Background: Current assessment of fascial alteration is primary done by palpation, a moderately reliable skill that provides only subjective qualitative information. Ultrasound imaging seems promising for evaluating morphometry and mobility of fascia. The objectives of this work were to conduct a comprehensive state-of-the-art review of the current literature to identify any gaps or discrepancies and summarize the main challenges for obtaining a homogeneous evaluation of muscular fascia in healthy individuals.

Methods: An electronic document search using key words and MeSH terms was performed with various databases. Two independent investigators were tasked with the screening of articles and data extraction. A critical appraisal of what is known was then conducted.

Results: The literature search identified 65 articles related to healthy facia in the various databases consulted and 20 articles were kept for the review. The thickest portion of the fascia lata (the iliotibial band) and the plantar fascia are the most often studied muscular fasciae whereas there is paucity of studies on fascia related to other muscles in the body.

Conclusion: US imaging is suitable to complement physical examination and for evaluating treatment outcomes. However, the small number of studies and the heterogeneity of the methods did not allow us to establish normal reference values for muscular fascia thickness and to provide strong recommendations about measurement protocols.