SECTION 5: Current Diastasis Recti Rehabilitation Methods



The Bump Room "incorporates exercises from yoga, pilates and strengthening techniques" to get their results. Their classes are delivered by members of the Irish Society of Chartered Physiotherapists.

When a postpartum mom realizes that she has diastasis and searches for a solution, she can now find many exercise-based resources, including a handful of online or correspondence style programs that she can purchase. These are programs that your clients are likely to have questions about, participated in already, or may be considering joining in the future. Therefore, programs like these may be important for you to understand.

The most prominent program at one point was the Tupler Technique[®], which was marketed as "Treatment for Diastasis Recti," and developed by nurse Julie Tupler. This technique is specifically intended to solve diastasis recti, and does not market towards weight loss or other common postpartum goals. Other programs can be found, and often address diastasis as part of their postpartum body makeover. These include The MuTu[®] System, Pregnancy Exercises' "Birth2FitMum[®]" program, The Tummy Team's "Core Foundations" program, Knocked Up Fitness' "Core Rehab" program, Every Mother's "Embody Reclaim[™]" program and The Bloom Method's[®] "Studio Bloom".

In addition, online courses intended for physical therapists can now be found from resources like The American Physical Therapy Association's (APTA) Section on

¹ Image: http://thebumproom.ie/diastasis-rectus/

Women's Health and Herman & Wallace Pelvic Rehabilitation Institute. These courses offer continuing education intended for physical therapists, but are available to anyone. They represent the emerging field of postpartum health within physical therapy, and may eventually generate, or be regarded as, the standard of care for postpartum patients.

Each will be reviewed in this section:

- Tupler Technique[®]
- ✤ MuTu[®] System
- Pregnancy Exercises' Birth2FitMum[®] Program
- Tummy Team's Core Foundations Program
- Knocked Up Fitness' Core Rehab Program
- ♦ Every Mother's EMbody Reclaim[™] Program
- ✤ The Bloom Method's[®] "Studio Bloom"
- APTA Section on Women's Health
- Herman & Wallace Pelvic Integration Institute

For your ease of learning, information is provided on three levels:

- First, a succinct introduction to the method, highlighting pertinent information and general knowledge that one is able to gather from websites and promotional materials.
- Second, a "Basic Overview" which includes a few "pros" and "cons" as well as a single suggestion as to how you, the *Pre & Post Natal Diastasis and Core Consultant* would recommend this program, or possibly use it yourself.
- Third, a "Summary" that includes a brief "Synopsis" and a few additional "General Elements" so that you can get a bit more awareness so that you can understand and recommend these programs.

By the end, you will not only be able to make confident recommendations for your clients, but also to determine whether pursuing continuing education with any of these companies is meaningful for your pre & postnatal practice.

What's a Mummy Tummy?

Just before we jump in, let's address the term, "mummy tummy," which initially dominated this sector of perinatal fitness and diastasis. It is an endearing English-accented term used more commonly in the UK, Australia, New Zealand and other British derivatives. You may have already guessed that "MuTu®" has been derived from the term by it's UK-based creator. The New Zealand-based *Pregnancy Exercise* also promotes, "No More Mummy Tummy" challenges and products for their patrons. And even American-based creator of the Tupler Technique® wrote a book called, "Lose Your Mummy Tummy."

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Tupler Technique®

(Julie Tupler, RN, also wrote "Lose Your Mummy Tummy")



The webpage title for the Tupler Technique® is located at www.DiastasisRehab.com, which gives great insight as to their main objective. The home page has the logo and slogan: "Tupler Technique, Treatment for Diastasis Recti." It is a simple homepage with three areas: Understand it, Start it, and Teach it. In 2016, the website described the Tupler Technique® as "the only research-based exercise program proven to effectively treat a diastasis recti. The goal of the Tupler Technique® is to heal the weakened connective tissue that joins your outermost abdominal muscles." By 2018, they had updated their homepage to acknowledge that other research-based exercise programs now exist, "The Tupler Technique® is a research and evidenced based exercise program to treat diastasis recti which is a separation of the abdominal muscles."³ Tupler Technique® was the first.

In 2005, the *Journal of Women's Health Physical Therapy*⁴ published a study that used the Tupler Technique® on 8 women who were pregnant, not postpartum. DR was found to be "Much greater in non-exercising pregnant women than in exercising pregnant women."⁵

The Tupler Technique's® researched-based claim is therefore relevant for exercise *during pregnancy*, which seems to reflect a strong claim for the *prevention* of DR in general. Though the Tupler website does say that more research is now being conducted, there is no reference to research confirming that diastasis can be closed postpartum, (presumably after the separation of the wall has already occurred).

The site provides a succinct description and image to let participants know what they are getting themselves into:

"The Tupler Technique® is a 4 step program. To achieve the best results you must do all 4 steps of the program. The 4 steps are:

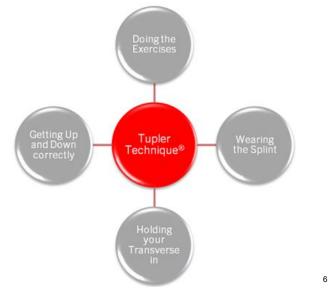
² Image: https://diastasisrehab.com/

³ https://diastasisrehab.com/

⁴http://journals.lww.com/jwhpt/Abstract/2005/29010/The_Effects_of_an_Exercise_Program_on_Diastasis. 3.aspx Journal of Women's Health Physical Therapy. Spring 2005-Volume 29-Issue 1-pg 11-16. https://www.diastasisrehab.com/research

https://insights.ovid.com/women-health-physical-therapy/jwhpt/2005/29/010/effects-exercise-program-d iastasis-recti-abdominis/3/01274882

- 1. Tupler Technique® exercises
- 2. Wearing a Diastasis Rehab Splint \mathbb{R}
- 3. Developing transverse awareness with activities of daily living
- 4. Getting up and down correctly



Julie Tupler began teaching her Maternal Fitness Program in 1990 and was at one point the world's most recognized expert for helping women heal from diastasis. She has been referenced by Dr. Oz, worked with celebrities, and been featured on television programs and magazines. She has two books, "Maternal Fitness" and "Lose Your Mummy Tummy." She has also developed DVD's and a Diastasis Rehab Splint.

There are multiple ways for your client to participate in the Tupler Technique®, as of March 2019. Several programs are promoted in her "Tupler Technique Programs" tab⁷:

1. Self Starters:

- a. Diastasis Rehab Splint[®], a DVD⁸
- b. Tupler Technique Guidebook⁹
- c. 18 Week Ongoing Online Support Program¹⁰ Using the prerequisite "Diastasis Rehab Splint® Guidebook and Video", this is an ongoing program that can be participated in as often as your client "can use it as much or as long as you like to close your diastasis and to keep it closed."
 "Each week there is a video so you will know what you should be doing. You can do your exercises with me every day! There are also weekly tips

⁶ <u>https://www.diastasisrehab.com/what-is-tupler-technique</u>,

https://diastasisrehab.com/pages/diastasis-the-tupler-technique

⁷ https://diastasisrehab.com/pages/tupler-techique-program

⁸ https://diastasisrehab.com/collections/therapeutic-products

⁹ https://diastasisrehab.com/collections/books

¹⁰ https://diastasisrehab.com/products/18-week-ongoing-online-support-program

you can read. There is a weekly blog to connect and communicate with others doing the program. Sharing your experiences with others provides mutual support. I recommend that you reach out and get a Belly Buddy. It works really well having a friend who is doing the same program do it with you." There is also a monthly webinar.

- 2. **Trained Professionals in Your Area**¹¹ In March 2019, there were 40 trained professionals listed on the website, spread over ten countries, with ten states in America. The New York and New Jersey area is where Julie lives and also where the most licensees are listed.
- 3. Work with Julie¹² Julie sees clients live in the NY area, and around the world via skype. She recommends watching one of her DVD's prior to the appointment.

There are other programs as well, including:

- Everybelly Seminar with Julie¹³ This is a three hour seminar that covers (a) the causes of diastasis recti, (b) the effect on your body, and (c) how to close it with the 4-step Tupler Technique[®] Program.
- 2. **Program Before Abdominal Surgery**¹⁴ The "Tupler Technique[®] Ab Rehab[®] DVD was created for the purpose of preparing you for abdominal surgery."

Your client can purchase DVD's (that are often recommended as prerequisites for the other programs):

- 1. **Diastasis Rehab Lose Your Mummy Tummy** Recommended for "all women wanting to close a diastasis."¹⁵ The DVD is divided into four parts: Part 1 is the 4 steps of the Tupler Technique, to be done in the first four weeks. Part 2 talks about strengthening the pelvic floor muscles. Part 3 is to be watched during week 6 of the program, and focuses on how to incorporate the Tupler Technique® into an exercise routine. Part 4 is an actual exercise routine. This DVD is considered to be the update to the 2004 book of the same title.
- Tupler Technique® Ab Rehab They recommend to watch this DVD six weeks before having any abdominal surgery that requires stitching, such as hernias, c-sections and tummy tucks. Part 1 teaches the 4-step Tupler Technique®, to be done for the first 6 weeks. Part 2 teaches how to incorporate the Tupler Technique® into post-surgery activities.

Fit For Birth reviewed these two DVD's (2016), "Diastasis Rehab Lose Your Mummy Tummy" and "Tupler Technique® Ab Rehab." These will be the focus of the "Basic Overview" and analysis below.

¹¹ https://diastasisrehab.com/pages/licensees

¹² https://diastasisrehab.com/pages/about-julie-and-work-with-julie#workwithjulie

¹³ https://diastasisrehab.com/products/everybelly-seminar

¹⁴ https://diastasisrehab.com/pages/start-it-presurgical

¹⁵ https://diastasisrehab.com/pages/which-program-is-for-me

Basic Overview: Tupler Technique® DVD's				
Pros	Cons			
 ★ Extremely thorough technique for diastasis healing. ★ Well designed corrective exercise program for the primary stages, especially for the first few weeks post birth. ★ Simple, easy to follow. ★ Informative and educational. ★ Research-proven results for preventing diastasis. 	 ★ Excessive exercises requested to be performed throughout the day; time commitment is a common complaint. ★ Outdated videos and presentation (Not necessarily the information). ★ Splint usage suggested nearly 24 hours per day so long as diastasis is present; this could minimize reliance on muscles. ★ Use of the seated position may no be the best functional position for our clients to reinforce. 			

this program to your client when she is highly motivated to finally heal her diastasis that has plagued her for a while, wants a detailed awareness of her TVA, and/or is not getting results from other DR healing programs.

Summary: Tupler Technique® DVD's

SYNOPSIS

Overall, the Tupler Technique® is a solid, simple, specific corrective exercise program for Diastasis. The progressions are very small and exceedingly exact in application. Repetitions and time commitment are rather high, a common complaint amongst women who've tried the program. There is a heavy emphasis on using splints, and Tupler even markets and sells her own version. The program excels in the introductory stages of diastasis rehab exercises. Although the method frequently discusses the importance of using the TVA with all movements of daily life, it is limited in the applicable exercises that actually coach this. The technique is research-proven as a program for preventing diastasis and there are a significant amount of women who credit the technique with helping them heal after diastasis is already present.

GENERAL ELEMENTS

Both "Diastasis Rehab Lose Your Mummy Tummy" and "Tupler Technique® Ab Rehab" contain a series of videos that teach the methodology behind the technique. The Lose Your Mummy Tummy is divided into four parts to provide an overview of the technique as well as how to pair it into an exercise routine.

- 1. Part 1 is the 4 steps of the Tupler Technique, to be done in the first four weeks.
- 2. Part 2 talks about strengthening the pelvic floor muscles.
- 3. Part 3 is to be watched during week 6 of the program, and focuses on how to incorporate the Tupler Technique® into an exercise routine.
- 4. Part 4 is an actual exercise routine.

The Ab Rehab DVD is the recommended DVD for abdominal surgery that requires stitching, such as hernias, c-sections and tummy tucks. Julie recommends viewers to watch it at least six weeks before having any of these procedures. This DVD is simply broken into two parts with:

- 1. Part 1 teaching the 4-step Tupler Technique®, to be done for the first 6 weeks.
- 2. Part 2 teaches how to incorporate the Tupler Technique® into post-surgery activities.

Some might find a strong similarity between the two DVD's and choose the one that speaks to their needs the best, rather than investing in both.

With the rise of online pre and postnatal offerings, the Tupler Technique's DVD option seems slightly outdated in comparison but still provides valuable information for your clients.

Julie Tupler has 3 signature exercises that are a crucial part of her programs:

- TVA Elevators An exercise that introduces clients to deep activations of the TVA
- TVA Compressions An exercise that emphasizes the deepest range of motion for the TVA
- TVA Head lifts Similar to a crunch that activates the TVA

Along with the above exercises, the program also recommends various forms of splinting throughout the healing process. Julie mentions that sometimes the exercises will require double splinting.

- **Splinting**: Wearing the Diastasis Rehab Splint.
- **Double Splinting**: Double splinting is wearing the Diastasis Rehab Splint® and holding another splint (scarf) on top of the splinted abdomen.
- According to Julie, if you have DR you should wear the splint ALL the time, even when you sleep. She says this speeds up the healing process.

The MuTu® System (Mummy Tummy Workout System)



The front page of the MuTu® System website (www.MutuSystem.com) formerly had a call to action that asked, "Had enough of the baby belly? Strengthen your core, improve pelvic floor function + get strong, fit + body confident...however long ago you had your baby!" In August, 2016, the site did not promote diastasis recti healing on the front page.

Then in late 2016, they began experimenting with placing "Diastasis" top center on their home page. One example of words chosen include: "Introducing a 12-week, doctor recommended recovery program to heal your **Diastasis Recti**, strengthen your core and pelvic floor and help you lose weight—all from the comfort of your home."

By the end of 2018, the front page headline was, "The medically recommended post-baby recovery program."¹⁷ As of March, 2019, their front page headline is, "The medically recommended 12-week online exercise recovery program for all mothers."

One page on the website was titled, "Diastasis Recti." This detailed and natural-minded section explained Diastasis Recti, allowing the seeker to "Watch Wendy's Diastasis Video Series."¹⁸ It gave statistics with references, and had a succinct and accurate presentation for how DR occurs and how to fix it. And the bottom of the page explained how the MuTu® System can help, with one reference to diastasis:

"MuTu[®] System is for women who want their bodies to look, feel and function better after having a baby. Even if it's a long time since having a baby. They want a core and a pelvic floor that work, that feel right and that do their job. It's for women who want to lose weight after childbirth and keep it off. It's the definitive, medically endorsed Mummy Tummy Workout System, created by postpartum fitness expert, Wendy Powell. An international best-selling, industry acclaimed, award winning, holistic, realistic and supportive exercise and recovery program

¹⁶ Image: https://mutusystem.com/mutu-system-12-week-program

¹⁷ https://mutusystem.com/

¹⁸ https://mutusystem.com/diastasis-recti

for Moms that truly works. A proven, truly effective, tried and tested solution for 'mummy tummy', **diastasis recti**, pelvic floor weakness and core that isn't as functional or strong as you'd like it to be."

MUTU SYSTEM 19



The MuTu[®] System is a 12-week online program that guides each mom through a series of core specific exercises, full body workouts, nutrition advice, weekly reminders & motivational videos to help the viewer "keep going and not give up." Although MuTu's original program was more of a general exercise program for the postpartum mom, with only periodic mentions of diastasis, the revised version (as of October, 2018) now discusses DR throughout.

This program is filled with important information, effective exercises and a creator who truly loves what she does.

Wendy Powell, "Postpartum + Post-Pregnancy Exercise Expert" is a personal trainer, and now author and featured expert. She comes across as an educated and passionate woman who truly cares about her pregnancy fitness community and loves providing support to moms. The reviews tend to reflect the ease, comradeship, effectiveness and overall fun of the program. The only negative reviews we could find were for the 12 week Program on DVD, sold on Amazon, which appears to be the exact same program as online, just mailed to the participant in DVD form.²¹

¹⁹ https://mutusystem.com

²⁰ https://mutusystem.com/program

²¹ There are reviews indicating that originally the DVD program did not include membership to the Facebook group and therefore was not identical. However, on October 6, 2015, the following comment was posted in response to the review titled, "Not the Complete System": "We have listened to feedback, and DVD customers DO now receive full, lifetime online access. Please email our team on hello(at)mutusystem.com with your amazon purchase info, and we will get you set up! Thank you for your comments and feedback - this is how we keep improving."

Basic Overview: MuTu [®] System Online Program				
Pros	Cons			
 ★ Informative and Educational ★ Easy to follow ★ Designed for pregnant and postpartum moms ★ Includes modules for hernias and prolapse ★ Easily applicable and "doable" workouts for new moms and beginner exercisers ★ Fantastic video quality and production 	 ★ Progressions may not challenge avid exercisers. ★ Voice-overs of videos do not convey the inspiration that makes Wendy such an inspirational force 			

program that is fun, easy to use, produced well and offers a strong community.

Summary: MuTu[®] System Online Program

SYNOPSIS

Overall the MuTu® System is a fantastic program for postpartum women as they begin to ease back into exercise. The program is easy to follow and beautifully done with exercises that range from beginner to moderately challenging. Wendy does a great job of educating the viewer on how to use her core correctly in everything she does while also providing exercise routines that are sufficient for newly postpartum moms. MuTu® has a lot of great information, and is perfect especially for postpartum women who are just getting back into exercise. It is a well rounded program that could be great for a client with minor diastasis or any woman wanting to ease back into exercise safely.

GENERAL ELEMENTS

MuTu® System launched a new and updated 12-week program in 2017. This new program is an advancement of the original program in several ways. The overall theme remains the same in the sense that MuTu® is best for clients who are not super athletic and who may not enjoy pushing themselves through various strength

training workouts, either during or after pregnancy. The exercises move at a relatively slow pace and don't include any weights other than a light resistance band.

The MuTu® program begins with "Science class" which contains four science-related videos with the following content:

- 1. Why it Matters An overview of the way the core works.
- 2. Alignment and Pressure Provides examples of how to avoid excess intra-abdominal pressure during everyday movement. This video covers the correct ways her viewers should walk and pick up their children.
- 3. **Diastasis Recti** What causes it, what it looks like, how viewers can tell if they have it, and how to fix it.
- 4. **The Baby Fat That Isn't** Discusses weight gain and how nutrition is a critical factor along with exercise.

Once the viewer has watched each video in this section, she progresses through a 12-week program. Each week the user is given various exercises that are geared towards healing their DR as well as building strength through the workouts provided.

One of the best upgrades to the program is the ability to choose your current phase:

- Expecting
- Prolapse or hernia
- None of the above let's just get started.

These options provide a great new aspect to the programming, as it allows women to easily select the phase that is best for her. Each of these three options ultimately provide the same program, but each uniquely offers a video specific to appropriate phase.

Overall, the updated MuTu® program is much more geared towards healing Diastasis Recti and is a beautifully produced program with thorough cueing and visuals. It is a good fit for clients who want a gentle exercise program that is minimally challenging.

Basic Overview:

- 1. Week 1: All about the core. Wendy recommends the viewer to follow five basic core-focused exercises everyday for the first week.
- 2. Week 2: Teaches the importance of alignment, barefoot shoes and gait patterns.
- 3. Week 3-12: Various progressions of exercise programs, and consistent reminders to continue walking program. Also discussion on stress and its relation to body fat.



The Pregnancy Exercise company is under the guidance of experienced trainer, Lorraine Scapens, who founded the company through her own pregnancy journeys. The home page of the website (<u>www.PregnancyExercise.co.nz</u>) does not specifically mention diastasis recti, although she has dozens of blog posts dedicated to the subject. The site is dedicated to fitness in general.

The homepage of the website clearly promotes three Fit Mum Programs:

- Pregnancy (Fit2BirthMum[®])
- Postnatal (Birth2FitMum[®])
- Advanced Postnatal (SuperFitMum)

Although the site now promotes those three areas, they also offer additional programs as well. Here are some, with general explanations:

- 1. **Fit2BirthMum[®]** "Get fit for birth and enjoy your pregnancy!"
- 2. Birth2FitMum[®] "Get back into shape safely post the birth of your baby."
- 3. **SuperFitMum** "A Challenging Postnatal Exercise Program."
- 4. **No More Mummy Tummy Challenge** (NNMTC) "If you want a Stronger Core, a better functioning pelvic floor and to feel fitter and stronger, then join this popular challenge today." "NNMTC is a 14 day No Crunch Core Challenge."
- 5. **Turn Your Baby 14 Day Program** "Turn your baby from a breech, transverse or posterior presentation to an Optimal 'Vertex' position with this program."
- 6. **Pregnancy Exercise First Trimester Fit2BirthMum Trial** "You know you want to stay active and healthy and follow a program of regular exercise but you are not sure how much to do or how hard you can go."

²² Image: http://www.pregnancyexercise.co.nz/



The main post-pregnancy program is called Birth2FitMum® which advertises getting "back in shape safely" as well as help to heal "diastasis recti, reduce embarrassing leaks and lower back pain."²⁴ The online program includes:

- Four strength programs to heal DR, improve posture, core, glutes, and muscle tone.
- Four 15min DR safe cardio workouts
- Choice of workouts lasting 10, 15, 20, 30, or 40 minutes
- Weekly exercise plan
- Four week nutrition program
- Ten videos addressing topics like C-section, PF function, posture, DR checks, lifting baby, breastfeeding, more.
- Private Facebook Forum where Lorraine interacts
- Weekly motivational emails

The intention of this postpartum 12-week program is for the participant to train six times per week; four of those sessions using a resistance style program and two sessions of cardio. For the first three weeks, the participant will perform the Birth2FitMum "Program 1." For the next three weeks, "Program 2," then "Program 3," and finally "Program 4" for the final three week period.

Each of the four programs come with a series of videos, as well as a printable worksheet of exercises (convenient for printing and following without the videos, if desired).

²³ Image: http://www.pregnancyexercise.co.nz/

²⁴ https://www.pregnancyexercise.co.nz/products/post-pregnancy-exercise-program/?client_panel=true

Online Program				
Pros	Cons			
 ★ Easy to follow. ★ Designed for postpartum moms. ★ Detailed education on structure and posture of the human body. ★ Designed specifically for postnatal healing and core awareness. ★ Gets the participant quickly started with her exercises (without a lot of preliminary videos). 	 ★ Progressions may not challenge avid exercisers. ★ Relatively few education based videos. ★ Is not specifically geared for healing diastasis, and may not be appropriate for some moms who have severe diastasis or core dysfunction. ★ It's more accurately a postpartun fitness program with frequent reminders for using the PF and TVA. 			

wants to jump into an exercise program quickly.

Summary: Birth2FitMum[®] Online Program

SYNOPSIS

Overall, the Birth2FitMum[®] program is easy to navigate, as everything is listed on one scrolling page that provides a clear description of how to progress through the program. Each video is short and to the point, whether Lorraine is demonstrating a workout series or verbally explaining how to execute the program. The videos are filmed in what is presumably Lorraine's home, making it feel comfortable and doable. She does a great job of choosing exercises with nearly no equipment, making this program realistic for new moms who find it hard to get out of the house to exercise. Lorraine demonstrates a clear expertise in how to heal the body post birth, and knows how to get moms moving in a safe way. This program could be great for a client with minor diastasis, especially if she is cautious when participating in the cardiovascular videos.

GENERAL ELEMENTS

The Birth2FitMum[®] program is more accurately a safe exercise program for postpartum women, that addresses the reparation of diastasis. The program opens with a 5 minute intro video, after which, viewers can begin the program.

The Birth2FitMum[®] program consists of:

- 1. 10 informational videos
- 2. 8 different program videos or workouts
- 3. 4 weeks of nutrition tips and shopping lists
- 4. A downloadable gym program for viewers to use once they finish the program.

The workouts within the program are perfect for all levels of desired exercise and are a mixture of cardio and light strength training. Lorainne's high energy and bubbly personality makes this program upbeat and easy for all postpartum women to follow.

The Informational Videos cover topics including:

- 1. When You Shouldn't Exercise.
- 2. Exercise Considerations: Intensity Post childbirth.
- 3. How To Test For Diastasis Recti and How You Know When You Have Healed.
- 4. Posture: Why good postnatal posture is important for optimal recovery.
- 5. How To Feed Baby without increasing aches and pains.
- 6. For Mums who have had a C-Section.
- 7. How To Activate Your Core Muscles Correctly.
- 8. How to Activate Your Core Correctly When Picking Baby Up.
- 9. Exercises To Avoid.
- 10. What Cardio Exercise is Safe?

Exercise Programs

The exercise videos progress throughout each "program" and progress according to Lorraine's recommendations. Lorraine gives the viewer a mixture of core rehabilitative exercises and full body movements, all with a focus on strengthening the core post birth.

Nutrition

Each week of nutrition information is in PDF format and is easily downloadable for the viewer to take along with her on any grocery shopping trip. It is straightforward and seems easy to follow for any woman wanting to adhere to the nutrition guidelines.

The Tummy Team



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The website of the Tummy Team (www.TheTummyTeam.com) reveals that they are rather focused upon helping women, including women with diastasis. As of March, 2019, the home page explained, "We provide the realistic and meaningful strategies to rehabilitate your core and pelvic floor. Our step by step online programs have helped thousands of people all over the world." A tab titled "diastasis recti" readily offers a good deal of information on the topic.

At one point, their About Page described, "6 years ago, we dreamed of turning our personal triumphs in core rehabilitation to services for clients around the world. Today, through The Tummy Team, our skilled physical therapists are giving clients back their health, happiness, and confidence one core at a time, all over the map." The founder, Kelly Dean, is a physical therapist.

They have a variety of programs which have included:

- On-Site Core Training (for those who live near Vancouver, WA, or Portland, OR (USA).
- Online Core Training
- eSessions (Virtual Appointments)
- Online Childbirth Education classes

Their "Online Core Training" programs²⁶ have included:

- **Core Foundations** An 8-week program that addresses diastasis recti along with other common core issues.
- **Floor of Your Core** An 8-week program specifically targeting the pelvic floor muscles, and integrating them into daily life

²⁵ Image: https://thetummyteam.com/

²⁶ https://thetummyteam.com/programs/online-core-training/

- **Core Preparations for Surgery** A 4-week program "designed to help clients prepare for abdominal surgery"
- **Core Integrations** An advanced program that offers 6-months access to integrate "core strength into all the aspect of your life."
- **Prenatal Core Training** A 6-week program for pregnant mothers that "systematically and safely rebuilds internal core muscles" to prepare for pregnancy, labor, delivery, and recovery.
- **Core Preparations for Cesarean** A 4-week program to help a pregnant mom prepare for a planned cesarean birth.

At the time of our review, the **Core Foundations** program seemed to be the most appropriate for a postnatal diastasis repair. The description was:

"Core Foundations builds the foundational strength of your internal corset muscles and gradually integrates that essential strength into your everyday life. This program helps anyone with core weakness, low back pain, diastasis recti, pelvic floor weakness, or just a poorly functioning core. People with sciatica, prolapse, prostate issues, sacroiliac instability, rib pain, abdominal hernias, upper-back pain, and those in need of birth recovery will also benefit."

Participants create a login and password, and had approximately 10 weeks to participate in the instructional videos and written materials. *The Tummy Team* format did not allow the participant to receive early access. In other words, if the participant is on week 3, she cannot see materials associated with weeks 4 through 8 of the program. Access included a private Facebook forum.

Basic Overview:				
The Tummy Team "Core Foundations" Program				

Pros	Cons
 ★ Very detailed perspectives from a physical therapist. ★ Nice supplement to another exercise program. ★ Accurate core rehabilitation techniques. ★ Specifically intended to address diastasis and other postpartum musculoskeletal challenges. 	 ★ Delivery of information was sometimes repetitive, attempting to explain multiple topics, which may appear unfocused or slow to the viewer. ★ This was not a true exercise program as much as an educational program. ★ This was more of an introduction to understanding exercises for core and DR. It did not have continuous exercise sequences until the end of the program. ★ Limited access to program.

this program to your client if she wants in-depth advice from a physical therapist as a supplement to her exercise program, and does not mind the unmethodical organization and delivery of the program.

Summary:

The Tummy Team "Core Foundations" Program

SYNOPSIS

Overall, Tummy Team *Core Foundations* program was a very thorough informational program for any woman wanting to reconnect to her midsection post birth. While all of this educational information was fantastic for postpartum moms, the videos often repeated information and do not have a clear-cut order or outline. The "exercises" consist of isolation-based movements of the Transverse, with an emphasis on bringing this same Transverse engagement into everyday movements. The program emphasized that this is NOT an exercise program but a rehabilitative program to teach you how to heal your core through daily life. This program had a great deal of crucial information but is not intended to be a sole guide for postpartum fitness routine.

GENERAL ELEMENTS

The Tummy Teams Core Foundations is jam packed with an overwhelming amount of physical therapy knowledge. The tummy team has created the most thorough program for women who are wanting an in-depth education around their Diastasis while also gaining tools to help heal it. When it comes to exercise, founder Kelly Dean believed that all women should "just say no" to crunches and leads with this when teaching core based exercises in her program.

The Core Foundations program begins with eight informational videos that require the viewer to complete before beginning the actual program. Once these have been viewed, the first week of the program will be unlocked. The program is then a total of 8 weeks in length, each week containing several videos that are a mixture of exercises and education on the specific video topic. The biggest challenge with this program is that there is a significant amount of repetition and a participant would need to devote a fair amount of time to completing it.

Core Foundations, Intro Videos

The eight videos that make up the Core Foundations specifically discuss DR, how to check for DR, the Anatomy of the Abdominals, Transverse Abdominis, Emotional/Spiritual connection to the core, why crunches don't work, why abdominal splinting is a must, and the various splints they recommend." Here are some of the teaching points:

- DR is often mis-diagnosed as a hernia.
- Kelly stresses that "crossover crunches" and other crunch movements are bad because they stretch obliques away from each other creating the "tummy pooch."
- Mention of the belly breath and how it is effective training for the core muscles.
- Women can hold physical and emotional pain in abdomen. She provides the following examples: abortion, adoption, sexual abuse, infertility, C-section, and difficult labor.
- "Just say no" to crunches
- The viewpoint that the Transverse muscle and obliques cannot be turned on during crunches.
- Why splinting is a must postpartum.

Core Foundations: 8 Weeks of Amazing Information about DR and Exercise

- 1. "This is not a fitness program, this is a rehab program."
- 2. Addressing posture, including "potty posture" (squatty potty recommendations), abdominal massage and setting oneself up for success after baby arrives
- 3. More Transverse exercises, including correct core engagement and neutral pelvis throughout the day
- 4. Connection between the Pelvic Floor and Transverse; pelvic floor Kegel exercises. They refer viewers to Fit2B for safe exercise routines.

- 5. How to begin weaning away from the splint. Also teaching neutral rib cage and upper back activation.
- 6. How to integrate the core into functional activities; core stretches included.
- 7. Actual fitness workouts designed by Kelly. Additional referencing of (and suggestion to transition to) Fit2B exercise programs.
- 8. Final DR check to measure progress. Includes lifestyle integration suggestions.

Knocked-Up Fitness® Core Rehab Program knocked-up fitness®

The home page of <u>www.Knocked-UpFitness.com</u> tells their viewers, "Stay confident, sexy + feel great during pregnancy." Erica Ziel is a personal trainer who has more than a decade of experience in prenatal and post pregnancy workouts, and discusses the concept of "deep core muscles." The home page says that "Erica specializes in training women who suffer from **diastasis recti** (abdominal separation) post pregnancy how to heal their core without the need for surgery, and getting them their bodies back!"²⁷ She is featured in multiple news sources, both general and fitness specialty; and she has an "Pre/Postnatal Instructor Training Course."

Her homepage demonstrates that she seeks research-based statistics to explain the benefits exercise during pregnancy, and she has several programs available:

- Monthly Pregnancy Fitness Membership Program
- The Core Rehab Program
- 5-Week Prenatal and Postnatal Exercise Specialist Course

The **Core Rehab** monthly membership program is designed: "to strengthen your entire body beginning with your deep core, improve your balance and posture along with building new fascial connection and coordination throughout your body. Many also see healing of incontinence, pelvic floor dysfunction, back pain, knee pain, **diastasis recti** and so much more!"²⁸ On the Core Rehab webpage, the monthly membership gives access to:

- The 6-phase Core Rehab Program (phases are released in phases, so access is not entirely available at once).
- Digital streaming tutorials and workouts
- Printable guides for tutorials and workouts
- 75+ videos, providing 15 hours of content
- Workout options for beginner (under 30min) as well as intermediate (30-60min)
- Early phase workouts (10-15min) as well as later phase (15-25 min)
- Private Facebook Group
- Monthly group coaching calls with Erica Ziel and Coach Jen

According to the salespage, the phases of the program are as follows²⁹:

²⁷ https://knocked-upfitness.com/

²⁸ https://www.ericaziel.com/p/core-rehab-program

²⁹ https://www.ericaziel.com/p/core-rehab-program

- 1. Phase 1: Posture
- 2. Phase 2: Hips + Pelvis
- 3. Phase 3: Ribcage Connection
- 4. Phase 4: Adding Rotation
- 5. Phase 5: Adding Planks
- 6. Phase 6: Adding Flexion + 'Crunches'
- 7. Bonus Section: Tutorials on a variety of alternate exercise modalities

The Core Rehab Program is a "lifestyle program - one that is to educate while also improving balance throughout your body, core strength and overall full body strength, coordination, fascial connections and healing incontinence, back pain, diastasis recti and much more, or preventing them too!!!"³⁰

Core Rehab Program Pros Cons					
 ★ Easy to follow, clear and concise teaching ★ Speaks to the importance of diaphragmatic breathing ★ Smart core progressions that ease the individual into correct use of the core ★ Consistent focus on correct form, posture and function ★ Education on fascia 	 ★ Phases remain locked until the previous phase is complete ★ Core sequences spend significant time setting up correct form and function which can seem slow for some users 				

program would be a plus due to Erica's pilates background and teaching style.

³⁰ https://www.ericaziel.com/p/core-rehab-program

Summary: Knocked-Up Fitness® Core Rehab Program

SYNOPSIS

Overall Knocked Up Fitness' Core Rehab Program is a thorough program that guides women through improving diastasis recti. Erica Ziel does a wonderful job blending guided exercises with education. Workouts vary in their challenge level but are achievable for all women working their way through the program. The Core Rehab Program guides users through six phases to help repair and re-strengthen the core unit post-pregnancy. Erica's content is concise and easy to follow. This program would be a great recommendation for any client desiring step-by-step directions for healing their core. Her pilates background and knowledge of the fascia system steer her coaching. She cares for correct form and posture, and continually reminds participants how to stay aware of themselves throughout exercise.

GENERAL ELEMENTS

The Core Rehab Program is a pilates-based program intended to heal and re-strengthen the core unit in postpartum women. This program offers various categories broken into six phases that each walk the individual through various core-based modalities. Each category is a compilation of videos that guide the viewer through a specific focus. The user has access to one phase at a time while gaining access to the next phase upon completion of the one prior. Aside from the videos within each phase, the user also has access to videos in the Nutrition + Digestion category. The content within this program is extremely thorough and you can tell Erica is passionate about what she does. Along with the pilates-based movements, there is a strong emphasis on correct posture and educating women on addressing the fascial system in regards to healing.

Key points within The Core Rehab Program :

- Proper form and posture Erica teaches from a strong Pilates background and is constantly reminding the viewer to maintain a tall lengthened posture. The theme around posture is clearly woven throughout all of Erica's core exercises and techniques. Clients needing an overhaul on their posture would benefit from Erica's constant cueing and direction.
- Diaphragmatic Breathing Incorporated throughout the program, Erica reminds her viewers about the importance of breath multiple times in her teachings.
- Pilates based exercises aimed to heal diastasis While this program might not suit a client looking for heavier weights and strength training, it speaks beautifully to women who enjoy pilates style exercises with a deep intention around form, posture, and pace of movement.

Every Mother[™] EMbody Reclaim[™] Program

The home page of Every-Mother.com emphasizes "Proven Workouts, Constant Evolution," and clearly promotes three programs:

- EMbody Prepare[™] "This is our prenatal program. If you are pregnant, Prepare is where you belong regardless of whether you have diastasis recti."
- EMbody Reclaim[™] "This program is for resolution of diastasis recti for mothers of all ages and stages OR for any woman less than 6 months postpartum."
- EMbody Surpass[™] "If you do not have diastasis recti but are looking for safe workouts that will achieve your goals, Surpass is for you."

The homepage claims that the "EMbody Program" is "the only comprehensive exercise program proven effective and safe for diastatsis [sic] recti. Diastasis recti is an abdominal separation experienced by a majority of childbearing women, and its symptoms include a weakened core, back pain and protrusion of the stomach (sometimes referred to as "mummy tummy"). In addition to resolving diastasis recti, participants also report relief from low back pain, enhanced pelvic floor health, and improved continence rates."³¹

The method was created by New York City based personal trainer, Leah Keller, and was "previously known as The Dia Method."³² She teamed up with an OB to perform research in 2013 and in 2014 the results were published in *Obstetrics and Gynecology*. Their messaging also highlights the NPR article that discussed the results of this study and turned out to be "NPR's 4th most popular story of 2017."³³

ΕM

³¹ https://every-mother.com/

³² https://every-mother.com/about/

³³ https://every-mother.com/about/

The 2014 study set out "to see if women who started an exercise program after delivery had a comparable reduction in diastasis recti as those who started the program during their pregnancy."³⁴ It included:

- Isometric exercises of the TVA
- Resistance training
- Cardiovascular exercise

The study measured "reduction in diastasis recti"³⁵ for both prenatal and postpartum volunteers. Whereas Tupler Technique® was the first exercise study on *prenatal* prevention, this would be the first study on *postpartum* healing. The conclusion would count as a big win for finally putting exercise-related DR treatments on the map. It stated: "Women who started after delivery an exercise program aimed at reducing diastasis recti achieved the same reduction in diastasis recti as those who started the program during pregnancy."³⁶

How Valid Will This Study Prove To Be?

The reason why it may be too soon to shout the results of this study from the mountain tops is because there are a few red flags waving. First, the acknowledgement that "Diastasis recti measurements were obtained prospectively in a standard fashion by the trainer at the start and completion of the training"³⁷ begs a couple questions:

- What qualified these trainers to know how to measure IRD? (As you'll see in studies later in this course, ultrasound imaging from experienced technicians has been a standard used in some other studies.)
- Were these trainers part of Keller's team at *Every Mother*? Is there a potential conflict of interest that would lead these trainers to find positive results? (Leah Keller has "a relevant financial relationship,"³⁸ meaning that a favorable outcome may directly benefit her in some way.)

Second, there are other questions that research studies generally provide in the details, the "full text," that includes the exact methods used at each stage of the study. For example:

- Which exercises were used?
- What was the exact exercise instruction given to the participants?
- At what moment of the exercise was the measurement taken?

³⁴

https://journals.lww.com/greenjournal/Abstract/2014/05001/Postnatal_Exercise_Can_Reverse_Diastasis_R ecti_.352.aspx

³⁵ https://journals.lww.com/greenjournal/Abstract/2014/05001/Postnatal_Exercise_Can_Reverse_Diastasis_Recti_.352.aspx

³⁶ https://journals.lww.com/greenjournal/Abstract/2014/05001/Postnatal_Exercise_Can_Reverse_Diastasis_Recti_.352.aspx

³⁷ https://journals.lww.com/greenjournal/Abstract/2014/05001/Postnatal_Exercise_Can_Reverse_Diastasis_Recti_352.aspx

³⁸ https://journals.lww.com/greenjournal/Abstract/2014/05001/Postnatal_Exercise_Can_Reverse_Diastasis_Recti_.352.aspx

 What specific time frame was involved? In the postpartum volunteers, at how many weeks were measurements taken? (Again, you will find out later in the course that half of the women with DR at delivery no longer have it several weeks later. If DR is being closed in women who still have it present beyond 8 weeks postpartum, this may be the most significant breakthrough.)

Therefore, as I have become accustomed to doing, I attempted to answer these questions by purchasing the "full text," from *Obstetrics & Gynecology* (Green Journal). However, I was unable to do so and in email correspondence, the organization responded: "Since it was written as an abstract to be presented at the meeting, we can't be sure that a full version was ever written."³⁹

The three authors of the study are listed as: "Sharma Geeta MD; Lobo, Tricia BS; Keller, Leah." So I emailed a research request, to which *Every Mother* responded, "Geeta Sharma, the PI on the study, never wrote a full article," and that, "We're now launching a randomized, controlled trial headed up by Hospital for Special Surgery in NYC that will further explore the benefits of Every Mother's Reclaim program."⁴⁰

Further research uncovered a 2018 article that explains, "Teaming up with Leah Keller, the personal trainer behind Every Mother, a core strengthening fitness program, Casey has launched a clinical study. It is the first randomized controlled trial on the topic - following a retrospective study done at Weill Cornell Medicine, that found certain exercises can actually close that gap in the abdominal wall, without surgery."⁴¹

Presumably, the abstract "study" that *Every Mother* is justifiably proud of, is being called a "retrospective" study. *StatsDirect* explains that "a retrospective study looks backwards and examines exposures to suspected risk or protection factors in relation to an outcome that is established at the start of the study."⁴² *Wikipedia* discusses one of the disadvantages of retrospective studies as "some key statistics cannot be measured, and significant biases"⁴³ being a possibility.

In response to my inquiry, Geeta Sharma left me voicemail⁴⁴ explaining that "We had done [the first study] as a pilot and we had always the intention to do something further, and thankfully we are now in the process of doing so...We hope to get something out with a full study and a full article." She explained that the first study was a "preliminary look, which was retrospective...and that's why we are doing

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³⁹ Editor Assistant of Obstetrics & Gynecology. Email Correspondence. Oct. 22, 2018

⁴⁰ Editor Assistant of Obstetrics & Gynecology. Email Correspondence. Oct. 25, 2018

http://www.ny1.com/nyc/all-boroughs/health-and-medicine/2018/10/17/diastasis-mommy-pooch-study ⁴² https://www.statsdirect.com/help/basics/prospective.htm

⁴³ https://en.wikipedia.org/wiki/Retrospective_cohort_study

⁴⁴ Voicemail October 25, 2018, 1:37pm. Geeta Sharma, MD, office Phone is: (212) 860 0300 (https://www.drgeetasharma.com/contact.html)

something prospectively now...It will take about a year" to complete the analysis and get the paper accepted."

Hence, the *Every Mother* study is likely a great first step toward seeing exercise-related results in DR, but the "clinical study"⁴⁵ that is underway in 2018-2019 will more likely bring more definitive conclusions.

The EMbody Reclaim[™] program, intended to be most appropriate for closing DR postpartum, is a "12-week guided path" to "enhance core strength, functionality and overall body tone. Reclaim participants also report relief from low back pain, improved pelvic floor health, and better continence (no more leaking). Upon joining, you will immediately be brought to Day 1 to begin your daily prescription of educational content, Core Compressions and workouts."⁴⁶

The program emphasizes that it "does all of the thinking for you," comes with "foundational videos," teaches "Core Compressions™" exercises "into every move of our entire workout library," focuses on workouts that "use minimal equipment" and provides community in their private facebook group.

Basic Overview: Every Mother™ EMbody Reclaim™ Program				
Pros	Cons			
 ★ Easy to follow videos ★ Beautiful platform and program ★ Great workouts for the beginner exerciser ★ Core progressions are easy to master ★ All workouts can be completed within 25min ★ The foundational techniques of this program are very similar to Tupler but with an updated feel ★ In addition to the computer based program, users gain access to Every Mother's APP 	 ★ Does not educate the importance of diaphragmatic breathing ★ If your client has used the Tupler Technique[®] this might seem too similar for her ★ Very little guidance given for how to increase the challenge of the workouts ★ No access to workouts longer than 25 minutes 			

⁴⁵ http://www.ny1.com/nyc/all-boroughs/health-and-medicine/2018/10/17/diastasis-mommy-pooch-study

⁴⁶ https://every-mother.com/embody/reclaim/

As a Pre & Post Natal Diastasis and Core Consultant, you would recommend this program to your clients if they are looking for an online program that provides daily guidance to heal diastasis, and enjoys the idea of a program similar to the Tupler Technique[®], with an upgraded feel. The exercises in this program are currently the closest to having valid scientific evidence for healing DR post-pregnancy, so if your client requires clinical evidence this may be the only program to offer them.

Summary: Every Mother™ EMbody Reclaim™ Program

SYNOPSIS

Overall, the EMbody Reclaim[™] program is a thorough Diastasis-focused program that is geared towards the modern woman. The 12-week subscription-based program is broken down by day, providing the subscriber with a daily workout consisting of either a "core compressions" routine, a full body workout, or both. Leah Keller is the creator of *Every Mother* and seems to pull a lot of her foundations from Julie Tuplers', Tupler Technique[®]. Just like Julie's program, *Every Mother* leads with Core Compressions and tells the participant to complete them daily. *Every Mother* then weaves core compressions into both the core-specific routines and 11-25 minute full body workouts. Each workout routine is modeled by Keller with voice-over to walk you through each move. This program is concise and easy to follow due to it's formatting, and is therefore a great option for clients looking for a guided program that tells them exactly what to do. This could be a solid option if you think your client may resonate with the shear numbers of repetitions in the Tupler program, as well as the application to daily life movements.

GENERAL ELEMENTS

EMbody Reclaim[™] is a 12-week exercise program to resolve diastasis recti, improve core strength, and enhance total body fitness. The overall theme of the program leads with Keller's Core Compressions. The Core Compressions are the key element in this program and are quite similar to the Core Compressions in The Tupler Technique[®]. However, EMbody Reclaim[™] has provided women with a modern, more appealing program. Users have the option of following the program at their own pace or following a 12 week set of exercises based on specific videos that consist of a Core Compressions circuit and a full body workout.

 Core Compressions and Two-Tier Core Compressions - These techniques are EMbody Reclaim's foundational exercises. They are consistently performed throughout all workouts and foundation videos. Core Compressions are incredibly similar to the Tupler Techniques' compressions, including shallow inhales, and exhales that mimic common Pilates-style abdominal bracing with abs up and into the spine.



The opening caption at TheBloomMethod.com says, "Revolutionize Your Pre & Postnatal Fitness."⁴⁷ Two options are immediately given:

• Join the Online Studio

• More About the Method

Along with benefits like "Feeling strong...Relief from common pregnancy symptoms...Being better prepared" for birth, and "Shortened pushing time," the Bloom Method asks potential clients to imagine "having the tools to prevent **diastasis recti**, incontinence, and other pregnancy-related injuries."⁴⁸

The founder of The Bloom Method, exercise specialist Brooke Cates, resides in Boulder, CO, USA, where her Boulder Studio offers live group⁴⁹ and personal⁵⁰ sessions. Their methods are "recommended by OBGYNs, midwives, doulas, nurses, and physical therapists."⁵¹

Studio Bloom is the online program that may be sought by moms, either "before or after delivery" and that promises "One Subscription. Everything You Need:"⁵²

1. 50+ Workouts & New Classes Added Every Month

⁵¹ https://thebloommethod.com/

⁴⁷ https://thebloommethod.com/

⁴⁸ https://thebloommethod.com/

⁴⁹ https://thebloommethod.com/boulder-prenatal-fitness-classes/

⁵⁰ https://thebloommethod.com/one-on-one-private-pregnancy-training/

⁵² https://thebloommethod.com/

- 2. Recipes & Nutrition Expertise
- 3. Mama Meditations to keep you centered

The method promotes "powerful breathing techniques, preventing and treating diastasis recti, and getting super-mom strong."⁵³ Studio Bloom "is open 24/7" and clients get to "choose when to sweat, meditate and stretch" with a "library of videos" that is "constantly being updated."⁵⁴

Studio Bloom asks their clients to "Imagine taking the most innovative birth class possible and fusing it with a challenging and incredibly effective workout."⁵⁵

Basic Overview: The Bloom Method's [®] "Studio Bloom"				
Pros	Cons			
 ★ Access to multiple lengths of workouts, ranging 6 to 49 minutes. ★ Participants have the freedom to choose their online "studio-class" similar to how a client may walk into a group exercise studio and take any class that is offered. ★ Consistent focus on diaphragmatic breathing, belly pumping and "correct form" during workouts. ★ In addition to the computer-based program, users gain access to Studio Bloom APP. ★ Access to Guided Meditations. ★ Various Bloom Coaches provide instruction and increased variety 	 ★ This is not a program that provide a single-track path for the client to follow. This leaves the mom to have to decide for herself which classes to take. ★ Some class formats are more technical, with a slower pace, which may not be desirable for those who are looking for a simple exercise program that requires less thinking. 			

As a Pre & Post Natal Diastasis and Core Consultant, you would recommend this program to your clients if they are an independant exerciser, wanting the freedom to choose their own course of action (within the structure of the method) and who do not thrive from "one size fits all" programs.

⁵³ https://studiobloom.thebloommethod.com/

⁵⁴ https://studiobloom.thebloommethod.com/

⁵⁵ https://thebloommethod.com/free-class/

Summary: The Bloom Method's[®] "Studio Bloom"

SYNOPSIS

Overall, Studio Bloom provides an online open-ended exercise studio for women who want more freedom in their online exercise program. One of the major differentiating factors of this program is that Studio Bloom does not provide a concrete path to follow (ie. Do video 1, then video 2, then video 3, etc....) Instead, users are encouraged to select the class they need, when they need it. Users may enter the online studio one day and feel like a quick 7-10 minute "Bloom Express" class for "Booty Burn" or "Back and Biceps" and more. Another day, they may choose a 49 minute "BirthPREP" class, followed by a 15 minute "Neck and Shoulder Opening Stretch" segment, followed by a 10 minute meditation. The combinations are completely up to the user. And at any time, the participant can refer to a "Foundations" class that explains concepts like "Diaphragmatic Breath" or "Deep Core Holds and Ab Wraps" in order to learn the techniques being used within the workouts.

General Elements

The Studio Bloom experience is intended to mirror The Bloom Method's[®] brick & mortar studio through it's approach to specialized group fitness. Inside Studio Bloom, users will find various content for both the expecting and postnatal woman, consisting of:

- Educational "Foundational" videos
- Fitness classes
- Meditations
- Stretches
- Nutrition recipe printouts

Aside from Bloom's foundation videos that include breathing and core techniques, the studio is broken down into various class formats that keep women challenged throughout their childbirth and motherhood. Studio Bloom wasn't designed to be a one size fits all program. Rather, it allows the user to move at her own pace and progress through classes as they get stronger and/or begin to heal any injuries. For those women who thrive with more guidance, Studio Bloom offers some small scale series options that guide them through the online studio. Each class format is taught by multiple Bloom coaches, and founder Brooke Cates is present in many of them. Cueing is generally detailed, upbeat, and intended to include both the beginner exerciser as well as a more avid exerciser.

Postpartum Exercise Programs Quick-Comparison Chart Scale: Minimal to Maximal, 0-5				art			
Category	Tupler	MuTu	Tummy	Birth2FitMum	Knocked	EMbody	Bloom
DPH Instruction	1	4	4	2	4	1	5
PF Instruction	3	3	5	3	5	3	5
TVA Instruction	5	5	5	5	5	5	5
Emphasis on DR Rehabilitation	5	5	5	4	5	5	4
Empasizes Posture/Alignment	4	4	5	4	5	3	3
Nutritional Guidance	0	3	1	3	3	1	3
Step-by-Step Exercise Sequencing	3	5	2	5	5	5	5
Ability to Vary Exercise Sequencing	0	2	0	4	4	4	5
Requires little to no Equipment	4	3	4	3	3	2	1
Includes Strength Training	No	Yes	No	Yes	Yes	Yes	Yes
Includes Pilates Exercises	No	No	Yes	No	Yes	Yes	Yes
Research-Proven during Pregnancy	5	0	0	0	0	0	0
Research-Proven Postpartum	0	0	0	0	0	2	0

The American Physical Therapy Association (APTA) Section on Women's Health (SoWH)



The APTA's Section on Women's Health (SoWH) (www.WomensHealthAPTA.org) has a tagline that says, "Dedicated to Improving Pelvic and Abdominal Health Globally."⁵⁶ They are a membership and educational resource for physical therapists. The SoWH offers a variety of "On-Demand Home Study Modules and Online Courses"⁵⁷ intended for an audience of physical therapists. Several of the courses have application for the pre and postnatal audience:

- Physical Therapy Management of Patients with Chronic Pelvic Pain (2008) (6 hours)
- (Physical Therapy in) Obstetrics (2007) (2 hours)
- Medical Management & Physical Therapy Management of High-Risk Pregnancy (4 hours)

As of 2018, the APTA added courses from Julie Wiebe, whose personal website promotes as, "a physical therapist who specializes in returning women to fitness after injury and pregnancy. She advocates for the awareness of pelvic health issues in fitness and promotes innovative solutions for women."⁵⁸ As an insight to the type of teachings that Wiebe promotes, she says in the opening video on her website that "the ability for the diaphragm to set up that loading and recoil response from the pelvic floor."⁵⁹ The titles of Wiebe's courses include, "Diaphragm/Pelvic Floor Piston," which gives a sense for where women's physical therapy education is progressing.

SoWH membership pricing is linked to one's involvement as a student of physical therapy.

⁵⁶ IN 2016, their tagline was: "Dedicated to the improvement of women's and men's health globally." ⁵⁷https://www.womenshealthapta.org/education-ondemand/

⁵⁸ https://www.juliewiebept.com/

⁵⁹ https://www.youtube.com/watch?time_continue=54&v=FYOuh2-Hqmk

Basic Overview: APTA SoWH
Physical Therapy in <u>Obstetrics</u> Online Course

Pros	Cons
 ★ Extremely high density of Pertinent Information ★ Well-Organized information ★ Extremely well-referenced ★ Concise overviews on many subjects ★ Retainable information for most fitness professionals 	 ★ 2007 ★ Text format only; no videos or other "hands on" teaching

These courses are not intended for the general audience. As a Pre & Post Natal Diastasis and Core Consultant, you would participate in APTA programs if you are interested in gaining technical knowledge and awareness of current physical therapy practices.

Summary: APTA SoWH Physical Therapy in <u>Obstetrics</u> Online Course

SYNOPSIS

Overall, the APTA SoWH Online Course "Physical Therapy in Obstetrics" is a concise yet in-depth introduction for what a physical therapist would expect to see in perinatal patients. The course offers a detailed look at Anatomy, Biomechanics and Physiology during pregnancy, prevalences of various challenges, as well as treatment possibilities. Topics include many that pre and postnatal fitness professionals may see, including supine hypotensive syndrome, neck and upper back strain, carpal tunnel syndrome, costal rib pain, DR, low back pain, SIJ issues, symphysis pubis separation, piriformis, coccyx dislocation, PF dysfunction, vein varicosities and foot changes. The course is extremely dense in information, well-organized, and perfectly referenced. It can serve as valuable continuing education for most fitness professionals.

General Elements

26 page PDF with topics and highlights that you can learn from this course, include:

- Anatomy
- Biomechanics
- Physiology
- Musculoskeletal Examination

- Interventions
 - Neck and Upper Back Strain
 - Carpal Tunnel Syndrome
 - Costal Rib Pain
 - Diastasis Recti Abdominis
 - Low Back Pain
 - Sacroiliac Joint Pain
 - Symphysis Pubis
 - Piriformis
 - \circ Coccyx
 - Pelvic Floor Dysfunction
 - Leg and Vulvar Varicosities
 - Foot Changes

PHYSIOLOGY

- "Vena cava syndrome, or supine hypotension syndrome, is associated with decreased cardiac output. Pregnant women may experience dizziness, sweating, bradycardia, and weakness, which affect about 8% to 10% of pregnant women."
- "Dyspnea can often be a first sign of pregnancy, indicating how quickly the pregnant woman adjusts to the multiple respiratory changes in pregnancy...The mechanical changes to the rib cage, previously mentioned, help the pregnant woman to do lateral costal breathing rather than abdominal breathing."

INTERVENTIONS

- Neck and Upper Back Strain
 - "Treatment goals could include: postural correction, stretching pectorals, head retractors and levator scapulae, and strengthening rhomboid, trapezius, and scapula retractor muscle groups."
 - "A home program of active neck retraction exercises in a series of progressions has been found to be successful in relieving cervicogenic headache and improving function"
- Carpal Tunnel Syndrome
 - "Increased interstitial fluid and weight gain increase the likelihood of excessive pressure in this closed system"
 - "Most women recover within 6 weeks after delivery."
- Costal Rib Pain
 - "Pain can result from a stretch on abdominal muscles at their insertion on the ribs"
 - "Breathing exercises to increase mobility in all of the ribs can help decrease the concentration of pain by improving the function of the diaphragm, the efficiency of respiration, and spinal stabilization. Lateral chest wall self-stretching, upper-back strengthening, and postural correction can help with relief of discomfort."

- Diastasis Recti Abdominis
 - "If it does not develop during fetal development, diastasis recti can develop during the second stage of labor, particularly if there is excessive breath holding during pushing."
 - "The reversal of separation was found by 4 weeks postpartum, but the woman's ability to stabilize the pelvis against resistance was decreased and remained compromised."
 - "Trunk rotational exercises should be avoided until there is no rectus separation. A jackknifed position (ie, sitting straight up from a supine position) and double-leg lifts should be avoided due to the possibility of increasing the separation between the rectus abdominis muscles or injuring the low back."
 - "Strengthening of the transversus abdominus can still be done without compromising the rectus abdominis."
 - "Diastasis recti is best treated postpartum, by approximating the abdominal muscles with a cross-belly technique using the client's hands or sheet in a supine position. Additionally, strengthening the transversus abdominis in a hands-and-knees position is a good basic exercise." (Fit For Birth suggests treating prior to postpartum whenever possible).
- Low Back Pain
 - "Back pain in pregnancy is reported in 48% to 90% of women"
 - "Exercise that increases core strength through activation of the transversus abdominis will also activate the pelvic floor muscles and respiratory diaphragm."
- Sacroiliac Joint Pain
 - "Possibly related to the effect of relaxin and the major physiological and musculoskeletal changes"
 - "Pain drawings for clients with low back pain will cluster the pain over the low back and upper buttock area, whereas clients with sacroiliac pain will draw painful areas throughout the whole buttock and upper posterior thigh"
- Piriformis
 - "As the pregnant woman's pelvis becomes stressed with added weight and compromised ligamentous support, the piriformis muscle can act as a pelvic stabilizer. As the piriformis is contracted, the legs become externally rotated. Consequently, the piriformis can become short and tight in pregnancy due to the postural changes and the pregnancy waddling-type gait"
- Coccyx
 - "Injury to the sacrococcygeal joint may occur during pregnancy or childbirth. Normally, the coccyx flexes in sitting and extends in standing. After childbirth, the coccyx may become subluxed, heal in extension, or become hypomobile. Thesoft tissue over the distal end of the coccyx can be quite painful in this condition."
- Pelvic Floor Dysfunction
 - "Consequently, there is increased pressure on the bladder as the uterus expands. The pelvic floor muscles act as support to the pelvic viscera and support an increase in intra-abdominal pressure beyond the physiologic limit of

continence. Shafik and El-Sibai found that there was a progressive reduction in levator ani muscle activity, as recorded by electromyogram, in the pelvic floor muscles as early as the eighth week of pregnancy."

- "The goal is to perform maximal isometric contractions. The duration of 1 maximal contraction is more important than how many contractions can be repeated"
- Important factors in contracting:
 - Max Strength
 - Speed of repetition
 - Long 10 second holds for 8-10 reps (max strength) with rest that is twice as long as the contraction
- "The client can be encouraged to incorporate functional use of the pelvic floor by contracting the pelvic floor prior to and during activities that normally create leakage such as coughing, laughing, sneezing, lifting, and jumping."
- Leg and Vulvar Varicosities
 - "When the deep vein swells, the valves are unable to close, causing retrograde flow into the superficial vein with resulting distention. These distended areas are termed varicosities. The legs and vulva are common areas for vein varicosities in pregnancy."
 - "Overall recommendations are: (1) Encourage the woman to take frequent rest periods with her legs elevated. (2) Instruct the woman to wear support stockings and loosefitting clothing for leg varicosities. (3) Instruct the woman to rest periodically with a small pillow under the buttocks to elevate the pelvis for vulvar varicosities."
- Foot Changes
 - "Pregnant women's feet change size as a result of ligamentous laxity and increasing weight"
 - "Preventative treatment includes strengthening the medial foot compartment and toe flexors"

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Basic Overview: APTA SoWH Physical Therapy Management of Patients with <u>Chronic Pelvic Pain</u> Online Course

Pros	Cons
 ★ Extremely high density of Pertinent Information ★ Well-Organized information ★ Extremely well-referenced ★ Absolutely thorough and in-depth information on CPP 	 ★ 2008 ★ Text format only; no videos or other "hands on" teaching ★ Complexity of information may require fitness professionals to research terms in order to gain a complete understanding.

These courses are not intended for the general audience. As a Pre & Post Natal Diastasis and Core Consultant, you would participate in APTA programs if you are interested in gaining technical knowledge and awareness of current physical therapy practices.

Summary: APTA SoWH

Physical Therapy Management of Patients with <u>Chronic</u> <u>Pelvic Pain</u> Online Course

SYNOPSIS

Overall, the APTA SoWH Online Course "Physical Therapy Management of Chronic Pelvic Pain" is an incredibly thorough and detailed explanation of the research regarding CPP. The information is extremely well-referenced, well-organized and absolutely in-depth. The course gives a wide range of insights regarding foundational health protocols that any fitness professional can use, as well as detailed information for professionals who are licensed in the appropriate manual therapies. This course delivers an expansive education that includes psychological awareness for clients who have often been disregarded as psychosomatic, in addition to nutritional factors, specific exercise, pharmaceuticals and surgery. The course also includes forms and questionnaires that practitioners can use to help identify the issue and provide more optimal treatment.

General Elements

97 page PDF with topics and highlights that include:

- Etiology
 - \circ Urologic

- Gynecologic
- Anorectal
- Neurologic
- Musculoskeletal
- Medical Management
- Physical Therapy Management
- Case Studies
- Chronic Pelvic Pain (CPP) "refers to the symptom of pain and may be the result of a number of different disease processes or mechanical imbalances." Although numbers are unclear, it affects an extraordinary amount of women.
- Accounts for 10% of all visits to the gynecologist, although a U.S. survey reported that 15% of women "had experienced CPP within the past 3 months."
- U.K. study found that "incidence of CPP was similar to that of migraine, back pain, and asthma, making CPP one of the most common problems in medical practice."
- "The following factors associated with pregnancy and childbirth are also associated with the onset of pain and therefore may be related to the onset of CPP: lumbar lordosis, delivery of a large infant, muscle weakness and poor physical conditioning, a difficult delivery, vacuum or forceps delivery, and use of gynecologic stirrups for delivery. A history of abdominopelvic surgery is also associated with CPP."

ETIOLOGY

- Urologic
 - Bladder Pain Syndrome (Interstitial Cystitis)
 - Affects 1 in 4.5 women
 - Correlated with depression and inability to work full-time
 - PFM spasms and SIJ dysfunction "in 81 to 100% of patients with IC"
 - Treatments:
 - Manual therapy
 - Movement Therapy:
 - Neuromuscular reeducation
 - Therapeutic exercise
 - Nutrition therapy eliminate acidic foods/beverages
 - Mind Therapy "stress is possibly the most significant factor to cause IC flares."
 - Urethral Pain Syndrome
 - "There is evidence that this syndrome can be linked to pelvic floor dysfunction."
 - Recommendation for "education and training in the proper contraction and relaxation of the pelvic floor"
- Gynecologic
 - Vulvar Pain Syndromes

- Vulvodynia "chronic pain or discomfort around the opening of your vagina (vulva) for which there's no identifiable cause and which lasts at least three months."
- Average of 6 years suffering and 6 different health professionals that still leaves 40% of women without a diagnosis
- Treatments include:
 - Drink more water to reduce oxalate levels
 - "Physical therapy to the pelvic floor"
 - "Postural reeducation"
 - "Therapeutic exercise"
 - "Dietary modifications"
 - Glazer Protocol for PFM re-education:
 - 60 Reps of PF contraction (10 sec ON / 10 sec OFF)
 - Twice per day
 - 88% of women continued to report freedom from pain more than 3 years after treatment finished!
- "Clinical Pearl: Often patients with vulvar pain are unaware of a chronic holding pattern they have in their pelvic musculature. An easy way to improve their awareness is to ask them to bring their attention to the pelvic muscles several times per day, especially during times of stress. Ask them to assess if they feel tension in this area, then ask them to perform a contract-relax technique to try to help release the abnormal tension in the area. Most women are amazed at the amount of tension they have been habitually holding."
- Endometriosis Cells grow outside rather than just inside the uterus
 - Unidentified cause
 - "Believed to be the most common cause of CPP in women"
 - [Fit For Birth Notes: May be a combination of (A) estrogen dominance (including BCP's and other medications), (B) Nutrition (Sugar / Insulin / Plastics / Conventional Dairy / Excess body fat), and (C) Stress.]
- Anorectal Irritable Bowel Syndrome (IBS)
 - "One of the most common disorders associated with CPP"
 - 50-80% "of women with CPP have symptoms consistent with IBS"
 - [Fit For Birth Notes: How likely to Nutrition and Thoughts play a role?]
- Neurologic Pudendal Pain Syndrome
 - Cause officially unknown, but may be associated with:
 - Nerve trauma (surgery, bicycling)
 - Nerve stretching (chronic constipation, vaginal delivery)
 - SIJ instability
 - "On average, 10 to 30 physicians are consulted over an average of 4 years before a diagnosis is made"
 - Treatments:

- Council on "postures that may put more of a stretch or strain on the pudendal nerve, such as...excessive flexion of the thighs"
- "Stabilization and neuromuscular reeducation"
- "Correction of muscle imbalances and diastasis recti"
- (This kind of protocol resulted in 88% of participants reporting "70% to 100% improvement of their symptoms, such that they did not feel the need to pursue surgery.")
- Musculoskeletal Perineal Pain Syndrome (Pelvic Floor Muscle Pain Syndrome)
 - "Pelvic floor muscle overactivity is thought to be a major contributing factor to CPP...The faulty posture has been described as the typical pelvic pain posture (TPP), which consists of an exaggerated lumbar lordosis and thoracic kyphosis... Faulty posture leads to muscle imbalances in muscle groups related to the pelvis, which may lead to muscular trigger points, loss of the ability of the pelvic floor muscles to relax, and, as a result, pelvic pain."
 - "Musculoskeletal pelvic floor pain may mimic gynecologic and urologic conditions and may be the explanation for many failed surgeries performed for CPP. Overactivity of the pelvic floor muscles causes pain as well as increased outflow resistance leading to decreased urinary flow rates, obstructed defecation, dyspareunia, and other symptoms associated with CPP syndromes such as increased urinary frequency and urgency."
 - Other associations include: "Weakness of the...abdominals, and gluteus maximus."

MEDICAL MANAGEMENT

- Surgical
 - "Surgical management has been the traditional focus of medical interventions to treat women with CPP. Yet, the long-term success of surgical procedures performed solely for the indication of CPP have been disappointing"
 - "The guidelines emphasize that patients should understand that the CPP syndrome may be improved or cured but also may be unchanged or possibly worse following the procedure."
- Pharmacologic
 - Goal is "pain relief with minimal side effects"
 - "Very little is known about the effectiveness of these interventions despite the fact that pharmacologic therapies are commonly prescribed for patients with CPP."
 - Nonsteroidal Anti-Inflammatory Drugs
 - Antidepressants
 - Anticonvulsants
 - Opioids
 - Regional Anesthesia Techniques

[Fit For Birth Note: "Recommendations for treatment of chronic pelvic pain from the American College of Obstetricians and Gynecologists" lists all recommendations based on "good, consistent scientific evidence." Of the 18 "Interventions", 14 are surgical and pharmacological.

The remaining four are: "psychotherapy," "physical therapy", "nutritional supplementation" and "acupuncture, acupressure, transcutaneous nerve stimulation." Holistic and non-invasive measures are grossly under-represented.]

PHYSICAL THERAPY MANAGEMENT

- Goal: "to change the mechanisms of pain through motor reeducation."
 - Watch for:
 - "Exaggerated lordotic posture...anterior tilt of the pelvis...kyphosis of the thoracic spine."
 - "Many patients with CPP will have had pelvic or abdominal surgery, leaving scars in the abdominal wall."
 - Trigger points, which may occur from:
 - "Sitting in a slouched posture for prolonged periods"
 - "Nutritional inadequacies"
 - "Impaired sleep"
 - "Chronic allergies
 - "Integrity of the abdominal wall"
 - "Presence of diastasis recti"
 - "Diaphragmatic excursion"
 - "Just as important as the observation of the pelvic floor muscle contraction is the observation of the relaxation phase or letting go of the contraction."
 - "It is important to determine if the patient is able to distinguish the difference between the 2 activities, bearing down and contraction."
- Physical Therapy Interventions:
 - Education
 - Relaxation Training
 - Diaphragmatic Breathing
 - Sleep patterns
 - Behavioral Management
 - Lifestyle changes
 - Dietary counseling
 - "Patients may be advised to perform self-correction techniques up to several times per day."
 - "Therapeutic exercise program that addresses the individual's specific impairments is critical to the restoration of optimal motor control."
 - Therapeutic Exercise:
 - "First and foremost, if diastasis recti is identified, it should be addressed immediately."
 - "As the person exhales, she gently engages the transverse abdominis (TrA) as she lifts her head"
 - "Pelvic floor muscles, the TrA, and internal oblique muscles co-contract, suggesting that abdominal training could be useful for patients with pelvic floor dysfunction"

- "TrA activity is greatest in the neutral spine position.""The respiratory diaphragm has been found to activate at the same time as the TrA, and thus the same time as the pelvic floor muscles."
- "When working with patients with CPP, any extra time investment needed to assure proper recruitment of the TrA, pelvic floor, and multifidus muscles is well worth the effort.
- Movement ReEducation
 - An intervention program including movement reeducation is likely to be beneficial to decrease inefficient movement patterns and allow for greater ease of movement that integrates trunk and extremity motion and will help to eliminate bad habits. The ultimate goal is for the patient to discover more efficient movement patterns that allow the patient to integrate the use of the whole skeleton."

CASE STUDIES

- 23 year old woman with bladder pain and pain in intercourse.
 - 8 week physical therapy program
 - education
 - manual therapy
 - strengthening
 - stretching
 - biofeedback
 - vaginal dilators
 - Outcome:
 - "All of the long-term physical therapy goals were met. She was independent with a home exercise program and self-management techniques, had decreased pain and tenderness in the suprapubic area no greater than 2/10, and had no pain with intercourse."
- 53 year old woman with pain in abdominopelvic region and IBS
 - 6 week physical therapy program
 - Education including nutrition, relaxation and PFM in daily life
 - Therapeutic Exercise including stretching and strengthening
 - Manual Therapy
 - Biofeedback
 - Outcome:
 - "She returned to tennis practice with her husband for 30 minutes twice per week. She does not wear a pad outside of the home. She is independent in a home exercise program and pain-management strategies."
- 24 year old woman with chronic pain in the pelvic region above pubic bone that worsens with stress; also urinary urgency and asthma
 - 8 week physical therapy program
 - Education

- Manual therapy
- Pain control
- Therapeutic exercise that included strengthening, stretching and cardio
- Biofeedback
- Outcome:
 - Failure to achieve 8 week goals (no more than 1 missed day of work, 30min aerobic exercise, voiding less than 8 times per day, delaying urge to void up to 30min, and home exercise program.
 - Doctor opted for laparoscopy and found endometriosis. Adhesiolysis removed adhesions.
 - "...the patient reporst was very beneficial in reducing her pain"
 - 4 weeks later, she "had achieved all of the long-term
 - goals...although she continued to report pain at a level of 3/10."

Herman & Wallace Pelvic Rehabilitation Institute



Evidence-Based Continuing Education 61

The Herman & Wallace Pelvic Rehabilitation Institute's mission is "to provide the most comprehensive, hands-on, evidence-based curricula for treating pelvic floor dysfunction in men and women throughout the life cycle." The institute offers a variety of online continuing education courses⁶² intended for an audience of physical therapists. Several of the courses have application for the pre and postnatal audience, including:

- Introduction to Caring for the Pregnant Patient (2012)
- Introduction to Female and Male Pelvic Pain (unclear, but at least 2012 based on references)
- Functional Applications in Pelvic Rehabilitation (Part A) (2013)
- Functional Applications in Pelvic Rehabilitation (Part B) (2013)

We will review several of these online courses below.

A subscription to MedBridge⁶³ (\$425, or \$250 with the Herman & Wallace discount) gives access to all these courses and others. Once you complete a course and have successfully answered each learning assessment question, you are issued a certificate of completion.

⁶⁰ Image: https://hermanwallace.com/

⁶¹ Image: https://hermanwallace.com/

⁶² https://hermanwallace.com/online-courses

⁶³ https://www.medbridgeeducation.com/

Pros	Cons
 ★ Thoroughly researched and well cited ★ Well-organized information that is presented in slides and video ★ Easy to navigate the courses ★ Highly technical information that adds richness and depth to understanding the human musculoskeletal system ★ Detailed understanding of what physical therapists today know (and don't know) regarding female health. 	★ Complexity of information may require fitness professionals to research terms in order to gain a complete understanding.

current physical therapy practices.

Summary: Herman & Wallace Online Education Courses

SYNOPSIS

Overall, the Herman & Wallace Online Education Courses are high quality professional continuing education courses that rely upon research studies as the primary force behind the education. The content is consistently presented, easy to navigate, and very student-friendly all the way to printing your CEC certificate at the end. "Lab" portions of the courses are common, where the videos of the teacher presenting slides switches to the teacher working with a "patient" in order to provide a hands-on application for the student. The information is rich and thorough, adding depth to understanding the physical therapy point of view. In addition, the education reveals overtly what the average physical therapist understands and doesn't understand regarding the topics presented. The format for each online course is identical, with a compilation of short videos ranging 10-60min, and matching PowerPoint slides to follow along. The end of sections often include a quiz that provides immediate feedback on results.

GENERAL ELEMENTS

Introduction to Caring for the Pregnant Patient (3.5HR) Holly Tanner, PT, MA, OCS, LMP, BCB-PMB, CCI

Chapter 1: Introduction

There are a few things to expect regarding the physical and emotional changes that occur during pregnancy, including terminology. A national survey of members of the national physical therapy association, section on women's health revealed: "Most physical therapists did not believe their school education prepared them for the treatment of many of the specific women's health issues. Instead, the women reported that they stopped training at continuing education courses."

Chapter 2: Physiological Changes

Fantastic overview of common pregnancy changes. Changes that occur in pregnancy include cardiovascular, respiratory, organ, blood, cellular, hormonal and musculoskeletal. Understanding these changes can help the practitioner know what to expect from his/her pregnant clients. "Many providers are unaware that physical therapy can offer relief and improved function."

Chapter 3: Common Complaints and Dysfunctions

There are many common complaints that affect the prenatal population, ranging from headaches to foot pains and Diastasis Recti, with a preponderance of pelvic-related challenges. Nearly all can be treated with musculoskeletal postural education and exercises. Regarding Diastasis Recti, Spitznagle (2007) found "more than half of the women had DRA." "Prenatal exercise directed at abdominal strengthening has decreased the incidence of diastasis." (Chiarello et al., 2005)

Chapter 4: Exam and Intervention

Certain positions and treatments should not be used on pregnant women, although alternative options are plentiful. The benefits of exercise during pregnancy are abundantly clear, but the majority of primary providers do not have the complete picture. "When placing a child into the safest car position--a seat in the middle of the back seat--it is incredibly difficult to do this in a way that avoids bending, lifting and twisting. Teach your patient stabilizing maneuvers and best body mechanics positions and this will serve her very well in the future."

Chapter 5: Exercises

It's important to assess posture and have a variety of exercises for the pregnant client. Common areas to coach include: (A) Hips forward, (B) Locked knees, and (C) Shoulders rolling forward.

Chapter 6: Summary

Be sensitive in how you speak to your pregnant clients. "Not everyone is excited to be pregnant." Pregnant women often feel very judged; being pregnant often invites unsolicited advice from many. Each woman has a varied vision-- remember, "it is her own personal journey." Sometimes her past birth experience did not go as planned. Ask mom how she is doing, not just the baby!

Introduction to Female and Male Pelvic Pain (~3HR) Holly Tanner, PT, MA, OCS, LMP, BCB-PMB, CCI

Chapter 1a & 1b: Introduction to Female Pelvic Pain and Female Pelvic Anatomy and Function

Chronic pelvic pain is relatively common, and yet the majority of physical therapists and doctors are not adequately prepared to handle it. "Our [physical therapy] education does not prepare you for pelvic pain...women's health education at entry into the profession may not be keeping pace with the demands of physical therapist practice."

Female pelvic pain can arise from, and be associated with, a wide variety of conditions. There are four agreed-upon definitions for PF function: Normal, Overactive, Underactive, and Non-Functioning. Physical therapists are generally more well-versed in areas of the body besides the pelvis. There are three layers of the pelvic floor and two deep hip rotators considered to be part of the pelvic wall. "The [PF] muscles are believed to have an important role in preventing fluid congestion" (like lymph and blood flow). "The pelvic floor muscles have also been demonstrated to become active when intra-abdominal pressure increases."

Chapter 2a & 2b: Female Pelvic Pain Common Diagnoses, Evaluation and Treatment Components

Helping with Female Pelvic Pain involves these items:

- 1. Asking good questions
- 2. Screening Tests for muscle symmetry
- 3. Palpation (Physical therapists)
- 4. Assess posture
- 5. Assess daily movements, function and muscle use patterns
- 6. Review home exercise programs to ensure accuracy
- 7. Apply known modes of treatment:
 - a. Surface EMG (physical therapists)
 - b. Heat and cold
 - c. Manual techniques
 - i. Massage therapy (physical therapists/massage therapists)
 - ii. Myofascial physical therapy treatment
 - d. Exercises
 - i. Lengthening and relaxing overactive muscles
 - ii. Strengthening PF in synergy with muscle balance
 - iii. (Activating underactive muscles in general)

- e. Mindfulness and Meditation
- f. Education and Hope
- g. Set Goals and mark Progress
- h. Cognitive Behavioral Therapy (CBT)
- i. Refer to a Woman's Health Therapist

"Women in this culture tend to suck in the gut much of the day. This is not a healthy use pattern. Some strategies to address this are educating the patient on the potential dysfunction caused by this muscle holding pattern."

There are specific tests commonly used in the physical therapy setting in order to assess and treat function in patients. These include: (a) Single Leg Stand, (b) Standing Abdominal Posture, (c) Sitting, both still and the action from standing, (d) Active Straight Leg Raise, (e) Child's Pose, (f) Self Myofascial Release, and (g) Palpation of tender points.

<u>Chapter 3a & 3b: Introduction to Male Pelvic Pain and Male Pelvic Anatomy and Function</u> PF muscles in the male are very similar to the female PFM in structure and function. This presentation covered that the female PF has the same Superficial PFM, two additional Intermediate PFM, the same Deepest PFM, and the same Pelvic Wall PFM.

<u>Chapter 4a & 4b: Male Pelvic Pain Common Diagnoses, Evaluation and Treatment</u> <u>Components</u>

Male PF pain diagnoses often revolve around prostatitis, testicular pain, and sexual dysfunction. Helping and treating Male PF pain is virtually identical to the methods used for Female pelvic pain. Namely, it is important to relax overactive PFM and strengthen underactive PFM (but be careful with the strengthening because much PF pain arises from overactive PFM). Posture and muscle balance is the key.

Functional Applications in Pelvic Rehabilitation (Part A) (2.5HR) Kathe Wallace, PT, BCB-PMD

Chapter 1: Pelvic Anatomy

Arnold Kegel, a gynecologist in the 1950's, originally identified the three "S's" for the pelvic floor: (1) Support the internal organs, (2) Sphincteric closure, and (3) Sexual appreciation. Herman and Wallace adds two more S's: (4) Stabilization as the deep pelvic support system "what you really activate when you do your core or trunk stabilization exercises;" and (5) Sump pump due to its role in pumping the lymph system.

Chapter 2: Pelvic Floor Exercise Cues and Techniques

Assume that most patients will not know how to appropriately activate their PFM. Some women will actually produce incontinence-promoting contractions at first. When coaching them, there are a number of ways to cue them, including isolating urethral compared to anal, sitz bones compared to pubic-coccyx, and even separating the layers, deep compared to superficial.

Chapter 3: Pelvic Floor Dysfunction Risk Factors

PF function is not standardized so it's difficult to measure PF dysfunction. There is a long list of pains and dysfunctions that can classify. Some studies show that one-third of women suffer various degrees of PFD with urinary incontinence, anal incontinence and pelvic organ prolapse being most common. Unfortunately, most doctors don't have an understanding of the musculoskeletal system and the role the PFM play in solving so many dysfunctions.

Chapter 4: Pelvic Floor Evaluation Techniques

Discussion of how to use the Surface Electromyography (sEMG), the Real Time Ultrasound (RTUS), and manual internal exams to evaluate the PFM.

Functional Applications in Pelvic Rehabilitation (Part B) (3HR) Kathe Wallace, PT, BCB-PMD

Chapter 1: Orthopedic Connections - The Hip

Malalignment of the muscles of the hip can affect PF function or cause PF pain. PF malfunction can also be experienced as pain in other musculature areas like the adductors or hamstrings. "You can be fooled into thinking it's a hip or low back problem when it's really a pelvic floor dysfunction."

Chapter 2: Orthopedic Connections - The Low Back and Coccyx

"Don't be fooled by PF conditions that look like SI problems, low back pain, pubic pain, and coccyx pain." PF dysfunction can affect alignment of the pelvis, coccyx, SI joint, and can cause pain syndromes in the lower back, SI, pubis and coccyx.

Chapter 3: Abdominal Diastasis

Abdominal wall fascia is continuous with the PF fascia. There is evidence showing the PF dysfunctions often occur alongside Diastasis. The PFM can be activated to help treat diastasis.

Chapter 4: Pelvic Floor / Pelvic Girdle Models of Function

All four inner unit muscles (DPH, PF, TVA, MF) are supposed activate in anticipation (prior) to global muscles. Any one of them not functioning in this manner shows correlation to pain like LBP and SI joint dysfunction. The PFM are not always weak, and sometimes they need to learn to bulge outward.

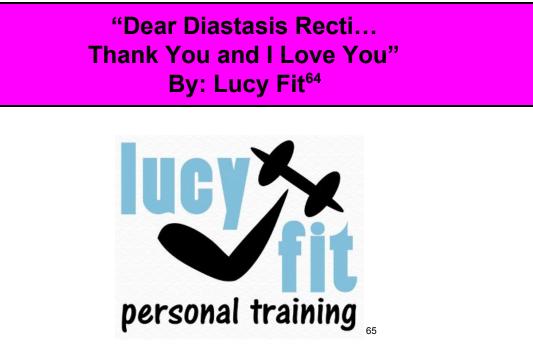
Chapter 5: Exercise Assessment and Treatment

Demonstrating appropriate motor control is more important than just generically exercising the muscles. Also, the Multifidi are important inner unit muscles that need reactivation as much as the DPH, PF, and TVA. Choosing the slow and gentle "motor control" (corrective exercise) in positions such as supine, prone, side lying, and hands & knees can help clients activate these muscles.

Chapter 6: Exercise Selection and Progression Specifically activating local "inner unit" muscles (Co-contracting the PF, TVA, and MF while maintaining DPH breathing) prior to global "outer unit" muscles is more effective in rehabilitation, according to multiple research models; and more effective than TVA alone. Proper rehabilitation requires patience and exactness from both the practitioner and the client.

Other Resources

When your clients are searching for help with Diastasis, there are other resources they'll sometimes come upon besides forums and official postpartum programs. These resources, like personal stories about DR or articles, can serve as both informational and inspirational. These often increase awareness as to how other women have helped themselves move through DR. Below are a few examples.



Margie Langweg, and ACE-Certified personal trainer, discovered that she had Diastasis Recti in 2010 after the birth of her second child. With a passion for fitness and a sincere interest in learning about what motivates us to exercise, Margie created *Lucy Fit Personal Training* with a goal of helping other moms with DR live a fit life.

This is her story:

A few months after her 2nd child was born, Margie knew something wasn't right with the way her stomach was healing. She turned to her OBGYN who's response was, "give it more time." After more time passed and nothing changed, she turned to her nutritionist. Here she was given some diet changes like, "avoid gluten and dairy" but even with her new dietary changes, her stomach stayed the same. Due to the extreme bulging in her midsection, she sought the help of a gastroenterologist who advised her that nothing seemed to be wrong.

Feeling a bit lost, she wondered, "Why was my stomach a blubbery mess while their

⁶⁴ http://lucyfitpt.blogspot.com/2014/03/dear-diastasis-recti.html

⁶⁵ Image:http://www.lucyfitpt.com/

[celebrity's] abs were as tight as a python's grip?" She turned to the internet and was surprised to find out that she had something call Diastasis Recti. This was the first time she had ever heard of DR and now that she knew her diagnosis, she set out to solve the problem.

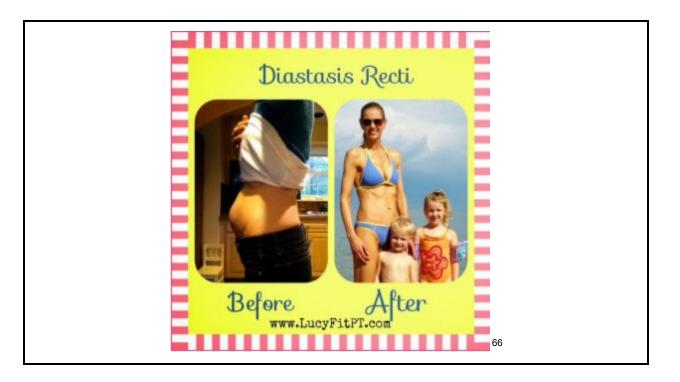
In Margie's google searching, she stumbled upon 2 programs claiming to heal Diastasis Recti. She purchased both The MuTu® System and The Tupler Technique®. She began her journey with MuTu® but after not sticking to the program the way she was told, she jumped over to Tupler. She found Julie Tupler to be helpful and appreciated the increased focus on Diastasis Recti. Overall, however, Margie found the program to be long and extremely time consuming. "You are expected to do 700 contractions in the morning, 700 contractions in the afternoon, and 600 contractions in the evening. And that's IN ADDITION TO head lift exercises that are also a part of the program! Who has time for that? I mean, my life revolves around health and fitness and even I had trouble fitting all of those exercises into my daily routine." After her attempt with Tupler, she decided to give MuTu® a second try.

On the second MuTu® go, Margie found herself understanding why the program was filled with gentle stretching and a few slightly changing exercises. This was something that deterred her from the program initially. She began to understand what the program was saying. "The key here is, however, that I used MuTu as a FOUNDATION. I wasn't doing a round of MuTu in the morning and then calling it a day. I was incorporating MuTu into an already-existing exercise routine."

She says that her DR journey gave her new perspective, "Discovering my Diastasis Recti was the beginning of a wonderful journey for me in following my dream of becoming a Certified Personal Trainer. For that reason alone, I will always love my Diastasis Recti."

Margie serves as an incredible example of how inspired women who are confused and not helped by their medical leaders can seek their own solutions and ultimately create amazing results. She was persistent and did her research which led her to programs that could help address her Diastasis Recti.

She now offers her personal training services to moms, with a slogan, "Helping Moms Live a Fit Life."



Can Your Abs Split In Two? 5 Important Facts About Diastasis Recti By: Nicole Crawford⁶⁷

Nicole Crawford is a mom of four and RYT 200 certified yoga instructor. Nicole is also a certified personal trainer and women's fitness specialist (NASM) and completed the AFPA's pre- and post-natal fitness specialist program in 2009. She is also completing DONA International's requirements to become a certified birth doula. Nicole experienced DR after a C-section with her third child.

Nicole's article BreakingMuscle.com is simple, she covers Five facts pertaining to DR: 1, Your abs have not split in 2.

"The term 'diastasis' means 'separation,' not 'abyss.' I find it helpful to think about diastasis recti not as a splitting, but as a thinning of the tissues that connect the six pack muscles."

2. Diastasis recti does not always include abdominal protrusion. Although the two sometimes go together, research suggests that you can have an abdominal protrusion without a diastasis and vice versa.

⁶⁶ Image: http://lucyfitpt.blogspot.com/2014/03/dear-diastasis-recti.html

⁶⁷https://breakingmuscle.com/womens-fitness/can-your-abs-split-in-two-5-important-facts-about-diastasis-recti

3. It's not just about your six pack.

Studies indicate that the transversus abdominis plays a far more critical role, both in the prevention and in the treatment of diastasis recti. And even beyond the abdominal muscles, proper alignment is crucial for engagement of the transversus abdominis.

4. It's not even just about pregnancy.

Diastasis recti can happen to men, women, and even babies. An increase in abdominal pressure can occur as a result of an expanding waistline, either due to a growing baby or weight gain. It can also stem from years of intense ab work.

5. "You can still have nice abs if you have diastasis recti."

"In the twenty months since my last child was born, I've managed to shrink my diastasis down to about one finger width. Aside from an occasional Pilates workout, I really don't do any intense ab work. Before I knew about diastasis recti, I did ab work on several days of the week. My stomach actually looks just as toned now as it did then."

Following this article, Nicole provided readers with a PDF of 12 Weeks of Workouts to Rebuild After Diastasis Recti. The workout is broken down into three four-week phases

- 1. Phase One focuses on stabilizing the core muscles and restoring abdominal strength and low back support through bodyweight exercises, daily walking and restorative core exercises done daily.
- 2. Phase Two continues the exercises from phase one but with kettlebell workouts added in twice per week to build in strength gradually. The strength exercises in phase two have a higher volume but lower load than in phase three.
- 3. Phase Three adds in one day of intense cardiovascular exercise while also increasing the load for the strength work.

The Personal Trainers Guide to Diastasis Recti⁶⁸ By Jessie Mundell

This article is a quick yet thorough read for trainers wanting an overview on diastasis recti. Jessie Mundell is a personal trainer in Calgary, Alberta and also trains clients online. Her specialities are in prenatal and postnatal exercise, as well as overall female training.

This quick read on ThePTDC.com covers concepts like:

- What is Diastasis Recti?....
- Who cares if a client has a DR?
- How to check for Diastasis Recti?....
- How to fix Diastasis Recti and more importantly, not worsen it?
- Just Say No to certain exercises.

Perhaps the biggest takeaway from this article is the section on "How to fix DR and more importantly, not worsen it?" Jessie provides the reader with 5 exercise programing considerations when dealing with diastasis recti.

- 1. Learning how to roll over again. Teaching your client to roll to their side first, then push themselves up using upper body strength to seated. This will avoid unnecessary forward pressure on the DR.
- 2. Ribs Over Hips. You want your client to keep their ribcage over their pelvis during exercise, so the connective tissue is not continually overstretched.
- 3. Retrain breathing patterns. We need to retrain the diaphragm and ribcage to fully expand and contract, in ribs over hips position. Wanting the client to feel a gentle softening of their pelvic floor and abdominals on their inhale breath, and a gentle contraction of their pelvic floor and abdominals on their exhale breath.
- 4. Neutral everything. Start training basic pelvic alignment, proper pelvic floor contraction and relaxation, heel slides, dead bug variations, side planking, and Palloff presses.
- 5. Pelvis resetting. You might find your client is now in the habit of being in a posteriorly or anteriorly tilted pelvic position. Train them to feel what more neutral alignment feels like in standing, seated, and supine exercises and in daily life tasks.

⁶⁸ https://www.theptdc.com/2013/10/the-personal-trainers-guide-to-diastasis-recti/

Keeping Prenatal Clients Doing the Exercise They Love

As a Pre & Post Natal Diastasis and Core Consultant, helping to keep your clients doing what they love to do for exercise -- even when they are not considered the safest for pregnancy -- may sometimes be the most appropriate choice.

When women are pregnant, they are told that they "can't" do a lot of things. For some, this "can't" feeling can feel like a cage of overwhelment and isolation that may be adding more stress than it's worth. For others, an increasingly common breed of women is rising who is adamant on maintaining their current fitness routines through to delivery -- regardless of what their doctor says.

Furthermore, people often thrive in their community settings. Amidst all the people in a pregnant woman's life who begin to tell her what she can and can't do, her fitness community can be her most appreciated respite.

As a Pre & Post Natal Core Consultant, you can take steps to ensure that you are not another figure ready to quickly disregarded her community or take her safe haven away from her.

Whatever may be the reason behind some client's strong desire to keep doing exercise that may be regarded as unsafe, you may find that it is more appropriate to coach a modification than to not coach her at all. You may be the first voice they'll listen to amidst the many who tell her what not to do. You can help these women feel supported, educated and empowered in their own exercise choices.

In the art of coaching, this decision may also be the most appropriate way to help her keep stress low and improve her safety. Sometimes this may be the case even when we don't necessarily agree with what she is choosing to do for exercise. This is the art of coaching, and you should make the decision that feels right for you as a Pre & Post Natal Diastasis and Core Consultant.

The chart below highlights some basic modifications that can help empower women to stay more safely active doing what they love.

Keeping Prenatal Clients Doing the Exercise They Love

Exercises Thought to Be Questionable for Pregnant Clients	Modifications for Empowerment
Weight Lifting / Strength Training	 Make sure that the client knows how to connect to her inner unit as the foundation of her movement. Consider teaching her how to use her CBBP. Prenatal weight lifting is a perfect avenue to practice proper activations and corrective exercise in general!
Dance	 Consider teaching her how to use her CBBP to initiate movement, and really make it a meditative or breathing-centered dance class during pregnancy. Coach her how to limit her range of motion when twisting, wide stepping, and other movements that commonly require large range of motion.
Planks & Crunches	 Teach her how to modify the exercise so that: Her corset wraps together, and the rectus do not spread apart during any part of the exercise. She can achieve obvious belly movement There is no doming. Make sure her inner unit is not compromised. Recent evidence suggests that planks and crunches may not be as disastrous as often discussed when it comes to DR - these are now preferred exercises of some Women's Health Physical Therapists.
CrossFit / Olympic Lifting / Power Lifting	 Heavy weight lifting is often done at Crossfit and many functional training studios. Discuss hormone laxity with your client and suggest that she choose lesser weights. Protecting her pelvic floor muscles (and joints in general) is a key concern. Slow down the pull ups and consider avoiding kipping pullups altogether. Avoid jumping exercises. Instead, coach her how to modify the jumps into something where she doesn't lift from the ground, or at least where you and she are comfortable that she is working well-within her

	 capabilities. Make sure that any crunching, planks and leg lifts are modified substantially and performed with closure and wrapping of the TVA corset!
Kickboxing	 Move slowly! Teach client the CBBP with each move, focusing on having the client engage her TVA every time she "kicks" her legs or twists Extreme caution for side leg "kicks" - may be best to avoid them altogether Minimize plyometric influence - jumping, impacting hands or feet. Slow only.
Bicycling	 Breathing, Breathing, Breathing! If the client goes regularly to cycling classes, try teaching her the importance of DPH breathing during the class versus chest breathing. Perhaps even instruct her to remain upright rather than hunched throughout pregnancy. If the cycling class is more of a soul cycle style class, make sure the client isn't crunching to the side. (This class can move very fast and it's crucial that the client knows how to modify correctly.)
Barre	 Make sure your client understands that the tailbone needs to be "open" for birth. Excessive posterior tucking can "close" and tighten the birth passage in some cases. Instruct her to avoid over-tucking the tailbone during barre class. Avoid planks, or choose an extremely regressed version. Empower her to perform her own "class" within the class. Rather than just "pulling low back into floor," teach your client the subtlety of accurately accessing her TVA during this common barre cue.