

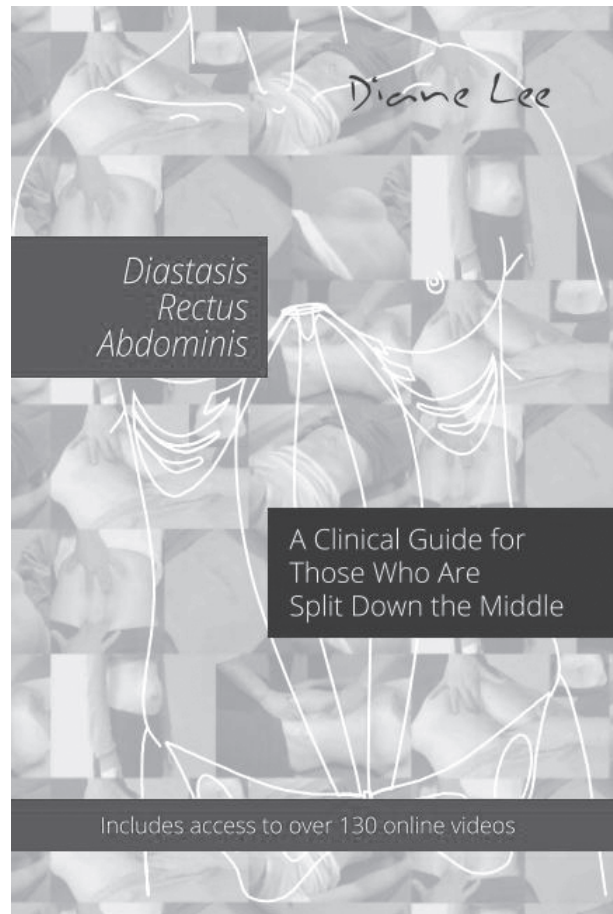
## Book review

### **Diastasis Rectus Abdominis: A Clinical Guide for Those Who Are Split Down the Middle**

By Diane Lee

Learn with Diane Lee, Surrey, BC, 2017, 338 pages, paperback, Can\$85.00  
ISBN-13: 978-1-36-645920-6

Diastasis rectus abdominis (DRA) is a condition that is increasingly encountered by physiotherapists. Our awareness and understanding of DRA as a condition has improved significantly over the past decade; however, the evidence base surrounding it is limited and often contradictory. With no gold standard consensus guiding management of the condition with physiotherapy, clinicians often utilize their own experience-led approaches, which may include everything from education, exercise prescription, taping and binding to electrical stimulation, and even



interventions involving negative pressure. The focus of rehabilitation for DRA has traditionally concentrated on facilitating closure of the gap.

*Diastasis Rectus Abdominis: A Clinical Guide for Those Who Are Split Down the Middle*, is a paradigm-shifting publication about rehabilitation for DRA by esteemed Canadian physiotherapist Diane Lee. After years of hypothesizing from her own clinical observations (e.g. Lee 2012, 2014), she undertook the opportunity to research the subject further, and has created an evidence-focused guide for clinicians. The book centres on her recent research with Professor Paul Hodges, which investigated the behaviour of the linea alba in people with DRA during a curl-up task (Lee & Hodges 2016). As well as presenting her own research, Diane soundly discusses all relevant available evidence, focusing on what we *don't* know or understand as much as raising awareness of what the research *does* tell us.

*Diastasis Rectus Abdominis* aims to provide:

- the latest evidence on the prevalence of pregnancy-related conditions (e.g. pain, incontinence, prolapse and DRA);
- an update on the anatomy of the abdominal wall and its fascial connections;
- an overview of the evidence pertaining to the function of the abdominal wall;
- a detailed clinical and ultrasound imaging assessment for recruitment strategy analysis of the lateral abdominal wall and the linea alba;
- individual case reports to illustrate the variety of presentations of DRA; and
- specific manual/movement release and training techniques/movement practices that could be included in the formulation of individualized programmes for each person with DRA.

With its inviting and convenient “paperback novel” design, this book is well placed to become the next staple handbag – or man-bag – item. Ingeniously casual in appearance, the reader is encouraged to pick it up regularly, just like any other interesting book. However, its small, handheld design is not to be underestimated. *Diastasis Rectus Abdominis* provides a comprehensive overview of professionally relevant content relating to DRA, as well as access to

over 130 online video demonstrations of everything from assessment of the abdominal wall to treatment strategies and exercise prescription. The ease of accessing the videos, which can be directly viewed on your smartphone via an app, adds another dimension to the learning potential and value for money offered. Readers can digest the theory, and then observe an associated practical video to further consolidate their understanding and the application of this to practice. The chapters are clearly organized into easily identifiable content, facilitating quick access to desired topics. Relevant images and figures are included throughout.

After setting the scene and arguing why a clinical guide for this condition is necessary, the first chapter, “Pregnancy and the abdominal wall” informs the reader about common issues that can occur within the pelvic girdle and abdominal wall, and the relationship between these areas. Available research is cited throughout to support the content discussed.

Chapter 2 provides a professionally pitched and comprehensive overview of the abdominal wall anatomy. Lee employs a mixture of diagrams and cadaveric pictures to assist the reader in accurately understanding and visualizing the muscles and connective tissue that make up the abdominal wall. The level of detail will be a welcome refresher course for all clinicians, regardless of their expertise and experience.

The third chapter addresses the function of the abdominal wall, highlighting how all the components work together, as well as the way in which these relate to the diaphragm and pelvic floor. Our understanding of how abdominal wall function can be affected by pain/trauma and the role of the fascial system are discussed with reference to the evidence base.

Chapter 4, “Assessment of the abdominal wall”, is one of the longest chapters in the book, and one that fascinated me. Lee introduces the Integrated Systems Model (ISM), which is a framework that she developed to facilitate clinical reasoning and individual case management (Lee 2014). References are made to terms that are specific to this approach (e.g. “ring shifts” and “vector analysis”), and despite dedicating 12 pages to providing an overview of the ISM model, it is evident that further study may be required to fully grasp the process. The reader is signposted to another book by the author (Lee 2011), which could, depending on the individual, be interpreted as either incredibly helpful or internally biased! The assessment process that

follows is comprehensive and well explained. It includes a standing screen, followed by an abdominal wall strategy analysis using familiar functional tests in physiotherapy, such as the active straight leg raise test or curl-up test. Lee goes on to analyse recruitment strategies, and attempts to improve these with individualized cueing with reassessment. A significant element of this chapter focuses on ultrasound imaging evaluation of the abdominal wall. This is a very interesting read that enables those with little or no experience of ultrasound imaging to gain an insight into its role, and the assistance that it can provide in assessment and treatment. It features clear, well-labelled ultrasound images of the abdominal wall, and links to online videos for further learning.

The fifth chapter presents case reports, and offers an insight into how Lee applies her approach in her clinical practice. This enables the reader to employ clinical reasoning as she goes through the case studies. The opportunity to compare and learn from the interventions used and the outcomes achieved is very beneficial for practicing clinicians. A case study of a patient who ended up undergoing surgical repair is included, and this provides guidance about when onward referral for surgical consideration may be optimal.

Chapter 6 gets into the nitty-gritty of what most physiotherapists want to know about DRA – treatment of the abdominal wall. One of the longer sections, this is likely to appeal to a diverse range of physiotherapists and bodyworkers because it integrates elements of Pilates, yoga, exercise prescription and manual therapy. It has the potential to bridge elements of musculoskeletal and pelvic health physiotherapy, and introduce aspects of the latter to those who have never delved into it before. Consistent with the other chapters, Lee not only offers theoretical guidance, but also includes ample pictures and links to videos.

While *Diastasis Rectus Abdominis* provides a much-needed evidence-driven and professional resource, I am somewhat concerned about its subtitle. I wonder whether the idea of being “split down the middle” may elicit unnecessary fear about the condition. In particular, this image does not truly represent our current understanding of DRA, which, by definition, involves a sideways *stretching* of the linea alba, rather than tearing or rupture. In addition, while it may be fair to presume that readers who seek out this resource will do so with an understanding of the condition, the first specific explanation of DRA

is in the legend to a figure embedded 15 pages into the first chapter, and may not be easily seen by all readers. Prior to this, subtle descriptions of the condition are presented, such as in the back-cover copy:

“Widening of the linea alba and separation of the recti [ . . . ] may impact both the appearance of the abdomen and the function of the trunk and many believe that closure of the DRA is a pre-requisite for improving form and function.”

However, it may not be clear to every reader that the widening and separation referred to is the definition of DRA.

Overall, *Diastasis Rectus Abdominis* is a welcome addition to the limited body of existing research into and clinical guidance about DRA. Lee provides a comprehensive overview of the assessment and management of the condition, and includes appropriate and varied visual aids. The book caters for all learning styles and levels of experience, and goes above and beyond normal expectations by granting access to the comprehensive online video library, providing exceptional value for money. Targeted at health professionals (especially but not limited to physiotherapists), it is likely to become a must-have resource in departmental libraries, and also a feature of bookshelves in the homes of physiotherapists and bodyworkers across world. The convenient and compact design has creatively changed the face of educational publishing as we know it, and the significant, paradigm-shifting

research presented progresses current rehabilitation for DRA from focusing on the gap to restoring tension and function. *Diastasis Rectus Abdominis* is a thoroughly enjoyable, clinically applicable book that meets its specified aims, and offers a valuable resource that I regularly refer to in day-to-day practice.

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