Record Nr. UNINA9910303437803321 Autore Apostolopoulos Nikos C **Titolo** Stretch Intensity and the Inflammatory Response: A Paradigm Shift // by Nikos C. Apostolopoulos Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2018 **ISBN** 3-319-96800-9 Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (XVIII, 231 p. 92 illus., 83 illus. in color.) 571.6 Disciplina Soggetti Cell physiology Cytokines **Growth factors Biochemistry** Sports medicine Cell Physiology Cytokines and Growth Factors **Animal Biochemistry** Sports Medicine Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia 1. INTRODUCTION -- 2. LITERATURE REVIEW -- 3. STUDY ONE - Acute Nota di contenuto Inflammatory Response to Stretching -- 4. STUDY TWO - Stretch Intensity vs. Inflammation: Is There a Dose-Dependent Association? --5. STUDY THREE – The Effects of Different Passive Static Stretching Intensities on Perceived Muscle Soreness and Muscle Function Recovery Following Unaccustomed Eccentric Exercise - A Randomised Trial -- 6. SUMMARY DISCUSSION -- 7. LIMITATIONS -- 8. FUTURE RESEARCH --9. CONCLUSIONS. Sommario/riassunto In this manuscript, practitioners and students who are concerned with sports and rehabilitation medicine, kinesiology, as well as coaches and athletes, are introduced to numerous concepts, including mechanotransduction, inflammation, pro- and anti-inflammatory cytokines, calpains, the extracellular matrix, neutrophils and macrophages, and their relevance to stretching, particularly stretching

intensity. Although the quantitative parameters of training, duration, and frequency are important, it is the qualitative criterion of intensity ("how much") that the author suggests is ultimately of greater concern. Intensity, the rate and magnitude of force, may be responsible for the proper recovery, regeneration, and adaptation of the musculoskeletal tissues from training, competition, or rehabilitation from injuries. Research suggests that too much force results in the stimulation of an inflammatory response, one associated with a biochemical feedback emerging from a mechanical stimulus. The intent of this manuscript is twofold: to initiate the discussion of the importance of stretching intensity with regard to proper recovery, regeneration, and adaptation, and to suggest that researchers need to explore its potential role in addressing numerous inflammatory (RA) and non-inflammatory (OA, recurrent tendinitis etc.) musculoskeletal conditions as well.