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## Cesarean Section: Helping Women Heal

Debra Goodman, MSPT

Postpartum rehabilitation is an aspect of prenatal care that is extremely neglected. It is generally something that is discussed briefly at best during routine pre/postnatal visits. Women are rarely given any instruction on rehab exercises and tips for postpartum recovery. Women are generally given vague instructions from their doctors and midwives to “take it easy” for six weeks when in fact, women should be doing gentle core stability exercises as soon as possible. Women are rarely referred to physical therapy for postpartum consultation. Information following a cesarean section is no different. Little advice is offered on how to properly rehab their bodies even after this major abdominal surgery. The obstetric community has essentially overlooked an extremely important element in women’s prenatal/postpartum care.

It is obvious to most fitness professionals, that following pregnancy, women are going to need some very specific nurturing and guidance to help them slowly and safely regain their strength as well as to deal with the physical demands of caring for a newborn. It is outside the scope of practice for doctors and midwives to understand all the orthopedic implications of pregnancy, birth, and the postpartum body. However, this population greatly needs this information and unfortunately only those women who seek it out will get it. Following a cesarean section surgery, women need postpartum rehab guidelines even more and they rarely receive it. The CDC has reported that in 2009, in the United States, 32.9% of pregnant women received a cesarean section which is an all-time high for this country. Therefore, many women are undergoing this surgery, and few are receiving good advice on rehab. Helping women strengthen after cesarean section requires a thorough understanding of how pregnancy impacts the musculoskeletal system, knowledge of the musculoskeletal rehab needs of postpartum women, as well as a basic understanding of what occurs during a cesarean section surgery.

## *The Surgery*

Below outlines the basic process of the cesarean section surgery birth:

1. The surgeon makes a horizontal incision in the lower abdomen above the pubic bone through the abdominal fascia.
2. The abdominal muscles are separated along the midline and a vertical incision is made in the peritoneum.
3. The bladder is dissected from the uterus.
4. An incision is made in the uterus.
5. Fetal head is delivered through the uterine incision.
6. Placenta is delivered through the uterine incision.
7. The uterus is exteriorized (taken outside of the abdomen).
8. The uterus is checked carefully for debris often being turned inside out.
9. The uterus is sutured and returned to its position in the abdomen.
10. The peritoneum and abdominal muscles are sutured.

*(Mothering Magazine, Sept-Oct 2007)*

The surgery does not actually sever the abdominal muscles, but it creates a great deal of scar tissue, and the scar tissue can create problems if it is not mobilized properly. In orthopedics, the benefits of early scar mobilization are well known in preventing adhesions, expediting healing, and restoring normal biomechanics. The obstetric community does not seem to understand the importance of scar mobility work, and the majority of women never get any information on how to massage their scars. In fact, most obstetric practitioners evaluate whether a scar has healed "well" by the outward appearance of the scar. It is highly unusual for an OB provider to actually touch the scar after it has healed to assess for tenderness, restriction, or skin mobility. The problems from the scar tissue can present in a multitude of different ways. Below is a list of different symptoms that women will complain about that may point to a scar tissue cause:

1. Pain or tenderness with palpation of the scar
2. Pain or tenderness with abdominal muscle activation
3. Decreased or abnormal sensation in the lower abdomen
4. Abdominal muscle weakness that does not improve with strengthening
5. Stiffness of the skin and muscles near the scar
6. Vaginal pain including pain with intercourse
9. Abdominal pain
10. Hip pain
11. Headaches (occurring years later)
12. Global myofascial pain (occurring years later)

In the orthopedic field, after a patient has an orthopedic surgery of any kind, they are often referred to physical therapy where they are initially given gentle strengthening and stretching exercises, and they are typically taught scar mobility techniques to practice on a regular basis. It is common knowledge now that early intervention following a surgery results in a faster recovery. This means that doing gentle exercises to strengthen the muscles and working on scar mobility as the body is healing generally results in a faster and easier recovery. Post c-section patients are rarely if ever referred for physical therapy, and most women are often afraid to touch the scar.

This is where Pilates instructors can be very helpful to this population. It is important to inform women about the importance of scar mobilization as they are working on regaining their strength as well as to find resources where women can seek treatment for the scar from an experienced physical therapist or massage therapist trained in scar tissue mobilization. Below are some simple ways that women can work on their scars at home:

1. Scar work can begin as soon as the scar is fully healed. Sometimes the scar can be extremely sensitive and some women initially are afraid to touch the scar. Women can begin by applying a heating pad for 10-15 minutes and then gently placing their hands on the scar and applying gentle pressure. Just touching the scar can help to desensitize it. Then she can work up to a light stroking

motion. If the scar is very sensitive, women may have to work up to applying a deeper pressure or she may need help from a therapist trained in scar work if she feels unable to get past the extreme sensitivity on her own.

2. Once women are comfortable touching the scar, then deeper pressure can be applied. Women can apply lotion if desired and massage across the length of the scar from right to left and then from left to right. Women should press into the scar and work on softening thickened areas. Many scars often feel like a very thick strand of bumpy spaghetti. Over time, the scar should change to where it feels like regular skin. It should be able to slide and glide in all directions over the underlying muscles. It should not pucker inwards or “bunch up” as pressure is applied.

3. Women can also practice picking up the scar. The scar should eventually be mobile enough that the scar be pinched and lifted up.

4. Any touching of the scar is good touch. Even if women are not doing a “perfect,” professional scar massage, any manipulation done is helpful. Women do not need to be concerned about doing the massage perfectly. Any nurturing and attention directed to the scar will be beneficial.

5. It is normal to feel sore during and after scar mobility work. Heat is helpful to apply prior to scar massage, and ice may be helpful to apply after scar work.

### *Abdominal Muscles*

Aside from scar work, post c-section women should begin gentle abdominal strengthening as soon as possible. The focus should be transversus abdominus contractions and pelvic tilts. Diastasis recti precautions are still in place in the early postpartum phase, so women should not be doing aggressive rectus abdominus exercises that involve lifting head and shoulders or double legs from a supine position. Initially women should be focusing on gentle core stability exercises and slowly increasing the exercise load and intensity over the course of the first postpartum year. Following a c-section, activation of the abdominal muscles may be uncomfortable or sore which makes women afraid to contract their abdominal muscles. However, women greatly benefit by strengthening the abdominal muscles because it helps increase circulation around the wound which promotes healing, and activation of the abdominal muscles pulls through the scar which helps the scar heal with more mobility. Of course, abdominal strengthening also helps women begin the process of shortening the over-lengthened abdominal muscles and contributes to restoration of proper posture.

Below are examples of excellent postpartum abdominal exercises:

### **Seated Transverse Abdominal Exercises:**

—Seated with body weight centered over pelvis, shoulders back, place hands over belly

- **30 Second Hold:** Begin with a diaphragmatic/belly breath, then exhale and contract abdominals by drawing the belly button all the way to the spine. Imagine you are touching the spine with the belly button. Hold it here counting *out loud* for 30 counts. Recommended: **5 sets per day.**
- **Repeating Transverse:** Same position as above. This exercise is a pulsed contraction. Begin exercise with a diaphragmatic/belly breath, then exhale and draw abdominals to the spine. This is the starting position. Hold this contraction for a count, and then release the muscles half way out. Repeat this back and forth motion. Count out loud for 50 repetitions. Recommended: **2 sets of 50 reps per day.**

\*\*\*These exercises may also be performed on hands & knees.

### **Supine Abdominal Exercise**

- **Pelvic Tilts:** Lying on back, knees bent, small space under lower back (neutral spine). Begin with a diaphragmatic/belly breath and exhale while drawing the belly button to the spine. Next, engage the lower rectus and obliques and visualize the distance from the pubic bone to belly button shortening and the belly hollowing. The pelvis will gently rock back towards the floor (posterior tilt). The abdominals will be scooping backwards. Recommended: **1 set of 10 reps per day**

\*\*\*Can also be performed on hands & knees

### **Kegels (Pelvic floor contractions)**

Imagine you are pulling your pubic bone toward your tailbone shortening the distance between the two bones.

Imagine you are drawing your ischial tuberosities and your pubic bone together.

*Remember to relax the pelvic floor completely after the exercise!*

**Build up to 10 second contractions, 5-10 reps daily**

### **Quick flicks—squeeze and release quickly, 10 reps daily**

Pilates instructors are in a great position to educate women about all the possibilities for postpartum healing. Passing on this information helps to empower women and teaches them the importance of postpartum rehabilitation. Women will be extremely grateful for this knowledge.

### **More About Debra**

***Debra Goodman** MSPT, is a licensed manual physical therapist with specialties in women's health, dance medicine and sports medicine. She has been a physical therapist for Westside Dance Physical Therapy, New York City Ballet and the School of American Ballet. Debbi also had a women's health/orthopedic-focused private practice in New York City. She now practices in Albany, where she's lived since 2004. She is one of the few physical therapists trained in internal evaluation and treatment of the pelvic floor muscles. She is skilled in the treatment of pregnancy and postpartum problems including chronic pain, sciatica, cesarean-section recovery, urinary incontinence, and post-delivery scars. Debra is a Pilates instructor and part of the continuing education faculty for Kinected and The Kane School of Core Integration in New York City.*

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