

How does the body know what to do to birth a baby? One word: HORMONES.

## The Hormonal Blueprint of Labor: a guide for expectant families



This handout is specifically designed to assist you in creating the optimal conditions for birthing, based on the hormonal blueprint of labor. Remember that hormones do pass through the placenta, so baby is constantly bathed in the same hormonal cocktail as the mother.

Hormones are chemical messengers that are created and released by one part of the body which are sent out to regulate the activity of certain cells or organs in other parts of the body.

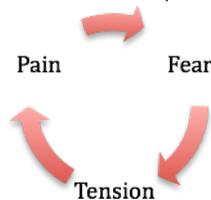
*The key hormones of birth include:  
oxytocin, endorphins, catecholamines, and prolactin.*

### ☞ Oxytocin

This is the hormone of LOVE. It is crucial for maternal behavior, is responsible for bonding, controls ejection reflexes (i.e. increases uterine contractions and the "letdown" of breast milk during nursing), reduces stress and anxiety, creates a feeling of sleepiness and relaxation, and enhances nutrient absorption. It is secreted in women and men when hugging or cuddling a loved one, engaging in sexual activity and with orgasm. It has the opposite effect of catecholamines.

### ☞ Catecholamines

Epinephrine (adrenalin), Norepinephrine, & Cortisol together are the "catecholamines." They are the hormones of DANGER. They are created in response to feelings of danger, fear, anger, and anxiety. They create the fight-flight-or-freeze response and counteract the effects of Oxytocin and Endorphins. If these hormones get created and secreted, they can slow down or stop labor. In high levels, they are associated with fetal distress. Creating a birthing environment where the mother feels safe and is undisturbed reduces catecholamines and increases oxytocin.



### ☞ Endorphins

These are the hormones of TRANSCENDENCE. They act as natural opiates and analgesics, meaning that they are natural pain-killers similar to morphine (only better!). They increase in response to physical exertion, meaning the harder your body works to birth your baby and the more intense things get, the more endorphins you get. They create a trance state: feelings of euphoria, dependency, and pleasure. This is what is referred to as "Labor Land."



This mom is in Labor Land

### ☞ Prolactin

This is the NESTING hormone. It prepares the breasts for breastfeeding and promotes the production of breast milk. It is mood-elevating and very calming. It is responsible also for the altruistic behavior of mother toward baby.

In order for the delicate balance of hormones to flow optimally during labor, the limbic system in the mid-brain, also known as the "mammalian brain," must override the neo-cortex, or the "new-brain." The part of the brain that is more primitive and instinctual (animalistic) is the part of the brain that knows how to give birth. While it may feel like there is a lot of information here, the main message is that your innate wisdom required to birth your baby will guide you when you feel SAFE, LOVED, and TRUSTING of the process.

Ensure that you feel:

## 1. SAFE

- ☞ When you feel safe, your body knows all is well to give birth. Stress, on the other hand, tells your body that it is not wise to birth under the current circumstances and to wait.
- ☞ Almost all animals give birth in complete privacy. Women need to feel undisturbed and safe in their environment so that they can follow their body's guidance, uninhibited.
- ☞ Give birth where, and with whom, you feel safest. Don't feel obligated to have anyone there... it is best to feel "unobserved" and in control of your environment.
- ☞ Keep lights soft and dim and shut out the outside world.
- ☞ Address fears you have *before* birth—any fear (be it fear that your floors aren't squeaky clean enough, fears about becoming a mom, or concerns about your baby or birth)
- ☞ Laboring and birthing in water can help alleviate discomfort *and* create more privacy

## 2. LOVED

- ☞ It comes as a surprise to some people that birth is a sensual experience. Nurture feelings that were present when you *made* the baby to help *birth* your baby. Remember that oxytocin is the love hormone...
- ☞ Smooching, cuddling, hugging, nipple stimulation, sex (with membranes intact) and other things that make you feel loved and sexy create more oxytocin, which helps labor progress.
- ☞ Petting a dog or cat also creates more oxytocin
- ☞ Praying, or connecting to your spiritual source, has been shown to be of benefit during labor by reducing fear and tension, creating more feelings of peace and surrender.

## 3. TRUSTING of the process

- ☞ Watch empowering birth videos and read inspiring birth stories
- ☞ Be careful about focusing on that which you want to create for yourself and your baby, so that your mind and body are ready and willing when labor begins. Research shows that a woman's preconceptions about birth correlate to her actual birth experience.
- ☞ Minimize thinking (new-braining). I can't say enough about this one. You can't think your way through labor. The only way it really works is to turn off the thinking part of the brain and trust your body, surrendering to the process. Your body will know what to do. If something needs figuring out, that's what your midwife is for. ☺
- ☞ Cover the clock.
- ☞ Reduce interventions, including vaginal exams, unless necessary.
- ☞ Allow yourself to get animalistic and instinctual.
- ☞ Utilize deep, abdominal breathing as well as vocal toning (moaning). This can help your tissues release tension, allowing your body to do its work more easily
- ☞ Use the comfort measures and positions that *feel* right to you at the time.

"Just as a woman's heart knows how and when to pump, her lungs to inhale, and her hand to pull back from a fire, so she knows when & how to give birth." -Virginia di Orio

Thanks to Ashley Grace, midwifery student, for creating this handout.