# October Newsletter Part II



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### I. Leading Off...

Hello,

Glad to see that you're tuning into Part II of our newsletter! I hope you enjoyed <u>Part I</u> which featured an exclusive interview with bodybuilder Matthew Owen who shared with us his background, approach to nutrition/supplementation as well as common mistakes people make when starting a program. After our interview we got straight to our CP Community member discussion, *Physical Preparation for Boxers – Rationale & Approach*, by Joe Wood, physical preparation and boxing coach.

Shifting gears a bit, we're proud to bring you Part II of our October '14 newsletter. We kick things off by taking a quick peek at some article news here at CasePerformance & partner sites. We then move on to our CP Performance Discussion, *Bands, Whips & Chains... Bondage in the Weight Room* where Phil Stevens discusses his thoughts on implementing these tools to improve performance (in the weight room that is... and who knows - Maybe between the sheets as well ;-)!). Finally we conclude with our SuppVersity Corner Report. Enjoy!

Respectfully,

Sean Casey

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### **II.** Donations for CasePerformance Are Welcomed

As you've probably noticed while surfing around the CasePerformance website, we **DO NOT** litter our pages with advertisements or have "Members Only" sections that require a paid subscription.

Why do we do this?

My goal is to reach as many individuals as possible. If an individual truly wishes to improve their health and performance, I want them to succeed. This holds true regardless if they are a multi-millionaire or those pinching pennies.

#### The Downside & What You Can Do To Help

The cost of running a website in conjunction with paying for full access to the various sport science and nutrition research journals I use is extremely expensive. Also, all of the authors at CasePerformance put considerable time into writing the articles for this site. If you enjoy the free information provided on this site, we humbly ask you to show your support by making a small donation. Thanks for your support!

**<u>CLICK HERE</u>** to make a donation. Please know that <u>ANY AMOUNT</u> is greatly appreciated!

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### **III. Article News at CasePerformance**

One New Article was Added to CasePerformance since our last newsletter...

2014 ISSN Conference Review – Part IIa



In Part IIa of our ISSN conference review we shift our focus to the presentations of Day 2. Specific ones highlighted include those presented by Shawn Wells MPH, RD, CISSN & Gabriel Wilson PhD (Leucine, HMB, And Amino Acid Metabolites Support Muscle Growth and Athletic Performance), Mike Roberts, PhD (Molecular Updates on the Effects of Phosphatidic Acid: Muscle Physiology and Beyond), and Brad Schoenfeld PhD, FNSCA (MAX Muscle: A Periodized Approach to Hypertrophy Training).

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Top Article at CasePerformance during the month of October...

**Mechanics of Squatting** 



This blast from the past article, originally written in 2010, came out of nowhere to be the #1 article on the CP website for the month of October! Here's what it's all about...

The squat is a favorite exercise for many hard core resistance athletes. Recent research has provided an interesting look at squat mechanics. It appears that it's OK if your knees extend over your toes during the movement (within reason of course). The key thing, with respect to preventing injuries, is weight distribution on the foot. Also, when squatting with the same relative loads (70% 1RM) front squats appear to reduce the compressive stresses on the knee vs. the back squat. As a final note, don't forget to consciously explode out of "the hole" while squatting. Even if they weight is heavy (i.e. 1RM or 3 RM) one should attempt to push the weight as fast as possible.

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### **IV. CP Performance Discussion**

This month's Performance discussion comes to us by Phil Stevens who handles the <u>CP</u> <u>strength sport consultations</u> as well as runs the <u>Strength Guild</u>. Today he shares with us his thoughts on using chains, bands and whips to improve performance. Enjoy!

### Bands, Whips & Chains... Bondage in the Weight Room



By Phil Stevens

Image Supplied by <u>BBA Performance</u>

### To kick things off, what is the purpose of attaching bands or chains to an object you're lifting vs. just lifting the object itself?

The purpose of bands, chains, and all the like can be explained via the concept of accommodating resistance. In training or isokinetic testing, accommodating resistance is an application of a force counter to that of the muscle action, so that resistance from

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the machine (or bar) better matches one's own muscle force. As it applies to us in a gym, the basic premise of accommodating resistance is that as you reach what for many is an easier part of the lift, such as the last quarter of ascending from a squat, the loads actually get heavier as bands apply more pressure and/or more links are lifted. Furthermore, accommodating resistance allows a lifter to lift explosively through the entire range of motion or the lift. Without the accommodating resistance the lifter would have to let off about half way in the lift after an initial explosion in order to halt the lift. Otherwise, they will jar the joints hard and / or leave the ground while loaded. Both of which are not great.

## I gotcha. The idea of accommodating resistance makes sense. Curious, if they both work off the same principle (ie – accommodating resistance), why would one choose to use bands in place of chains or vice versa?

*"Like Newton told us, an object in motion..."* Well they definitely work differently. Chains on one side are great, they slowly lay more load on as more links leave the ground. BUT like any moving loads once the link is moving it has velocity. Like Newton told us, an object in motion wants to stay in motion. Same is true for the links once they are moving and same for the barbell load. Once you have them moving they want to keep motive. They have momentum... Momentum being the whole reason for speed work in my opinion.

Chains simply apply more force, slowly or rapidly, at a specific area you want to focus on by lumping many links. Chains are also very accurate to measure gains. Those links will always be the same. So If I hook a lifter to say a tendo unit and they move the load with said amount of force and power, then a month later they lift the same chains and bar load at a higher velocity. They have measurably become better at applying force. This makes these great for addressing weak points in a lift, you can make the chains hit at a certain area.

Bands on the other hand work like chains, but differently. Similar to chains, the further you lift the more resistance is placed on the bar. However they pretty much negate all momentum and velocity by their natural action. They defy Newton's laws of movement. If I take a 25 lb plate I can apply force and it will leave my hand keep going up until gravity has applied enough force to it to make it reverse and come back down. A band however no matter the force I apply the minute I let go it will snap back to its starting point. Velocity and momentum have very little action on bands. This make bands great for speed work and learning to constantly apply force.

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## Can everyone benefit from the use of chains or bands (newbies, intermediates, advanced) or would you only recommend them for individuals of a higher training age?

I will preface this by saying 98% of the lifting my people do is without chains and bands. We don't use them much but we use them for specific reasons. I think any and every one can under the right circumstances. Injury bands I have seen to be great for aching joints, bad shoulders etc.. This can be in newbies or very advanced. They likely have the most carryover into the more advanced populations however to address weak points. When you're a newbie or intermediate you don't have weak points. You're just weak. So the answer is perfectly simple, *"Should a newbie/ intermediate/ advanced lifter use bands and chains?"* Answer - yes and no.

Basically I like going by the rule, if you can't tell me a legitimate reason you are using them, then you shouldn't. Just stick to basic hard work with a barbell. The bare bar has made men and women strong for many years before someone added bands and chains to them

Now that we know why bands/chains are useful and who you feel will benefit from using them, it's time that we discuss how to incorporate them into a training program...

### Can you use bands or chains in your training year round or should they only be exploited here and there during certain training phases?

"... I have even seen negative training effect from using too much..." In my opinion, based off personal experience as well as working with others, I haven't seen any benefit from using bands/chains long term. In fact, I have even seen negative training effect from using too much; lifters getting weak in the bottom where many usually need work. If you are an equipped powerlifter I can see how maybe that would shift; one could get greater benefit year round allowing you to train out of your gear and mimic the power curve better. That however is a very, very small niche population when you start talking athletes as a whole.

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I realize that both chains and bands come in different weights (or levels of resistance if a band). That said, are there any general guidelines as to how much actual resistance should come from accommodating tools (bands/chains) vs. free weight (i.e. – actual weight plates, etc) when performing a lift?

This is hard to impossible to answer as it depends on the situation. There might be times I am having a lifter use almost 100% accommodating resistance, for say nursing an injury or aches. In general however I generally would never go below 50% bar weight based on the lifters maximum ability. From there bar weight and accommodating resistance load will depend on what we are trying to accomplish.



I know people will want specifics so, for example... I might have a lifter like myself (fairly advanced; have hit a 3 times body weight deadlift) who is strong on the deadlift at the bottom and weaker at lockout. We'll work with a smaller bar weight, let's say 50-60%, then a higher amount of chains working up to 95-105% at the top. In other words, at the start of the lift (i.e. - off the floor), they're only pulling 50-60% of their 1RM but by the time they reach near the top, they're at 95-105% 1RM simply because they now have the weight of all the chain links

in addition to the bar weight. In doing this, they are learning to move the bottom, which is already a strength for them, even faster and grind out the top portion as it gets heavier. Or I might use bands for that same lifter and use them with the same load to learn to fight and grind that top portion where they are weak.

Speaking of grinding, that is what I usually use accommodating resistance for the most. Only a small percentage of the population is hard headed, and crazy enough to be a grinding lifter from birth. I am one of the lucky few. Anything over 600 for me on DL is about the same speed; just kinda slow but keeps going up. Much of the population that thinks they want to be a lifter has to learn to fight, learn what that's means. Now again I am taking those in the lifting sports, powerlifting, maybe a bit in olympic lifting but not so much as it is a dynamic sport, and strongman. So we need to teach them to fight, teach them to not be mentally weak and give up when things get hard. For this reason I will take people in their late newbie, or early intermediate stage who wants to be a "lifter," but they have a tendency to give up on lifts easily and have spotter take the lift, and they will get a lesson in fighting a lift out. We will most usually put them against band tension and a bar weight at 70%+ total loads getting in the 85% plus range and make

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them fight sets out. We will keep doing this for a few sessions or a few months, however long it takes us to break them from giving up and teach them to never stop pushing with the exception of injury.

### Based off your experience, what are the biggest mistakes one makes when incorporating bands/chains into their training?

"... mix mashed them together into high mid range low triple box squat reverse band speed max effort squats... It was a cluster fuck..." Adding them in willy nilly, here and there, with no rhyme or reason just because some big strong guy you once saw was doing them. That guy is doing them for a reason. You likely need to just put on bar weight and get stronger. Yes they are neat and look cool but they are no more effective and can be less effective than a plain ass bar if not used correctly. For instance I had some lifters training for a meet and we had cycled in box squats, some band work and a few others things over 16 weeks. Well another lifter / coach caught word on what we were doing and next thing I know he posts all these videos where he took all the shit we had done and mix mashed them together into high mid range low triple box squat reverse band speed max effort squats. That's the closest thing I can call them. It was a cluster fuck. [Editor's Note – Laughing hysterical right now] Needless to say he came to the next meet and made literally zero progress.

It may not sound fun but do shit for a reason. Find joy in the basics, that's where 99% of strength is found. The bells and whistles are the 1%.

OK, our final question here.... In regards to the title of this Performance Discussion, Bands, Whips and Chains, I know everyone is probably wondering where "whips" come into play in a weight room setting. Answer – Sadistic torture! Haha.. Jokes aside, one "whip" like training tool that has risen in popularity is "battle ropes". Do you feel there is a use for battle ropes in a gym/training type setting or are they just a "trendy" product marketed by those looking to make \$\$\$?

I like whips. My lifters tend to like me to smack them and punch them to get them fired up a meets I hope to one day graduate to whips.

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Figure 2. Jude Howe on the battle ropes

I think battles ropes are good. I think they could be shit if used incorrectly and lead to shoulder injury. At the same time however if one comes in and rather than going balls out, actually takes there time I think they can really aid shoulder integrity. Help to build a ton of the supporting musculature, and get a nice bit of conditioning. I think if you are looking at them as more than an assistance exercise you are poorly mistaken, but they have their place. In the same token, so do the good old light Y's T's and A's that are great but no one likes to do. If I can disguise these in something that's

looks and sounds HARDCORE, I can then get my lifters to do them more and not bitch and yawn.

Once again, it's a pleasure to have Phil as part of the CasePerformance team. As you can see, he doesn't beat around the bush and is quite knowledgeable in the iron game. If you would like to train in person with Phil, be sure to contact him at the Strength Guild:

2800 NE center Topeka, KS 66616

Phone - 707-567-6952

Or if you're not able to train in person with Phil, you can do distance consults with him via our strength consults services at CasePerformance.

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### V. SuppVersity Corner Report!



<u>SuppVersity</u> is one of my favorite sites. It's run by my friend <u>Adel Moussa</u>. One of the things we do on the CasePerformance <u>FACEBOOK</u> page is highlight one of their excellent posts each week. Here they are for the past month...

#### Week of Sept 29<sup>th</sup>- Oct 5<sup>th</sup>

Low Sodium Intake for Athletes? Good for Your Health, or Ergolytic Bogus & Hazardous Bullshit? 30g/Day Sodium Loss in "Hard Sweating" Athletes Speak for Themselves

#### CP Quick Thoughts

Here is a great article for those of you concerned that one of my top supp recommendations, Sodium Bicarbonate, aka baking soda, will cause great harm to your health due to its sodium content. Using a reference individual of 175 lbs/79 kg, you can still hit 200 mg/kg recommendation by taking 15.8 grams (spread over the course of the day), which equates to a sodium content of 4.3g.

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#### Week of October 6<sup>th</sup>-12<sup>th</sup>

Thyroid Issues? Low Energy Intake Triggers Low T3 / High rT3 Syndrome in Exercising Women >19kcal/kg LBM Avail. Energy Required. Low Carbing **Worsens the Impact of ED** 

#### CP Quick Thoughts

Well, I specifically highlighted "worsens the impact of ED" in the above, because, although I don't think Adel intended it this way, the first thing that "popped' into my mind (pun intended) was erectile dysfunction. Although I don't think low carbing worsens the impact of ED, a very low kcal diet (brought on by people foolishly confusing "low carb" with only protein and no fat) will definitely lead to erectile issues if carried out too long.

Switching gears here slightly.... What's the best way to treat a burned out thyroid? Easy - prevent it from happening in the first place by ensuring that you're hitting your kcal/carb needs!!!

#### Week of October 13<sup>th</sup>-19<sup>th</sup>

Sodium Bicarbonate (NaHCO3) Increases PGC1-A & Speeds Up Mitochondrial Adaptation -HIT + Bicarb = Perfect Match

#### CP Quick Thoughts

For those who know me, it should be no surprise that I once again have a Baking Soda (Sodium Bicarbonate) study highlighted this week. I love this stuff – See my SuppVersity post of the week for September 29<sup>th</sup>- October 5<sup>th</sup>! And no, despite <u>Adel's comments</u> on the CP Facebook page, my primary reason for choosing this article had nothing to do with a brunette as the cover image ;-)!

One thing I'll mention for "added" discussion purposes beyond what Adel has in the article.... If you're taking this pre-workout for the boost, time it such that the dose is ingested ~ 60 minutes prior to your first WORK SET (ie – not warm-up, etc) as it takes this long for it to reach peak blood concentrations. I often find that many people will take it 25 minutes b/f the start of their workout, do a 5-10 minute warm-up, and then not experience much benefit during their main lifts. Why aren't they experiencing the benefit? More than likely b/c the NaHCO3 hasn't peaked in their blood till they're towards the middle-end of their workout .... No wonder they report that their calf raises to finish the session off felt so good!

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#### Week of October 20<sup>th</sup>- October 26th

Cumin as a Weight Loss Aid: 26% Greater Reduction in Waist Circumference, 32% More Body Fat Lost, Increased Conservation of Lean Mass in 88 Dieting Women

#### CP Quick Thoughts

This was the first time I had heard of cumin being used as a weight loss aid. However, as this study shows, simply eating in a kcal deficit will assist weight loss – a fact of much greater importance than "Supplement X,Y, Z will thin your waist!"

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That wraps up this CasePerformance newsletter. Thanks for being a part of the team. We look forward to hearing your feedback on anything and everything so drop us a note on **FACEBOOK**.

And as always... Train smart, train hard and leave the excuses to someone else!

Sincerely,

The CasePerformance Team