

Rh Incompatibility

One of the things medical professionals check for during pregnancy is the presence or absence of the Rh factor in the parents' blood. Rh refers to a blood protein that is present in some, but not all people. Whether or not this protein is present makes no difference in a person's health. It causes problems only if an Rh-positive male and Rh-negative female have more than one Rh-positive child. The first child of a positive-negative couple is usually not affected. However, if the baby is Rh-positive, there is an increasing chance of trouble in later pregnancies. Here is how it works:

- **The first pregnancy** with an Rh-positive baby almost always has no ill effects on the mother or baby because very few blood cells pass from baby to the mother during pregnancy. During birth, however, some of the infant's blood may enter the mother's bloodstream. The mother's body reacts to her baby's Rh-positive blood factor by producing antibodies to destroy the "foreign" blood cells. The antibodies remain to defend the body against any future exposure to Rh-positive blood. When this happens, a mother is said to be *sensitized*.
- **The second pregnancy** with an Rh-positive baby introduces problems because the mother's antibodies cross the placenta to attack and destroy the baby's blood cells. The production of antibodies increases as the pregnancy goes on. It also increases with each Rh-positive child.

Therefore, some babies are more severely affected than others. Those who are mildly affected usually recover. They may develop anemia or jaundice and become sick. Babies with more serious cases may suffer from mental retardation or physical defects. The most seriously afflicted infants may die.

Today, prevention is possible. A vaccine can be given to the Rh-negative woman during and after her first pregnancy with an Rh-positive child, if tests show the absence of antibodies. The vaccine prevents the Rh antibodies from forming in her bloodstream. She can then safely give birth to another Rh-positive child. An Rh-negative woman who is pregnant receives a precautionary vaccine at twenty-eight weeks into her first pregnancy. The vaccine prevents her system from developing antibodies that threaten the fetus she carries. Then, if the newborn baby is found to be Rh-positive, she is given another dose of the vaccine within seventy-two hours of delivery. The vaccine is only good for the pregnancy in which it is given.

Each pregnancy and delivery of an Rh-positive baby requires more doses. During each subsequent pregnancy, the Rh-negative woman is screened and monitored carefully for the presence of Rh antibodies.

Taking Action

Another important characteristic of blood is its type. People have either A, B, AB, or O blood types. Medical workers must be sure to identify blood properly before giving transfusions. Research the ABO system of identifying blood and prepare a brief report describing it. Which type is most common? Which types can be donated to people with other types?

Child Safety Seats

Injuries from motor vehicle crashes are the leading cause of death for children. The use of child safety seats cannot prevent all fatalities. When they are used, though, they dramatically increase the chances that children will survive a crash. All 50 states and Canada have laws requiring the use of child safety seats.

TYPES OF CHILD SAFETY SEATS

There are three categories of child safety seats: rear-facing, forward-facing, and booster seats. It is essential that the right seat is matched to a child's size and age.

Rear-Facing Seats

Until children are at least one year old and weigh at least 20 pounds, they should ride in rear-facing seats—seats that face the back of the car. There are two types of rear-facing seats, infant-only and convertible. An infant-only seat has a carrying handle, is small and portable, and often comes with a detachable base. It should be used only with infants up to 22 pounds.

Convertible seats are larger than infant-only seats. They are used as rear-facing seats for infants, but they can then be converted to forward-facing seats for older and larger children.

Forward-Facing Seats

When a child is at least one year old and weighs at least 20 pounds, he or she can ride facing forward. Convertible seats, forward-facing only seats, and combination forward-facing/booster seats are options at this stage. All allow a child to see more while in the vehicle. The safety seat's shell and straps help protect the child in case of a crash.

Booster Seats

A child should stay in a regular child safety seat as long as possible, preferably until the child is at least four years old. When a child becomes too large for a regular safety seat—usually at around 40 pounds—the child should ride in a booster seat. Children are ready for booster seats when:

- They reach the maximum weight or height for the regular safety seat;
- Their shoulders are above the harness slots on the safety seat; or
- Their ears reach the top of the regular safety seat.

Booster seats raise the child so that the vehicle's lap and shoulder belts fit properly. The lap belt should rest low across the child's upper thighs, not across the stomach. The shoulder belt should lie across the middle of the child's chest and shoulder, not under the arm or behind the back. Booster seats should never be used with only a lap belt. Children should use a booster seat until they are eight years old or 4'9" tall.

SHOPPING TIPS

When shopping for a child safety seat, keep the following tips in mind:

- **Price does not always equal quality.** Sometimes a higher price just means that the seat has extra features that may or may not make it safer or easier to use. Check ratings from nonprofit organizations.
- **Try the seat first.** Put the child in the seat and adjust the harnesses and buckles. Make sure the seat will fit in the car in which it will be used. The best way to ensure a proper fit is to try installing the seat before buying it.

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- **Give the baby room to grow.** When shopping for a rear-facing seat, look for more than one set of harness slots to give the baby more growing room. Also look for adjustable buckles and shields.

SAFETY RULES

- **Always use a safety seat.** Beginning with the first ride home from the hospital, children should be in child safety seats whenever they are in a vehicle. Never hold a child in your lap. In a crash, you would not be able to protect the child, and your weight might even crush the child.
- **Check for airbags.** Never put a child who is in a rear-facing car seat in the front seat of a vehicle that has an airbag. The safest place for an infant is the middle of the back seat. Until at least age 12, a child should ride in the back seat of the vehicle.
- **Follow the directions.** Every safety seat is different. Read, follow, and keep the instructions that come with the seat. Remember that advertisements may not show the seat being used properly.
- **Read the manual.** Read the owner's manual that came with the vehicle to find out how to properly install child safety seats in that particular vehicle.
- **Check the position of harness straps.** Harness straps should fit across the child's shoulders and hips. The straps should be snug enough that the child cannot move forward.
- **Be sure you have installed the safety seat properly.** Have it checked at a child safety seat inspection station or by a certified child passenger safety technician.

Taking Action

Research child safety seats for infants and children and make a comparison of several brands, including features, prices, and ease of use. Include the sources of your information.

Natural Childbirth Methods

Natural childbirth, also called normal childbirth, is the delivery of a baby without the use of medication or surgery. If a woman wants to have a natural childbirth, there are some steps that she should take to prepare for the delivery:

- **Find an experienced practitioner.** Choose a doctor or licensed midwife who has experience in caring for women who want to give birth without medication.
- **Choose the place.** Natural childbirth can take place in a hospital, at a birth center, or at home. Birth centers specialize in natural childbirth. While most home births are natural births, giving birth at home can have greater risks.
- **Enroll in a childbirth class.** A childbirth class provides parents with information on the stages of labor, as well as breathing, massage, and other methods of pain relief.
- **Develop a birth plan.** This allows a couple to communicate their preferences for the birthing process to the physician or midwife, as well as the other staff.

Childbirth classes may be taught by labor and delivery nurses, midwives, or other certified professionals. Approaches to natural childbirth may vary from class to class, even among those trained in the same programs. Some discuss epidural anesthesia and pain medication, allowing parents to make informed decisions. The two most common programs teach either the Lamaze method or the Bradley method of childbirth.

THE LAMAZE METHOD

In the early 1950s, French doctor Ferdinand Lamaze presented a new method of childbirth after visiting Russia. Aided by the publication of a book, the method began to become more popular about 1960.

The Lamaze method combines classes in childbirth with ways of relaxing and controlling breathing. It includes the strong emotional support of a coach. Today, about 2 million parents attend Lamaze classes in the United States each year.

The Lamaze philosophy believes that women's experience of birth is affected by how and where the birth takes place. It maintains that women have a right to childbirth without medication or other medical procedures, unless circumstances require it. Labor begins naturally and is not induced. Lamaze is based on the idea that by becoming educated about childbirth, a couple can better understand what is happening and make intelligent choices about their options.

Lamaze classes are taught by certified teachers, called Lamaze Certified Childbirth Educators, who have themselves taken classes in prepared childbirth. According to Lamaze International, their certified educators:

- Promote the childbearing experience as a normal, natural, healthy process that profoundly affects women and their families.
- Assist women and families in discovering and using strategies that facilitate normal, natural, and healthy pregnancy, birth, breast-feeding, and early parenting.
- Help women and their families to understand how interventions and complications influence the normal course of pregnancy, birth, breast-feeding, and early parenting.
- Provide information and support that encourages attachment between babies and their families.
- Assist women and their families to make informed decisions for childbearing.

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Lamaze classes are small, usually with six to ten expectant mothers and their coaches. Coaches are usually the babies' fathers, but not always. A coach may be another family member or a friend. Because classes are small, they allow for individualized instruction. Classes include lectures by the instructor, demonstrations of the relaxation and breathing techniques, practice using those techniques, and questions and answers. Classes cover the following topics:

- Normal labor and birth
- How the woman can position herself to make labor and birth easier
- Massage techniques to ease labor pain and promote relaxation
- Other methods of comforting a woman in labor
- Breathing techniques that can be used to promote relaxation
- How a coach can give emotional support to the woman in labor
- Communication skills for the woman in labor and her coach
- Problems that might arise in labor and delivery
- Breast-feeding

- Healthy choices a woman can make during pregnancy and after giving birth

THE BRADLEY METHOD

The Bradley method is named after Dr. Robert Bradley. His method emphasizes the importance of good nutrition for a healthy pregnancy. The role of the father or coach is also emphasized, so there is special training for the coach, as well as the mother.

The typical Bradley class is 12 weeks long, beginning in the fifth month. Most classes have only three to eight couples. The classes encourage women to trust and work with their bodies during labor. They teach exercises, both to ease the discomforts of pregnancy and to prepare muscles for birth. They also teach relaxation techniques to make the first stage of labor more comfortable.

According to the Bradley method, a woman needs darkness, quiet, and closed eyes during labor. Women are taught to imitate their sleeping positions and to use deep, slow breathing.

Instructors acknowledge that labor hurts, and they encourage women to accept pain. Medication is reserved for complications and cesarean births.

Taking Action

Determine which planned childbirth classes are offered in your area. Either interview a mother who has used the Lamaze or Bradley method of natural childbirth and write a summary about her experience, or research and report on the pros and cons of pain medication during childbirth.