

Manipulating Sets and Reps to Maximize Strength Gains

**Jud Logan
Head Track Coach
Ashland University
4X USA Olympian**

1) How many sets? How many reps? At what intensity levels?

2) Is the goal Hypertrophy? Is it Max effort work? Are we Peaking?

3) Is the total volume over training the athletes? Is it enough to get the job done?

4) How can we manipulate Sets and Reps to Maximize these Goals?

THE PATIENT LIFTERS 6 X 4

Duration 3-4 Weeks

Efficiency: Challenging workout that borders on mundane, but taps into an athletes sense of pride and desire to not get left behind. Very good with Squats, Pulls and Presses.

Starting Weights: 85% of Max and for our example a 500 lb. Back Squat

Rest Periods: 3-4 minutes to maximize recover abilities

Week # 1 Goal 6 x 4 @ 425 lbs. (85% of 500)

Projected: Athlete "A" 4-4-4-3-3-2 "B" 4-4-4-4-4-4

Week # 2 Goal 6 x 4

Projected: Athlete "A" 4-4-4-4-3-3 "B" Raise weight by 4-5%

Week # 3 Goal 6 x 4

Projected: Athlete "A" 4-4-4-4-4-4

Week # 4 Goal 6 x 4 ADD 4-5% (425 + 20 lbs.= 445)

Projected: 4-4-4-3-3-2

ANALYSIS OF PATIENT LIFTERS 6 X 4

This program favors low volume but increasing intensity. The goal of 24 reps remains the constant.

With training age of less than 5 years, a 5th week would produce another increase in strength. Not true for more elite.

Done once a week.

Success is based on the Law of Repeated Efforts. The nervous system is forced to accept the new load as being normal.

THE 5% SOLUTION

Duration: 6 weeks

Efficiency: I have used this program for Pressing movements, Pulls and Squats

Sets and Reps: Depending on what 3 rep bracket you choose will determine if you are looking for volume or I often choose to break a record in a lift that has hit a plateau. You need to choose 3 concurrent reps between 8 and 3. 8-7-6 6-5-4 or for the purpose of this discussion: 5-4-3

Power Clean of 300 lbs.

You can either know approx. 5rm or start at between 80-83%

Rest Periods: 3-4 minutes

5% Solution

Wk. # 1 (83%) = 250 lbs. 250 x 5 (Goal is to complete 4 sets w/Bonus set

**Wk. # 2 Add 5% = 262.5 lbs Easy Wk. #1 265 Hard 260
265 x 4 4-5 sets**

**Wk. # 3 Add 5% = 278 lbs Easy Wk. # 2 280 Hard 275
275 x 3 4-5 sets**

Wk. # 4 (Wk. # 2 Weights = 265) 265 x 5 4-5 sets

Wk. # 5 (Wk. # 3 Weights = 275) 275 x 4 4-5 sets

Wk. # 6 Add 5% = 289 290 x 3 4-5 sets

***Through out this program we have increased our strength levels by 5%**

***This is assuming we only made 1 full set each workout. Assuming our work capacity is good – 3 sets is good 4 is great and 5 is excellent**

***290 x 3 for 3-5 sets will produce a new Max. Since multiple sets were done, we may be closer to 7% increases in Pulls and Pressing movements and closer to 10% in Squatting movements.**

Forced or assisted reps are allowed in weeks 3 and 6.

This program is done once a week.

If done with bench, I like the 2nd day to take a Westside approach with speed Bench.

If done with Squats, favor single leg movements for 2nd day and lots of hamstring work.

If done with Pulls, a 2nd pulling day is not necessary.

Peaking or Cluster Training

Duration: 5-6 WORKOUTS

Efficiency: This is the peaking program that is hell bent on driving the nervous system.

This program was used to produce NCAA records in:

**Men's Weight Kibwe Johnson 82 feet
Women's Weight Olympian Jackie Jeschelnic
Women's Hammer: Jackie Jeschelnic
Women's Shot Put Indoor/Outdoor Adriane Blewitt
Men's Indoor Shot Bryan Vickers/Kurt Roberts 64"11**

Also by 2X Olympian AG Kruger

THE WORKOUT IS:

25 X 1

Explained!

CLUSTER TRAINING FOR KIBWE JOHNSON

Kibwe had a one rep max of 275 or 125 K

Starting Weight 70%

Wk. # 1 87.5K or 192 lbs x 1 rep Rest 15 Seconds – repeat for a total of 5 reps Rest 3-4 minutes “This is one cluster”

***Research has shown that it takes 15 seconds to restore ATP to make maximal firing effort and 3-4 minutes to restore glycogen to maximize bar speed in another cluster.**

Movement is made from boxes at mid-shin to save lower back.

This is speed work! We use a TENDO machine to measure the bar speed and only allow a slight increase in weight if speeds of 1.7 m/s Or better are achieved. (Coaches eyes work just as good)

Repeat for 5 Clusters

Used 2 x per week and usually coupled with a pre-cursor of an explosive jump and followed by some sort of speed squat.

Peak Week

The final Cluster workout is scheduled by observation of throwing results and how the athlete is recovering.

Kibwe: Final workout Tuesday of NCAA Record was done on Friday

Jackie: 3 Clusters on Monday 2 Clusters on Wed. NCAA Record on Thursday

Adriane: Same, but...Big Hammer, Thursday, 181 Discus Friday, and did speed bench after to re-stim for Shot on Saturday NCAA record 58+

KNOW YOUR ATHLETE!

What stimulates the best technique? Feeling of Power and Speed.

Add in recovery + Light implements + 20-30 contacts/plyos = Big Performances

When it counts!



Questions?