There is hardly a people, ancient or modern, that do not in some way resort to massage and expression in labor, even if it be a natural and easy one.

George Engelmann, 1884
LEARNING OBJECTIVES

After reading this chapter, you should be able to:

- Describe the role of the massage therapist when working with women in labor.
- The physiological and emotional benefits of touch for women in labor.
- Describe bodywork techniques that can facilitate an easier birth.
- Identify the ways in which a massage therapist must have skills of flexibility and creativity to adequately work with women in labor.
- Identify the ways subtle energies or emotions can affect labor progress.
- Explain the relationship between stress and impeded labor progress and describe ways for the massage therapist to help women decrease stress during labor.
- Give an elementary explanation of the Gate Control Theory of pain and how it applies to touch during birth.

We call giving birth “labor,” meaning work, travail—the monumental effort involved in bearing new life. In Spanish, to give birth is dar a luz or, literally, “to give to light,” reminding us that birth is a unique and powerful journey during which women are deeply transformed as they bring this new life and new light into the world.

After 9 months of harboring and nurturing a human being within her body, a woman undergoes this rite of passage in physical and emotional dimensions, as well as for many, a deeply spiritual one. One new mother relayed to her massage therapist that, “The moment my child was born was the most intensely spiritual moment of my entire life!” In many cultures, this spiritual quality of birth is honored as the laboring woman is considered to be in the closest contact possible with a divine energy. Massage therapists touching a woman during her birth may feel this contact themselves as they witness her transformation into the mother of a new child.

As the mother-to-be enters this pulsing dimension of birth potential, she must be able to open herself to an intensity of energy, pain, bliss, and surrender. For this to happen easily, she must be in a safe environment and must feel and trust in that safety. For many women, surrendering into this trust involves being strongly supported in the dimensions in which birth occurs, and being reminded of her innate wisdom, which can guide her on this path.

A massage therapist may be at a birth primarily as a physical supporter, but more often than not, she or he will be drawn into the role of emotional supporter as well. Whether or not the mother and the massage therapist have gone through birth themselves or have witnessed another’s birth before this one, they may both be inspired knowing that millions of women have journeyed down this well-traveled path. There are ages of birth wisdom to draw on—either resting in the collective unconscious or still practiced in many cultures. Each woman’s mother, grandmother, and great-grandmother gave birth in a direct line to
A well-known traditional midwife, Ina Mae Gaskin, has said, “Motherwit, or mother wisdom, includes knowing that every woman has the knowledge within her about how to give birth, and that for her to have access to this knowledge, she must be protected from fear, distraction, and abusive treatment.”

A massage therapist can join in supporting a woman to discover this motherwit and help create the optimum safe environment for birthing.

Meaningful touch and attentive encouragement are often a significant part of creating this safe and precious birth environment. Massage has been repeatedly demonstrated to help a mother have a safer, more relaxing birth, as touch stimulates the parasympathetic nervous system, helping a woman to relax while simultaneously increasing attentiveness. In this chapter, we will explore the role of the massage therapist in supporting a woman during birth, and the benefits of massage during this time.

### THE MASSAGE THERAPIST SUPPORTING BIRTH

Intuition, trust, and deep relaxation—these qualities, cultivated throughout a pregnancy and labor, promote a healthy environment for a baby to develop in and be birthed into. A massage therapist can help to nurture these qualities through touch. However, isolated massage techniques will not ease a woman’s labor. They must be combined with grounding emotional support and applied in an ever-changing situation.

Massaging during labor is unlike any other massage. Rarely is the client lying still, as on a massage table. The type of touch that is helpful may change with every contraction, demanding that the one touching rely constantly on intuition and creativity and be willing at any moment to stop touching all together if it has become an undesirable mode of support. Those who support the laboring woman are embarking together with her on perhaps the most intense experience of her life, journeying into deeply personal and intimate spaces.

Touch therapists must be grounded in an appreciation for and understanding of this transformative energy of birth. Touch that is disconnected from the unique needs of the woman in labor can cause irritation or distraction rather than ease or relaxation. The most effective touch for a woman in labor is touch that offers not only physical nurturing, but emotional as well. To provide optimum bodywork services, one must attune not only to where tension may be developing in a woman’s muscles, but also to subtler influential forces, such as how her energy may be blocked...
due to fears or unexpressed emotions. Often, through the use of nurturing touch, these emotions are freed, allowing labor to progress more fluently. With subtle influences in mind, pay attention to your own thoughts and energy as you enter a woman’s birthing domain. Attempt to become fully present to each moment and to leave behind your personal daily concerns. If you have underlying tension, this may impact how well a woman will relax during labor.

Understanding the importance of creating a safe environment during birth, recognizing how fear affects labor, and learning ways to offer nurturing touch during birth will help you become an ideal support person. The following chapters will give you tools and ideas that can be implemented during labor. The words and pictures in the chapters will help you cognitively understand how to support a laboring woman, but the true instruction will be the actual practice of opening your heart to each individual birth as a woman “brings to the light” a new life.

**BENEFITS OF MASSAGE DURING LABOR**

Touch can affect how a woman experiences labor and influence the progression of labor. The benefits of sensitive and nurturing touch during labor are numerous. These are discussed below:

- **Improves Physiological Functioning:** Nurturing touch and emotional support increases oxytocin levels; oxytocin helps decrease anxiety, blood pressure, and cortisol levels, and can have a sedative effect, helping women manage contractions more easily.6,9
- **Speeds Labor:** Nurturing touch helps speed labor and decreases the need for augmentation of contractions with synthetic oxytocin,10-12 and possibly, when using effective stimulating abdominal massage, may increase the strength and/or frequency of contractions.
- **Relieves Muscular Discomfort:** Massage is commonly used to reduce muscular aching and cramps. During labor this is especially helpful with common leg cramps or low back aches.
- **Decreases Use of Pain Medications:** Touch can increase a woman’s pain perception and threshold therefore decreasing the use of pain medications.6,11-15
- **Relieves Muscular Discomfort:** Massage is commonly used to reduce muscular aching and cramps. During labor this is especially helpful with common leg cramps or low back pain.
- **Improves Back Pain:** Touch techniques to the low back can relieve “back labor” and general low back pain.16,17
- **Increases Dilation:** Many midwives and massage therapists find that massage to the jaw, or the “upper mouth” can help to relax the “lower mouth,” or the vagina and cervix, promoting dilation and birth.
- **Helps the Baby Reposition Appropriately:** Belly rubs, used in conjunction with other techniques and supervised by the client’s PCP, might be helpful for encouraging babies to move from posterior positioning to anterior, optimizing delivery.
- **Renews Energy:** During a long labor, the use of invigorating strokes or acupressure can help increase energy.
- **Increases Satisfaction:** Quality support, as well as nurturing touch, improves a woman’s ability to cope with contractions and increases her level of satisfaction with her birth.11,13,18
- **Offers Birth Companions Effective Support Tools:** Gives the labor support team specific ways to feel useful and improve a woman’s experience.
- **Decreases Anxiety:** Touch provides emotional support and reassurance and decreases anxiety and fear, helping a woman to relax and have increased confidence in herself and her process, thereby improving the progression of birth.12,14,18,19
- **Reduces Medical Interventions:** Continuous emotional and touch support during labor reduces the incidence of medical interventions such as cesarean birth, forceps, and the use of synthetic oxytocin hormone—pitocin.10,11
- **Reduces Depression:** Touch during birth has been shown to decrease the incidence of postpartum depression.9,12
- **Increases Maternal Attention Toward Infant:** Studies have shown that women who receive loving support and nurturing touch during labor, touch and interact with their infants more than those who do not receive that support.20-22

**EFFECTS OF STRESS ON LABOR**

Paramount to a satisfying birth experience for many women is having the support of a massage therapist or doula—a caregiver specialized in offering laboring women emotional encouragement and physical touch. More than the relief of pain, it is the emotional support and safety that develops between these types of birth companions and the laboring woman that
helps her to feel empowered to cope with her contractions and which leads her to a sense of satisfaction about her birth.\textsuperscript{18, 23} If women have an unsafe environment with no solid emotional support during birth, fear and accompanying stress increase. When people experience stress, hormones called catecholamines, such as adrenaline, are released into the bloodstream.\textsuperscript{24,25} Catecholamines cause an increase in heart rate, blood pressure, and respirations and divert blood away from digestion.\textsuperscript{24,25} They also relax smooth muscle. Fearful thoughts during labor, such as the fear of pain, fear of the unknown, fear of the coming contraction—are stressful, causing an increase in circulating catecholamines which can relax the uterine smooth muscle and result in slowed or stalled contractions. Fear is also often accompanied by shallow breathing, muscular tension, and vasoconstriction,\textsuperscript{24,25} responses which further diminish effective uterine contractility. Essentially, if the laboring woman subconsciously or consciously suspects her environment is not safe for any reason, labor will often stop, and for good reason—who wants to birth a baby into a dangerous situation? Inadequate support or distracting touch can add to a woman’s disease and fear.

One way to create a safe birthing environment and reduce the mother’s stress is to have a support team or individual with her during birth. Over the past two decades, studies representing over 12,700 women have demonstrated that positive support and nurturing touch creates more personally satisfying birth experiences for women, decreases medical interventions, and speeds labor.\textsuperscript{11,26-29} The compiled results of some of these studies can be seen in Table 8.1.

Because of the obvious benefits of this assistance during labor, more professional massage therapists specialized in the perinatal cycle are finding a niche in supporting women during labor, and hospitals are beginning to recognize a need for their services. Oregon Health Sciences University Hospital in Portland has collaborated at times with local massage schools, allowing student therapists to offer massage to women in the labor and postpartum units. Mid-Columbia Medical Center in The Dalles, Oregon, has hired massage therapists to provide services to all patients, including women in labor and postpartum.

In recognition of the benefits of emotional and nurturing touch support, the Hearts and Hands Volunteer Doula Program was started at San Diego University Hospital in 1999. It offers doula training and free doula services to all women in labor. Part of their training includes hands-on touch, massage, and acupressure support.

### TOUCH INCREASES PAIN THRESHOLD

Simply the presence of a supportive person has been found to help ease labor, but by adding the element of touch, the body’s natural ability to relax is increased dramatically. Touch has been shown to stimulate the production of oxytocin—the hormone commonly associated with stimulating contractions. Current research on oxytocin indicates that the hormone also increases pain thresholds, has anti-anxiety effects, and increases social and emotional connectivity and compatibility in mammals, including humans.\textsuperscript{6-8}

In evidence of this, women who participated in studies in Turkey, Taiwan, England, and the United States in which they received massage or acupressure during labor described their experience of labor pain as significantly less than those who received none.\textsuperscript{6,13-15, 29} Those who received touch daily for 2 weeks prior to labor and then during labor were found to have an increased pain threshold, so that the same level of stimulation felt less painful than it did prior to massage, even though cortisol, a hormone produced in stressful situations, remained the same for those who received the touch as for those who did not.\textsuperscript{6,15}

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<thead>
<tr>
<th>Table 8.1 Laboring With and Without Continuous Nurturing Support</th>
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<tr>
<td><strong>Birth Experience</strong></td>
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<tr>
<td>Duration of labor</td>
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<td>% of labors resulting in natural birth</td>
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<td>% of labors resulting in cesarean sections</td>
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<td>% of labors resulting in use of epidurals</td>
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As women labor, just as for those who run a marathon, the body will naturally release endorphins due to physical exertion and regular breathing. Endorphins are hormones that decrease pain and give us sensations of relaxation, ease, relief, ecstacy, and pleasure. These molecules of sedating, pain-relieving hormones link to opiate receptor sites in the brain, the same receptor sites that cause pain medications such as morphine to be effective.

The presence of endorphins does not mean birth will not be painful or difficult, but a woman may find herself entering what some consider an altered, trance-like state and lose focused awareness of her surroundings. For some women, their experience may be somewhat euphoric, despite what may appear to onlookers as suffering. She may at times sound and look as though she is in agony, yet many women, when asked later, will say their contractions were a “bearable” pain or that they were in another dimension, without awareness of how they appeared to others. For many of these women, the element of touch helped them relax enough to enter this altered, endorphin-flowing state of mind.

Along with being a source of comfort and helping increase pain thresholds, touch also reduces transmission of painful sensations by affecting the amount and type of nerve impulse transmission to the central nervous system. The gate control theory explains how this happens.

APPLICATIONS OF THE GATE CONTROL THEORY FOR MASSAGE DURING BIRTH

In the 1960s, Dr. Ronald Melzack and Patrick Wall at McGill University developed theories about people’s perceptions and experiences of pain, based on emotional as well as physical considerations. The essence of these theories is still widely accepted. One aspect of the Gate Control Theory, explained here very simply, is that there is only a certain amount of stimuli that the central nervous system (CNS) can handle at once. If too much stimulus tries to enter the CNS, its sensors will essentially short circuit—blocking or inhibiting some nerve transmissions. This is known as the “gate control” theory and may explain why victims of serious accidents initially feel less pain than one would expect.

Melzack and Wall also found that different nerve pathways were stimulated by different types of sensations and that the nerve stimuli moved at different speeds toward the CNS. Testing different stimuli, they found that sharp and sudden pain signals traveled on narrow and slower moving nerve fibers. Dull, lingering, and aching sensations traveled on larger and faster pathways. These faster moving nerve fibers could also be stimulated tactilely with vibration, scratching, and cold, as well as pressure. These sensations seemed to inhibit or bypass the painful sensations moving along the slower fibers. Because the faster moving impulses arrive more quickly to the gateway, they overwhelm and filter, preventing or reducing the access of the slower moving painful stimulation. These fast-moving nerve pathways are stimulated by special tactile receptors, called corpuscles, found in different layers of the skin. Different types of corpuscles are sensitive to specific types of touch.

Melzack’s corpuscles, which respond to pressure, are located in the superficial skin layers in hairless areas of the body—especially in the face, lips, fingertips, palms of hands, and soles of feet. They can be stimulated by squeezing hands or by acupressure or massage of the feet, rubbing the lips, kissing, or touching soft things with one’s fingertips. Pacinian corpuscles are in the subcutaneous tissue and respond to deep pressure and vibration. Tension, pressure, or continuous deep touch, such as cuddling or being held firmly, stimulate the Merkel’s disks, located in the superficial layers of skin, in both hairy and hairless areas of the body.

Melzack and Wall also studied the emotional and psychological elements of pain and found that pain increases with attention: the more one fights against or gives attention to pain, the stronger it becomes. Thoughts of pain breed fear and tension, raising blood pressure and increasing pain perception. The pain perception increases fear about the pain, and thus the cycle becomes self-perpetuating. Meanwhile, positive thinking and visualization has the effect of decreasing pain, thereby decreasing stress.

A study comparing American and Dutch women with regard to their expectations of birth pain found that American women expected labor to be very painful and that they would need medications. Few Dutch women expected this much pain. The results of their thoughts were manifested in the following results: 5 in 6 of the American women were medicated for pain in birth, whereas only 1 in 3 of the Dutch women used pain medications.

With these understandings in mind, the massage therapist can offer touch during labor that, at times, focuses on stimulation of the touch receptors that speed pleasureable sensations to the central nervous system, and can also include positive verbal encouragement to help diminish a woman’s stress-producing thoughts.

PAIN DURING LABOR

While some women may experience birth as a highly sensually pleasureable experience, many women
describe it as painful. Pain is a subjective experience, but it is not uncommon for women to claim that birth was the most painful experience they have ever endured. Carol Burnett is often quoted for her description of childbirth: “Having a baby is like taking your bottom lip and pulling it up over your head.”

Many women have developed fear about the sensations of giving birth and, in the United States, make plans well-ahead of labor, to have epidural anesthesia in hopes of numbing all birthing sensations. However, epidurals and pain medication are not always available when a woman wishes for it. A woman who hoped for an epidural may learn that she still must labor for some time before it can be initiated. Most women must experience the sensations of birth for a certain period of time, whether they choose pain medications or not. This is an important reason to provide your client with reassurance, respect, and grounding tactile stimulation. The use of complementary nonpharmacological modalities such as touch, warm water, and emotional encouragement can become vital tools for many women through at least part of their labor.

Functional pain is a “normal” sensation during birth due to the normal processes of cervical dilation and opening. Each woman will relate to and interpret these sensations differently. With a history of stress

Traditional Birth Practices:

Traditional Cultures and Pain

Here is an Ainu birthing chant: “Wherever you may be, my little grandmothers, please help today a suffering woman.”

For some traditional cultures, pain is considered a normal part of labor and therefore not something special to talk about. As compared with many industrialized cultures, these societies sometimes have a higher tolerance for and/or greater stoicism toward and less expression of pain. One source states that the Yucatan Mayans have seen pain as “the very hallmark of labor progress rather than as a symptom to be treated or an evil to escape.” Since pain is often related to fear, these cultures focus more on alleviating that fear than on the actual pain itself. Emotional support, encouragement, and reassurance, as well as reminding a laboring woman that this process is normal, that the pain is normal, and that there is nothing “wrong” with her body, are all part of relieving the tension that can surround a painful experience.

In Malaysian and Indonesian homebirths, midwives use massage throughout pregnancy and then rely on that touch as the primary tool to alleviate pain during labor. In old Hawaiian culture, the healers or priests had ways of helping women relieve their discomfort by transferring the painful sensations to others in the community who might have been more “deserving of the pain” and who would suffer during the labor, while the woman experienced an easier birth.
A nurturing, protective environment is critical to healthy birthing. If a woman feels stress, fear, or anxiety, the catecholamine release will interfere with labor. Use massage as well as verbal and emotional support to help cultivate a safe environment.

Recognize that for some women, birth can be an experience of empowerment, a sexual experience, or a spiritual experience. For some, it may be an experience of unbearable pain and uncertainty. Your role is to support each woman and accept what is her experience; to listen, watch and feel how she meets her labor; and to offer nurturing touch to help her ground and focus on creating a calm and trusting relaxation response to contractions.

Remember to touch the hands and feet, which are especially responsive to pressure and vibration. This touch can decrease experiences of pain in labor. Simple holding and pressing techniques for the hands and feet can be taught to willing labor companions who want to share effective touch as part of their support.

**Case Study 8.1**

**Supportive Touch to Encourage Contractions**

Katie’s bag of waters broke at first light on Sunday, but contractions were few and far between, despite hours of brisk walking, herbal concoctions, and emotional processing. By Monday morning, her cervix was 5 cm dilated. She was exhausted, and the midwives were questioning whether the potentially large size of this baby was the cause of the slow progress. While the midwives conferred, they requested that the massage therapist rub her belly and help motivate contractions with the use of touch.

The massage therapist entered the bedroom where Katie labored with her husband Aaron. Katie was curled on her left side on the bed, breathing and trying to relax with contractions. Aaron sat at her feet, holding and rubbing them. Sitting behind Katie’s back, the massage therapist warmed oil in her hands, and began to rub Katie’s sacrum and belly simultaneously. She massaged in large circles around the belly, around the back, and down the thighs and buttocks. Understanding that the emotional, spiritual, and physical realms are intertwined and influential on one another, the therapist offered verbal encouragement for Katie and her husband.

Aaron continued holding and rubbing Katie’s feet, stimulating reflexology areas and acupressure points that he had been shown, while the therapist continued a rhythmic touch, imagining energy moving through her hands to help Katie’s cervix relax and open and applying finger pressure on the sacral foramen to stimulate opening and releasing in the pelvic area. She made long, firm strokes down Katie’s back, drawing the energy down from her shoulders to her sacrum, unifying the strokes with full circles with her flat palm around Katie’s belly and back.

During the massage, with Katie and Aaron’s agreement, she encouraged them to visualize energy flowing through Katie’s body like a river. Within 10 minutes of rubbing, Katie said she was feeling strong pressure, like she wanted to push. As she spoke, she began to grunt, uncontrollably pushing with the urge that moved through her body. “It hurts, it feels different . . .” she said.

The midwives were called up to the room to check Katie’s cervix. It was completely dilated. Katie pushed for an hour to deliver her baby boy, who was much smaller than anticipated. The reason why became evident within the hour, when, as another contraction arrived, the head of an unexpected twin emerged!

Later, when asked about the effect of massage on her labor, Katie verbalized that because she trusted the massage therapist implicitly, she relaxed completely whenever she laid her hands on her body. She found herself able to attune to whatever part of the body the therapist touched, focusing there and letting go of tension in that particular area. She felt as if the therapist was pulling, pushing, or drawing energy through her body, clearing out tense areas, regenerating tired areas, and opening a movement of energy in areas of resistance. Under the hands of the therapist, Katie felt utterly supported, safe, and cared for, and felt that it significantly increased her endurance and fortitude for such a long labor.
and anxiety related to psychological trauma or unpleasant memories, the functional pain can become more intense and more difficult to manage, as it becomes complicated by emotional pain. Unprocessed emotions tend to intensify a woman’s relation to pain and decrease her pain threshold. Nurturing touch can be a potent form of support to help mediate both functional and emotional pain.

Women who do not think of labor as painful may describe contractions as “squeezes” or “sensations.” Contractions, they say, feel like a tightening that can become painful, although they note that it was generally their fear that increased the sensations of pain. They also describe that with massage, emotional support, and the maintenance of a safe and nurturing environment, their birth was a moment-to-moment journey—each moment unique, each moment a chance to breathe, to feel the waves of power moving through them, to open again and again into the energy spiraling through their body.

However a woman experiences her birth, touch can often be integral to improving her response to it. Even if you are not invited to your client’s birth, you can have an influence on the ease with which she meets her labor, by sharing with her partner or support companions, if they desire, simple touch techniques that they can use during labor. Having a nurturing touch-supporter through labor can help the mother-to-be create the type of birth she would most like to have.

CHAPTER SUMMARY

For many women, the essential ingredients for a safe and satisfying birth include a sense of empowerment and success in coping with or transcending the experience, in addition to having solid, positive encouragement from a support companion. The massage practitioner can enhance these ingredients by adding knowledgeable, caring touch which can decrease pain, increase relaxation, speed labor, and reduce medical interventions. Serving women in labor, witnessing a baby’s birth, and positively influencing a mother’s responsiveness to her infant are unique and powerful opportunities. Being invited to serve in this capacity indicates that you have skill in helping a woman feel at ease. Keep in mind that your presence and loving touch may have a deeper impact on your client than you even realize, as your presence will forever be a part of her and her child’s birth story.

CHAPTER REVIEW QUESTIONS

1. Explore and discuss how a massage therapist might offer her or his services to women in labor and options for charging for your services. Some choose to do an hourly rate with a limit to the number of hours. Others choose a flat rate for an entire birth, and others work for free. What might be appropriate for you within your community?

2. Name three effects of oxytocin on a woman during labor.

3. Name five benefits of touch during labor.

4. Describe three ways that touch can influence the progress of labor.

5. Explain how nurturing touch might decrease the need for pain medications or Pitocin induction or augmentation.

6. Describe how the birth and environment, as well as thoughts, have the power to affect the progress of labor.

7. Describe why a woman who feels unsafe and unsupported in her birth environment may have difficulties or lack progress in her labor.

8. Discuss three measures you might take to help relax a woman who is developing tension in response to contraction sensations and expresses fear about “making it” through labor.

9. Describe the roles of oxytocin, endorphins, and cortisol in the birth process and their relation to touch.

10. Explain the relevance of the Gate Control Theory to labor. How can the massage therapist use this information?

REFERENCES


