PILATES AND DIASTASIS RECTI
RECOVER AFTER PREGNANCY

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2. Abstract

Diastasis recti (also known as abdominal separation) is commonly defined as a gap of roughly 2.7 cm or greater between the two sides of the rectus abdominis muscle. Diastasis of this muscle occurs principally in two populations: newborns and pregnant women. It is also known to occur in men.

In my Student Paper, prepared for Comprehensive Course, I presented a Pilates program on the machines for the abdominal recovery of a woman which is experiencing the Diastasis Recti problem after pregnancy.

In my opinion, Pilates is the most appropriate exercise program as it is also the most complete program including all the necessary steps for the well being of each person, starting from the awareness of the body, to achieve harmony.

As in my client’s case, women with DR are ideal candidates for a Pilates program, yet it requires a very focused conditioning program and a very cautious progression due to the precise focus on Core stability especially on pelvic floor and transversus abdominis strength, to correct the existing problem.
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4. Anatomical description

Thanks to the extra hormones during pregnancy, the woman body is able to expand and stretch in an incredible way. But the issue arises when the muscles don’t return to the normal state. Diastasis Recti occurs in the abdomen and relates to the abdominal muscles. During pregnancy, the rectus abdominis muscles can end up separating due to internal pressure and the growth of the fetus. The rectus abdominis muscles run parallel to each other and lengthwise along the abdomen. When affected by Diastasis Recti, they are forced to separate away from the midline to allow space for the growing baby. The distance between the right and left rectus abdominis muscles is created by the stretching of the linea alba, a connective collagen sheath created by the aponeurosis insertions of the transverse abdominis, internal oblique and external oblique, and that reduces the support of the organs and overall trunk stability, the back pain.
Diastasis Recti

- **Transverse Abdominis (TVA)**: The most important muscles to engage when moving the body.
- **Rectus Abdominis**: The “six-pack” muscles that separate with Diastasis Recti.
- **Linea Alba**: The connective tissue that stretches (and shrinks) to make room for baby.
- **Pelvic Floor (PF)**: The muscles that support pelvic floor organs and stabilize connecting joints.
General aspects and Precautions

The majority of cases can be corrected or greatly improved through a specific and conscientious exercise routine.

Interesting facts about diastasis recti are that it is very common and many women have it without realizing it. It is possible to heal and recover but it make take time. Healing DR is a matter of healing the connective tissue which will help to bring the abdominals back together again. It is not just about gaining more strength.

Focus on the transverse abdominis (as done in Pilates) is a major component of healing and re-gaining strength.

As I already mentioned, the pelvic floor and TA should be a strong area of focus and also along with the upper back, gluteals, and surrounding muscles to restore postural balance.

Due to the abdominal focus in Pilates, there are a few important concerns and precautions to consider.

Any action or exercise that cause the stomach to bulge or protrude forward should not be practiced. It does not help heal diastasis recti, in fact, it often makes it worse. This should be a number one consideration when re-training abdominal region.

 Movements to avoid:

- Forward flexion of the upper torso
- Upper body rotation with reaching
- Extreme back extension/arching
- Upper body flexion with rotation
5. Case of study

My client is Oana, a 39 years old woman, mother of a 4 years old daughter and a 9 months little boy. She has not been doing any physical activity since her last birth, and she has a diastasis about two fingers wide.

She is in a good clinical estate but working with her I could realize that she is not very aware of her body as she can’t disassociate the movement of the pelvis as posterior and anterior pelvic tilt. She also has some coordination problems between upper limbs and lower limbs, upper limbs and trunk, in other words, she is not aware about the ability to move the body on segments and not as a single unit.

I choosed to start out with slow movements and work to an fundamental and intermediate repertoire on the machines for 20 sessions with 2 sessions per week, a program that I established together with Oana.
6. Conditioning program

BASI Block System

- Warm Up (on Mat)
  - Pelvic curl
  - Spine twist supine
  - Leg lift

Exercises chosen as the **muscle focus is the abdominal** muscles and hamstrings and the **objectives** are **to strengthen the abdominal muscles and to develop pelvic stability and control** and also to improve spinal articulation.

- **Foot Work** (on Reformer)
  - Foot work Series on the reformer **with focus on pelvis stability.**

- **Abdominal Work** (on Reformer)
  - Hundred: **Lying supine** on reformer with hands in straps and knees in table top, moving only the arms and working on the breath pattern (on exhale activating TA and inhale without bulging the stomach)
  - Flat Back (short box series)
  - Tilt (short box series)

**Muscle focus on abdominal muscles, back extensors and objectives to strengthen abdominal muscles, to develop pelvic-lumbar stabilization,** also hip flexor and shoulder control.

- **Hip Work** (on Cadillac)
  - Frog
  - Hip Circle Up/Down
  - Walking
  - Bicycle

Exercises with muscle focus on hamstrings and hip adductors and **objectives to develop pelvic lumbar stabilization** and also strengthening hamstrings, , develop hip disassociation, strengthen hip extensor,

- **Spinal Articulation** (Wunda Chair)
  - Pelvic curl

**Muscle focus on abdominals and hamstrings and objectives** like spinal articulation, **abdominal control** and hip extensor control
• **Stretches (on Cadillac)**
  - Shoulder Stretch

• **Full Body Integration (on Reformer)**
  - Long Stretch

Exercise with **muscle focus on abdominal muscles** and scapular stabilization and **objectives to develop trunk and scapular stabilization, to develop core strength**, to strengthen the shoulder flexors.

• **Arm Work Supine Series (on Reformer)**
  - Shoulder Extension
  - Shoulder Adduction
  - Arm Circle Up/Down
  - Triceps

Muscle focus on latissimus dorsi and triceps and **objectives to develop trunk and scapular stabilization**, to strengthen the shoulders extensors, adductors, and elbows extensor

• **Leg Work** (on Reformer)
  - Side Split
  - Skating

Muscle focus on hip adductors and gluteus medius and **objectives to develop the pelvic lumbar stabilization and to strengthen the hip adductors.**

• **Lateral flexion and Rotation (on Wunda Chair)**
  - Side Kneeling Stretch
  
  **Muscle focus abdominal with oblique emphasis and objectives abdominal oblique stretch and abdominal oblique control**

• **Back Extension (on Wunda Chair)**
  - Breaststroke Prep
  
  **Muscle focus back extensor and objectives back extensor strength**, elbow extensor control

The reasons for selected exercises are the muscle focus and the objectives as for each category were with the main focus on developing abdominal strength and control, pelvic stability and control.
7. Conclusion:

- Oana improved her body awareness;
- She understood the pelvis movement;
- She developed the abdominal strength;
- She is more aware about the movement on segments;
- She can stabilizes the pelvis and control it.

Pilates can be a great path to take because of the focus on the mind-body connection which is important in re-gaining strength, but also important to help women connect with their bodies again and in a whole new way.
8. Bibliography

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- Study Guide, Body Arts and Science International, Rael Isacowitz

**Website**
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- readysetmamas.com