Advanced Leg Training: Stage 3
by Ian King | Fri, Mar 09, 2001

Bring the Pain — Part IV Advanced Leg Training — Stage 3 by Ian King This is stage three of a...

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King, I., 2001, Bring the Pain – Advanced Leg Training – Stage 3, t-mag.com, 9 Mar 2001

This is stage three of a four stage leg training program. It will cover weeks seven through nine of the 12 week program. 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.

We're now halfway through the program and by now you should be noticing some changes. Trust me, though, the best is yet to come! Provided you haven't overtrained, you can expect to see even greater results in size and strength in the second half of this four stage program.

I've raised two issues in the first paragraph on which I want to go back and give further details. Firstly my proviso, "…if you haven't overtrained." Let's qualify this. If you've placed your fatigue in a position on the fatigue/recovery curve where you're below homeostasis (the base line) and have been for some time, then you're less likely to experience the increased adaptations available in this second half of this four-stage program. At best, you'll miss only a small percentage of the potential adaptations. At worst, you'll get ill, injured, or just get frustrated and drop out. This isn't good!

So at this halfway point, let's iron this out, not only retrospectively, but looking forward as well. Let's make the decisions now that will ensure you stay on the program and get the maximum benefits out of it. First, should you be taking a rest week now before you get into stage three? Good question.

I hope you've selected a recovery model as outlined in my earlier **article**, but now I'm going to ask you to forget that. Yes, forget your earlier decision! Training is a process, not a prescription. The best approach is to make a plan and modify it daily. So irrespective of what recovery model you initially selected, you must now ask yourself if you should modify it.

How do you know the answer to this question? Here are some helpful questions to ask yourself:

• Did you feel stronger every week?

• Did you remain keen to train every week?

• If your goal was to put on weight, did it happen?

• Are you sleeping well?

• Do you wake up feeling refreshed each morning?

If you answered "yes" to these five simple questions, I assume your recovery is on track. If you even got so much as one "no" to any of the above, review your recovery model and ask the question, "Should I take a recovery week now?" If you answered "no" to four or more of the above, don't even consider training this week!

I find the reluctance people have to take rest days or rest weeks an interesting topic. Once you appreciate the physiological reality that any loss you experience from a rest day or week is quickly reversed and then you're rewarded with even further gains, you'll use them. That's assuming you'll have any losses to begin with. I'm aware of the psychological component of this reluctance, namely fear and anxiety. You think that missing so much as one workout will result in your body deflating like a blow up doll stuck with the wrong pin. Well, get over it!

Learn to make your decisions about training with your rational side and not your emotional side! This is why having a coach with this ability is so good! It allows the athlete to drive their training through their emotions, and it allows another person to make rational decisions based on the athlete's emotional response to the training.

Then there's the other side to the recovery coin. Overtraining isn't simply training too much or too often or with too much intensity. There's also the variable of recovery; you could even call this condition *under-recovery*. So are you doing all you can to enhance your recovery? Recovery methods are under-focused in most strength-training environments and are deserving of a separate article; I can't do justice to them in a paragraph. In the interim, here are some powerful tips:

1) Nutrition: Meal timing (how far apart meals are) may be more important than content. Meal timing relative to post-workout may be one of the more critical of these decisions.

2) Muscle tension manipulation: Techniques to reduce muscle tension such as massage, stretching, alternation of temperature on skin/muscle etc. should be used on a regular basis. Are you using them?

3) Sleep: Are you taking steps to ensure optimal sleep if it's not occurring?

4) Lifestyle: Are you in control of what happens in your day, and have you taken steps to reduce any daily activities or experiences that have a negative impact on recovery, especially stress (physical, mental or emotional)?

The second point I wanted to address was my earlier comment and your possible confusion about gaining size and adding weight. I know what you're thinking: The reps are coming down lower in this program and the textbook says that you'll only put on size in the six to eight rep and above bracket. Well, forget the textbook and listen to your body! I can't tell you precisely why this increase in size is likely to happen in the second stage of the program, but I can hypothesize.

With my unique approach to program design, you have learned to recruit more muscle fiber in the early stages of these programs. Remember when I said you should learn to make a light weight feel heavy and cause fatigue? That is forcing you to increase your recruitment pattern from one perspective. Then we exploit this enhanced recruitment and add to it by forcing

increased recruitment from a loading perspective. Not an exact answer, but a big possibility. In a nutshell, through increased ability to activate all available muscle through retraining in the early stages, we have an increased strength potential and greater size results in the latter stages.

Now what's in store for stage three? We're going to return to a quad dominant program, i.e. quad dominant exercises will occur first in the training week. If you're following the linear periodization plan you'll be going lower in reps. If you're going to work the alternating plan, you'll be using this program after stage one and then doing stage two after this stage (which means you may not have been able to advance too much in the program until getting this stage!) The number of exercises per workout is less in this stage than in stage two and the sequence of exercise in each workout goes from big muscle group to small. There's an eccentric set in all variations (hypertrophy, mixed, and neural).

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. Therefore, I've named them "B" and "D" workouts.

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

Enough talk! Let's do it!

Lower Body
Stage Three — Weeks 7-9

B Workout

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

B — Hypertrophy/Lower Training Age Option

Squat, LB/MS
Warm-up: 1 x 10, 1 x 8, 1 x 6
Sets: 1 x 6, 1 x 5, 1 x 4
Speed: 301*
Rest: 3-4 minutes

1/4 Squat (or box squat), LB/MS
Warm-up: nil
Sets:1-2 x 4
Speed: 201
Rest: 3-4 minutes

Squat, MB/MS
Warm-up: nil
Sets:1 x 10
Speed: 301
Rest:2-3 minutes

Squat, HB/NS
Warm-up: nil
Sets:1 x 15-20
Speed: 301
Rest: 2 minutes

Choose one of the following:

Jump Lunge
Warm-up: 1 x 10 (1 set per leg)
Sets: 1 x 10 (1 set per leg)
Speed:10*
Rest:1-2 minutes

OR

Jump Squat
Warm-up: 1 x 10
Sets:1 x 10
Speed: 10*
Rest:1-2 minutes

B — Hypertrophy-neural/Intermediate Training Age Option

Squat, LB/MS
Warm-up: 1 x 10, 1 x 8, 1 x 5
Sets: 1 x 5, 1 x 4, 1 x 3
Speed: 301
Rest: 4-5 minutes

1/4 Squat (or Box Squat), LB/MS
Warm-up: nil
Sets: 1-2 x 3
Speed: 201
Rest: 4-5 minutes

Squat, MB/MS
Warm-up: nil
Sets:1 x 8
Speed: 301
Rest: 3-4 minutes

Squat, HB/NS
Warm-up: nil

Sets: 1 x 12-15
Speed: 301
Rest: 3 minutes

Choose one of the following:

Jump Lunge
Warm-up: 1 x 8 (1 set per leg)
Sets: 1 x 8 (1 set per leg)
Speed:10*
Rest:2-3 minutes

OR

Jump Squat
Warm-up: 1 x 8
Sets:1 x 8
Speed: 10*
Rest: 2-3 minutes

B — Neural/Advanced Training Age Option

Squat, LB/MS
Warm-up: 1 x 10, 1 x 8, 1 x 5
Sets: 1 x 4, 1 x 3, 1 x 2
Speed: 301
Rest: 5 minutes

1/4 Squat (or Box Squat), LB/MS
Warm-up: nil
Sets:1-2 x 2
Speed: 201
Rest: 5 minutes

Squat, MB/MS
Warm-up: nil
Sets:1 x 5
Speed: 301
Rest: 4-5 minutes

Squat, HB/NB
Warm-up: nil
Sets: 1 x 8
Speed: 301
Rest: 4 minutes

Choose one of the following:

Jump Lunge
Warm-up: 1 x 6 (1 set per leg)

Sets: 1 x 6 (1 set per leg)
Speed: 10*
Rest: 3 minutes

OR

Jump Squat
Warm-up: 1 x 6
Sets: 1 x 6
Speed: 10*
Rest: 3 minutes

Note that the 6/5/4 or 5/4/3 or 4/3/2 loading model is used with the first round of squats. These are called *waves* (or pyramids) and are based on the following concept: As you lower the rep into the next set, you raise the weight. The key is in selecting the correct weight. I strongly discourage going too close to maximum early on or you may find in the subsequent set you're not able to achieve the target reps with a slightly heavier load. The increments from set to set can be considered as percentages rather than a raw score. For example, a 10 kg jump from 6 reps to a 5 rep set may equate to a 1.25 kg jump in a bicep curl, if both were 5% of 100 (squat weight) and 25 kg (bicep curl weight) respectively.

Now, I've added an eccentric set to the entire upper-body program at the end of these single waves. (They're called "single waves" because they're not repeated again in that workout in the same exercise). I know you've yet to see the upper-body program, but I wanted to give the option of incorporating an eccentric set into this lower body program as well.

If you feel you're up to doing eccentric squats, you could do them instead of the 1/2 or box squats that are shown in this program. I believe the number of people who can safely eccentric squat is lower than the number who can say safely eccentric bench, so in the program I've placed an overload movement (1/4 squat, deadlift off blocks) to replace the eccentric lifts in the lower body. Safety is my main concern.

I've included overloads (supramaximal load options) because as one becomes more advanced they're a necessary part of training to exploit your potential. If you do decide to do eccentric squats, I strongly advise they be performed only by intermediate and advanced lifters and only when there are experienced, competent, focused spotters on hand who are physically capable of managing the load. If you have injuries, even slight ones, or are feeling any little niggles in the joints or muscles directly or indirectly involved, then don't do eccentric squats. Bottom line: Eccentric overloads present higher injury risk. Don't do them if in doubt!

If you decide to use them, here are a few examples to use as guidelines:

Sample loading pattern in week 1 for the 6/5/4 + 1 x 6 overload method:

1 x 6 at 100 kg (about 220 pounds)
1 x 5 at 110 kg (about 242 pounds)
1 x 4 at 120 kg (about 264 pounds)
1 x 4 at 140 kg (about 308 pounds)
Then in the next week, see below:

Sample loading pattern in week 2 for the 6/5/4 + 1 x 6 overload method:

1 x 6 at 105 or 110 kg (231 or 242 pounds)
1 x 5 at 115 or 120 kg (253 or 264 pounds)
1 x 4 at 125 or 130 kg (275 or 286 pounds)
1 x 6 at 145 or 150 kg (319 or 330 pounds)

Of course, if there's a third week, the same technique applies but the increments don't need to be as high.

Here are the details of each exercise presented so far:

Squat, LB/MS (low bar, medium stance): Place the bar at "low bar" height on the shoulders. What's low bar? Any lower and it would fall off is one way of describing it! Another is to say a bit lower than the last stage (about 1" lower). Another way is to teach you how to identify three different practical and safe heights for the bar on your upper back. I trust you used the highest position in stage one, the medium position in stage two, and now we're going to use all three in this stage! When you step backward out of the racks, assume a medium stance (shoulder width or just outside).

As the load is being raised even more, the issues of wearing a belt and/or knee wraps will no doubt arise. If you plan to use a heavy or thick powerlifting belt (6") in stage four, I'd suggest going with a light or thin (4") belt in this phase. I'd expect this would apply more to the neural/advanced lifter than the hypertrophy/beginner program option.

The same applies to knee wraps: If you plan on training in stage four with tight knee wraps, keep them loose and pulled easy (i.e., not on maximum tightness) in this phase. As with the belt, this should be more of a consideration for the neural/advanced lifter than the

hypertrophy/beginner program option. I want to make it clear that neither belts nor knee wraps are required, but they're options.

As you probably know by now, I strongly recommend wearing knees sleeves, those neoprene-like knee slips that provide no support or stability, but serve to maintain a higher knee joint temperature during rest periods.

1/4 squat or bench squat: This is here to expose you to supramaximal loading, a method not only appropriate to the more advanced lifter, but a necessity if you're to exploit your strength potential. This lift is a safer option than a full range eccentric squat, but as discussed above, should you feel that you and your spotters are up to doing a full range eccentric squat, you could do that instead of the 1/4 squat.

With the 1/4 squat, using a bench to dictate squat depth is an option. (This is sort of like a box squat in that regard.) However, don't use it for safety if you have a power rack. A power rack with the pin height adjusted to your desired depth would be a better safety option in the absence of spotters.

Don't feel you need to have power racks or a bench to give depth feedback. There are many occasions where I prefer you learn the proprioception of what joint angle you're at with the

use of external feedback. But from a safety perspective, you *must have* either great spotters capable of recovering you and the load involved or a safety rack to exit gracefully and safely from any missed reps.

When doing a limited range squat in the absence of safety rack or bench feedback for height, I strongly recommend using a conservative range to allow you to get a feel for what range you can accommodate with that weight. You're looking to use a load that you could not, at this stage, do a full range squat with. But at the risk of repeating myself and in the interest of safety, use a weight you can come up with from the range involved (1/4 to 1/3 the way down) and complete the desired number of reps!

I've allowed up to two work sets at this lift, but one set will suffice most. If you're going with two sets, you have the option of using step loading, going slightly heavier on the second set.

Squat, MB/MS (medium bar, medium stance): You're going to lower the resistance and do a set with a rep number just above your first work set reps. You're also going to raise the bar back up the upper back/neck to the medium bar position. Now, ideally, if your load selection has been smart and you haven't induced too much fatigue, you may be able to perform the requested reps at a load at or just below the load you used in the first work set. This is despite it being a medium bar position, a potentially weaker squat position.

But don't be discouraged if you can't maintain the exact load as you did in the first work set. If possible, stay fairly close. But forget ideals — use your technical and strength levels as a guide. You must use a load that allows you to maintain technique within the desired parameters. If you haven't had the benefit of me teaching you how to squat personally at a seminar, or seen one of my videos on how to squat (such as the Killer Leg Exercises video available here at *T-mag*) then you'll need to just do your best.

Squat, HB/NS (high bar, narrow stance): Now we're going to go even lighter and place the bar higher, taking a narrower stance. Yes, I've made it harder! And if you were wearing a belt, unless you have some sort of physical dependency, ditch it for this set. Suck the air in deep and just do it! Yes, it's going to hurt doing this high rep set but isn't that self-inflicted pain a beautiful thing!

Jump Lunge or Jump Squat: You have a choice here. One is a bilateral movement, the other is a unilateral movement. There are specific adaptations from either, so just choose one. Don't do both!

The jump lunge is like a dynamic lunge (described in the last stage) but once the back knee is nearly on the ground, you explode up such that you leave the ground and swap the legs — back foot to forward foot and vice versa. When you land on the ground you land in the alternate lunge position and you continue downward until the back knee is almost on the ground.

If you're able to use weight, holding dumbbells to the side or having a bar on your back is your call. You' have the choice of going heavier but slower, or lighter and faster. This is again your decision, influenced mainly by what you want out of it. If you have a speed or power requirement, I'd suggest you go light and fast. Going light may mean as light as bodyweight only. As this is the last exercise, the outcome is one I could watch all day long!

Now for the jump squat. With a very light load (again either dumbbells in the hands or bar on the back), jump as high as you can and upon landing go immediately down, decelerating only enough to avoid painting the floor with your arse, and immediately jump for height. Don't worry too much about loading. The rapid eccentric contraction should be enough to destroy what you have left of leg and hip muscle energy reserves!

D Day (2nd leg day of the week)

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

D - Hypertrophy/Lower Training Age Option

Deadlift, MG/OG
Warm-up: 1 x 10, 1 x 8, 1 x 6
Sets: 1 x 6, 1 x 5, 1 x 4
Speed: 311
Rest: 3-4 minutes

Deadlift, MG/OB
Warm-up: nil or 1 x 4
Sets: 1-2 x 4
Speed: 311
Rest: 3-4 minutes

Deadlift, MG/OG
Warm-up: nil
Sets: 1 x 6-8
Speed: 311
Rest: 2 minutes

Deadlift, MG/OG/SOB
Warm-up: nil or 1 x 6
Sets: 1 x 10
Speed: 311
Rest: 2 minutes

Stiff Leg Deadlift, MG, round over
Warm-up: 1 x 6
Sets: 1 x 10
Speed: 311
Rest: 2 minutes

D — Hypertrophy-neural/Intermediate Training Age Option

Deadlift, MG/OG
Warm-up: 1 x 10, 1 x 8, 1 x 5
Sets: 1 x 5, 1 x 4, 1 x 3
Speed: 311
Rest: 4-5 minutes

Deadlift, MG/OB
Warm-up: nil or 1 x 4
Sets: 1 x 2-3
Speed: 311
Rest: 4-5 minutes

Deadlift, MG/OG
Warm-up: nil
Sets: 1 x 5-8
Speed: 311
Rest: 4 minutes

Deadlift, MG/OG/SOB
Warm-up: nil or 1 x 6
Sets: 1 x 10
Speed: 311
Rest: 3-4 minutes

Stiff Leg Deadlift, MG, round over
Warm-up: 1 x 4
Sets: 1 x 8
Speed: 311
Rest: 3 minutes

D — Neural/Advanced Training Age Option

Deadlift, MG/OG
Warm-up: 1 x 10, 1 x 8, 1 x 6, 1 x 4
Sets: 1 x 4, 1 x 3, 1 x 2
Speed: 311
Rest: 5 minutes

Deadlift, MG/OB
Warm-up: nil or 1 x 2
Sets: 1-2 x 2
Speed: 311
Rest: 5 minutes

Deadlift, MG/OG
Warm-up: nil
Sets: 1 x 4-6
Speed: 311
Rest: 4 minutes

Deadlift, MG/OG/SOB
Warm-up: nil or 1 x 5
Sets: 1 x 5
Speed: 311
Rest: 3-4 minutes

Stiff Leg Deadlift, MG, round over
Warm-up: 1 x 4
Sets: 1 x 6
Speed: 311
Rest: 3 minutes

Here's a description of the exercises involved in D day. Note that the 6/5/4 or 5/4/3 or 4/3/2 loading models as described for B day also apply to D day.

Deadlifts, MG/OG (medium grip, off ground): Using a medium (just outside your legs), palms over grip. It's critical you confirm your technique as per my recommendations. See these **here**.

One of the biggest issues to be raised in this exercise at this stage is whether to use a reverse grip (or mixed grip) where the palms face opposite directions. If you plan to use the reverse grip in stage four, or are a competitive deadlifter, you should consider using it in this stage. You'll want to use chalk to increase grip retention, regardless of gripping style. I'd only recommend wrist straps as a last option. As for belt usage, refer to my answer above in workout B in relation to the squat. The same guidelines apply to the deadlift.

Deadlifts, MG/OB (medium grip, off blocks): This is the overload option for the deadlift providing exposure to supramaximal loads. To perform this lift, I want you to find blocks to place the weights on. Ideally the bar height will be high on the shin, just under the knees. In the absence of specially designed lifting blocks you could place your loaded bar on 20 kg plates laid flat, or even the support bases for the steps in the step classes. (Hey, those things really do have a use!)

There are fewer risks than with the squat overload option, but the obvious concern is the fact you're going to be lifting heavier. You're looking to use a load with which you couldn't do a full range deadlift. It's important you stay in line and tight.

I've allowed up to two work sets at this lift, but one set will suffice most. If you're going with two sets, you have the option of using step loading, going slightly heavier on the second set, just as we did with the squat above. You may feel a little bit awkward at first with this lift as

the higher starting position gives a different feel, which is why a few reps for a warm up set may be appropriate. Not that your body needs a warm up at this stage, but a technical rehearsal may be invaluable.

Deadlift, MG/OG (medium grip, off ground): This set sees the bar (or at least the weight plates) back on the ground.As you did in the squat workout at this stage, you're going to go back down in load and do a set with a rep number just above your first work set reps. To repeat myself, if your load selection has been smart and you haven't induced too much fatigue, you may be able to perform the requested reps at a load at or just below the load you used in the first work set. But don't be discouraged if you can't maintain the exact load as you did in the first work set. If possible, stay fairly close.

Deadlift, MG/SOB (stand on block): This deadlift variation requires you to stand on a block. How high is the block? Based on my guess of most peoples' flexibility and technical ability, the block may be as low as a 20 kg plate on it's side. I'm referring to a plate that is about one to two inches thick. If you're a rare person with better flexibility and technique, go higher. The limitation in height is this: You need to be able to have your feet under the bar in the start! I can't stress this enough- if you can't attain the same starting position (pelvis in line with trunk, shoulder blades retracted, etc.) don't do it! Only go as high as your individual flexibility and technique allow.

Now, raising the body like this reduces the strength potential (and the higher you go the more so). So respect this in your load selection, and place the same expectations of avoiding technical breakdown as you would with any exercise in one of my programs. Don't use a load or a height that denies this technique! If you had to choose between the two, I'd rather you go high and light than low and heavy. (When I'm talking about height differences here I'm only talking a difference of a few inches maximum.)

A belt? Forget about the belt here!

Stiff legged deadlift (medium grip/round over): In this version, the movement starts from the top in a standing position. Hold the bar with a medium grip (grip just outside your legs), bend the knees slightly, but don't allow the knee angle to change during the lift.

As you flex forward at the waist, you can round over in the spine. Since Angel Spassov and a few other visitors popularized the so-called "Bulgarian squat" (a lunge) and the "Romanian deadlift" (a stiff legged deadlift) people have felt obliged to use a chest-up back position on this and similar lifts. Yes, it's okay to round over! We did the chest-up variation last time. It's more isolated and a rounded back is more integrated. I like to use them all!

Go down as far as you can (i.e., as far as your hamstrings and lower back will take you). If you need to, you can stand on a block but not many people are really that flexible!

Conclusion

I notice some readers have a habit of wondering what to do, which way is best, why person "A" recommends something that person "B" doesn't, etc. You can wonder why the sun rises in the east and sets in the west or you can just accept it and work with it. I recommend less thinking and more doing. Who cares what such and such thinks! More importantly, what do *you* think? What affect did it have on you?

Having said that I know some will still be wondering and asking, "Ian, so few exercises, so few sets. What's going on here?" But I suspect those wondering have little background in doing my workouts. Those with more extensive experience in my programs will know better. They'll have the confidence to just do it. Those who have been to a seminar with me will know one of my more common phases to those who ask too many questions during the workout: Shut-up and lift!

I'll be back in a few weeks time to introduce the next stage (stage four) of the lower body program in the "Bring the Pain" series.

* Please refer to our **FAQ** section for an explanation of tempo prescriptions.