

dissatisfaction, reduced self-confidence, and limitations in daily activities (Zhu et al., 2024). Therefore, a comprehensive evaluation of DRA from structural, functional, and psychosocial perspectives is of significant clinical and public health importance.

In terms of assessment, a variety of quantitative methods have been developed in both clinical and research settings, including finger-width palpation, caliper measurement, and imaging techniques such as ultrasound and MRI (Chen et al., 2023). Among these, ultrasound is considered a reliable method for measuring inter-recti distance (IRD) due to its non-invasive nature, real-time capability, and high reproducibility; however, the lack of standardization in measurement sites, body positions, and diagnostic thresholds has prevented the establishment of a unified assessment system. Meanwhile, palpation remains widely used because of its simplicity and feasibility, and has shown a certain degree of agreement with clinical assessment in some contexts. Dynamic assessment, such as measuring IRD during muscle contraction, has also gained increasing attention. In terms of intervention, rehabilitation has become the cornerstone of DRA management, including transversus abdominis training, core stabilization exercises, pelvic floor muscle co-contraction, as well as adjunctive therapies such as electrical stimulation, manual therapy, and abdominal support. Some studies suggest that structured exercise programs can improve IRD, muscle strength, and quality of life; however, the effectiveness of different interventions remains inconsistent, and inappropriate exercise may even exacerbate the condition. Given the high prevalence of DRA, its clear functional impact, and the lack of methodological consistency in current research, a systematic synthesis of assessment methods and rehabilitation strategies is of considerable importance.

This study aims to analyze the available evidence on assessment methods and rehabilitation interventions for postpartum DRA. The focus is on systematically summarizing current clinical and research approaches to measuring IRD and related outcome indicators, evaluating their strengths, limitations, and emerging consensus, and comprehensively assessing the effectiveness and safety of both exercise-based and non-exercise rehabilitation strategies in improving DRA severity, core function, posture, and health-related quality of life. By integrating data across different study designs and settings, this review seeks to clarify the current level of evidence, identify key barriers to guideline development, and provide a systematic basis for optimizing the assessment and conservative management of postpartum DRA in clinical practice and future research.

## **2 Overview of Diastasis Recti Abdominis**

### **2.1 Anatomical basis, definition, and diagnostic criteria**

Diastasis recti abdominis (DRA) is essentially an anatomical alteration involving the midline structure of the anterior abdominal wall, characterized by thinning, widening, and reduced tension of the linea alba under mechanical stretching and tissue remodeling, resulting in an abnormal increase in the inter-recti distance (IRD). The anterior abdominal wall consists of the rectus abdominis, external oblique, internal oblique, transversus abdominis, and their associated fascial systems. The rectus abdominis muscles are symmetrically distributed on both sides of the linea alba and play key roles in maintaining intra-abdominal pressure, assisting respiration, contributing to trunk flexion, and transmitting lumbopelvic loads. The linea alba, formed by the interweaving aponeurotic fibers of the lateral abdominal muscles, serves as a central structure for force transmission and core stability. Unlike abdominal wall hernia, DRA presents as midline widening and abdominal bulging but typically lacks a true fascial defect or hernial orifice, a distinction that is important for diagnosis and treatment planning.

From a definitional perspective, DRA is commonly described as the separation of the rectus abdominis muscle bellies along the linea alba without muscle fiber rupture, with increased IRD as the primary diagnostic indicator. However, there is no consensus on the threshold defining “abnormal” separation. Different studies have proposed various cut-off values depending on measurement sites, populations, and assessment tools, such as ultrasound measurements exceeding 20 mm, clinical palpation  $\geq 2$  fingerbreadths, or stricter criteria of  $\geq 30$  mm (Lin et al., 2024). Notably, imaging studies have shown that some degree of linea alba widening may also be present in men and nulliparous women, suggesting that IRD varies anatomically among individuals; thus, DRA diagnosis should consider contextual factors such as measurement location, age, sex, and postpartum stage (Cavalli et al., 2021).