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| Book Name: | [**Medical Science: Trends and Innovations**](https://www.bookpi.org/bookstore/product/medical-science-trends-and-innovations-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_4612** |
| Title of the Manuscript: | **Muscle Adaptations to Cardiovascular, Lactate, ATP-PC, and Power Training: The Principle of Myoplasticity** |
| Type of the Article | **Book Chapter** |

**Special note:**

**A research paper already published in a journal can be published as a Book Chapter in an expanded form with proper copyright approval.**

**Source Article:**

**This chapter is an extended version of the article published by the same author(s) in the following journal.**

**MOJ Sports Medicine, 1(4): 85-88, 2017.**

**DOI: 10.15406/mojsm.2017.01.00020**

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | This manuscript is a valuable contribution to the field of exercise physiology and sports science, providing a comprehensive review of how different training modalities impact skeletal muscle adaptations. It synthesizes existing literature on cardiovascular, lactate, ATP-PC, and power training, offering insights into the structural, metabolic, enzymatic, neuromuscular, and contractile adaptations. This information is particularly useful for sports scientists, trainers, and medical professionals working in rehabilitation and athletic performance. Furthermore, by exploring the principle of myoplasticity, the manuscript reinforces the dynamic nature of muscle adaptation, which is crucial for optimizing training programs and improving athletic performance. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | The current title, *"Muscle Adaptations to Cardiovascular, Lactate, ATP-PC, and Power Training: The Principle of Myoplasticity"*, is informative but somewhat lengthy. A more concise and engaging alternative could be:  Alternative Title Suggestions:   * *"Skeletal Muscle Adaptations to Cardiovascular, Lactate, ATP-PC, and Power Training"* * *"Training-Induced Skeletal Muscle Adaptations: A Review of Myoplasticity"* * *"Physiological Adaptations of Skeletal Muscle to Different Training Modalities"*   These alternatives retain the essence of the manuscript while making the title clearer and more impactful. |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | The abstract is well-structured and provides an overview of the study’s objectives, methods, and results. However, there are a few areas for improvement:  Suggested Additions:   * Key Findings: The abstract should briefly summarize the most significant adaptations found in each training modality. * Practical Implications: A sentence on how these findings can be applied in sports or rehabilitation settings would strengthen the abstract. * Correction of Typos and Clarity: The phrase *"what affect 4 different types of conditioning reflects"* should be corrected to *"what effect four different types of conditioning have on..."*. |  |
| **Is the manuscript scientifically, correct? Please write here.** | The manuscript is scientifically well-founded, referencing relevant studies on skeletal muscle adaptations. However, a few points could be clarified:   * Some sections, particularly those on neuromuscular adaptations, would benefit from additional explanation regarding the mechanisms involved. * The discussion on fiber-type transitions (Type IIx to IIa) should be updated with recent literature, as some findings challenge earlier assumptions. * The term *"Principal of Myoplasticity"* should be corrected to *"Principle of Myoplasticity"*. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | The references cover a broad range of foundational studies, but many are over a decade old. While classic studies (e.g., Wilmore & Costill, Brooks) are important, integrating more recent literature (past 5–10 years) would strengthen the manuscript.  Suggested Additional References:   * Recent studies on molecular mechanisms of muscle adaptation (e.g., PGC-1α and mitochondrial biogenesis). * Newer research on fiber-type transitions and lactate metabolism in trained individuals. * Studies on high-intensity interval training (HIIT) and its impact on muscle adaptations. |  |
| Is the language/English quality of the article suitable for scholarly communications? | The manuscript is well-written, but some minor grammatical issues, typos, and awkward phrasing should be corrected. |  |
| Optional/General comments | * The manuscript is a strong contribution to exercise physiology literature. * The scientific content is well-researched and relevant. * Minor revisions in language, structure, and recent citations are recommended. |  |

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| **PART 2:** | | |
|  | Reviewer’s comment | Author’s comment *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?** | *(If yes, Kindly please write down the ethical issues here in detail)* |  |

**Reviewer details:**

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