

## DICKINSON STATE UNIVERSITY STUDY FINDS ATHLETIC REPUBLIC'S ACCELERATION TRAINING SUPERIOR TO TRADITIONAL TRAINING

An exercise science professor and football coach, Pete Leno, and the training staff at Dickinson State University conducted a research study to compare Athletic Republic's Acceleration Training to traditional modes of training. They tested college football players before and after a 6-week training program. The groups were nearly identical in age, conditioning level, and size. One group completed Level 1 of Acceleration Training and the other trained using "state of the art" ground-based training. Both groups completed the same 8 plyometric and 18 strength-training workouts per their assigned program. The only difference between the two programs was the use of Athletic Republic's Super Treadmill and SprintCords™ for the treadmill sprint start work.

The results are listed in Table 1 with standard deviations enclosed in parentheses. Negative times represent improvement in speed. The Acceleration-trained athletes had significantly greater improvement than the other athletes in vertical jump, standing long jump and sprints. Key results are a 2.5" increase in vertical jump and 0.22 second improvement in 40-yard dash. These results are outstanding for college football players - already well-trained athletes.

Table 1. Jumps and Sprints

| Test                                 | Acceleration Level 1 | Ground-based |
|--------------------------------------|----------------------|--------------|
| Vertical Jump Peak Power (W/kg)      | 9.4 (4.4)*           | 4.5 (2.8)    |
| Vertical Jump (in)                   | 2.5 (1.1)*           | 1.2 (1.3)    |
| Standing Long Jump Peak Power (W/kg) | 10.5 (3.8)*          | 6.4 (3.1)    |
| 10 yd dash (s)                       | -0.11 (0.06)*        | -0.04 (0.03) |
| 20 yd dash                           | -0.16 (0.05)*        | -0.06 (0.04) |
| 40 yd Dash                           | -0.22 (0.05)*        | -0.08 (0.05) |

\*denotes significant difference at the  $p < 0.01$  level

Table 2 shows that the Acceleration-trained athletes showed greater improvement in top speed on the treadmill and in their anaerobic conditioning. These Acceleration-trained athletes improved their top speed on the treadmill by 2.7 mph versus 1.9 mph improvement in the ground-based group. They also improved their anaerobic conditioning, illustrated by the longer time they could run on the Cunningham-Faulkner test.

Table 2. Force Treadmill Speed and Cunningham-Faulkner Test

| Test                     | Acceleration Level 1 | Ground-based |
|--------------------------|----------------------|--------------|
| Speed test at 3.5% (mph) | 2.67 (0.5)#          | 1.94 (0.78)  |
| C-F Test time (s)        | 7.05 (1.2)*          | 3.54 (2.49)  |

\*denotes significant difference at the  $p < 0.01$  level; #  $p < 0.05$

Data from these tests are still being compiled and analyzed, and the pro agility test was not administered due to weather. But the take-away here is that Athletic Republic's Acceleration Training works. Proof positive.