# Article information:

Relationship of Barbell and Dumbbell Repetitions With One Repetition Maximum Bench Press in College Football Players - PubMed  
<https://pubmed.ncbi.nlm.nih.gov/33666593/>

# Article summary:

1. The study aimed to compare the similarity of muscular endurance performance between dumbbell and barbell exercises and to assess the accuracy of predicting one repetition maximum (1RM) barbell bench press from barbell and dumbbell repetitions to fatigue (RTF).

2. College football players performed 1RM barbell bench press and RTF with a 90.9-kg barbell, as well as unilateral (45.5 kg) and bilateral dumbbell (90.9 kg) RTF on separate days.

3. Barbell and dumbbell repetitions with equivalent weights place a similar demand on the upper-body musculature for training and testing purposes in football athletes, with prediction of 1RM barbell bench press being equally effective using a constant weight barbell or equivalent weight bilateral dumbbells.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article titled "Relationship of Barbell and Dumbbell Repetitions With One Repetition Maximum Bench Press in College Football Players" aims to compare the muscular endurance performance between dumbbell and barbell exercises and assess the accuracy of predicting one repetition maximum (1RM) barbell bench press from barbell and dumbbell repetitions to fatigue (RTF). The study found that barbell RTF were significantly greater than bilateral dumbbell RTF but highly correlated. Unilateral dumbbell RTF was significantly greater for dominant hand than nondominant hand but highly correlated. Prediction of 1RM barbell bench press was equally effective using a constant weight barbell or equivalent weight bilateral dumbbells with total errors of 7.3% and 8.2%, respectively.

The article appears to be well-researched, with a clear methodology and results presented in a concise manner. However, there are some potential biases that should be considered. Firstly, the study only included college football players, which may limit the generalizability of the findings to other populations. Additionally, the study did not consider other factors that may affect muscular endurance performance, such as age, sex, or training history.

Furthermore, while the study found that prediction of 1RM barbell bench press was equally effective using a constant weight barbell or equivalent weight bilateral dumbbells, it did not explore whether this holds true for other exercises or muscle groups. It is possible that different exercises may require different weights or equipment for accurate prediction of 1RM.

Overall, while the article provides valuable insights into the relationship between barbell and dumbbell repetitions with 1RM bench press in college football players, it is important to consider its limitations and potential biases when interpreting its findings. Further research is needed to determine whether these findings hold true for other populations and exercises.

# Topics for further research:

* Factors affecting muscular endurance performance in weightlifting
* Comparison of barbell and dumbbell exercises for different muscle groups
* Accuracy of predicting 1RM for exercises other than bench press
* Differences in muscular endurance performance between athletes of different sports
* Effect of age and sex on muscular endurance performance in weightlifting
* Training strategies to improve muscular endurance in weightlifting

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