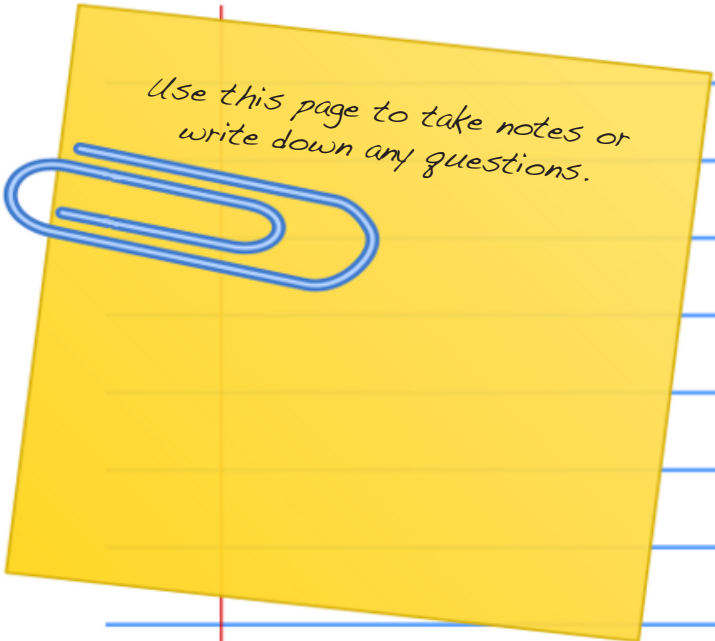
All of these methods enhance relaxation and control to work through the pain of the labor and delivery process.



Let's practice: Are you ready to try some pain management techniques?

1. Try the deep-cleansing breath by breathing in through your nose and out through your mouth in a slow and controlled manner while focusing on an object. Try it at least five times.
2. Try the candle-blowing technique by quickly breathing in through your mouth and back out through your mouth as if your blowing out birthday candles in a quick rythmic way. Try it at least five times.
3. Try the effleurage and focal point strategy by focusing on an object in the room while slowly stroking your stomach with your hands. Effleurage is done by extending your hands over your stomach and rubbing it in a circular motion. Both hands are going in toward the center of your stomach and out in opposite directions at the same time. Think: In together, out together in a slow, rhythmic matter.





Use this page to take notes or
write down any questions.

Test your Knowledge

Feel free to look at your notes or the prior instruction provided.

Circle the correct answer.

1. Which of the following is an example of using a narcotic for pain relief?

- A. taking two ibuprofen pills B. taking a tylenol caplet
C. IV morphine D. taking two aspirin tablets

2. Which describes the procedure of epidural anesthesia?

- A. a needle in the back to place numbing medicine in the fluid surrounding the spinal cord
B. a catheter in the back to deliver numbing medicine to the nerves coming out of the spinal column
C. Breathing gas to go to sleep
D. Getting pain medicine through your veins

3. Place a check next to one or more boxes that describe non-medical methods used by women in labor to gain relaxation, control and pain relief.

<input type="checkbox"/>	Use of breathing techniques
<input type="checkbox"/>	Use of focal point
<input type="checkbox"/>	Use of breathing gas to go to sleep
<input type="checkbox"/>	Effleurage
<input type="checkbox"/>	Use of loud music



Once all the questions are answered, feedback can be found on the next page. Please do not change your answers.

Friendly Feedback

1.

- A. Incorrect. Ibuprofen is an over the counter pain reliever, it is not an example of a narcotic.
- B. Incorrect. Tylenol is an over the counter pain reliever, it is not an example of a narcotic.
- C. Correct. morphine in her IV is an example of narcotic pain relief.**
- D. Incorrect. Aspirin is an over the counter pain reliever, it is not an example of narcotic pain relief.

2.

- A. Incorrect. This is describing spinal anesthesia.
- B. Correct. In order to administer the epidural anesthesia, a catheter is placed in the back to inject the numbing medicine in the epidural space.**
- C. Incorrect. This is describing general anesthesia
- D. Incorrect. This describes narcotic pain relief

3.

✓	Correct. Use of breathing techniques can be used as non-medical pain relief methods.
✓	Correct. Use of focal point can be used as non-medical pain relief methods.
	Incorrect. Use of breathing gas to go to sleep
✓	Correct. Effleurage can be used as non-medical pain relief methods.
	Incorrect. Use of loud music



BABIES ARE RISKY BUSINESS

Risks of Pain Management Strategies

Newborn Sedation

Narcotics, given to a mom in labor, pass through the placenta and umbilical cord to the unborn infant. The mother's body will usually break down the narcotic, and clear it from theirs and the baby's system. If the mom gets a lot of narcotics or the baby is born too soon after a dose of narcotics, the baby can be born under the influence of those drugs.



Common symptoms of newborn sedation may include:

- Sleepiness
 - No interest in breast feeding
 - Slow and shallow breathing
 - Slow or no reaction to noises or touching
-

Normal behavior of a newborn that is not sedated may include:

- Wakes easily if sleeping
- Alert and looking around
- Effort to feed if offered the breast
- Acts startled if there is a loud noise or if they are gently shaken
- Falls asleep after feeding but can easily be aroused

LOSS OF CONTROL

A mother that has lost control is not always safe to be around and can cause harm to her baby, self, and surrounding birthing team members. When a mother has lost control she might exhibit a variety of behaviors. For example, she may clench her face and fists, scream loud, crying uncontrollably, and thrash her body in different directions. It is important to recognize alternate pain management options if the preferred plan by the mother is not effective. It is critical for the team members to recognize the behaviors of a mother who has lost control.

NEWBORN INFECTIONS

An infection is caused by bacteria or viruses getting into places in the body where they do not belong. Newborns do not usually get infections so when they do, it can be very serious. When the pediatricians think that the baby might have an infection, they have to take the baby to a special nursery where they will get x-rays, blood tests, an IV and usually a spinal tap. Because an infection in a newborn is so serious, the baby will usually get antibiotics until the tests come back. If the tests show that the baby does have an infection, the baby will have to stay in the special nursery, on antibiotics for several days.

Common sites of infection include the lungs (pneumonia), the blood (sepsis), and the cerebral spinal fluid (meningitis). Babies with a serious infection may be extra fussy, have a fever or be very sleepy and difficult to arouse. They often won't feed well.

Maternal Fever

A significant fever is defined as a temperature of 100.4 or higher. During the course of labor, the healthcare team will monitor the expectant mother's vital signs, including her temperature, on a regular basis. Maternal fevers can have multiple causes and it's often difficult to determine which one is responsible. Common causes of fever include:

- An infection in the amniotic fluid around the baby, caused by bacteria that gets pushed there by cervical checks, by placing intrauterine catheters and just by being in labor for a long time.
- Epidural anesthesia can cause a mom's temperature to rise, even if she doesn't have an infection
- An infection of the urinary tract can cause a fever
- If the mom happens to be sick with something else, not related to labor, such as the flu, an ear infection or strep throat.

Since it is difficult to determine what is causing the fever, the healthcare team will usually assume that it is caused by an infection of the amniotic fluid surrounding the baby. Since this infection can be very serious, they will usually start giving IV antibiotics to the mom during the labor, and they will assume that the baby might have an infection when it is born. Baby might get additional antibiotics and diagnostic tests and they might need to stay in the hospital for several days.

An infection of the amniotic fluid is not contagious, so the mother and baby will not need to be isolated from other people while they are being treated.

Aside from the antibiotics, labor will be treated the usual way. Since the baby is getting antibiotics through the mom's blood stream, there is no advantage to delivering the baby early. Fever and an infection is not a reason to do a forceps or a vacuum delivery or a cesarean section. Also, having a fever does not increase the risk of epidural anesthesia so this is still an option for the mom.



Rare Complications

All medical interventions have a risk of side effects and serious complications. Usually these risks cannot be predicted. Most of the common side effects are mild and merely inconvenient while rare complications can be very serious. When discussing a treatment, most doctors will mention common side effects and rare complications so that the patient can make an informed choice about accepting the treatment. If we were to compare this to air travel, getting nauseated from motion sickness can be common and inconvenient, though it is not a life-threatening side effect. On the other hand, an airplane crash would be a very serious and life-threatening event. Fortunately, this complication of air travel is extremely rare. Some people choose not to fly because they feel so awful when they are nauseated, while others put up with the discomfort for the sake of getting to travel. On the other hand, most people would not let the extremely small risk of a plane crash keep them from traveling, but some might feel that any chance of a crash is too much and they would choose not to fly. As an example, a patient who stops breathing after getting an epidural placed, is having a rare and serious complication. On the other hand, if a patient notes some pain at the site of a narcotic injection, this is common and to be expected.

FETAL DISTRESS

During labor, the well-being of the baby is monitored by following the rate of its heartbeat. The monitoring can be by just listening, or it can be done electronically. A baby that is tolerating labor well will have a heart rate between 120 and 160 beats per minute and the variation in the heart rate will be normal. Rates outside that range, and rates with abnormal variation, can indicate that the baby is not doing well. Not treating babies that get into trouble during labor can lead to babies that are born with brain damage or even babies born that have died during the birthing process. Because babies are monitored, this is a very rare event in modern obstetrics.

Fetal distress is a word used to describe a baby that might not be doing well during labor. Common causes of fetal distress include:

- An umbilical cord that is being pinched off during contractions. This can happen when the cord is wrapped around the baby's neck or some other part of the body, or when it is wedged between the baby's body and the wall of the womb. Sometimes this can be fixed by changing the mom's position in the bed or by placing a catheter in the womb to add additional fluid that will help protect the cord. Since the cord supplies the baby with food and oxygen the obstruction needs to be corrected or the baby has to be delivered very fast.

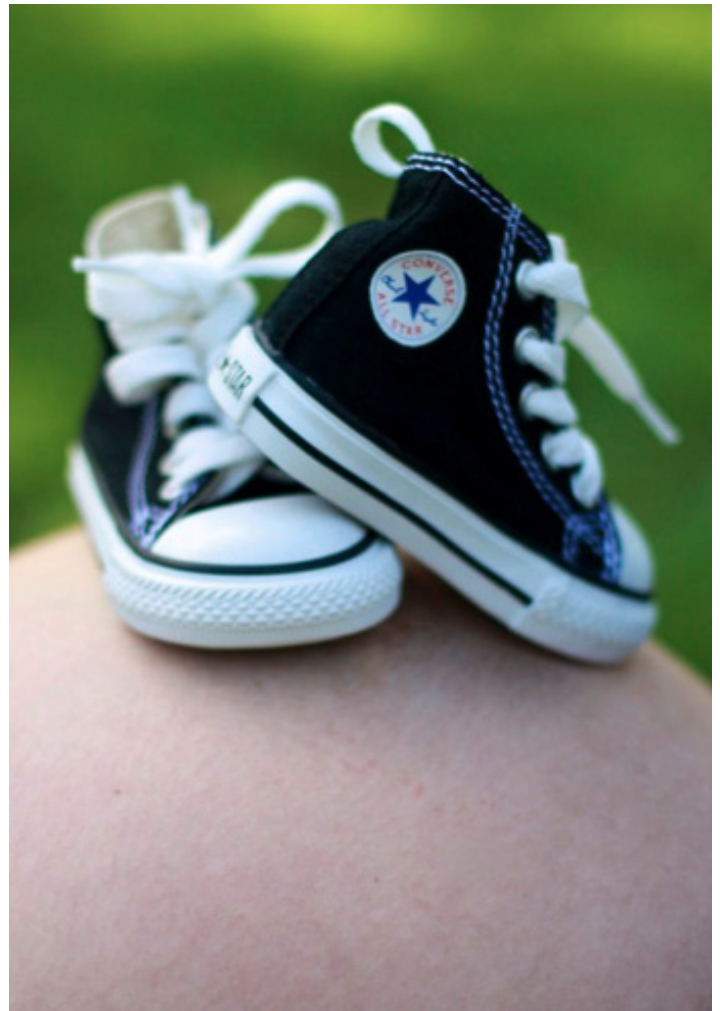
- The placenta (after birth), separates from the wall of the uterus before the baby is born. The placenta is used to transfer oxygen and nutrition from the mom to the baby, through the umbilical cord. Normally the placenta will stay attached to the womb until the baby is delivered. If it separates too soon, the baby will not be getting enough oxygen and it will need to be delivered very quickly to avoid injury.

- The placenta is not working well. As a pregnancy progresses, the placenta starts to age and quits working as well. Usually this isn't a problem because it works fine through the pregnancy and through labor and delivery. Occasionally the placenta ages prematurely and can't keep up with the baby's needs during labor. Sometimes this premature aging happens for no apparent reason, but common causes

are maternal high blood pressure and diabetes. If the placenta can't supply the needs of the baby during labor, the baby will need to be delivered by cesarean section.

- Contractions are too strong and too close together. During contractions, blood flow through the womb slows down and baby gets less nutrition and oxygen. Usually this isn't a problem because the womb relaxes between contractions and the baby can catch up. If the contractions are too strong or if the time between contractions is too short, the baby can get into trouble. This can usually be fixed by slowing the medicine that causes contractions or by giving medicines that temporarily stop the contractions.

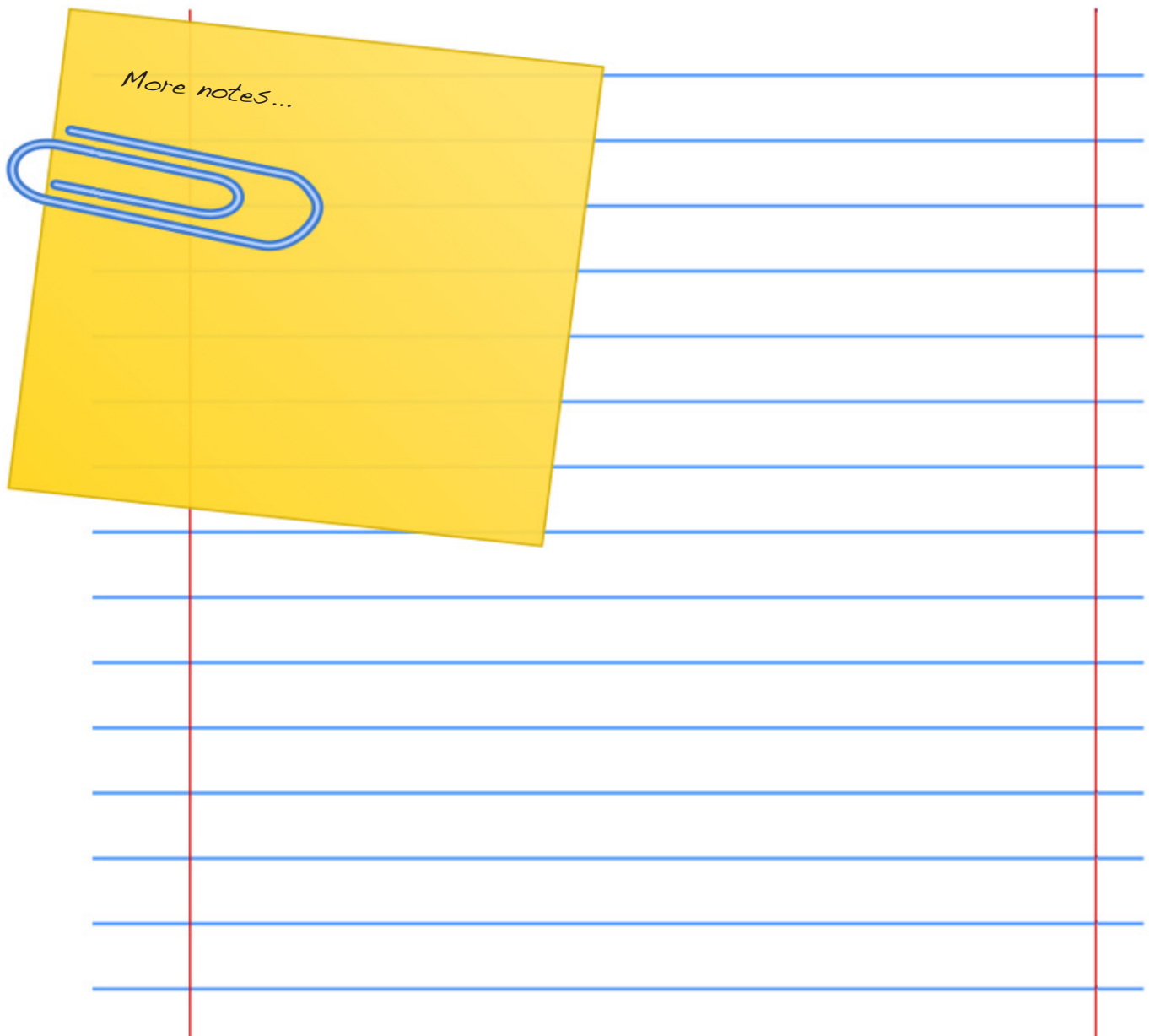
- Low maternal blood pressure. This can be caused by bleeding, dehydration, medications or by epidural anesthesia. Usually this can be fixed by giving IV fluids or medications that raise the blood pressure back to normal.



When fetal distress is noted, the healthcare team will respond with various treatments that often will make it better. Common treatments include:

- Giving mom extra oxygen
- Changing the moms position in the bed
- Giving large amounts of IV fluid quickly
- Stopping or slowing down the medicine that causes contractions
- Giving medications that temporarily stop contractions
- Giving medications that adjust the mom’s blood pressure.

If these efforts fail to resolve the fetal distress, the baby will need to be delivered quickly. If mom is pushing and the baby is close to delivery, forceps or a vacuum can get the baby out quickly. If it is earlier in labor, or if the forceps or vacuum don’t work, the baby will have to be delivered by emergency cesarean section.



Test your Knowledge

Feel free to look at your notes or the prior instruction provided.

4. From the following table, select one or more behaviors that might indicate sedation from narcotic exposure:

	Constant crying
	Slow and shallow breathing
	Difficult to arouse
	Previously alert but falls asleep after breastfeeding
	Keeps eyes closed in bright light
	Weak or no effort to breastfeed

5. Newborn infection is important because _____. Please select one or more.

	the infection can spread and cause permanent damage
	the newborn will require prolonged hospitalization and antibiotics
	the newborn will have to go to the nursery to get weighed and measured
	the newborn can stay in the room with the mom for an extended period of time
	the newborn will require invasive diagnostic tests like a spinal tap

6. From the following table, select one or more that describe a laboring patient that has lost control:

	loud, patterned breathing
	crying, "just cut the baby out already!"
	screaming and striking her birthing partner
	rapidly stroking her abdomen
	holding on to the bed railing with clenched fists

7. Your doctor is discussing an epidural, she mentions several common side effects of the procedure. She also mentions that there are rare complications. What does she mean by “rare complications”?

8. From the list below, select one or more that are a possible consequence of a maternal fever in labor.

	Mom will have to have a cesarean section
	Mom will have to be placed in isolation to prevent spread of the infection
	The hospital staff will assume that the baby has an infection
	Mom and baby will be given antibiotics
	Mom won't be able to get an epidural if she wants one

9. Angelina is in active labor, with Brad at her side, when the baby's heart beat suddenly drops to 60 beats per minute. Which of the four responses below would be typical in this situation?

- A. Nothing is done, it's common for the heartbeat to go that low
- B. Angelina is offered lunch since the baby might have a low blood sugar level
- C. Angelina is given medicine to make her contractions stronger and more frequent
- D. Angelina is taken for an emergency cesarean section.



Once all the questions are answered, feedback can be found on the next page. Please do not change your answers.

Friendly Feedback

4.

	Incorrect. Constant crying is not a behavior that might indicate sedation from narcotic exposure
✓	Correct. Slow and shallow breathing is a behavior that might indicate sedation from narcotic exposure
✓	Correct. Difficult to arouse is a behavior that might indicate sedation from narcotic exposure
	Incorrect. Previously alert but falls asleep after breastfeeding is not a behavior that might indicate sedation from narcotic exposure
	Incorrect. Keeps eyes closed in bright light is not a behavior that might indicate sedation from narcotic exposure
✓	Correct. Weak or no effort to breastfeed is a behavior that might indicate sedation from narcotic exposure

5.

✓	Correct. Newborn infection can spread and cause damage to the lungs, the brain and the spinal cord
✓	Correct. If the newborn has an infection, they need antibiotics for an extended period of time.
	Incorrect. All newborns go to the nursery to get weighed and measured, whether or not they have an infection
	Incorrect. If the newborn has an infection, they have to go to the intensive care nursery and won't be able to stay in the room with their mom
✓	Correct. Most newborns with an infection will get spinal taps, x-rays and IVs

6.

	Incorrect. A woman who has a 'loud, patterned breathing' may be using breathing techniques as a pain relief method and does not express loss of control.
✓	Correct. A woman that is 'crying, "just cut the baby out already!"' has clearly lost control and needs a pain relief method.
✓	Correct. A woman that is 'screaming and striking her birthing partner' has lost control of her surrounding. If pain management methods are not implemented she will not only be causing harm to her partner, but may be harmful to the health care team as well.
	Incorrect. A woman who is 'rapidly stroking her abdomen' is using a relaxation method called effleurage and is a pain management technique to prevent loss of control.
✓	Correct. A woman 'holding on to the bed railing with clenched fists' has lost control because she is fighting the pain and is not bearing the pain required of labor. This behavior is a predeterminer of a woman who may lose complete control if pain management methods are not taken into consideration or discussed.

7.

If you answered that rare complications are an unexpected consequences of a therapy, that are very unlikely to happen, then you understand.

8.

	Incorrect because a fever is not a reason to do a cesarean section
	Incorrect because these infections are not contagious
✓	Correct, hospital staff will usually assume that the baby has an infection
✓	Correct, mom and baby will usually get antibiotics
	Incorrect since they will usually still allow mom to have an epidural, even if she has a fever

9.

A. Incorrect. The baby's heart beat shouldn't go below 120 for very long

B. Incorrect. Low blood sugar does not cause baby's heartbeat to drop

C. Incorrect. Stronger and more frequent contractions would make the problem worse

D. Correct. This is an obstetric emergency and the baby needs to be delivered immediately.





Diaper backward spells repaid. Think about it.

-Marshall McLuhan

Benefits of Pain Management Strategies



Alert Baby

Baby's are typically healthy and alert when they are born, but they might show behaviors that parents would interpret with concern. These are some common behaviors of healthy newborns:

- They cry at first but become quiet when swaddled and comforted
- They fall asleep (labor was hard work for them, too), but they can be easily awakened
- They keep their eyes closed in a bright room. Their eyes are sensitive, but they will open them if their eyes are shaded from the light or if the room lights are dimmed
- They will attempt to breast feed but may fall asleep while trying. They will reawaken easily
- They look around and seem to enjoy looking at faces
- They will make a startled response to loud noises or sudden movements.



Comfortable Mom

Labor and delivery can be an intense process. Couples can choose different strategies for controlling discomfort, but having a mom that is comfortable throughout that process is beneficial to the mom herself, to the birthing partner, to the baby and the healthcare team. It is important to recognize signs that tell you that the laboring mother is comfortable and in control.

Common examples of a mom who is comfortable include:

- Able to sleep
- Relaxed posture
- Able to carry on a conversation
- Able to interact with her baby after delivery, even if she needs massage of her uterus or suturing of tears

Common examples of a mom who is not comfortable include:

- Crying and screaming through contractions
- Tense posture with clenched jaw and hands
- Complaints of being exhausted but unable to rest
- Painful reactions to suturing and uterine massage after the baby is born

PERSONAL GRATIFICATION

This will be a discussion on personal values and beliefs as they relate to the different methods of managing pain during labor. Each individual and couple arrive with personal values and expectations that, when met will give them a deep sense of personal satisfaction around the birthing experience. We have developed a series of three questions that try to gauge the learners feelings about their reaction to the discomfort of labor, their feelings about exposing their baby to medications during the birthing process and their desire to tolerate discomfort. Plotting the response to these questions on a triangular grid should help the learner identify the pain management strategy that would give them the greatest sense of personal gratification.

Some important concepts:

- Narcotics given to the mom will get into the baby's system, as well. As long as the dose is not given too close to the actual birth, the dose will usually have worn off.
- Narcotics only offer temporary relief of pain
- Very little or none of the numbing medicine used in an epidural ends up in the baby's system.
- Relaxation techniques are only effective if the expectant mom learns them and practices them regularly before she goes into labor
- It is very important that an expectant mom comes to the hospital having evaluated the options and selected some strategy to manage the discomfort of labor.
- If labor does not progress in a normal fashion or if emergencies arise, the original pain management strategy may need to be changed

ACTIVITY

1. Select your answers to the following questions:

A) It is very important to me that I control my reaction to pain without medicine.

Strongly Agree (SA) Agree (A) Neutral (N)
Disagree (D) Strongly Disagree (SD)

B) It is very important to me that my baby not have any exposure to drugs during labor.

Strongly Agree (SA) Agree (A) Neutral (N)
Disagree (D) Strongly Disagree (SD)

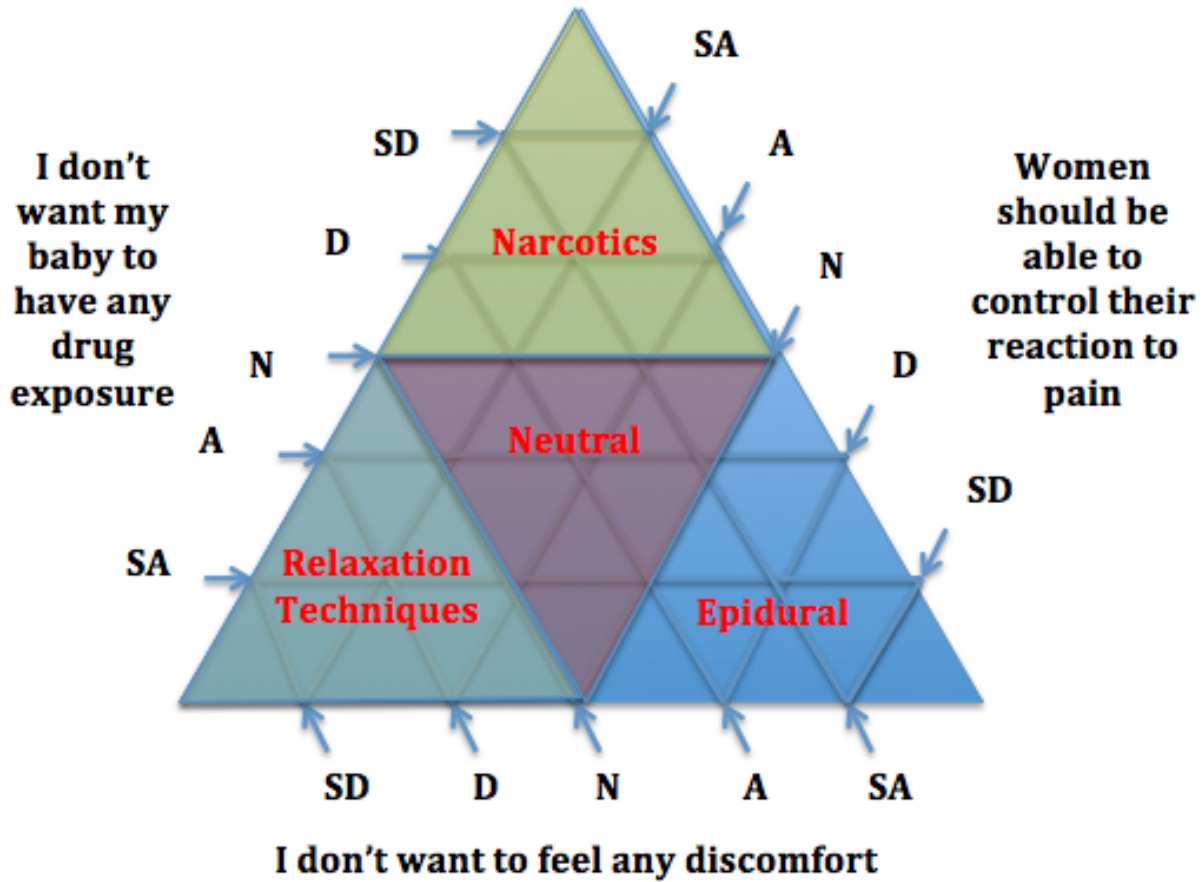
C) It is very important to me that I have as little pain as possible during labor

Strongly Agree (SA) Agree (A) Neutral (N)
Disagree (D) Strongly Disagree (SD)

2. Now circle the corresponding responses on the grid to the right.



Personal Gratification Triangle



3. Identify the large colored triangle of the pain management strategy that all, or most of your responses point to. That is the technique that will give you the greatest sense of personal satisfaction. If your responses point to the neutral triangle or if they point to no triangle in particular, then you don't have a strong personal feeling about this issue and you will be OK with any of the methods. You can make your choice based on logic alone.



Use this page to take notes or
write down any questions.



Test your Knowledge

10. Which of these accurately describes an alert baby?

- A. sleepy and only reacts to painful stimulation
- B. wakes when gently stimulated but quickly falls back asleep
- C. Needs help to breath
- D. Eyes open, occasionally cries, suckles when offered the breast.

11. Select the scenarios that indicate the mother is comfortable:

	Mom is sleeping during her labor
	Mom requires several injections of pain medicine before her tear can be fixed
	Mom has excess bleeding after the delivery and she keeps pushing the doctors hand away while they try to massage the uterus to help it contract
	The laboring mother is tense and anxious during he contractions
	The mom had a tear that needed to be stitched and she is pain free during the suturing

12. After reading this section and having a discussion, Tom and Elaine made the following selections:

A) It is very important to me that I control my reaction to pain without medicine.

Strongly Agree (SA) Agree (A) Neutral (N)
Disagree (D) Strongly Disagree (SD)

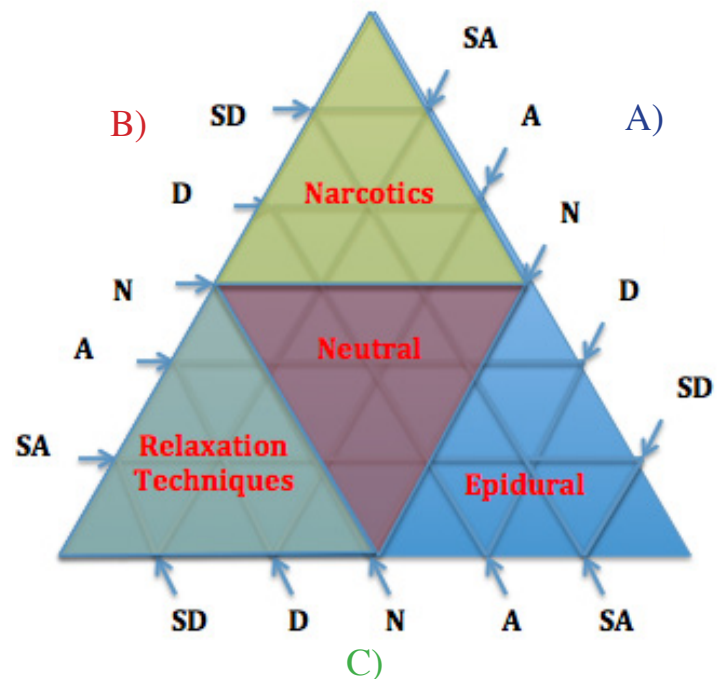
B) It is very important to me that my baby not have any exposure to drugs during labor.

Strongly Agree (SA) Agree (A) Neutral (N)
Disagree (D) Strongly Disagree (SD)

C) It is very important to me that I have as little pain as possible during labor

Strongly Agree (SA) Agree (A) Neutral (N)
Disagree (D) Strongly Disagree (SD)

Use the grid below and see which pain management strategy is best for them.



Once all the questions are answered, feedback can be found on the next page. Please do not change your answers.

Friendly Feedback

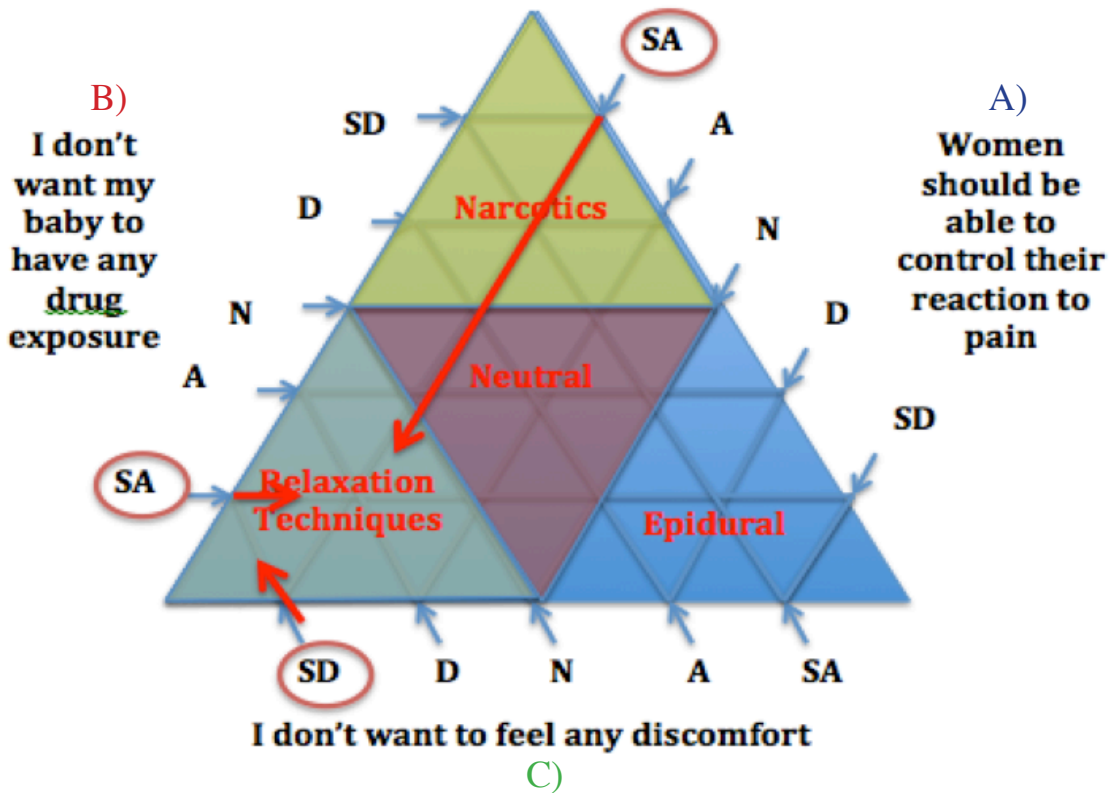
10.

- A. Incorrect. Sleepy and only reacts to painful stimulation is not an alert baby.
- B. Incorrect. Wakes when gently stimulated but quickly falls back asleep is not an alert baby.
- C. Incorrect. Needs help to breath is not an alert baby.
- D. Correct. Eyes open, occasionally cries, suckles when offered the breast describes an alert baby.

11.

✓	Correct, since it describes a mom that seems to be comfortable
	Incorrect, this mom is not comfortable because she is requiring numbing
	Incorrect, pushing the doctors hand away means she is not comfortable
	Incorrect, a comfortable mom would not be tense and anxious
✓	Correct, a comfortable mom will not react to suturing

12.



We are looking for you...



Brought to you by:
Dr. Tod Aeby • Anuhea Nakahara • Jenny Tanaka
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Options During the Labor and Delivery Process

BEHAVIORAL OPTIONS

Behavioral pain management strategies are natural methods for dealing with the pain during labor. It requires practice, mental strength, a partner, friend or family member that will assist you in implementing the strategies during the labor and delivery process, and an acceptance of the discomfort associated with labor. There are a variety of strategies used by different mothers that may be associated with their culture, beliefs, or birthing classes (e.g.; Lamaze, Bradley, Natural birthing). Rather than using medical options, the mother has a desire and will try their best to use behavioral options.

Commonly used behavior options may include:

- Controlled breathing techniques
- Focal points, which may consist of a picture or certain object or place in the delivery room
- Effleurage
- Coaching by a significant other, friend, or family member that may including positive and encouraging instruction, assistance with maintaining control, and massaging when sensed
- Having a cathedral-like setting with soft music or low-lighting



MEDICAL OPTIONS

Medical pain management, as opposed to behavioral methods, use potent medications to dull or remove the discomfort of labor. They fall into two main categories, narcotics and local anesthetics.

Narcotics are natural or synthetic relatives of opium and work to dull the brain and spinal cord's response to painful sensations. They never eliminate pain completely but they can make it much more tolerable.

Local anesthetics work to block the ability of nerves to transmit pain sensations to the spinal cord and brain. In the labor and delivery process they can be used as a local injection while a cut is being sutured, they can be injected into the epidural space to block the major nerves as they enter the spinal column or they can be injected around the spinal cord to block its ability to transmit pain sensations to the brain.

Commonly used narcotic pain medicines include:

- Morphine
- Fentanyl
- Demerol
- Stadol

Commonly used local anesthetics for local injections, epidurals or spinals include:

- Lidocaine
- Bupivacaine



Test your Knowledge

13. Which of these is a medical option for pain relief?

- A. Intravenous morphine
- B. patterned breathing
- C. whirl pool
- D. rolling the lower back with a tennis ball

14. Which of these is a behavior option for pain relief?

- A. intravenous morphine
- B. patterned breathing
- C. epidural anesthesia
- D. cesarean section



Once all the questions are answered, feedback can be found on the next page. Please do not change your answers.

Friendly Feedback

13.

A. Correct. Intravenous morphine is a medical option for pain relief.

B. Incorrect. Patterned breathing is not a medical option for pain relief.

C. Incorrect. Whirl pool is not a medical option for pain relief.

D. Incorrect. Cesarean section is not a medical option for pain relief.

14.

A. Incorrect. Intravenous morphine is not a behavior option for pain relief.

B. Correct. Patterned breathing is a behavior option for pain relief.

C. Incorrect. Epidural anesthesia is not a behavior option for pain relief.

D. Incorrect. Cesarean section is not a behavior option for pain relief.



Looking closely at
maternal & fetal,



Brought to you by:
Dr. Tod Aeby • Anuhea Nakahara • Jenny Tanaka
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Fetal and Maternal, Risks and Benefits



FETAL BENEFITS

Every method of managing the discomfort of labor has risks and benefits to the newborn. This section will be discussing the benefits of the three common methods, relaxation techniques, narcotic pain medication and epidural anesthesia.

Relaxation techniques have the advantage of being natural and with a low rate of side effects. Common newborn benefits are:

- Baby is born with no medication on board
- Mom may feel more bonded to the baby

Narcotics are frequently given to take the edge off labor pains. Common newborn benefits include:

- Mom may get some rest so that she is stronger for pushing, delivering the baby sooner
- Muscles in the birth canal may relax allowing labor to progress faster
- Mom may be more comfortable and better able to interact with the baby while she gets tears repaired or if they are massaging her uterus to control bleeding

Epidural anesthesia is a very effective method of pain relief. Typical newborn benefits include:

- Mom can get some sleep so that she is stronger for pushing
- Muscles in the birth canal relax allowing labor to progress faster
- Mom may be way more comfortable and better able to interact with the baby while she gets tears repaired or while they are massaging her uterus to control bleeding.

Fetal Risks

Narcotics given to the laboring mother cross the placenta and enter the baby's blood stream. If enough time passes, after the dose and before the baby is born, most or all of the medicine will have worn off at the time of delivery. If the baby is born with the medicine in its system, some or all of the following effects are possible.

- Fetal sedation
- Slow and shallow breathing
- Difficulty waking up to breast feed or interact with the parents

In rare cases, the effects will be strong enough that the pediatricians will decide to give the baby a shot that will reverse the effects of the narcotics. Narcotics do not cause infections in the newborns, they don't slow labor down and they don't last more than a few hours.

Epidural anesthesia can cause low blood pressure in mom leading to fetal distress. Usually this is easily corrected with IV fluids and medication, though sometimes it can lead to an emergency cesarean section. Also, some experts believe that epidurals can slow labor if given too soon, and can increase the chances that the baby will be in a position that slows or stops the progress of labor.

Relaxation methods do not have any significant impact on the newborn.



MATERNAL BENEFITS

Relaxation techniques can be very effective in helping a mom deal with the discomfort of labor. It is important that these techniques be studied and practiced. Maternal benefits of relaxation techniques include:

- A sense of mastery over one's reaction to the discomfort of labor
- Alert and clear-headed when baby is born
- Feeling good about not having to give your baby medications
- Able to walk, move to different positions and use devices like squatting bars and birthing balls
- It can be a bonding experience between the mom and the father of the baby.

Narcotics are potent pain relievers and very useful for helping patients deal with discomfort. Some of the maternal benefits of using narcotics, include:

- Being able to relax and get rest in the early part of labor
- Taking the edge off pain and helping a mom, trying to use the relaxation techniques, regain control
- They can help muscles relax and allow labor to progress quicker
- Make it easier to tolerate the later part of labor

Narcotics will not take all the pain away and they do cross the placenta into the baby's system.

Epidurals are a very effective method of pain management. While there are risks, the following are benefits for the mom:

- Very effective pain relief
- Muscles in the birth canal relax allowing labor to progress
- Able to get sleep during labor so better able to interact with the baby
- Less discomfort during pushing
- Less discomfort after the baby is born and so mom is better able to bond with the baby.



Maternal Risks

Every method of managing the discomfort of labor has risks and benefits to the laboring mom. This section will be discussing the risk of the three common methods, relaxation techniques, narcotic pain medication and epidural anesthesia

Relaxation techniques have the advantage of being natural and with a low rate of side effects. To be effective, the techniques require study, practice and intense concentration.

Common maternal side effects are:

- Loss of control and intense pain due to lack of practice, improper technique or prolonged labor leading to exhaustion and loss of concentration
- Maternal exhaustion leading to an inability to interact with the newborn
- Inability to interact with the newborn due to pain during the repair of vaginal tears or during uterine massage as a treatment for excessive bleeding.
- Tense muscles can slow or stop the progress of labor

Narcotics are frequently given to take the edge off labor pains. Morphine is commonly given in the early part of labor as an intramuscular shot to help mom get some rest before labor become more active. Narcotics are also given through the IV. Common maternal side effects include:

- Nausea
- Disorientation or confusion
- Sleepiness
- Inadequate or short-lived pain relief
- Inability to interact with the newborn due to any of the above.

Epidural anesthesia is a very effective method of pain relief but it also has some risks. Typical maternal risks include:

- Confinement to bed during labor since leg muscles can be weak and walking is unsafe
- Some women develop fevers after an epidural and they are treated with antibiotics
- Some women get low blood pressure after an epidural and feel dizzy and weak
- Some experts believe that epidurals can increase the risk of cesarean section, especially if given too early
- Some women believe that epidurals cause back pain but studies do not seem to support this
- Epidurals can interfere with a woman's ability to push, especially at first

Generally, all of these risks are mild and short-lived



Test your Knowledge

15. Jane is in active labor and is considering IV narcotics to help her tolerate her contractions. Check one or more items below that represent possible risks to the baby.

	Newborn sedation
	Newborn fever
	Difficulty staying awake to breast feed
	Infection in baby requiring antibiotics
	Difficult feeding two days after birth

16. Mary is in active labor and is considering IV narcotics to help her tolerate her contractions. Select one or more items below that represent possible risks to the mother.

	Mom feels sleepy and a little disoriented
	Mom has heavier bleeding after the baby is born
	Mom feels nauseated
	Mom has to go for a cesarean section
	Mom has back pain

17. Mary is in early labor and is considering an epidural to help her tolerate her contractions. Select one or more items below that represent possible benefits to the baby.

	Mom has less bleeding
	The baby is not born sedated
	Mom relaxes and gets some sleep during labor so that she is better able to push when the time comes
	Mom develops a fever
	Mom's labor is longer

18. Joan is in early labor. She and her husband Pete have selected relaxation techniques and they have practiced them religiously. Select one or more items below that represent possible benefits to the mother.

	Joan feels good about having mastered labor discomfort without the use of drugs
	Joan slept through most of her labor
	Joan feels good about not exposing her baby to drugs
	Joan's muscles suddenly relax allowing labor to progress
	Pete worked hard to coach Joan through and they feel their relationship is stronger.

Friendly Feedback

15.

✓	Correct. Newborn sedation is a possible risk
	Incorrect. Newborn fever is not a possible risk
✓	Correct. Difficulty staying awake to breast feed is a possible risk
	Incorrect. Infection in baby requiring antibiotics is not a possible risk
	Incorrect. Difficult feeding two days after birth is not a possible risk

16.

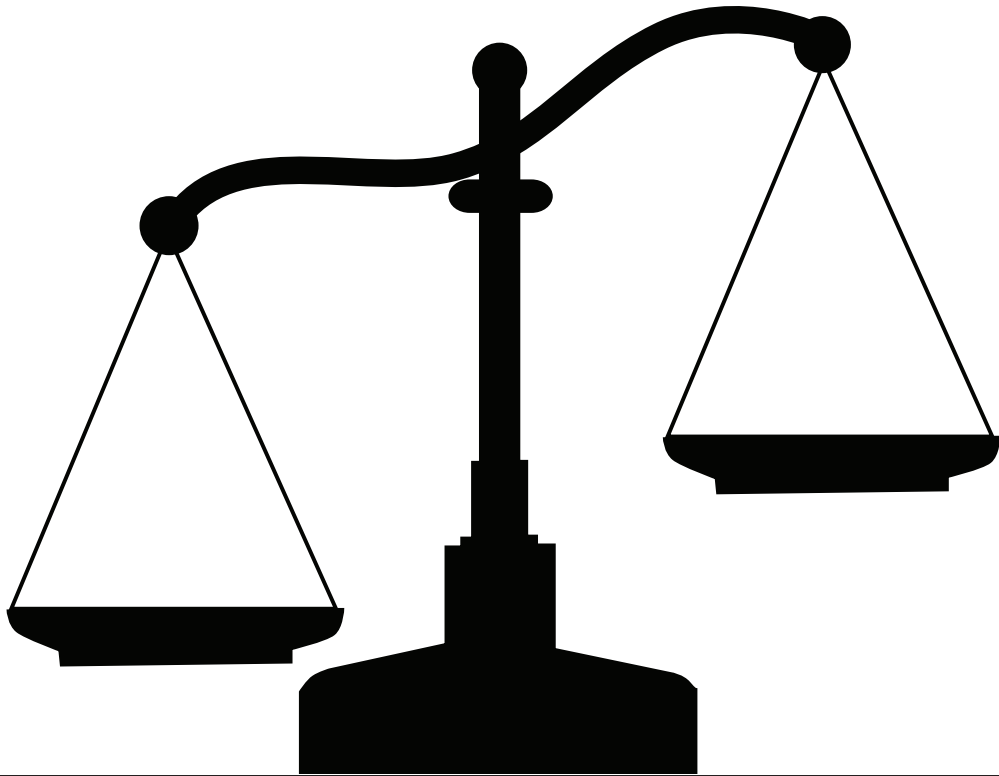
✓	Correct, narcotics can cause the mom to feel sleepy and a little disoriented
	Incorrect, narcotics do not cause heavier bleeding after the baby is born
✓	Correct, nausea is a possible reaction to IV narcotics
	Incorrect, IV narcotics do not increase the chances of a cesarean section
	Incorrect, IV narcotics do not cause back pain in the mother

17.

	Incorrect, epidurals do not increase or decrease mom's bleeding
✓	Correct, babies are not born sedated with epidurals
✓	Correct, a rested mom is a benefit to the baby
	Incorrect, epidurals can cause fever, but this is a risk
	Incorrect, a long labor is not better for the baby

18.

✓	Correct, many women feel this way
	Incorrect, relaxation techniques require concentration and couples aren't able to sleep during labor
✓	Correct, many women feel this way
	Incorrect, a women can use those techniques to relax muscles but they take some tome to work
✓	Correct, moms often report feeling closer to their partner after successfully using relaxation techniques



WEIGHING

the **OPTIONS**

based on **RISKS**

& *BENEFITS*

Weighing Options

Think about the different painmanagement options you have learned throughout this instructional module. Also think about the risks and benefits of each option. Feel free to refer to notes and prior sections.



Test your Knowledge

19. Jack and Jill are in active labor and have decided to get an epidural. What are the maternal and fetal risks and benefits of that choice?

	Risk	Benefit
Maternal		
Fetal		

Selecting a Strategy

This section will summarize the information learned in the previous chapters and give you, the expectant couple an opportunity to make their selection of pain management strategies.



Test your Knowledge

20. Assuming that labor is progressing normally, select your preferred method of pain relief. Justify your choice based on risks, benefits and personal beliefs.

A large area for writing answers, consisting of 15 horizontal blue lines bounded by two vertical red lines.



Once all the questions are answered, feedback can be found on the next page. Please do not change your answers.

Friendly Feedback

19.

	Risk	Benefit
Maternal	<ul style="list-style-type: none"> • Fever • Unable to ambulate • Unable to feel the urge to push 	<ul style="list-style-type: none"> • Comfortable • Muscles in the birth canal relax • Able to get sleep • Able to interact with baby sooner
Fetal	<ul style="list-style-type: none"> • Fetal distress • Maternal fever • Presumed infection in newborn 	<ul style="list-style-type: none"> • Mom better rested • Mom able to interact • Bond and breastfeed sooner • Shorter labor

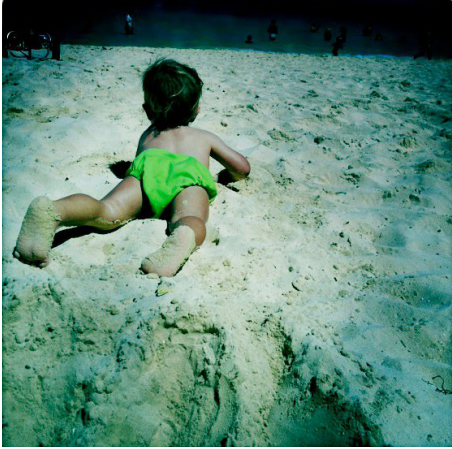
20.

(3) You Got It!	(2) Almost Got It!	(1) Uh, Oh!
<p>A) The learner chose at least one of the pain relief strategies and:</p> <ol style="list-style-type: none"> 1. Justified their option with at least two risks to mom and baby. 2. Justified their option with at least two benefits to mom and baby. <p>B) The learner chose at least one pain relief strategy and explained their reasoning based on at least one personal belief.</p>	<p>A) The learner chose at least one of the pain relief strategies and:</p> <ol style="list-style-type: none"> 1. Justified their option with only one risk to mom and baby. 2. Justified their option with only one benefit to mom and baby. <p>B) The learner chose at least one pain relief strategy, but did not explain their reasoning based on a personal belief.</p>	<p>A) The learner chose at least one of the pain relief strategies and left out one or more of the justifications for their pain management option based on risks and benefits to mom and baby.</p> <p>B) Learner did not mention anything about personal beliefs.</p>



*Thank you for taking the time to
learn about your pain management
options during labor and delivery
with us.*

*-Dr. Tod Aeby, Anuhea Nakahara
& Jenny Tanaka*



ka 'eha o ke aloha. labor of love.

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