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**STRENGTH GAINS FROM A
PARTIALLY SUPPORTED VS. FREE
STANDING POSITION USING A
CABLE RESISTANCE MACHINE**

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INTRODUCTION

Free-standing cable-based strength training exercises are preferred by fitness professionals because they promote integration of body segments and are thought to deliver a high degree of core muscle activation with excellent strength benefits. Previously, it was determined that the introduction of a partial stabilizing element produced greater load-bearing capacity and core muscle activity than a comparable free-standing exercise. The degree to which strength is enhanced by either a free-standing or stabilized exercise is relatively uncertain.

OBJECTIVES

Is there a difference in strength gains, over an eight-week training period, between a free-standing or partially supported cable chest press?

Is there a difference in strength gains, over an eight-week training period, between a free-standing or partially supported cable row?

METHODS

Fifteen healthy women, aged 18 to 50, performed cable chest press and cable row exercises, three times per week for eight weeks. One group performed the exercises in a free-standing posture, while another did the same exercises with partial support at the pelvis, using the Cybex Bravo functional trainer.

Ten repetition maximum (10RM) values were measured on each exercise before and after the training period. Improvement was expressed as a change in 10RM weight from baseline to eight weeks.

RESULTS

The free-standing group had an increase of 12.9 Lbs on the chest press and 12.9 Lbs on the row after eight weeks of training.

The partially supported group had an increase of 22.9 Lbs on the chest press and 29.8 Lbs on the row. Both were nearly, or more than double the increase experienced on the free-standing exercise.

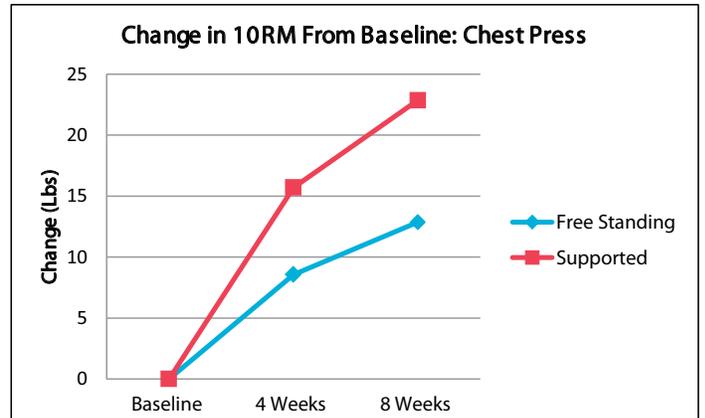


Figure 1: Between-group comparisons in Chest Press 10RM strength from baseline to eight weeks

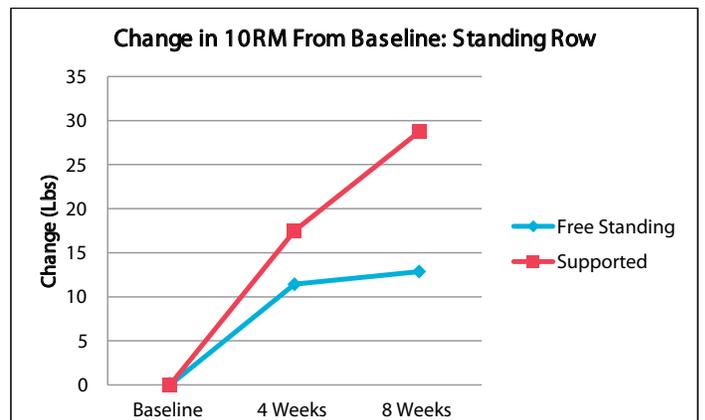


Figure 2: Between-group comparisons in Row 10RM strength from baseline to eight weeks

CONCLUSION

The Cybex Bravo functional trainer, with progressive stabilization, promotes strength gains that are twice as great as comparable exercises performed in a free-standing posture. Increased strength along with total body integration, may lead to enhanced functional outcomes.

This study is available in its entirety at:

http://www.cybexintl.com/institute/pdf/UMASS_Bravo_Study.pdf