MotherTouch™

Advanced Bodywork Training for Women's Health

Myths of Positioning During Pregnancy

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Optimal supportive positioning during pregnancy is a primary concern for bodyworkers. Sidelying positioning is generally recognized as the safest, however, myths and misunderstandings abound about all positioning options. Most concerns center around prone and supine positioning. This article is to help clarify myths from realities about positioning during pregnancy massage.

Common Myths

Common myths are as follows:

a. Pregnant women must lie only on their left side.
b. Pregnant women must never lie supine.
c. Pregnant women must never lie prone.
d. Women can safely receive a massage lying prone on a table or cushion with a cutout for belly and breasts.

Some practitioners position pregnant clients on the Left Side only, believing that left lateral position allows optimal blood flow to the baby and that right sidelying is potentially unsafe.

Some never position their pregnant clients Supine, even in the first trimester, believing that supine is unsafe throughout pregnancy.

Some position Supine throughout pregnancy and believe that it is not problematic, while some will use only a pillow under one hip to Tilt the uterus to the side.

Many practitioners like Prone positioning, and use tables with cutouts, or use special cushions, saying their clients love it and demand it and that it is perfectly safe.

Others say that Prone positioning should never be used due to potential pressure on the baby, increased uterine placental pressure, risk of placental abruption, or other reasons such as decreased communication between you and your client, increased nasal congestion, and uncomfortable breast compression.

So, which is correct?! In reality, there is a mixture of accuracy, partial truths, and some total mis-information.

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Reality

- ***Restriction to only Left sidelying position*** *is not necessary.* Unless due to physiological or structural issue (some women are only comfortable on one side) or if ordered by physician due to a high risk condition, there is absolutely no justification for a client to be positioned only on the left side during a massage.
- ***Supine*** *may be used up until approximately 22 weeks gestation, with determination of use based on fetal size and maternal comfort. In general it is not recommended after 22 weeks but* ***may at times be used after 22 weeks with specific restrictive guidelines.***
- ***Prone*** *positioning may be used judiciously throughout pregnancy,* ***but only with specialized support systems****, in which case, it may at times actually be preferable and* beneficial *to a woman's health.*
- ***Sidelying*** *positioning is generally the position of optimal safety and comfort, but sometimes can be inappropriate—for instance if a client has hip pain and can't lie on one side, or has severe heartburn—in which case semi-reclining might be a better choice.*
- ***Semi-Reclining*** *position is also generally an optimal position, but sometimes is not comfortable due to sacral or back pain, or if a client has a large belly or twins and might feel her breathing is restricted with compressive upward pressure in her diaphragm.*

Rationale

Each position has physiological concerns to be considered when determining use, so a blanket statement of contraindication or support for any positioning needs to be examined more closely. Let's look first at standard lateral positioning, and then the other options.

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Sidelying Positioning

Lateral (sidelying) vs supine positioning is the standard acceptable position for pregnancy massage. But why sidelying? And why would left or right side matter?

Starting around 5 months gestation, if a woman lies supine, the weight of a baby, placenta, amniotic fluid, and enlarged uterus may fall with gravity onto the **inferior vena cava (IVC)** along the spine and compress it. This compression of a major blood vessel can cause a ***supine hypotensive syndrome*** **(SHS)--** blood return to the heart is diminished, the mother's blood pressure drops, and blood flow to the baby is decreased. The baby will have signs of decreased oxygen circulation and decelerations of its heart rate. In a worst-case scenario, if IVC compression is severe or very prolonged, a woman could ultimately lose consciousness and placental abruption could occur—a serious life threatening emergency for both mother and baby, when the placenta pulls off its attachment on the uterine wall. Generally, long before this sequela of worst case symptoms occur, the mother will feel uneasy, dizzy, sweaty, or short of breath as the blood pressure is dropping, and she will roll to her side or hands and knees so that the blood vessel compression is relieved.

Until recently, doctors assumed that both the descending aorta and IVC were compressed by the weight of pregnant belly. However, a 2015 study used MRI to visualize what actually happened to the aorta and IVC during supine positioning. Researchers discovered that the aorta was not compressed at all, while the IVC was. *[Palmer 2015]*

Research based on ultrasounds in the 1950's had shown that a *15-degree tilt* to a mother's side prevented this IVC compression. This was of particular interest to anesthesiologists who encounter a profound drop in blood pressure from anesthesia for all patients, due to sympathetic nervous system effects from anesthesia. Pregnant women immobilized under the influence of anesthesia, who were even more at risk for

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a blood pressure drop due to SHS, did much better when anesthesiologists tilted 15 degrees to their left side to prevent compression on the IVC which also supported better blood perfusion to the baby. [Kinsella 2003]

The 2015 study mentioned above, found that if the IVC was compressed, it only re-dilated when the woman was turned further than the standard of 15 degrees--she needed to be at least at a ***45****-degree* angle. Take note: During a sidelying pregnancy massage, a client is typically positioned 90 degrees to her side; there are no concerns about IVC compression.

The justification for left sided positioning is that the IVC can run slightly right lateral to the spine. Turning a mother to her left should therefore take more weight off the IVC--this would be important when you can only tilt 15 degrees or so, so that you can still do a cesarean section or other abdominal surgery. **In full right or full left sidelying, such as used during massage, there is no a risk for compression of the IVC.**

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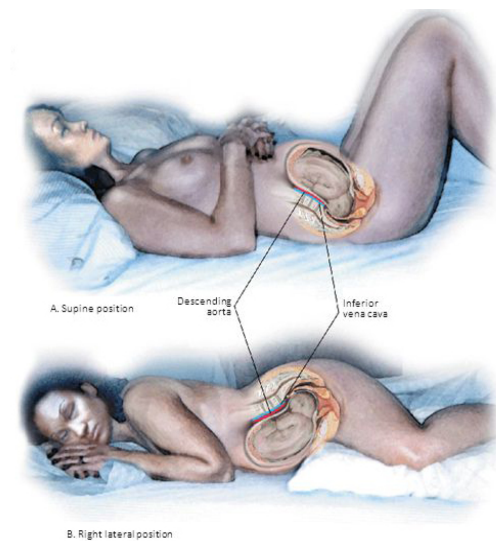
Supine Positioning



Let's look closer at supine positioning concerns. IVC compression is a real possibility for a supine pregnant client, and blanket contraindications for its use by massage therapists is not unreasonable. However if you understand the concerns, you will discover that there are times when supine positioning may be fine. For instance, during the first trimester when the uterine contents are still small, IVC compression syndrome is not an issue. Supine position is perfectly acceptable for use during the first trimester, though it's possible a client won't be comfortable for other reasons—perhaps supine position aggravates her nausea, or causes her back to hurt more. In this case, you will have to choose a different position, such as sidelying.

You may have clients who later in pregnancy claim to be perfectly comfortable in supine positioning. The amount of pressure on the IVC varies greatly depending on the size and positioning of the baby in utero at any particular time, as well as with how long the pressure is there. Once the baby is large enough to cause IVC compression, starting around 22 weeks and onward, the lateral, semi-reclining, and sometimes prone positions are optimal, **but if the baby is small or positioned to the mother's side in such a way that it does not compress the IVC, then compression syndrome is not an issue.** (Though other complaints, such as shortness of breath may develop however if the abdominal contents shift upwards into the diaphragm.)

As a labor nurse I witnessed 100's of mothers and baby's positioned supine for 10-30 minutes during hospital procedures, such as placing catheters or fetal scalp electrodes, or doing vaginal exams. Some women and babies were at ease for long periods of time, others were quickly uncomfortable. At any time during a labor if the

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fetal monitor revealed that the baby's heart rate was compromised, we turned the mother to her left side. If that did not improve baby's heart rate, we turned her to her right side. If that did not help, we moved her to hands and knees. Left side was not always the best position for baby or mother, but was usually the first side we tried in these situations.

A student in one of my classes was 35 weeks pregnant and perfectly comfortable lying on her back for 30 minutes at a time. She was a midwife, knew the baby's position, and was well aware of the concern about IVC compression. She shifted her position as needed. "The baby is on the other side and I'm comfortable lying on my back, " she explained.

Other women may feel discomfort within moments of lying supine, while for others it may be 15 minutes before discomfort begins. Their sacrum may hurt, or they feel uneasy, or get nauseous.

So why even suggest supine position at all during a massage?

Note: **I am *not* suggesting you use it!** ***But sometimes it is useful for doing an advanced technique that is most effective in supine position and which can bring instant relief to a particular complaint.*** I do a hip-rebalancing protocol that requires supine position on a firm surface. It lasts 5-10 minutes. I can do some of the techniques sidelying as well, but I like this protocol and it can have dramatic results. Before suggesting it however, I describe the procedure and ask the client if she is willing or comfortable to lie on her back for a few minutes. Next, I enlist her agreement to communicate any discomforts at any time during treatment, and to roll to her side immediately if she feels *at all* uncomfortable. If I feel confident that this may be a good maneuver for her, and that she will communicate with me about her comfort with or without me asking her, I proceed with the treatment. But remember, the whole sequence lasts 5-10 minutes, not 20, not 30 minutes!

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Some therapists use supine position for bilateral neck work because they don't want to take the time to reposition all the cushions for a 45-degree angle. If you are not willing to take a few moments for repositioning, you might not want to work with pregnant clients, as repositioning is often necessary! Neck work can be done easily in the 45-degree semi-recumbent position, which allows the uterine weight to fall toward the pelvis as opposed to straight on the IVC. Sidelying also offers excellent access to the neck. There really is no justification for supine positioning except for a treatment that is exceptionally effective, and can't be done in any other optimal position.

As an alternative to supine, some therapists will simply put a pillow under one hip to laterally tip the belly weight off the back from supine, placing her in a "tilted" position. In this case, tilting to the *left* would be more appropriate, as simply a tilt to the right is not much better than supine according to the MRI studies mentioned earlier, that looked at IVC and aortal compression. The pelvic tilt may work for a short duration of 5-10 minutes, but the belly must have enough tilt to prevent IVC compression. Keep in mind that the tilt now **creates a twist in the client's lumbar spine** while you work on the neck or apply traction. **This is not ideal,** and not something I recommend.

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Prone Positioning

Prone positioning is offered by therapists using specialized cushions or tables with a hole for the belly and breasts. The tables and some cushion systems are one-size-fits-all and not adjustable, therefore, they work really well for some women, but not so great with others. Someone of petite stature may find their hips fall through the belly hole due to a lack of support on the ASIS. This creates an exaggeration of lumbar lordosis that is already a source of strain during pregnancy. I generally don't recommend cut-out tables for prone positioning without providing a lot of adjustments, such as extra cushions or wedge to provide support on both ASIS; a lower leg bolster to prevent too much compression of the low back; small rolled towels under the shoulders for added support.

A spa, where I taught, positions all pregnant clients prone on tables with cut-outs. The spa therapists admitted that some clients are not comfortable, some feel dizzy after a session, and some have difficulty pushing up out of prone to reposition to semi-reclining. We discussed adjustments that could be made to create better support, and also trained them in supportive sidelying positioning which is a necessary option for those who can't lie prone. Prone positioning excites some clients, but therapists who *only* offer prone positioning are missing out on the many clients who cannot or do not want to be positioned prone. I used to see new clients who said they tried prone positioning, but felt uncomfortable with it after the initial

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excitement. They did not tell the therapist however, that they were unhappy with the position, they just found a new massage therapist!

Prone positioning can be useful, but the therapist must adhere to safety guidelines, including having alternate positioning options available so that the client can choose which she thinks will be optimal for her, and can easily change to a different position if prone is not working. A client may suddenly feel as though she is "lying on my baby". Nausea or shortness of breath may be enhanced in prone position. Back pain can be exaggerated. Breast compression can be uncomfortable. These complaints may come on immediately or sometime during the session, and the therapist needs to be comfortably prepared for a sudden reposition.

I typically suggest a client try the prone position cushions prior to undressing for a session to see if she likes it. If it is clear within a minute that a client will be unhappy, I can then readjust the table for sidelying while she is still dressed and before we have really begun the session.

I offer prone positioning at times, but dependent on the size of a client and her belly, her desire for it, and the type of work she wants done. I am more hesitant to offer it at late stages of pregnancy since I've had a client experience severe back spasms after pushing herself up from supported prone positioning. She had SI joint issues throughout her pregnancy, and prone positioning at first relieved her pain, but when she got up from that position, her back spasmed with the effort.

The new Pregnancy Body Cushion from BodySupport Systems allows for lengthening of the lumbar spine while giving extra space for breasts and belly. The size of the standard depression has been increased to accommodate without strain pregnant belly, uterus and breasts, and an underlying platform provides more height so the client is almost in a quadrapedal position. This makes it easier for her to push up from prone without strain, does not aggravate lumbar lordosis, and prevents compression on vital parts. I find this system to be quite effective for many clients. I

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rarely use this for women with a very large belly, but will offer it to some clients up to around 36 weeks gestation. I have them climb on and try it for a minute before undressing, to see if it is comfortable. If not, we move to sidelying position. If they love it, we proceed prone for as long as they are content, with a focus on their back and hips, as I can easily access the extremities from a different position—not usually more than 20 minutes.

Why not longer? By then a woman in the 3rd trimester is usually noticing that the baby is squirming, and she is starting to fidget herself. Clients do not always say right away that they feel discomfort yet they may start to feel odd lying on their baby, or start to feel nasal congestion due to increased vasodilation during pregnancy, or they feel some compression in their diaphragm. They may wait some time before expressing these discomforts. Communication cues are less obvious in this position, so I watch for shifting body, or unconvincing responses when asked about their comfort. I like clients to rave about whatever position they are in. If they sound "ho-hum" about it, it usually means they need an adjustment in order to be even more comfortable. As far as accessing primary areas needing massage, ultimately, I have much better access to the Quadratus Lumborum, Iliotibial band, neck, feet, and hip and shoulder mobilizations in the sidelying position. I prefer this position even with non-pregnant clients.

Still there are times when prone positioning may be useful or even beneficial. Hospitals have been experimenting with prone positioning for pregnant women who have acute respiratory distress, high blood pressure and preeclampsia, and back conditions that require a patient to be prone. Some of these studies have used an anteflexed stretcher with a belly hole, and some have used cushions, including the pregnancy BodyCushion. As compared to left lateral position, semi-reclining, and supine positioning, women's respiratory rates improved, oxygen saturation increased, and systolic blood pressure was reduced after being prone. Potential benefits of prone positioning mentioned in the studies that explored its use include "… decreased

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compression on lung by heart, better lymphatic drainage, good secretion mobilization, and release of compression of major vessels by gravid uterus. "

[Samanta 2014; Oliveira 2017]

So is prone positioning always optimal for all pregnant clients? No.

Sidelying is still optimal; however, Prone Positioning may have more benefits than previously discussed, provided the following:

- The client has adequate support for her ASIS to prevent increased lumbar lordosis
- The cushions allow for expansion of the ribs
- There is little compression of breasts and face
- It's not used for extended periods longer than 20-30 minutes
- Client confirms during session that she is comfortable.

One continued reason for caution with prone positioning is that often the therapist cannot adequately assess the support of the cushions or table for each client. I feel confident that the BodyCushion pregnancy system will work for many clients, but there are still some who do not fit well or won't be comfortable. I have tried other systems and tables when my students bring them to class, but have yet to find one that automatically provides, without many adjustments, the support needed to prevent strain on the pregnant body.

POSITIONING GUIDELINES

Sidelying Position Guidelines

Supported sidelying is the optimal position during pregnancy most of the time. (supported with pillows and cushions)

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Use Sidelying Position:

- Every trimester as long as client states she is comfortable
- For anyone with high blood pressure or high risk conditions of pregnancy, unless prone has been recommended by client's doctor

Avoid Sidelying Position:

- During nausea/severe heartburn
- When pain prevents comfortable side positioning

Semi-Reclining Position Guidelines

This position, slanting at a 45-degree angle with good low back support, is excellent anytime during pregnancy, especially for clients with heartburn or nausea. Use as a change of position from prone, or when you want direct access to neck, belly, feet.

Use Semi-reclining Position:

- Nausea, Heartburn
- Birth preparation work
- Front-access to the belly
- Mobility of the legs for adductor work
- Focused reflexology session, or head-neck massage

Avoid Semi-reclining Position:

- Hip, coccyx, back pain when sitting up
- Twins during 3rd trimester may cause shortness of breath when sitting up due to pressure on diaphragm

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Supine Position Guidelines

Pregnant women *can* typically be positioned supine without concerns during the first trimester and into the early second trimester up to around 22 weeks. However, the client must consent and agree that it's comfortable for her. The massage therapist **must not *assume* what will work for the client.** Once the baby is large enough to cause IVC compression, *I do not recommend supine positioning for massage, except* under certain conditions.

Use Supine Position:

- 1st trimester, or early 2nd trimester (as long as client states she is comfortable)
- Supine After 22 weeks: Only 5-10 minutes for specific treatments only and only with clear communication between client and practitioner

Avoid Supine Position:

- In general, after 22 weeks gestation.
- Anytime the client says it is uncomfortable at any stage of pregnancy, including symptoms of dizziness, dis-ease, heartburn, back pain, anxiety.
- Client has high-risk condition such as placental or fetal issues, or high blood pressure that could be impacted hemodynamic imbalance
- Anytime there is enough abdominal weight to cause IVC compression when supine

Left Tilt Position Guidelines

This is NOT referring to sidelying, but to putting a wedge under the right hip to move the client's belly somewhat to the left while in supine position.

- May be used if necessary throughout pregnancy for short durations up to 10 minutes, but not recommended due to spinal twist.

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Right Tilt Position Guidelines (this is NOT referring to sidelying)

This is NOT referring to sidelying, but to putting a wedge under the left hip to move the client's belly somewhat to the right while in supine position.

- Not recommended after 22 weeks gestation due to possible increased compression on the IVC.

Prone Position Guidelines

Prone positioning can be used for short periods of time (no more than 20-30 min) in any trimester providing the following restrictions are adhered to:

1. Positioning options are demonstrated to client so she can choose for herself.
2. The cushion or table has holes for enlarging belly and breasts to avoid compression when pressure is applied to her back.
3. The ASIS specifically is well supported so hips do not fall through the belly-hole.
4. The belly is supported with a sling or fabric, so not dangling, without adding extra compression.
5. Discussion with and agreement obtained from client to speak up if she wants to reposition.
6. Client is assessed every 10 minutes to ensure comfort and repositioned immediately if there is any question about her comfort, whether from your assessment of her fidgeting, or her response to your query.
7. Lumbar lordosis is not exaggerated by the position.

NOTE: I am not advocating supine or prone positioning during pregnancy massage as a standard. I am advocating a rational understanding of pregnancy physiology so you can use careful and appropriate positioning as needed.

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