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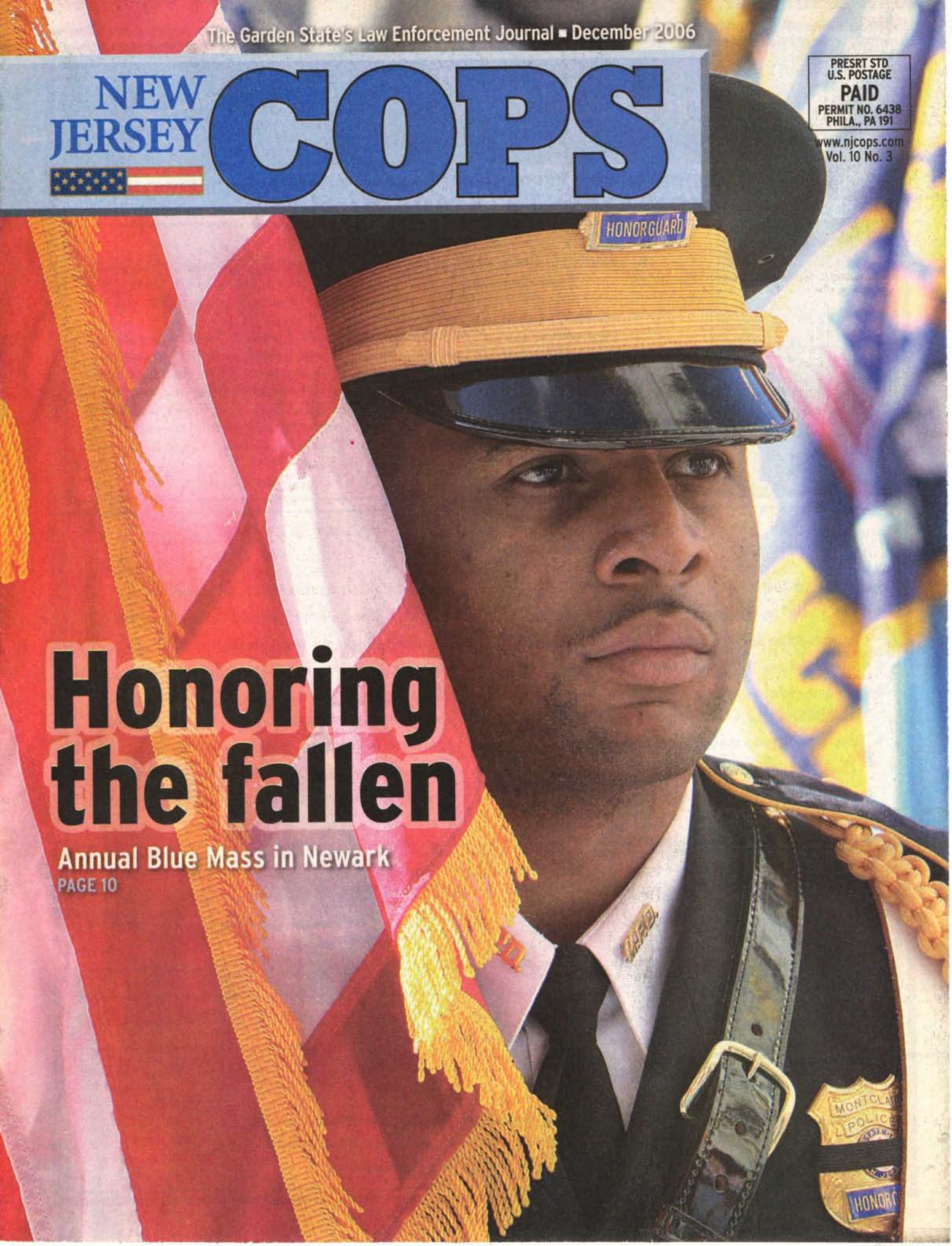

Honoring the fallen

Annual Blue Mass in Newark

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Progression: key training component

BY MATT BRZYCKI

On the way to an October conference with two co-workers, we dropped by the training facility of the Baltimore Ravens in Owings Mills, Maryland. The facility isn't open to the public but I had pre-arranged a tour with the team's strength coach, Jeff Friday, whom I've known for many years.

Matt Brzycki

The exterior of the facility looked like a large mansion on the grounds of a sprawling estate. And the interior gave the same feeling. In a word, it was breathtaking. Clearly, the owners of the team spared no expense in offering the coaches, players and support staff everything imaginable including four practice fields (three outdoor and one indoor), meeting rooms, offices, a media room, basketball and racquetball courts, a cafeteria and, of course, a weight room.

At 10,000 square feet and jam-packed with high-quality equipment, the weight room would leave any fitness enthusiast drooling. Among the extensive arsenal of equipment was 50 thousand dollars worth of custom-made dumbbells. I noticed several things about them. First, they were engraved with the team name and logo. Second, their handles were unusually thick (which makes them easier to balance). Third, the heaviest pair exceeded 150 pounds (which isn't all that uncommon when catering to professional football players who, when compared to the average individual, have almost inhuman levels of size and strength).

But the thing that struck me the most about the dumbbells was that even the heavier pairs were in increments of 2.5 pounds. The availability of dumbbells with which lifters could increase the resistance in such small amounts – or "micro-load" – was a clear statement that progression is a key component of strength training.

THE IMPORTANCE OF PROGRESSION

Unfortunately, little of what's done in most weight rooms can be characterized as "progressive." It's not unusual to hear of someone who performs the same number of repetitions with the same amount of resistance over and over again, workout after workout. Suppose that today you did 10 repetitions with 150 pounds in the seated row and a month later you're still doing 10 repetitions with 150 pounds. Did you increase your strength? Probably not. On the other hand, what if you were able to do 12 repetitions with 165 pounds in that exercise a month later? In this case, you performed 20 percent more repetitions with 10 percent more resistance – excellent progress over the course of one month.

The fact of the matter is that you must challenge your muscles with progressively greater demands. For this reason, your muscles must experience a workload that's increased steadily and systematically throughout the course of your program. In relation to a previous workout, you must try to perform more repetitions with the same resistance or use more resistance. Exposing your muscles to progressively greater demands stimulates them to increase in size and strength in response to the unaccustomed workload.

In a nutshell, you can challenge your muscles in this manner: If you reach muscular fatigue within your prescribed repetition range – say that the range is 15 - 20 and you did 18 repetitions – you should use the same resistance for your next workout but try to improve upon the number of repetitions that you did; if you attain or surpass the maximum number of prescribed repetitions – say that the range is 10 - 15 and you did 15 repetitions – you should increase the resistance for your next workout.

STRATEGIES FOR MAKING PROGRESSIONS

Your progressions in resistance needn't be in Herculean leaps and bounds. You should increase the resistance in an amount with which you're comfortable… but the resistance that you use must always be challenging.

Your muscles will respond better if the progressions in resistance are about 5 percent or less but this depends upon the degree to which the exercise was challenging. Suppose, for example, that an exercise has a repetition range of 15 - 20. If it was extremely difficult for you to do 20 repetitions, then you should make a slightly smaller progression in resistance than if it was fairly easy for you to do 20 repetitions.

So think about progressions in relative terms, not absolute. A 10-pound increase in resistance doesn't sound like much, right? Well, making a 10-pound progression from 200 to 210 pounds is an increase of 5%; making a 10-pound progression from 20 to 30 pounds is an increase of 50%.

When you make smaller progressions, you'll hardly notice the slightly heavier resistance and your repetitions will not decline much if at all. In other words, it's much easier for your muscles to adapt to subtle increases in resistance than larger ones.

Consider this example: Imagine that an exercise has a repetition range of 15 - 20 and you barely managed to do 200/20 (200 pounds/20 repetitions). If you increase the resistance by 10% the next time you do that exercise (that is, to 220 pounds), you'd probably notice the heavier weight and it could result in a "loss" of several repetitions. If you did 16 repetitions with 200 pounds, you must improve the number of repetitions by 25% (from 16 to 20) before you can make your next progression in resistance – which may prove to be a very difficult task.

If, instead, you had increased the resistance by only 2.5 pounds (that is, to 202.5 pounds), it's not likely that you'd detect the slightly heavier weight and you could probably get 202.5/20. Another 2.5-pound increase the next time you do that exercise may result in 205/20. Eventually, you might progress to the point where you were doing 220 pounds for at least 18 or 19 repetitions. So, you made the 20-pound increase in a number of small progressions instead of one large progression and, as a result, you allowed your muscles to adapt gradually to the resistance. And now, you may only need to increase your repetitions by one or two in order to make your next progression in resistance.

This example is hypothetical, of course, but it wouldn't be unusual for this to actually happen. The point is that your muscles will respond better to smaller increases in resistance rather than larger ones.

SPECIFIC TACTICS

Most selectorized machines (those with weight stacks) offer a self-contained system of making smaller progressions

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or "slider weights"). In fact, some selectorized machines enable you to make progressions in as little as one-pound increments. If a selectorized machine doesn't allow you to make smaller progressions, you can place a "saddle plate" (or "add-on weight") on the top plate of the weight stack. Another option is to take an Olympic (barbell) plate and secure it to the weight stack of the machine. (To do this, insert the selector pin through the hole of the Olympic plate and then into one of the plates of the weight stack.) Or you can take a magnetic add-on weight and stick it on the front of the weight stack. Actually, you can make a smaller progression in resistance by placing any object that weighs about one or two pounds on top of the weight stack (as long as it won't fall off while you're using the equipment).

Making smaller progressions with barbells and plate-loaded machines is pretty straightforward: Just use smaller Olympic plates. If smaller plates aren't available, you can simply hang something from the bar (or the movement arm of the machine) such as a light ankle/wrist weight.

That brings us to making progressions with dumbbells. What if you don't have access to custom-made dumbbells that are in smaller increments like those of the Ravens? For one thing, you can stick magnetic add-on weights on the ends of the dumbbells. (These weights can be round or hex to match the shape of the dumbbells.) Another tactic to make smaller progressions with dumbbells is to wear ankle/wrist weights. Think about it: If you use a 25-pound dumbbell while wearing 1.25-pounds of weight around your wrist, it makes for 26.25 pounds of resistance.

THE BOTTOM LINE

If you want to achieve your physical potential, progression is – and will always be – of utmost importance. To recap: You must place a demand on your muscles that's beyond what they're accustomed. If you lifted 200 pounds today for 20 repetitions, then in a subsequent workout you either must attempt to do more repetitions with the same resistance or increase the resistance. And when you make progressions, don't forget to micro-load. Smaller increases in resistance represent a more reasonable – and more manageable – progression.

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Aerobic Training

The notion of progression also applies to your aerobic training. In this case, you can make your workouts progressively more challenging by (1) completing the same distance in a shorter duration; (2) covering a greater distance in the same duration; or (3) maintaining the same pace for a greater distance or duration.

As an example, suppose you cycled 4.0 miles in 20 minutes. In a future workout, you should try to either cycle 4.0 miles in less than 20 minutes, cycle more than 4.0 miles in 20 minutes or cycle at the same pace (12.0 miles per hour) for more than 4.0 miles or more than 20 minutes.