

(21210) - THE MUSCLE CELLS IN PELVIC FLOOR DYSFUNCTIONS - SYSTEMATIC REVIEW

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Introduction: Pelvic floor muscles are important structures involved in pelvic floor tone, pelvic organ support and continence.

Objectives: The aim of this study was to perform an update on pelvic floor muscle structure and function alterations of women with pelvic floor dysfunctions.

Methods: A systematic search in two electronic databases PubMed/Medline and Ovid Discovery was conducted to find relevant english papers, published between 1st January 2002 and 31st July 2022, including all clinical studies using combinations of the following search terms: “muscle” or “extracelular matrix*” and “pelvic floor dysfunction*”. To avoid missing any eligible articles, reference lists of all included papers were hand-searched.

Results: Of the 30 articles selected, 15 referred to the analysis of structural muscle defects, 10 manuscripts to the study of pelvic floor muscle function, and 5 papers evaluated cellular and/or molecular changes affecting pelvic floor muscles.

Women with pelvic floor muscle defects are at greater risk of pelvic floor dysfunctions and inversely, women with pelvic floor dysfunctions have more pelvic floor muscle defects than women without pelvic floor dysfunctions. These patients have a lower tone, a lower force of contraction, a lower resistance, a compromised neuromuscular activity and an alteration of the normal composition and organization of the muscle cells.

Conclusions: Pelvic floor dysfunction women have anatomical muscle defects, disturbance of muscle function and cellular changes involving muscle cells and nerve fibers.

Palavras-chave : Pelvic floor dysfunction, pelvic floor muscles, muscle, extracelular matrix, pelvic floor muscle function