

# Do your hormones really help during labour?

Let's take a look at how hormones play a major role in starting, regulating and supporting your labour and birth. Learning about them can help you understand what will happen during this process. These hormones, which originate in the deepest and oldest parts of our brain, are also used when making decisions about your care, so understanding this and how they may be impacted, is important for making informed decisions. You (and your baby) are born with the ability to start labour, labour and give birth, breastfeed and become deeply attached to each other. The flow of hormones in your body drives these well-organized, finely tuned processes.

Researchers such as French surgeon and natural birth pioneer Michel Odent believe that if we can be more respectful of our mammalian roots, we can have more chance of a straightforward birth. Birth hormones are chemical "messengers" that your body makes. These hormones work together to guide important changes - changes that help make labour and birth go smoothly and safely for both of you.

Birth hormones help guide you and your baby in many ways, including:

- Getting your body ready to give birth
- Starting your labour contractions
- Preparing your baby for labour and life outside your body
- Telling your breasts to make milk and getting your baby ready to breastfeed

And when you and your new baby fall in love, birth hormones are part of those feelings, too!

Labour and birth involve peak levels of the hormones oxytocin, sometimes called the 'hormone of love', and prolactin - the mothering hormone. These two hormones are perhaps best known for their role in breastfeeding. As well as these, beta-endorphin, the body's natural pain-killer, and the fight-or-flight hormones adrenaline and noradrenaline (epinephrine and norepinephrine) play an important part in the birth process. There are many more hormonal influences on birth that are not well understood.

All mammals seek a safe place to give birth. This "nesting" instinct may be due to an increase in levels of prolactin, which is sometimes referred to as the nesting hormone.

Even after labour has started, there are certain conditions that will slow, or even stop the process. If the fight-or-flight hormones are activated by feelings of fear or danger, contractions will slow down. Many people have had the experience of their labour stopping when they entered the unfamiliar surroundings of a hospital, and some women can be as sensitive to the presence of an observer.

Michel Odent cautions that even hunger, which also causes the body to release fight-or-flight hormones, can stop labour from progressing. He advises women to eat - if they are hungry - in the earliest stages of labour; although some hospitals, have a policy that prevents labouring women from eating once they are admitted.

## Oxytocin

Oxytocin is often known as the "hormone of love" because it is involved with lovemaking, fertility, contractions during labour and birth and the release of milk in breastfeeding. It helps us feel good, and it triggers nurturing feelings and behaviours.

Receptor cells that allow your body to respond to oxytocin increase gradually in pregnancy and then increase a lot during labour. Oxytocin stimulates powerful contractions that help to thin and open (dilate) the cervix, move your baby down and out of your vagina along with expelling your placenta and limit bleeding where your placenta was attached. During labour and birth, the pressure of the baby against your cervix, and then against tissues in the pelvic floor, stimulates oxytocin and contractions.

Low levels of oxytocin during labour and birth can cause problems by:

- Causing contractions to stop or slow, and making your labour take longer
- Resulting in excessive bleeding at the placenta site after birth
- Leading your LMC to respond to these problems with interventions

You can promote your body's production of oxytocin during labour and birth by:

- Staying calm, comfortable and confident
- Avoiding disturbances, such as unwelcome people or noise
- Staying upright and using gravity so your baby is pressed against your cervix and then, as the baby is born, against the tissues of your pelvic floor
- Stimulating your nipples or clitoris before birth, and giving your baby a chance to suckle at your breast soon after birth
- Avoiding epidural analgesia

## Endorphins

When life throws stress or pain at you, your body produces calming and pain-relieving hormones called endorphins. You may have higher levels of endorphins near the end of pregnancy. For people who don't use pain medication during labour, the level of endorphins continues to rise steadily and steeply through the birth of your baby. (Most studies have found a sharp drop in endorphin levels with use of epidural or opioid pain medication.)

High endorphin levels during labour can produce an altered state of consciousness that can help you deal with the process of giving birth, even if it is long and challenging. High endorphin levels can make you feel alert, attentive and even euphoric (very happy) after birth, as you begin to get to know and care for your baby. In this early postpartum period, endorphins are believed to play a role in strengthening the mother-infant relationship.

A drop in endorphin levels at this time often contributes to the "baby blues," that many experience for a brief time after birth.

Low levels of endorphins can cause problems in labour by:

- Causing labour to be excessively painful and difficult to tolerate
- Possibly leading your LMC to respond to this problem with medical pain relief

You can enhance your body's production of endorphins by:

- Staying calm, comfortable and confident
- Trusting your body
- Welcoming skin-to-skin contact with your partner and support team - such as massage, holding hands, touch, eye-to-eye contact
- Listening to music, laughter if appropriate
- Eating chocolate
- Dimming the lights and creating a safe, peaceful space
- Avoiding disturbances, such as unwelcome people or noise
- Delaying or avoiding epidural or opioids for pain relief

## **Adrenaline**

Adrenaline is the "fight or flight" hormone that humans produce to help ensure survival. Women who feel threatened during labour (for example, by fear or severe pain) may produce high levels of adrenaline. Adrenaline can slow labour or stop it altogether. Earlier in human evolution, this disruption helped birthing women move to a place of greater safety.

Too much adrenaline can cause problems in labour and birth by:

- Causing distress to your baby before birth
- Causing contractions to stop, slow or have an erratic pattern, which may lengthen your labour
- Creating a sense of panic and increasing pain within yourself
- Possibly leading your LMC to respond to these issues with interventions

You can keep adrenaline down during labour and birth by:

- Staying calm, comfortable and relaxed
- Being informed and prepared
- Having trust and confidence in your body and your capabilities
- Having trust and confidence in your LMC and birth setting
- Being in a calm, peaceful and private environment and avoiding conflict
- Being with people who can provide comfort measures, good information, positive words and other support
- Avoiding intrusive, painful, disruptive procedures

## **Prolactin**

Another childbearing hormone is most noteworthy for its effects after birth. Prolactin is the major hormone of breast milk synthesis. Suckling by your newborn increases prolactin levels; early and frequent suckling from the first days makes the breast more responsive to prolactin, which in turn helps to ensure a good long-term supply of milk.

Like the other hormones, prolactin has effects on emotion and behaviour. Prolactin helps us to put our baby's needs first in all situations by increasing submissiveness, anxiety and vigilance.

When prolactin is combined with oxytocin, as it is soon after birth and during breastfeeding, it encourages a relaxed and selfless devotion to the baby that contributes to a mother's satisfaction and her baby's physical and emotional health.

**So there you are, at the door, with your labour bag in hand and a strong contraction. You remember the oxytocin and endorphins, which you also carry with you, and with your next relaxed breath, you breathe out fear and tension. Let these awesome hormones do their job, trust your body and trust the process. You've got this!**