

Advanced Leg Training: Stage 4

by Ian King | Fri, Mar 30, 2001

Bring the Pain, Part V Advanced Leg Training, Stage 4 by Ian King This is the fourth and final stage of Ian's new leg training program and will cover weeks ten through twelve. Remember, Ian suggests you go through his basic "Limping" program before you attempt this more advanced version. Links to the "Limping" series can be found in our FAQ section. This is the final stage, the period where those who've played by the rules...

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This is the final stage, the period where those who've played by the rules are going to see the rewards! Expect personal bests in this phase!

I spent some time discussing recovery weeks during the last installment and gave some extra hints on how to manage this. I trust that you made a smart decision. If you have, you'll definitely see some amazing lifts in this stage, because this one is about really lifting heavy.

In the few years I've been writing for *T-mag*, I've made an effort to stress that load isn't everything, and that technique and recruitment patterns should be stressed first as a priority. Now if you've done this, then I replace loading as the priority. This is not at the expense of technique, but if I'm ever going to allow some drift from optimal technique, it'll be in this phase. If some technical breakdown occurs, we place special focus in the start of our next phase on re-correcting the lift and joint angle at which breakdown may occur. This continual re-adjustment of techniques reduces the likelihood or need for your spotter to be running around the gym trying to catch your exploding vertebra in a garbage bin before they hit the ground!

Perhaps the most important issues I can address in advance of this phase is the concept of *arousal*. (Keep your mind out of the gutter here, people!) Maximal load lifting is as much about the psychology as it is about the physiology. If you get under a max load with a low focus and low level of arousal, in most cases you'll get buried. There may be some rare individuals who are exceptions to this, but chances are you'll benefit from learning some techniques to ensure the level of arousal meets the demands of the load.

Now I'm not talking about the jokers that scream and carry on, look around the gym to count how many people are watching, and then proceed to do another thirteen reps! Having said

that, if the arousal technique you've mastered is a noisy one then that's okay. But this isn't about noise pollution. This is about whether the technique you use is for show or go. Obviously, I like the ones that are functional.

I'm going to give you some tips on how to match your level of arousal to the load. I'm not saying you need to use any or all of them, but it may provide some guidance for those who recognize that this is an area on which they could improve. What I'm sharing with you isn't out of a sports psychology textbook, but rather methods I've observed and used personally and professionally.

1) Visualization

There's a concept in lifting that goes like this: The outcome of a set is determined before it's begun. What's meant here is the state of mind that exists immediately prior to the set may have a huge bearing on the outcome. If you're thinking, "I hope I can get this" you probably won't. If you're thinking, "I wonder if the spotters are going to be quick enough?" they'll probably be needed.

But if you're thinking about how you're going to *successfully* complete the set or rep, running this through your mind in a positive and determined manner, you'll probably do just that. This mind state has to be very strong and firm. If there's any weakening of this resolve, even just for a second, in the lead-up to the set, you'll miss the lift!

Most heavy lifting in gymnasiums is done on the basis of wishful thinking. At least this is my observation. I suspect that many load the bar up beyond their expectation of themselves, knowing they'll fail, but happy in the thought of what an impact it will make when people see the amount of weight on the bar (forget about the minor detail of whether they can actually lift it). Consequently, most bench exercises become high-load upright rows for the spotter!

If you've had this pattern of behavior, you're going to have to work especially hard to adapt a new approach, an approach similar to the one I've described!

2) Imagery

In addition to "seeing" the lift being successfully completed, there are many other techniques you can use to get yourself up there and "in the zone." One of my favorites is to picture someone who you really want to out lift, seeing them lift a weight like this, and being driven by a strong desire to best them. Even though they aren't likely to be in your presence, use an image of them to provide extra motivation to exceed them. Exceeding them begins with the bar right there in front of you!

Now, of course, this technique is used by most competitive athletes in any sporting endeavor, but why not you too? It doesn't even have to be someone you know personally. It may not even be about the respective strength levels. It may be about a person whose picture you're familiar with and whose physical attributes you aspire to.

You just need to find a reason to do it. Your body is naturally protective, homeostatic, resisting stresses and change. You're about to go and stress it! You need to remove or elevate

the natural inhibitory or protective mechanisms. Even if it just means thinking of an event or person who pissed you off that day! Whatever it takes!

3) Body temperature

When you complete a lift and go into the rest period, your body initially elevates in function (heart rate, respiratory etc.), and then lowers. Most of the rest periods you'll use in maximal strength training will be in the three to seven minute range. You can get pretty cold in this time. Getting cold makes it harder to attain optimal arousal and may also have a negative impact on neuromuscular function.

To avoid this, here's what I recommend. Immediately following a max strength set, walk slowly around the gym to accelerate recovery. Then sit down and place a towel around your shoulders. Whether you use more (like wearing track pants) and how big the towel should be, will be influenced by room temperature.

The advantage is not just in maintaining a body temperature more suited to performance; there's an added bonus. The towel should not come off until the last thing. At this time, there will be a "shock" effect as the room temperature and air meet the skin. Your body temperature, due to the use of the towel, may be higher than room temperature. The air feels colder when the towel comes off and this invokes the "fight or flight" autonomic response. Put simply, it jars you into action even further!

4) Rest period length and content

In max strength training you'll want a very long rest period. This presents a number of challenges, including management of temperature and focus. The plan I recommend has eight phases. These phases are designed to manage optimally the challenges that arise from longer rest periods. These phases include:

- Recover: As I mentioned above, walk around after the set you've just completed to aid and accelerate recovery. It's not a race or a "power walk"; just locomote at a pace you feel comfortable. I expect 30 seconds to one minute is adequate. This isn't an aerobic session!
- Get feedback: Assuming you have spotters working with you (which I hope is the case!), time to get their feedback. Here's an important tip. Ask them what they thought *before* you tell them what you thought! And don't intimidate them into saying what they think you want to hear. In other words, if you have a desire to rip your buddy's head off and use it as a chalk bowl, get his feedback first!
- Replenish: Take the steps to replenish. Sip from your drink bottle, get another bite on that appropriate food, and reinsert the IV drip. (Just joking on the last one.)
- Decide on next load: By now you'll have had time to think about the load for the next set. I hope you had a plan before you started, but I also hope you approach load selection as a flexible issue, one to be influenced by the outcomes of the day. I'd imagine you may need to consult your training log again and perhaps enter in the load for the next set now, not the

reps, just the load, a little trick I use. I feel if I write the reps in before I do the set, I think I've done the effort. I have to earn those reps before they get entered into my training log!

- **Prepare equipment:** This is critical because you don't want to be adjusting equipment at the last minute. Or worse still, you don't want to be going into the set with an incorrect load! Make sure the rack height is good, the correct weight is loaded, the position of the bar on the racks is symmetrical etc.
- **Recuperate:** Now it's time to sit down, put the towel on and do nothing. Don't let the mind wander too far here, but don't get too hyped up. Relax, but stay close mentally.
- **Refocus:** Now is the time to take the arousal level back up to optimal. Allow whatever time it takes; use whatever techniques work. The towel stays on. The rest periods in stage four can get very long (up to seven minutes) so this ability to refocus is paramount.
- **Approach:** Only approach the bar once the arousal levels and focus/determination is optimal! The towel comes off in the approach. Use the same direction and number of steps in the approach to the bar.

Now you may feel that these techniques are in the domain of competitive lifters and may not apply to you. Yes, competitive lifters master them, but why can't you use them too in the max strength phases of your program, irrespective of your training goal?

By now it should be clear that stage four is a maximal strength phase. We're going to continue the quad dominant approach from stage three, meaning that quad dominant exercises will occur first in the training week. Irrespective of whether you're following the linear periodization plan or the alternating periodization plan, you'll be going lower in reps.

The number of exercises per workout is less in this stage and, in fact, is only one! You probably think I need to be committed! Just do it and we can chew the fat after you have experience on your side, not just a theory!

Finally, when you see the remaining programs to be released later in the year (that can be performed concurrently with this leg program), you'll see that the leg workouts have been changed from the first and third workout of the week in stages one and two, to being the second and fourth workouts of the week in stage four. So I've named them B and D workouts.

Don't forget, this new Bring the Pain series is based around you being able to manipulate the six variables outlined in **part one**. So if you've just discovered this series of articles, be sure you go back and read it.

Enough talk! Let's do it!

Stage 4 Lower body (Weeks 7-8 or 10-12 or 13-16)

B Workout

Warm up: 10 minutes of light aerobic, compulsory 20 to 30 minutes of lower body stretching.

B — Hypertrophy/Lower Training Age Option

Squat, LB/M-WS

Warm-up: 1 x 10, 1 x 8, 1 x 6, 1 x 4 (last set optional)

Sets: 4 x 4, 1 x 10-12, 1 x 15-20 (The latter two being "back-off" sets.)

Speed: 201

Rest: 4-5 minutes

Note: Step load the 4 x 4 work sets

B — Hypertrophy-Neural/Intermediate Training Age Option

Squat, LB/M-WS

Warm-up: 1 x 10, 1 x 8, 1 x 5, 1 x 3 (last set optional)

Sets: 4 x 3, 1 x 6-8, 1 x 10-15 (The latter two being "back-off" sets.)

Speed: 201

Rest: 5-6 minutes

Note: Wave load the 4 x 3 work sets

B — Neural/Advanced Training Age Option

Squat, LB/M-WS

Warm-up: 1 x 10, 1 x 8, 1 x 5, 1 x 3 (last set optional)

Sets: 4 x 2, 1 x 4-6, 1 x 8-12 (The latter two being "back-off" sets.)

Speed: 201

Rest: 6-7 minutes

Note: Wave load the 4 x 2 work sets

Here's a description of the exercises involved so far. Note that the 4 x 4 or 4 x 3 or 4 x 2 loading model is used in this phase. These are conducted in step loaded fashion in the hypertrophy/less experienced option, and as wave loading in the latter two options. In step loading, you go a bit heavier in each subsequent work set on that day. In wave loading, you go heavier and lighter in that sequence.

Here's an example of step loading :

Sample loading pattern in week 1 for the 4x4 step load method:

1x 4 @ 100 kgs (220 lbs) , 1 x 4 @ 105 kgs (231 lbs), 1x 4 @ 110 kgs (242 lbs), 1x 4 @ 115kgs (253 lbs)

Sample loading pattern in week 2 for the 4x4 step load method:

1x 4 @ 105 kgs (231 lbs), 1 x 4 @ 110 kgs (242 lbs), 1x 4 @ 115 kgs (253 lbs), 1x 4 @ 120kgs (264 lbs)

I stress you shouldn't be going to your 4RM max in the first set! Rather, as the sets progress, you may be getting closer to this. Inappropriate, early-set excessive fatigue will prevent you from going heavier in each subsequent set, and this is an important point.

Here's an example of wave loading:

Sample loading pattern in week 1 for the 4x3 wave load method:

1x 3 @ 120 kgs (264 lbs), 1 x 3 @ 130 kgs (286 lbs), 1x 3 @ 125 kgs (275 lbs), 1x 4 @ 135kgs (297 lbs)

Sample loading pattern in week 2 for the 4x3 wave load method:

1x 3 @ 125 kgs (275 lbs), 1 x 3 @ 135 kgs (297 lbs), 1x 3 @ 130 kgs (286 lbs), 1x 4 @ 140kgs (308 lbs)

Of course, if there's a third week, the same technique applies but the increments don't need to be as high. The key is in selecting the correct weight. I strongly discourage going too close to maximum too early or you may find in the subsequent set you're not able to achieve the target reps with a slightly heavier load.

Squat, LB/M-WS (low bar, medium to wide stance): Place the bar at a "low bar" height on the shoulders behind the head. Remember, low bar means it would fall off if it were any lower.

When you step backwards out of the racks, assume a medium to wide stance (shoulder width or just outside). I prefer a shoulder width stance for running sport athletes and those concerned with hypertrophy of the legs, but those pursuing loading-only may take a wider stance if they wish. Make sure you confirm your stance in the warm up sets and don't do it any differently during the work sets!

If you plan to compete in squatting or deadlifting, now may be the time to use all the powerlifting apparatus you're allowed to wear in competition. If you used a 4" belt in stage three, consider the 6" belt in stage four. If you didn't wear a belt in stage three, only consider the 4" belt now.

Same applies to knee wraps. If you plan to compete in powerlifting, break out all the lifting apparatus you're allowed to wear in competition. As with the belt, this should be more of a consideration for the neural/advanced lifter than the hypertrophy/beginner program option. Remember, neither belts or knee wraps are required, but they are options. As always, I do recommend wearing non-supportive neoprene knee sleeves.

D Workout (2nd leg day of the week)

Warm up: 10 minutes of light aerobic, compulsory 20 to 30 minutes of lower body stretching.

D — Hypertrophy/Lower Training Age Option

Deadlift, RG

Warm-up: 1 x 10, 1 x 8, 1 x 6, 1 x 4 (last set optional)

Sets: 4 x 4, 1 x 10-12, 1 x 15-20 (The latter two being "back-off" sets.)

Speed: 201

Rest: 4-5 minutes

Note: Step load the 4 x 4 work sets

D — Hypertrophy-neural/Intermediate Training Age Option

Deadlift, RG

Warm-up: 1 x 10, 1 x 8, 1 x 5, 1 x 3 (last set optional)

Sets: 4 x 3, 1 x 6-8, 1 x 10-15 (The latter two being "back-off" sets.)

Speed: 201

Rest: 5-6 minutes

Note: Wave load the 4 x 3 work sets

D — Neural/Advanced Training Age Option

Deadlift, RG

Warm-up: 1 x 10, 1 x 8, 1 x 5, 1 x 3 (last set optional)

Sets: 4 x 2, 1 x 4-6, 1 x 8-12 (The latter two being "back-off" sets.)

Speed: 201

Rest: 6-7 minutes

Note: Wave load the 4 x 2 work sets

Note that the 4 x 4 or 4 x 3 or 4 x 2 loading model is used in this phase. These are conducted as step loading in the hypertrophy/less experienced option, and as wave loading in the latter two options.

Deadlift, RG (reverse grip): Use a medium (just outside your legs), reverse grip (palms facing different directions). Note I want you all to use a reverse grip in this phase. If you're unsure which hand should face forward and which hand should face backwards, experiment until comfortable. I strongly recommend you don't change over during the work sets. Stay with the combination you used in the warm up sets. There's injury potential in not respecting this suggestion.

The use of chalk to increase grip retention is critical. I'd only recommend wrist straps (that anchor your grip to the bar) as a last option.

The question of whether to use a belt will also come up in relation to this lift. I answer it in the same way I did for the squat. If you plan to compete in squatting or deadlifting, now may be the time to use all the powerlifting apparatus you're allowed to wear in competition. If you used a 4" belt in stage three, consider the 6" belt in stage four. If you didn't wear a belt in stage three, only consider the 4" belt now.

Conclusion

So it's a bit weird doing only one exercise in the whole workout, eh? Tell you what, I'm not too interested in hearing about it before you do it. Discussing it afterward gives me a lot more confidence that you're coming from a position of personal experience, not a theoretical perspective. You may be slightly or extremely surprised as you may really enjoy the adaptations that infrequent or frequent exposure to this type of training gives you!

Now I know I may have sounded a bit mean in the start of the above paragraph, but "analysis by paralysis" is a disease going around in this game like foot and mouth in the Old Dart at present! Sometimes I revert back to my common training statement: "Shut-up and lift!"

Now go. Bring the pain, get buffed, and get strong!

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