

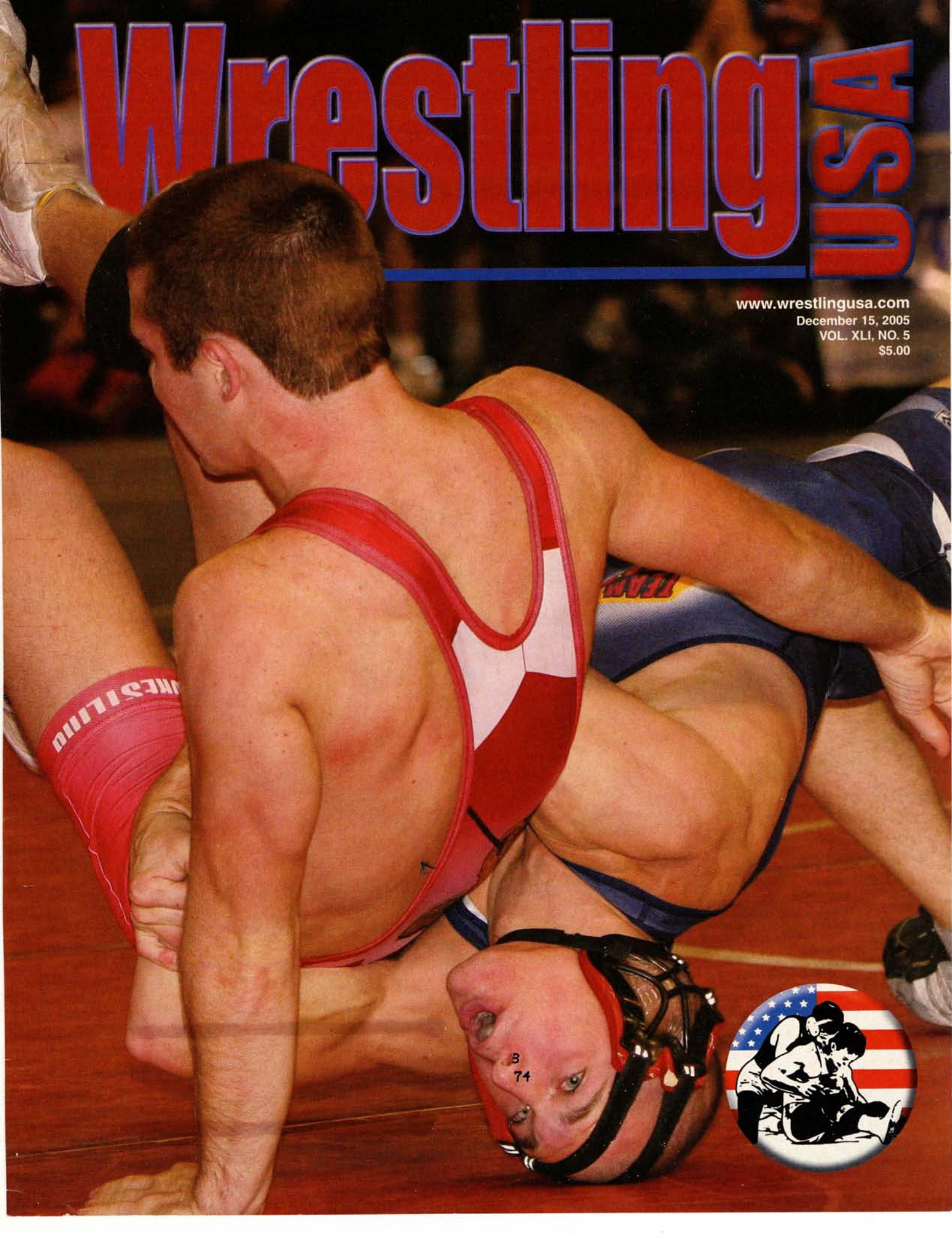
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# Wrestling Camp 2005 Q & A

By Matt Brzycki



**T**he Princeton University Wrestling Camp – directed by Head Coach Michael New – was held from July 5 – 14, 2005. This was the fifth year for the camp and drew more campers than any previous year. On the Tuesday evening of camp week, I spoke to the campers about strength and conditioning for wrestling. A question-and-answer session led to some great discussions. What follows are 10 of the questions that the wrestlers asked about strength and conditioning along with my responses. (In crafting this into the format of an article, I have taken the liberty of including a bit more information than I gave the campers.)

**Q: How much do you need to vary your workouts?**

A: If you are just beginning a strength-training program or have not used one in quite a while, you will be able to do the same routine for a fairly long period of

time. As you become more experienced at lifting, however, you will need to incorporate variety into your program. But even then, your program might not require a dramatic overhaul; rather, it just may need a little variation.

There are a few ways to vary your workouts. One way is to change the order in which you perform your exercises. In training your chest, for example, suppose that you have been doing a bench press with a barbell followed by a bent-arm fly with dumbbells. You can simply switch the order of those two exercises, performing the bent-arm fly first followed by the bench press. This does not sound significant but it is a big change for your muscles. You can also change the equipment that you use. If you have been doing a bench press with a barbell for a while, you can change the equipment and do the bench press with dumbbells or some type of selectorized or plate-loaded machine. Another way to incorporate variety is to do a different exercise altogether that involves the same muscles. For instance, the bench press mainly uses the chest, shoulders and triceps. And so do exercises such as the incline press,

decline press, dip and manual-resistance push-up. Any of these exercises can be substituted for the bench press.

To a large degree, the need for variety is based upon the individual. Some people are bored easily and prefer a program that has a great deal of variability; other people are not bored as easily and prefer a program that has a great deal of stability.

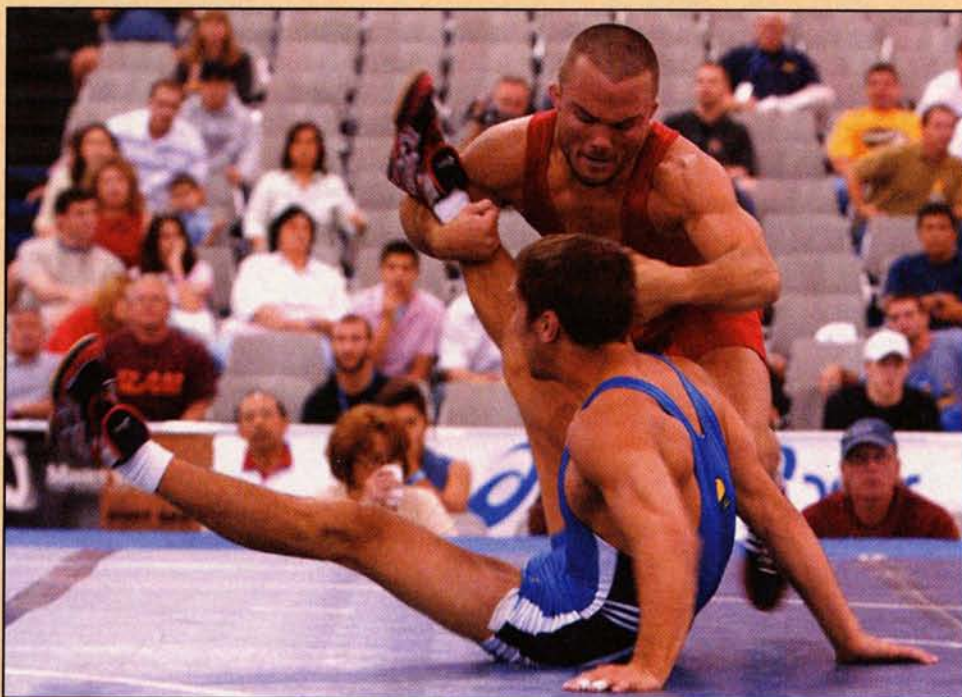
Understand that having too much variety – especially in the early stages of a strength-training program – is not desirable. For one thing, too much variety makes it very difficult to establish baseline levels of resistance. This, of course, makes it difficult to gauge the effectiveness of your program. Having too much variety also complicates the exercise prescription. This can leave an athlete overwhelmed, confused and frustrated.

**Q: Do you need to vary your workouts more because of mental or physical reasons?**

A: Personally, I think that mental reasons are at least as much of a contributing factor as physical reasons. This is particularly true if you are bored with your workouts. After a while, you may dread doing your workouts because it is the “same old thing.” Say that you have been doing the trap-bar deadlift as your hip exercise for months. If you have ever done deadlifts with a trap bar, you know that it is perhaps the most demanding exercise that you can do in the weight room. Doing this exercise for lengthy periods of time may be more of a mental drain than a physical one. If before every workout you say to yourself, “Oh, man, I gotta do deadlifts today,” then it is definitely time to change what you have been doing.

Here again, you can simply perform a different exercise that involves the same muscles. The deadlift uses the hips, quadriceps and hamstrings. Another exercise that works the same muscles is the leg press. Yes, the deadlift also uses the lower back and the leg press does not. But including an exercise in your workout that addresses your lower back – such as a back extension

US National Championships, Las Vegas - Jared Frayer (MA) defeated Eric Larkin (Sunkist Kids) 0-4, 7-2, 1-0. Photo by Rob Preston.



- will solve that problem. Actually, an exercise for the muscles of your lower back should already be in your program.

**Q: Why can you use more weight in the bench press with a barbell than with dumbbells?**

A: This is an interesting question. Both exercises involve the same major muscles, namely the chest, shoulders and triceps. And both exercises are done in the same fashion, meaning that you lie supine on a bench and must straighten your arms. But why are the weights so much different? You might be able to do eight repetitions with 200 pounds using a barbell but you certainly could not do eight repetitions with a 100-pound dumbbell in each hand.

You are not suddenly weaker when you use dumbbells for the bench press. You cannot lift as much weight with the dumbbells because a good bit of your effort is being redirected to balance the weights. In a bench press, a certain amount of effort is required to balance the weight of the barbell but even more effort is required to balance the weight of the dumbbells. Think about it: With dumbbells, the lifter must balance two weights instead of one.

**Q: So if you can use more weight, is it better to do the bench press with a barbell than with dumbbells?**

A: Just because you can lift more weight does not mean that a bench press with a barbell is more effective than a bench press with dumbbells. Your muscles respond to fatigue from some type of resistance or load. The source of the resistance does not matter, whether it is supplied by a barbell, dumbbell, selectorized machine, plate-loaded machine, cinder block, sandbag or human being.

As I said a minute ago, it is more difficult to balance two dumbbells than one barbell. And because of this, you cannot lift as much weight with dumbbells as you can with a barbell. However, dumbbells do offer a few advantages over barbells. In the case of a bench press, for example, dumbbells can provide slightly more range of motion than a barbell. With a barbell, you must stop when the bar touches your chest; with dumbbells, you can get a slightly greater stretch. The biggest advantage of using dumbbells, though, is that they provide an independent workload. By that, I mean that each limb must work independently of the other. This is especially important if you

have a significant muscular imbalance between two limbs. With a barbell, your strong side can compensate for your weak side. But with dumbbells, each limb must pull - or push - its own weight, so to speak.

**Q: If you lift the same weight for the same number of repetitions for a few workouts in a row, is it okay to increase the weight?**

A: Yes and this is actually a good tactic for overcoming a plateau. Consider this example: Suppose that you have been doing the leg press in your workouts and your repetition range for this exercise is 15 - 20. Before you increase the weight, your goal has been to do 20 repetitions. For the last three or four workouts, you did 19 repetitions with 200 pounds. Each time, you trained with a high level of intensity and tried to get that 20th repetition but could not. In your next workout, if you increase the weight just a bit - say, to 202.5 pounds - you will probably still get 19 repetitions. The increase in resistance is relatively small - less than 2% - so your muscles will hardly notice the additional weight. It does not sound like a big deal in terms of progress but the fact is that you did make progress:



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You are now lifting 2.5 pounds more than you did previously for the same number of repetitions. You can continue to employ this tactic in subsequent workouts. So if you do 19 repetitions with 202.5 pounds for several workouts, increase the weight again by a little bit to 205 pounds.

**Q: Should you lift weights when you are sore or wait until it goes away?**

A: Okay, what about muscular soreness? Some people think that soreness is an indication that a workout was productive. Well, just because you are sore does not really mean anything. If someone took a lead pipe and whacked you across the back of your leg, you would surely be sore tomorrow and for quite a few days afterward. But that does not mean that the soreness was the result of something good, does it?

In all likelihood, you will be sore after doing an unfamiliar activity. Suppose that you have not shoveled snow in months but it snowed today and you had to shovel snow for about an hour or two. Well, you will probably be sore tomorrow. You are not sore because you are out of shape; you are sore because you have not shoveled snow in a while.

The same is true of the weight room. Suppose that you have not done the incline press in months but did the exercise today instead of the bench press. You will probably be sore tomorrow. Again, you are not sore because you are out of shape; you are sore because you have not done the incline press in a while.

You also will be sore if you do the same exercise with different equipment. If you usually do a bicep curl with a barbell and switch to a bicep curl with a machine, for example, you will likely be sore the next day.

But getting back to your question, you should work out even if you are sore. Believe it or not, doing a workout will help to alleviate the soreness more quickly than if you skipped a workout. When you exercise a sore muscle, you may not be able to lift as much weight or do as many repetitions as usual but you will be better off in the long run.

**Q: What do you think about pulling sleds and pushing wheelbarrows?**

A: I think that doing those activities is great for conditioning, especially if it involves a series of brief, intense efforts

interspersed with periods of adequate recovery. In other words, you would do something like this: Sprint 20 yards as fast possible, take 15 - 20 seconds of recovery and repeat this 12 times. Do two more series of 12 sprints in the same fashion with a few minutes of recovery between each series.

If you think about it, this type of conditioning is specific to the brief, intense efforts that might occur during a wrestling match. Going for a long-distance run every day is not the best way to prepare for something like a wrestling match. You certainly need to run longer distances to help maintain a desirable bodyweight and build a base of aerobic fitness but you also need to do conditioning that is more specific to what happens on the mat. This means structuring some of your conditioning activities so that they involve brief, intense efforts.

Understand one other point: Pulling sleds and pushing wheelbarrows will not necessarily make you faster. Yes, those activities can improve your conditioning and yes, those activities can increase your muscular strength. But they will not necessarily make you faster at getting from point A to point B. Some of you guys probably play football and if you want to improve your speed in the 40-yard dash, the best way is to do 40-yard dashes.

**Q: Can you do the bench press more than once per week?**

A: Sure, why not? Some programs tell you that you should only do the bench press one time per week. But there is no scientific basis for this. If anything, doing an exercise that infrequently will likely induce muscular soreness every week due to unfamiliarity. How often you perform the bench press – or any other exercise for that matter – is up to you.

By the way, I know that we have been talking a lot about the bench press. Understand that the bench press is a good exercise for strengthening your chest, shoulders and triceps. But it should not have greater importance than other exercises in your workout.

**Q: Should I train each body part one time per week?**

A: You should train each body part 2 - 3 times per week on non-consecutive days. There are numerous body parts that you need to train and if you only train one body

part per day, you will quickly run out of days. Remember, there are only so many days in a week.

**Q: What do you think of static contractions?**

A: Static contractions are the same thing as isometric contractions. An example of a static contraction would be to hold a heavy weight in one position for a designated amount of time without moving it up or down.

The notion of using static contractions has been popularized by Peter Sisco and John Little in their book *Static Contraction Training*. There is no question that you can get stronger by doing static contractions, although not necessarily to the degree that is hyped by their book. According to the cover, you can "gain up to 25 pounds of pure muscle mass in 10 weeks." Most researchers would agree that it is impossible to increase muscle mass that quickly. Do the math: There are about 2,500 calories in a pound of muscle so 25 pounds of muscle has about 62,500 calories. In order to gain 25 pounds of muscle in 10 weeks, this means that a person would have to consume nearly 893 calories per day in excess of their needs. So if you need 3,000 calories per day to maintain your weight, you would need to consume about 3,893 calories per day. And in order to gain 25 pounds of muscle in 10 weeks, you would have to do that every day for 70 consecutive days.

That point aside, using static contractions has several disadvantages. One is that this type of contraction increases your blood pressure beyond what would be normally encountered when doing repetitions in a conventional manner. Another is that static contractions do not involve a full range of motion. Many studies have shown that increases in strength are specific to the joint angle being worked plus or minus a few degrees. If you do limited-range repetitions, then, you will get a limited-range effect. And since static contractions do not involve a full range of motion, your muscles do not get stretched. After a while of doing a program of static contractions, you almost certainly will lose flexibility.

*Editor's Note: Matt Brzycki has authored, co-authored or edited 13 books on strength and fitness including: Wrestling Strength: The Competitive Edge, Wrestling Strength: Prepare to Win and Wrestling Strength: Dare to Excel. The three wrestling books are available at all major bookstores or through Cardinal Publishers Group (800-296-0481).*