SERRATUS AND INTERCOSTALS WITH A DIAPHRAGM CHASER BY THE REBEL MT ALLISON DENNEY

massage

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KEEPING CLIENTS SAFE, PART 1: HOW TO AVOID CLIENT INJURIES BY DR. BEN BENJAMIN

DEEP GLUTEAL SYNDROME AND TENDINOPATHY BY ERIK DALTON, PHD

EASING THE STRESS OF PREGNANCY BY CAROLE OSBORNE, MICHELE KOLAKOWSKI, AND DAVID LOBENSTINE

# CRATISESSIONS BASED ON CLIENT

PRIORITIES, RESEARCH, AND YOUR EXPERTISE

BY RUTH WERNER

# Easing the Stress of Pregnancy

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# Considerations and Techniques for the Pregnant Client

### By Carole Osborne, Michele Kolakowski, and David M. Lobenstine

Editor's Note: This excerpt is adapted from the newly released third edition of Pre- and Perinatal Massage Therapy (Scotland: Handspring Publishing Limited, 2021, www.handspringpublishing.com). Below, you will find an introduction to the ever-evolving understanding of the relationship between stress, pregnancy, and therapeutic touch, followed by three of the more than 70 techniques from the book.

regnancy is one of life's most precious—and most stressful opportunities. Committed to the best for her baby, the pregnant person can pressure herself in so many ways to be perfect. It is hard to eat right, exercise just enough, and maintain a job, especially as pregnancy's common discomforts get in the way. For those who are hesitant about being pregnant, all these difficulties are heightened. In other words, for nearly everyone, in one way or another, pregnancy and stress are inseparable. Where does this pregnancy stress originate? How does it affect pregnancy outcomes? How can relaxation, particularly from massage therapy, reduce the negative effects of stress? Let's explore these questions.

## A Time of Transitions and Expectations

Pregnancy brings many changes for all involved. As her body transforms, a woman must adjust to her altered physiological functioning. The shape of her pregnant body shifts, and her gait and other movement patterns usually alter. As her hair and skin and hormones change, she may feel as though she is no longer her former physical or emotional self.

Pregnancy is often a time of upheaval and anxiety, as well as a time of euphoria and joy. In a single day, a pregnant person's emotions may fluctuate tremendously. Her relationships to her partner, parents, friends, and coworkers will all change. Issues that may have been repressed sometimes resurface, including the legacies of physical and emotional abuse. A new baby can stretch emotions, finances, and careers—often all at the same time—and can especially strain families with fewer resources.

An alarming number of pregnant people also suffer abuse from their partners.<sup>1</sup> Furthermore, one-quarter of pregnancies are at higher risk of developing serious, sometimes life-threatening, medical complications. Pregnant people who are single, lesbian, nonbinary, disabled, or surrogates often have additional challenges unique to their nontraditional situations. In this period, when every person needs support, many find themselves isolated, without the community and familial support of former times or of kin-based cultures.

Pregnancy is also suffused with expectation. Many people have more apparent control than ever over whether, when, and how they become pregnant. They are increasingly likely to delay pregnancy and have fewer children.<sup>2</sup> The result is a growing number of people whose pregnancies are deliberately timed or come after investing years and thousands of dollars in assisted reproductive technology treatments. These pregnancies can take on greater significance and emotional investment.

Popular culture can create the expectation of childbearing as a romantic, blissful time; for many people, the reality is more complicated. Some dislike the feeling of being pregnant. Some are overwhelmed by the abundance of childbirth education and other choices available to them, and

#### REMINDER

Be prepared to support and care for clients who may have a wide range of feelings about their pregnancies, and those having varying socioeconomic and familial support systems.

#### REMINDER

Increased relaxation facilitates healthy circulation to the uterus, which improves fetal well-being.

they worry about all the things that could go wrong. Some plan their "ideal" birth and feel anguish over anything that falls short. Some cling to real or imagined promises of painless, risk-free labor through technology and pharmaceuticals to assuage their fears about the upcoming birth; others fear those same interventions. Health problems, not to mention stresses from the rest of life, increase maternal and fetal risks for some women, adding additional layers of apprehension about the pregnancy's outcome.<sup>3</sup>

# Consequences of Stress for Mother and Baby

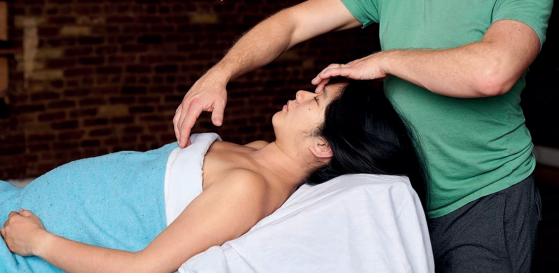
As we know, stress activates the sympathetic branch of the autonomic nervous system. This increases adrenal production of stress hormones, creating a fight, flight, or freeze response. Such activation is essential for our survival—think of slamming the car brakes to avoid an accident. However, both acute stressors and chronic sympathetic arousal, provoked by ongoing worries and anxieties, can have negative impacts on mother and baby.<sup>4</sup>

Today, the topic of stress seems ubiquitous. But amid our ongoing complaints about how stressed we are, or how stressed out we feel, it is useful to consider the very concrete and far-reaching ways stress impacts health. In the rapidly growing fetus, and the rapidly changing mother, the negative manifestations of stress can be many.

In one study, elevated amounts of maternal stress (both psychosocial stress and cortisol levels) early in pregnancy were associated with poorer cognitive performance when the baby was a year old.<sup>5</sup> In addition, prenatal depression which is both caused by various social and

## Possible Benefits of Prenatal Relaxation

- · Enhanced immunological function
- Increased oxytocin production
- Reduced maternal blood pressure, heart, and respiratory rate
- Increased uterine blood supply to enhance fetal health
- Fewer prenatal complications
- · Reduced fear and anxiety
- Reduced labor time and complications



physiological stressors and furthers those sources of stress—has been correlated with prematurity and low birth weight.<sup>6</sup>

Multiple systematic reviews reveal a litany of consequences emerging from prenatal stress. During pregnancy and birth, there is an association between prenatal stress and:

- Preterm labor
- Preterm birth
- Low birth weight
- Restricted fetal growth
- Pre-eclampsia
- Gestational diabetes<sup>7</sup>

Those negative consequences can, in turn, continue into the baby's life, manifesting in:

- Hyper-responsiveness to stress
- Asthma
- Allergies
- Temperamental difficulties
- Affective disorders
- Attachment difficulties<sup>8</sup>

This growing body of evidence supports the "fetal origins hypothesis," which argues that what the fetus is exposed to in utero not just environmental factors, but also psychosocial ones—"can have sustained effects across the lifespan" of the child.<sup>9</sup> Indeed, one review argues that "prenatal stress can have consequences that span generations."<sup>10</sup>

# What Massage Can Do

The potential stressors of pregnancy are numerous. Yet, there is a way to help with all of them: learning how to relax and to focus internally. Relaxation and self-awareness tend to increase well-being for both mother and baby, and the chances for positive birth experiences. Learning relaxation techniques is correlated with a host of benefits: "fewer admissions to the hospital, fewer obstetric complications, longer gestation, reduction of cesarean sections, and fewer postpartum complications."<sup>11</sup> Women "Massage therapy is so relaxing. I hadn't done much for myself since I became pregnant, and I can really see how it benefits me and my baby by loosening muscles and making me slow down." —*Melissa, client* 

and their partners who learn relaxation techniques are better able to adapt to stress and pain during pregnancy and labor, and in the days and years of parenting ahead.<sup>12</sup>

As a massage therapist, you can offer each pregnant client a unique and potent experience of support and relaxation. Massage therapy supports expectant clients because it generally makes them feel good, function more effectively, and feel more optimistic. Massage is often intrinsically relaxing—encouraging a client to turn inward, concentrating on her own body and mind rather than on external events, cultivating the ability to let go.<sup>13</sup> That is the perfect preparation for coping with the demands of labor and birth.

In fact, in preparation for labor, many perinatal specialists recommend women practice deep and sustained levels of relaxation for 45–60 minutes without falling asleep—the exact length of most massage therapy sessions—especially in the last 6–8 weeks of pregnancy.<sup>14</sup> A massage therapist can create a nurturing atmosphere, offer a sustained period of undisturbed quiet, and encourage a slow, regular breath—all of which invite deep relaxation to take place.

In contrast to the "fight or flight" effects of stress, support and relaxation activate the parasympathetic branch of the autonomic nervous system. This "rest and digest" branch provides balance and promotes calm. When relaxed, an expectant person will have steadier blood pressure, pulse, and respiratory rates; regular blood flow to the uterus, placenta, and fetus; and healthier immune system functioning, emotional states, and responses to stressful stimuli. Optimal fetal positioning may be more likely too.<sup>15</sup>

Even a single massage therapy session produces measurable biologic effects, both reducing a client's pain and creating broader changes. Multiple sessions are potentially even more powerful in reducing pain and diminishing anxiety and depression.<sup>16</sup> We now have a number of systematic reviews from the Samueli Institute and Tiffany Field, among others, that make these benefits clear.<sup>17</sup>

The benefits of massage during pregnancy, though infrequently studied, are also becoming increasingly validated. In one study, depressed pregnant women were given 20-minute massages for 12 weeks. Compared to the control group that received standard care, the massaged women reported a decrease in depression, anxiety, and pain scales, and an improvement in relationships with their significant others.<sup>18</sup>

Massage can create the same positive physiological states and increased alpha brainwave activity as meditation. Massage strokes provide variations in pressure, rhythm, and positioning that flood the sensory nerve pathways with input, increasing body awareness and overriding signals of pain and stress.<sup>19</sup>

Massage therapists do not just provide soothing, nurturing touch; they also bring focused attention to their clients' particular concerns. This regular, caring contact can be a vital component of a pregnant client's support system, especially when family and friends are not providing such assistance. All therapists can listen attentively and nonjudgmentally, but when needed, massage therapists should provide referrals to other professionals. They also can educate the pregnant client in ways to use her body and mind to assist in managing and reducing

#### WAYS PRENATAL MASSAGE THERAPY REDUCES STRESS

- Nurturing, skilled touch
- · Attention to individual needs
- Emotional support, especially in the absence of supportive family and friends
- Nonjudgmental listening and emotional processing
- Education and encouragement in stress-reducing activities
- Appropriate referrals to other specialists

stress. Indeed, how we talk with a client can be as important as the techniques we use.  $^{\rm 20}$ 

However extensive the negative effects of stress are, it appears that proper support can counteract these effects (sidebar above). One study considered several hundred pregnant women who had many difficult life changes in the two years immediately preceding and/or during their pregnancy. Those who had strong support systems had significantly fewer complications-both during pregnancy and in the postpartum period-compared to those who experienced similar stresses without a support system.<sup>21</sup> And during labor, women who had "continuous support" had a host of benefits, from lower rates of cesarean births and epidurals to higher levels of satisfaction.<sup>22</sup>

Researchers are also starting to document what most people know intuitively: Fight, flight, and freeze are not the only stress reactions; women also respond with a pattern known as "tend and befriend."<sup>23</sup> In trying times, women instinctively care for others and surround themselves with supportive people. Interestingly enough, the neuroendocrine core of this response seems to be female reproductive hormones, particularly oxytocin—a hormone that is responsible for gestational developments and mothering

#### WHAT WOULD YOU DO?

A new client spends her entire massage animatedly sharing the details of her pregnancy. She also asks you many questions. You share in her excitement, yet you also know that she is missing out on certain benefits of the session. Why might it be important for her to turn inward and "focus" in her treatments? What can you do to encourage that—with your words, your hands, and your environment—while honoring her wish to share?

responses, and that massage therapy seems to increase.<sup>24</sup> How appropriate, then, that so many people seek out the nurturing care of a skilled and supportive massage therapist during this time of stressful and joyous transitions.

A Sample of Pregnancy

Authors' note: The following is a small

sample taken from the book's three technique

manuals (one each for pregnancy, labor, and

techniques to include and how they might best

considerations, we are unable to elaborate on

the many considerations—positioning, depth,

normal prenatal developments, etc.—necessary

to adapt your own repertoire to enhance safety

Many massage therapy modalities are

thought to dampen sympathetic arousal and

enhance parasympathetic activity. You likely

Here are a few examples of techniques

mobilization, and two deep tissue/myofascial

adaptable for enhancing relaxation, reducing

Practice these with a colleague, using

the descriptions below. Then, enjoy offering

them to your pregnant clients, knowing you

prenatal discomforts, and preparing clients

already include numerous techniques in

your sessions with those intentions.

you can use with pregnant clients. We

have chosen one educational activity,

one rhythmic small-amplitude, slow

techniques. In our experience, these

for the demands of pregnancy, labor,

birthing, and parenting.

modalities are particularly relevant and

speed, precautions, medical conditions, and

and efficacy for your expectant clients.

be modified for prenatal concerns. Due to space

postpartum) as examples of both essential

Techniques

are contributing to their and their babies' well-being by soothing pregnancy's stresses.

#### **BREATHING ENHANCEMENT**

#### Intentions

To facilitate relaxation and increased kinesthetic awareness; to reeducate breathing toward complete diaphragmatic activation and maximum lateral and posterior rib cage excursion; to facilitate retraining those who breathe paradoxically to breathe diaphragmatically; to reduce overuse of upper chest and neck muscles that can contribute to headaches, neck and back pain, and thoracic outlet syndrome; to facilitate maximum maternal and fetal oxygenation; and to prepare for the breathing demands of labor.

#### Procedure

May be performed in any position and without lubricant.

- 1. Place your hands on your client's lower lateral rib cage. Offer her the following visualization:
  - "Imagine your torso as a folded umbrella with the edge of the umbrella at your lower rib cage."
  - "As you inhale, see the umbrella opening."
  - "As you exhale, imagine it closing against the center pole."
  - "Continue to open and close the umbrella in your imagination as you breathe."
- 2. This visualization is especially useful to increase lateral and posterior costal breathing.



Breathing enhancement.

#### Hints

- Alternative visualization
  - 1. Ask the client to place one hand on her lower abdomen and the other on the center of her chest.
  - 2. Instruct her to inhale through her nose and exhale through her mouth gently and deeply without strain.
  - 3. Offer her the following visualization: "See your baby nestled in your uterus, deep within your pelvis. Imagine that your inhaling breath gently touches the baby. As you exhale, imagine your caressing breath gently leaves her or him. Watch these waves of movement as you continue to breathe fully in this way for as long as desired."
- Observe any straining, especially chest overinflation or activation of the scalenes and other neck muscles. Verbally encourage her to breathe effortlessly, without force.
- Enhance her awareness with your hands on the specific areas you are guiding her breath toward.
- When a client has difficulty with visualizing, switch instead to kinesthetic cues. For example, with her hands on her abdomen, ask her to lift her hands away from her spine with her inhale and allow them to sink toward her spine with her exhale.
- Encourage frequent, daily breathing practice, particularly for those who breathe paradoxically (meaning their abdomens collapse on inhale and expand on exhale).

#### OCCIPUT TRACTION AND ROCKING

#### Intentions

To induce a sedative, calming effect by reducing compression of the vagus nerve; to reduce strain and promote relaxation in soft tissues of the neck; to reduce headaches; and to evaluate the quality and quantity of joint motion and points of tenderness as a guide to where to apply deeper work.

#### Procedure

Best performed in side-lying or semireclining position and without lubricant. It's described here for the side-lying position.

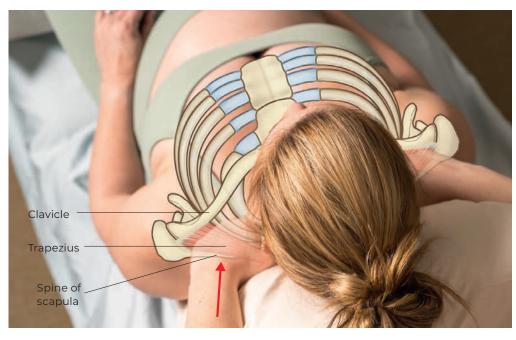
- 1. Stand at the head of the table, facing the client's head.
- 2. Place the medial edge of your hand nearest her face on her ceiling-side occipital ridge. Cup your hand so that her ear is not compressed. Use the lateral edge of your other hand on the table-side occipital ridge. Let the sides of your fingers mold around the ridge of the occiput without digging in with your fingertips.
- 3. Exert gentle, gradual traction of her occiput away from the cervical vertebrae by leaning away from the table. Add gentle, slow, micro-rocking motions while maintaining a steady traction as you rock. Continue for a minimum of 30 seconds.

#### Hints

- Your movement should be small and slow, your rhythm steady; envision the frequency of a relaxed heartbeat.
- Maintain the joint space achieved from your subtle traction throughout the 30 seconds of rocking.
- Aim to reestablish easy joint motion as you visualize the vagus nerve enjoying more space.
- If the client is nauseated, delay this procedure.



Occiput traction and rocking.



Pectoral girdle deep tissue sculpting (upper trapezius).

#### PECTORAL GIRDLE DEEP TISSUE SCULPTING

#### Intentions

To create myofascial change that reduces chronic tension and pain in the pectoral girdle musculature; to reduce pain and improve breathing by assisting in realignment of the head, cervical and thoracic spine, and rib cage; to relieve pressure on the brachial plexus (that can cause arm and hand pain) and on the vagus nerve; and to reduce pain by locating and extinguishing trigger points.

#### Procedure

May be performed with the client in any position and without lubricant. It's described here for supine or semireclining positions.



Pectoral girdle deep issue sculpting (levator scapulae).

#### Upper Trapezius

- 1. Stand at the head of the table. Use one or both fists to work either unilaterally or bilaterally on the shoulders.
- Sink gradually into the upper trapezius, beginning near the base of the neck until you reach tissue resistance. Confirm with your client that the experience is acceptable—on the borderline of pain, but not more.
- 3. Hold for a minimum of 30 seconds, waiting for tissue changes that might move you along the trapezius myofascia toward its insertion along the scapula, or that take you deeper into the tissue layers. Release your pressure as slowly and gradually as you applied it.
- 4. Continue performing a series of compressions for a minimum of 30 seconds each until you reach the acromioclavicular joint.
- 5. Extinguish any trigger points discovered.
- 6. If performed unilaterally, repeat on other side.

#### Levator Scapulae

1. From the side or head of the table, use your knuckles or fingertips to sink gradually into the levator scapulae attachment on the superior angle of the scapula until you reach tissue resistance. Confirm with your client that the experience is acceptable on the borderline of pain, but not more.

- 2. Hold for a minimum of 30 seconds, waiting for tissue changes that might take you deeper into the tissue layers. Release your pressure as slowly and gradually as you applied it.
- 3. Extinguish any trigger points discovered.
- 4. If performed unilaterally, repeat on the other side.

#### Precautions

- Avoid painful and dangerous pressure into the brachial plexus. Redirect the vector if numbness or tingling occurs down the client's arm.
- Avoid pressure into the "careful triangle," bordered by the sternocleidomastoid, clavicle, and anterior trapezius.
- Avoid painful pressure on the acromioclavicular joint.
- Use only broad pressure when sculpting the trapezius and be specific to the superior angle of the scapula when sculpting the levator scapulae insertion, to avoid stimulating gallbladder 21 point (an acupressure point on the apex of the shoulder known as GB-21).

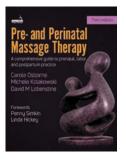
# Acknowledge the Gaps, Continue to Learn

Much about pregnancy and touch remains unknown, and we acknowledge both those remaining gaps and how to work safely amid those uncertainties. But we also celebrate the increasing scientific attention to the power of touch, while committing to continually adapt our work to the ever-evolving scientific understanding of the childbearing body.

Whether you are new to maternity massage therapy or a seasoned specialist, we invite you to read more, think further, do your own research, ask more questions, and seek out hands-on instruction. m&b

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As a special discount for ABMP readers, Handspring Publishing is offering a discount code for 20 percent off the third edition of *Pre- and Perinatal Massage Therapy*. Visit handspringpublishing.com/product/preand-perinatal-massage-third-edition and enter code abmp20 to purchase.

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#### **Full of Heart**

The first edition of Pre- and Perinatal Massage Therapy was self-published by Carole Osborne in 1998. It was a thin black-and-white book of 176 pages, full of heart, blossoming understanding, and a determination to reintroduce massage therapy to the childbearing experience of North American women. Now "all grown up," this new third edition is 336 pages, including 230 full-color drawings and photographs, more than 70 practice-tested techniques, and online videos and resources. "It is still packed with empathetic, personal stories, and the expanded benefit of a more current, evidence-based foundation," author Carole Osborne says. "This new manifestation is a testament to the skill and dedication of our publisher, Handspring Publishing Limited, and also to the astonishing growth of our field."

Learn more about the development of this third edition and the evolution of pre- and perinatal massage therapy in our two-part podcast episode with authors Carole, Michele, and David.



SCAN AND LISTEN Podcast: "Pre- and Perinatal Massage Therapy with Carole Osborne, Michele Kolakowski, and David Lobenstine" 15. Francine F. Nichols and Sharron Smith Humenick, Childbirth Education: Practice, Research and Theory; Ling Guan et al., "The Effect of Massage Therapy on Autonomic Activity in Critically III Children," Evidence-Based Complementary and Alternative Medicine (December 2014), https://doi. org/10.1155/2014/656750; Young-Hee Lee, Bit Na Ri Park, and Sung Hoon Kim, "The Effects of Heat and Massage Application on Autonomic Nervous System," Yonsei Medical Journal 52, no. 6 (November 2011): 982–89, https://doi. org/10.3349/ymj.2011.52.6.982; Gail N. Tully, Changing Birth on Earth (Bloomington: Maternity House Publishing, 2020).

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