

The Beast Speaks

Due to technical difficulties I was unable to send out my newsletter earlier. You see, I store all of my documents and programs on a computer and use a second one for personal use. Well, two weeks ago, my work computer decided to take a vacation (well, actually the ventilation system blew up) so I was cut out from my files.

Anyway, lots of good things happening right now. Ms. Beast is in the final phase of her preparation for the tested nationals on July 24th. I also learned that our hotel is renowned for having the best Sunday brunch in town, so I'm a happy Beast right now! How is Ms. Beast doing? Pretty good. She's made amazing improvements in a very short period of time and will be able to go head to toe with some serious competitors who've been preparing for a lot longer than her. She will compete as a middleweight and it's supposed to be the toughest class by far. Several times national champ Johanna DeJager will be absolutely amazing, as always, Frances Manias-Jackson (another former national champ) is getting back after a one year absence and the always dangerous Nathalie Veillette (3rd place finisher last year, and used to be Christiane's training partner back in the days) seems to be in great shape. If the always good-looking Emanuelle Pinkus decides to show up it might very well be the strongest women middleweights class to ever compete at the tested nationals. Below is a comparative pic illustrating Christiane's progress. Note that both pics were taken a little less than 4 month apart.



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Another good news is the recent contract signed by Carl Gourgues with the BC Lions of the Canadian football league (essentially the second strongest football league in the world after the NFL). The camp was a hard experience for him as he had to learn a new position (center), but his physical capacities really made the transition a little easier. Carl is also known as “Big Gorgeous” and a pic of him bench pressing 475lbs plus 130lbs in weight releasers caused quite a stir on the T-nation forums a while ago (that’s because BG is 100% natural, never even used a protein supplement!) and some peoples refused to accept that fact. Well, he did go up to a 500lbs bench press just before leaving for camp and ran a 5.0 electronic 40 (at 313lbs).



Finally, congrats to Martin Grenier whom I helped with his strength & conditioning program who just qualified for the 4 x 100m Canadian relay team for the 2004 Olympics. Hopefully, with the free agent signing period coming up in the NHL, I’ll have good news in the near future.

Gut busting workout

About a year ago I looked at David Boston’s transformation (going from 206lbs up to 235lbs then up to 250lbs) and really had a hard time accepting that his trainer (Charles Poliquin) did not put him on some form of drugs. I personally believed that gaining 40lbs of muscle in two years, naturally, was impossible for an athlete of that level of development. Well I have now changed my mind as one of my hockey players reached the 230lbs mark this week. Last year I took him from 185 up to 205 and this year from 205 to 230 ... a 45lbs gain in two years. And I can honestly say that this guy is 100% clean. I will admit that some of my athletes do use steroids and other anabolic drugs (not something that I recommended to them, but if their choice is made, I might as well help them to make sure that they don’t hurt themselves) but he isn’t. He’s just the hardest worker I’ve ever seen in my life! Here are his workouts from last week. This is a strength endurance phase, we move back to a strength & power phase in 1 week.

Monday

Circuit training

Upper body

1 minute of rest between exercises

2 minutes of rest between each circuit

Energy systems work

6 x 20m sprints

3 minutes of rest

A. Bench press

20 reps

301 tempo

B. Seated rowing

20 reps

2 seconds hold on sternum

C. Triceps pressdown

20 reps

301 tempo

D. Preacher curl

20 reps

301 tempo

E. Lateral raise

20 reps

301 tempo

Repeat the circuit 3 times. Week 1 = 15 reps, Week 2 = 20 reps, Week 3 = 25 reps

Tuesday

Circuit training

Lower body

1 minute of rest between exercises

2 minutes of rest between each circuit

A. Back squat

20 reps

301 tempo

B. Right leg lunge

20 reps

201 tempo

C. Left leg lunge

20 reps

201 tempo

D. Leg curl

20 reps

301 tempo

E. Leg extension

20 reps

301 tempo

F. Seated calf raise

20 reps

2 seconds peak contraction

Repeat the circuit 3 times. Week 1 = 15 reps, Week 2 = 20 reps, Week 3 = 25 reps

Thursday

Explosive strength training

Upper body emphasis

Energy systems work

2 x 300m

2 x 400m

5 minutes of rest

A. Speed bench press

5 x 3

50% of maximum as fast as possible

45 seconds between sets

B. Ballistic bench press

3 x 5

30% of maximum thrown as high as possible (in Smith machine)

90 seconds between sets

C. Power upright row

3 x 5

70% of max upright row

90 seconds between sets

D. Push press

3 x 5

70% of max push press

90 seconds between set

Friday

Explosive strength training
Lower body emphasis

Energy systems work

Hill sprints

5 x 100m

3 minutes of rest

A. Power snatch from hang

3 x 5

70% of max

90 seconds between sets

B. Power clean from hang

3 x 5

70% of max

90 seconds between sets

C. Jump squat

5 x 10

20% max squat

60 seconds of rest

D. Depth jumps

3 x 10

From a 70 cm height

3 minutes of rest

Physical Capacities of the speed-strength spectrum and training load

What is the optimal training load to develop what you need

You may be a powerlifter, an Olympic lifter, a track or field athlete, a football player or any other type of athlete. But chances are that, if you are using special-strength training to improve your performance in your activity of choice, you have wondered what load you should use; what training percentage would give you the greatest results.

Over the past few years there has been a very important effort from the scientific crowd to establish just where that optimal percentage was situated. The varying types of study designs and different fitness level of the test subjects led to somewhat conflicting results.

For example Siegel et al. (2002) found that the greatest power output was between 50 and 70% of 1RM for the squat and between 40 and 60% for the bench press.

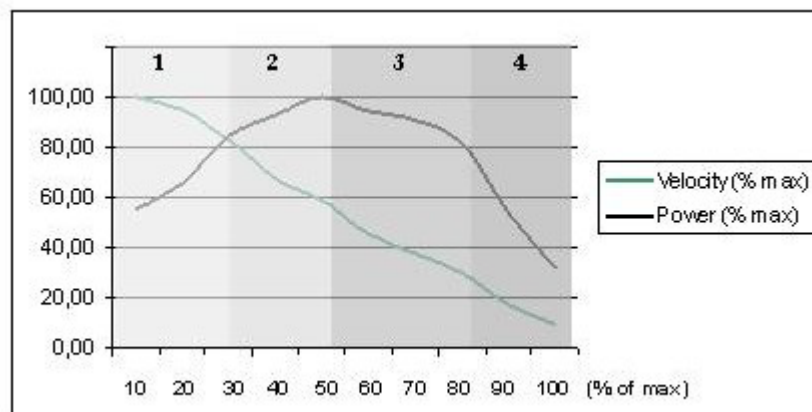
Baker et al. (2001) found that power output was maximized with loads of 55-59% in the squat (a bit lower than the Siegel study). But power output was still very high in the 47-

63% range. They also found that the load maximizing power output in the bench press was 46 to 62% with an average peak occurring at 55%.

These two recent studies offer a somewhat conflicting conclusion compared to the earlier investigations in regard to peak power, which supposedly occurred at around 30% of 1RM.

It is this discrepancy, as well as the success of the Westside Barbell lifters; who use 40-60% to develop power, that I decided to conduct a little study on peak power. Using the **Fitrodyne** unit by Tendo Sport I decided to establish what was the “power curve” and “velocity curve” for strength lifts. In doing so I tested several athletes (hockey players, football players, powerlifters, a sprinter and an Olympic lifter) on the bench press using loads of 10 up to 100% of their maximum. Velocity as well as power output was recorded at each percentage.

The results allowed me to distinguish between four distinct training zones, each emphasizing a different physical capacity. The following graph illustrates the results I obtained. I will briefly comment on my general findings and then describe each of the four training zones.



General findings

1. Peak power occurs at 50-55% on average
2. Submaximal power (90-100% of max power) is produced with loads ranging from 40 to 65% of maximum
3. Maximum velocity is reached with the lightest tested load (10%); it is quite possible that it could be even higher with lighter loads
4. Submaximal velocity (90-100% of max velocity) is produced with loads ranging from 10 to 25% of maximum

5. There is an inverse proportional relationship between velocity and load: the higher the load, the slower the bar speed

6. The power curve is parabolic: at the highest velocities, the load is too low and at the heaviest loads the velocity is too low to lead to an important power output

Training zones

In the preceding graph we can distinguish 4 different training zones:

Zone 1 Speed training (10-25% of max load): In this zone, speed is maximized while power output and force are low. This training zone can be used to train speed of movement but has little benefit for power and strength athletes. When training in this zone it is preferable to use the ballistic method or plyometrics (shock training): projecting the load or body in the air, because with regular lifting the deceleration phase will be much longer which will not have a very positive effect on speed. Exercises such as the jump squats, bench throws and medicine ball throws are best suited for this training zone.

Zone 2 Speed-strength (25-50% of max load): It is in this zone that we find the best compromise between power and speed. If you train in this zone you will get important gains in power and speed, however the gains in limit strength will be marginal. With this training zone it is best to use accommodating resistance (bands or chains) to, once again, reduce deceleration time which will help maximize speed and power development.

Zone 3 Strength-speed (55-80% of max load): It is in this zone that we find the best compromise between power and limit strength. Training in this zone will give you important gains in power and strength with a marginal gain in speed. Power and strength athletes would be well served to spend a lot of their training volume in this zone to maximize their performance.

Zone 4 Limit strength (85-100% of max load): In this zone limit strength is maximized while power output quickly decreases as velocity reaches very low levels. For that reason, an athlete training only in this zone will quickly (pun intended) lose lifting speed. To avoid that from happening, an athlete should use Zone 4 in conjunction with at least one of the other three training zones. There is no need to become slow if you become strong, just make sure that speed-strength/strength-speed methods are used concurrently with limit strength methods.

Type of athlete	Most important zone	2nd most important zone	3rd most important zone	Least important zone
Limit strength athletes (powerlifters)	Zone 4	Zone 3	Zone 2	Zone 1
Power athletes (Olympic lifters, field athletes, football linemen)	Zone 3	Zone 4	Zone 2	Zone 1
Power/speed athletes (football skill positions, jumpers, basketball, volleyball, baseball)	Zone 2	Zone 3	Zone 4	Zone 1
Speed athletes (sprinters, soccer)	Zone 2	Zone 1	Zone 3	Zone 4
Endurance athletes	Knitting, painting, talking about their emotions (kidding!)			

Conclusion

Obviously this is only a piece of the puzzle; training volume, density and exercise selection also play an important role. However proper selection of the training load is probably the most important training variable for any type of competitive athlete. So it becomes capital to properly choose the load that suits your needs the best.

Shameless self-promotion

This is the portion of the newsletter in which I try to make some money out of you!
Presently I offer the following:

Seminar (5 hours seminar at the location of your choice)	1000.00\$ plus travelling fares
Individualized training program	100.00\$/month
Individualized nutrition and supplement program	100.00\$/month
Black Book of Training Secrets (hard copy)	30.00\$
Theory and Application of Modern Strength and Power Methods (.pdf)	25.00\$
Black Book of Training Secrets (.pdf)	25.00\$
Phone consultation	80.00\$/30 min. 150.00\$/ 60 min. 350.00\$/3 x 60 min. package 500.00\$/5 x 60 min. package 900.00\$ /once-a-month 60 min. consult for a whole year
Complete support program	2500.00\$ / 1 year
<ul style="list-style-type: none"> - Individualized training program - Nutrition program - Supplements program - Unlimited email support - Once-a-month 60 min. phone consult 	
3300\$ value	

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