

ROCHESTER AREA BIRTH NETWORK

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INDUCTION AND AUGMENTATION OF LABOR

Induction is the artificial starting of labor with the use of pitocin, castor oil, or herbal preparations such as blue or black cohosh. Other methods used to start labor include breaking the amniotic sack (an amniotomy), stripping of the membranes (separating the membranes of the amniotic sack from the uterine wall), and inserting prostaglandin gel, or pieces of Misoprostol tablets into the vagina to soften the cervix. The idea is to get labor going artificially, by starting contractions of the uterus. The most commonly used agent is pitocin, an imitation of the natural hormone, Oxytocin, which stimulates labor contractions spontaneously. This is administered by an intravenous drip, and the major side effect is violent and extremely painful contractions of the uterus. Castor Oil is frequently proscribed by midwives, and causes diarrhea, which can stimulate the body to produce natural oxytocin, and start labor contractions.

While induction is a common practice in present day childbirth (in the United States) it is a controversial one. Interference in a natural process such as birth can cause negative side effects, as well as lead to more risky interventions. It is important that all pregnant women educate themselves on the pros and cons of all interventions (medical and otherwise) before agreeing to them.

Many labors are induced because women are deemed to be past their due date. The medical community fears postmaturity syndrome, which means that the baby is past due, the placenta may have started to function less efficiently, depriving the baby of nutrients, oxygen, and sufficient amniotic fluid. While this is a very serious condition, it is also rare. In her book Obstetric Myths vs. Research Realities, author Henci Goer discusses research indicating that postmaturity syndrome may actually be caused by Intrauterine Growth Retardation, a disease of malnutrition or system failure, rather than being overdue. More research needs to be done to confirm this, but it brings into question the practice of automatically inducing because a woman is considered overdue.

More recently a trend has emerged to induce women for “big” babies, also known as macrosomia. It is important to note that methods used to determine a baby’s size can be unreliable, measuring up to 2 lbs. off in either direction. However it is most common to over estimate the size of a baby. A study done in 1993 by Combs, et al, noted that “We conclude that elective induction of labor after sonographic diagnosis of macrosomia increases the cesarean rate and does not prevent shoulder dystocia”. Shoulder Dystocia, when a baby’s shoulders get stuck during birth, usually resolves easily with the use of the Gaskin Manuver (turning the mom on to her hands and knees), and gentle, gradual mother-initiated pushing. Another study done in 1983 by Boyd, et al, showed that an increase of c-sections for macrosomia did not improve perinatal outcomes, yet this is still done frequently. Both Obstetric Myths vs. Research Realities by Henci Goer, and Understanding Diagnostic Testing in the Childbearing Year by Anne Frye, CNM cite important research on this topic.

Next to the increased risk for cesarean surgery, one of the other most common negative side effects is actually the possibility that the baby will be premature, and unable to sustain life outside the womb. This means that the baby is born too early, and may suffer serious health and developmental problems. According to a 1990 study published in the Journal of Obstetrics and Gynecology, the average length of pregnancy is actually 41 weeks and one day. This would extend the overdue period to 43 weeks. Additional reasons commonly given for induction include medical complications such as pre-eclampsia, diabetes, fetal growth restriction (AKA: intrauterine growth retardation), oligohydramnios (too little amniotic fluid), and blood incompatibility. Sometimes, however, inductions are done simply for the convenience of the parents, or medical personnel.

Obstetrics Illustrated lists the following complications of induction: failure to induce effective contractions; placental separation (abruption); bleeding; prolapse of the cord; infection; pulmonary embolism of amniotic fluid; poor uterine action; abnormal fetal heart rate patterns; hyperstimulation; rupture of the uterus; water intoxication; 50% increased risk of a cesarean section, and a general trend toward the need for more invasive and risky medical interventions. This last one is known as the domino theory of obstetrical interventions, in which one intervention

leads to another, and more increasingly invasive, and thus more risky, interventions, and so on, until the woman ends up with complications that require a cesarean section. It is important that parents also educate themselves regarding the risks of major surgery, which are numerous, as well as potentially life threatening.

According to Dr. Marsden Wagner, former head of the World Health Organization's committee on mother and child health, inducing for post-dates alone is inappropriate, as a true medical problem should exist before resorting to induction. Conducting a biophysical profile, or other fetal surveillance technique, would be one option to determine the health and well being of the baby. Anne Frye discusses this at length in her book Understanding Diagnostic Tests in the Childbearing Year. It is important to note, however, that many of these tests have a very high false positive rate. This means that they indicate that there may be a problem when there actually isn't. For instance the false positive rate for the non-stress test is 75%. It is important to remember that induction also requires the use of additional medical interventions, which then impose risks (negative side effects) themselves. Many women also end up using drugs (that could potentially harm them or their baby) that they may not have needed, or have required a cesarean section, that may not have been necessary, if nature had not been interfered with.

Dr. Caldero-Barcia, former president of the International Federation of Gynecologists and Obstetricians, stated that it is not recommended to rupture membranes artificially (amniotomy) to augment or accelerate (speed up) normal labor, or to induce labor, except for medical emergencies. Breaking the bag of waters (the amniotic Sack) removes a natural protective cushion for the baby and the mother, and increases the risk of infection and prolapsed cord. He does recommend that when induction is necessary using the minimal dose of pitocin, monitoring all inductions by non-invasive methods, monitoring all high risk labor by non-invasive methods, and reducing use of all drugs to 10% of births. Non-invasive methods of monitoring include using a Fetoscope, or Doptone, instead of an External or internal Electronic Fetal Monitor, and restricting vaginal exams, to reduce the incidence of infection. Please note that it has been found that when induction is medically necessary a professional labor support person (a doula) is not only extremely helpful, but also can reduce the potential for the need of cesarean surgery, or the need for pain medications. Speak to your childbirth educator for a list of the professional labor assistants in your area.

Very recently a new method of induction has become popular: the use of misoprostol (cytotec) tablets inserted in the vagina to stimulate cervical effacement and dilation. First, it is important to note that misoprostol (cytotec) is only approved for use by the FDA as an agent to protect the stomach lining in people who take anti-inflammatory drugs on a long term basis. It is not approved for induction of labor. While it is an effective agent for starting labor, recent research raises some concerns regarding the negative side effects of misoprostol, which include: Tachysystole (6 or more contractions in 10 minutes), Hyperstimulation syndrome of the uterus (extreme or abnormal contraction patterns combined with fetal heart rate problems), and 5 of the studies showed significantly more fetal tachycardia. According to the Cochrane database library's review of misoprostol induction (1998) "it can not be recommended for routine use at this stage" because of some of the concerns raised above. It is still considered experimental, and more studies need to be done.

Considering all of this complicated information what is a woman to do when faced with this issue? Education is the key, and many logical steps are recommended in Ann Frye's books Understanding Diagnostic Tests in the Childbearing Year, and Holistic Midwifery. She recommends that a well nourished woman double check her estimated due date, by going over what information is available regarding the woman's monthly menstrual cycles, and times at which conception could have occurred. The newest and most readable source on this subject is Henci Goer's book The Thinking Woman's Guide to a Better Birth. In it she devotes a chapter to the pros and cons of induction of labor, and guides women through the decision making process in a logical manner. As the book is based solely on medical research it is one that can be taken to the medical careprovider and used as a starting point for discussion.

Prevention of most unnecessary medical interventions can be as simple as staying healthy and low risk, by eating an extremely well balanced diet, avoiding harmful substances, and educating yourself. Being well nourished is apparently a double edged sword, as it not only means a healthy mom and baby, but sometimes a longer pregnancy. Speak to your local childbirth educator and your care provider to get a clearer picture of your options and their risks. Read some of the sources listed below, and draw your own conclusions. Remember that this is your baby, and the ultimate responsibilities and decisions are yours to make. What is right for one person, may not necessarily be what are right for you and your baby. You and your baby will be the ones to live with the results of your decisions, not your doctor, midwife, childbirth educator, or nurse. Choose wisely.

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