STRENGTH TRAINING FOR WRESTLING: BASIC CONCEPTS

Strength and conditioning for the modern athlete is a vital part of the total training regimen, and many of the myths and misperceptions from the past concerning strength training have been dispelled through scientific research. Most coaches are now well aware of the positive effects strength training can have on their athletes. These effects include improvements of the following physical components which will help wrestlers prevent injury and improve performance (ACSM 2000, Brzycki 1995):

- Muscular strength and endurance
- Joint integrity
- Fat-free mass and resting metabolic rate
- Bone mass
- Glucose tolerance
- Musculotendinous integrity

This article will focus on developing a safe and effective strength training program for the wrestler. Conditioning, another vital aspect of training for wrestling, and other considerations, will be addressed in future issues.

Keep in mind, because the grappling athlete must train intensely and often, there are chronic over-use injuries to be aware of, and effective strength and conditioning should be efficient to reduce the risk of overuse injuries. Though physical activity in general is an important element in promoting and maintaining health in the general population, the risk of musculoskeletal injury increases for all levels of participation with increasing physical activity, intensity, and duration (Kovaleski Gurchiek & Pearsall 2001), therefore the supplemental strength and conditioning programs must be well planned to be efficient and effective.
An Efficient Way of Training

It is important to remember that balanced strength training is the goal to develop the body in a structurally sound manner rather than just exercising select muscle groups. So, training the wrestler as one functional unit, focusing on all the major muscle groups should be a priority.

- Neck
- Upper back/trapezius
- Shoulders
- Middle back
- Lower back
- Chest
- Upper Arms
- Forearms/grip
- Abdominals
- Hips
- Thighs
- Lower leg

It is tempting, sometimes, for the wrestler to give more attention to the “mirror” muscles such as the chest or biceps, or to exercises perceived to be more beneficial to sports, but remember to teach your wrestlers that the point of the program is to safely and efficiently work each muscle group to create a more structurally sound athlete. ALL of the major muscle groups are important!

Depending on the acute program variables, targeting every major muscle group in every session may not always be possible, however, balance should be achieved over the course of one to two weeks. A basic and balanced strength training program is listed in Table 2. The athlete performs 1-3 sets of each exercise with each set taken to muscular failure on two to three non-consecutive days/week, such as Monday/Wednesday/Friday or Monday/Thursday. A proper warm-up should always precede the strength training program. A warm-up could be as little as 5-10 minutes at an easy to moderate pace on the stationary bike or the actual wrestling practice session.

The key to improving strength and conditioning specific to any sport is safe and logical progression in the methods and resistance used. Progression is ensured by increasing resistance when the athlete is able to perform more than the prescribed number of repetitions set for each exercise with good form.

Many athletes have experience with split-routine training, where different muscle groups are trained on different days. For example, legs, back and biceps on Monday and Thursday, and chest, shoulders and triceps on Tuesday and Friday. However upper back, chest and shoulders all involve shoulder musculature, and overtraining in the form of rotator cuff strains and tendinitis sets in rapidly when a wrestler is training with a higher volume. Even if you choose to employ a split-routine for your wrestlers, I recommend a day of rest between strength sessions to prevent overtraining. See Tables 3 and 4 (page 12) for sample split routines. The frequency of either program would still be two to three non-consecutive days per week, so day one would be Monday, day two would be a Wednesday and on Friday you would go back to day one's routine. The following week day two would be on Monday and Friday, with day one on Wednesday. You could also split the days on Monday for day one and Thursday for day two, or something similar.
Hey John, I saw some high level MMA athletes who were jumping onto these 3-foot platforms. Some of them were even holding dumbbells dropping down off the platform and immediately jumping up to another platform...

In the field of strength and conditioning this exercise is known as the depth jump, and I knew what was coming next.

"...shouldn't we be doing that?" He asked.

"Do you fight guys while jumping on and off three foot platforms?"

"No, but wouldn't it improve power in my double leg take-down?"

"Absolutely not. Depth jumps might improve lower body strength but we've already got a good lower body training program, Kahl, your body is already taking a pounding on a weekly basis, and you're consistently dealing with minor nagging injuries as it is. Your strength training should be balanced and safe; your metabolic conditioning should be intense and safe; your technique training should be comprehensive. Combining your improvements in strength and conditioning with technique training is what will improve power in any of your techniques."

If you analyze each exercise in these three sample programs, you'll see that each major muscle group is addressed. Many strength and conditioning specialists inadvertently ignore two muscle groups that are essential to address for any wrestler: the external rotators of the rotator cuff and the neck – training of these muscle groups will be addressed in another article.

**In-Season and Off-Season**

During the season, the strength and conditioning program will have to focus more on conditioning to develop strength endurance. The saying, "Fatigue makes cowards of brave men," is attributed to wrestler Karl Gotch, and every grappling athlete must be able to function in states of fatigue and exhaustion. The point to conditioning is to create the worst case metabolic scenario for your wrestlers by increasing lactic acid production. A simple and effective method of doing this is to modify the strength program by decreasing time between sets – essentially turning it into a circuit training program. Other approaches to conditioning will be addressed in future issues of the MR.

**Where's the Fluff?**

Many athletes and strength coaches buy into the belief that the more flamboyant an exercise is the more effective it must be. Trying to balance on a stability ball while performing squats, depth jumps, eye-catching suspension exercises, and fancy (profitable) contraptions are examples. One of the best MMA athletes to come out of Butte, Montana is Kahl Clark. He is a tough young competitor who is always looking for an edge over his competition. The following dialog with Kahl helps to clarify the point.

**Conclusion**

There are many different strength and conditioning approaches to training the grappling athlete. The one common element in all of them is intensity – none of them are easy. This article covered a basic but practical and effective approach to strength and conditioning for the wrestler. The key to developing strength and conditioning specific to wrestling should be safe methods and logical progression – in that order! Do not be fooled by the simplicity of these programs. They will work if the effort is put into them AND the risk of injury is much lower compared to higher volume programs utilizing explosive lifts.

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