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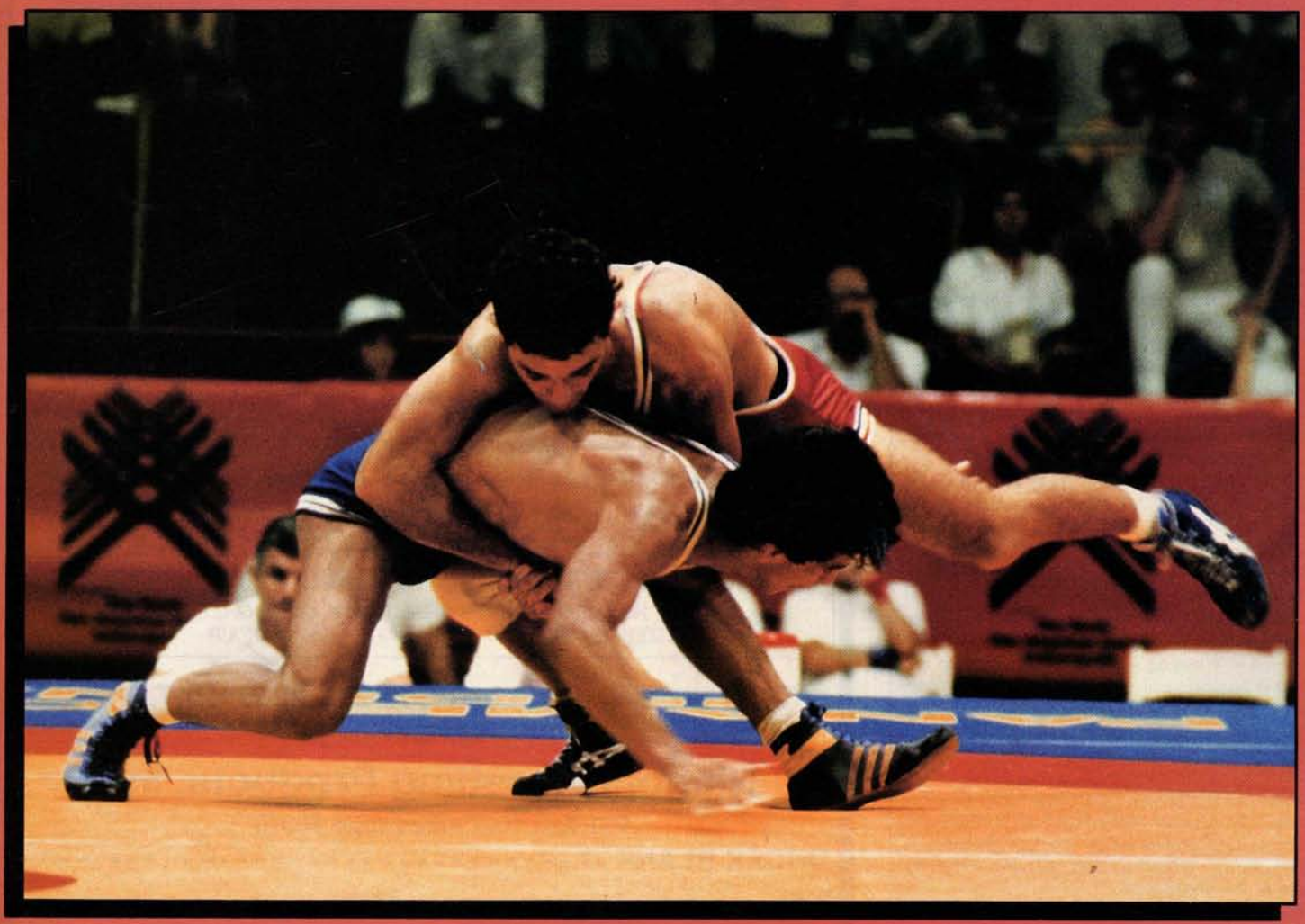
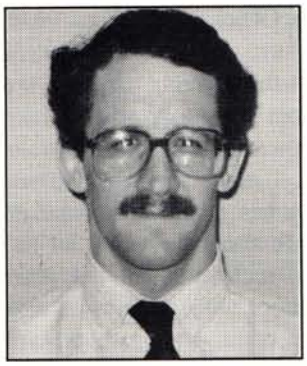
WRESTLING USA

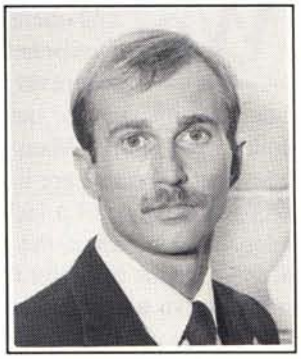


Junior College Review ★
Weight Training & Injury Prevention In The Pre-Adolescent ★
Self-Image And Preformance ★

Coaching Tips

Coaching Tips is a regular feature of Wrestling U.S.A.. It's an opportunity for coaches, trainers, athletes, educators to share some helpful information with readers across the country. Tips, techniques, insights, special training, conditioning and equipment are all good meat for Coaching Tips. Let us know if you have a good idea. Send your articles to Wrestling U.S.A. today.





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With the involvement of pre-high school ages in wrestling, parents, coaches and physicians are concerned

Weight Training and Injury Prevention in the Preadolescent Wrestler

In recent years U.S. sports programs have expanded to include the participation of children at early developmental levels. This is particularly true of the sport of wrestling in which boys six years of age may compete in a day long tournament. With the involvement of pre-high school age or preadolescent boys in wrestling, parents, coaches and physicians are increasingly concerned about the physical limitations and health risks imposed upon their children. Because wrestling will have a profound impact on the physical development of the young participants, several prevalent concerns will be addressed here: the physical stress of lifting an opponent or lifting weights for training and the injuries that occur in wrestling.

WRESTLING REQUIRES MAXIMAL EXERTION

Wrestling is a contact sport that often requires maximal exertion from the participants. Preadolescent males like collegiate and high school wrestlers, are capable of handling such physical stress. There are, however, two physical limitations in the less mature wrestlers. First, the preadolescent has less mature bones than older competitors. There is a possibility, though very small, of damaging growth plates in the bone when lifting a weight or opponent that is too heavy. Second, while preadolescent children can increase strength with training as reported in recent studies, muscle mass development is limited because of low levels of a hormone, testosterone, in the blood. After puberty the body secretes more testosterone which results in muscle development and other adult characteristics.

CONCERN ABOUT CARDIOVASCULAR AND BLOOD PRESSURE

An additional concern for training athletes, whether preadolescent

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Three requirements are necessary for your muscles to increase in size and strength.

Stimulating Muscular Growth

Three requirements are necessary for muscular growth to occur. If these three conditions are met, a muscle will respond by increasing in both size and strength. The degree to which a given muscle will grow then becomes a function of an individual's genetic profile, most notably his insertion points, limb lengths, predominant fiber type and neurological efficiency. Incidentally, genetics are the reason why two individuals can have a different response to training despite using the same strength program.

PROGRESSIVE OVERLOAD

The first requirement is that a stress or a load must be applied to a muscle using some form of resistance. Your muscles don't have eyes and, therefore, don't know what you're lifting. In other words, it doesn't matter whether the resistance is being supplied by a barbell, a machine, a partner or even a cinder block.

What matters, however, is that the load must be great enough to provide a sufficient stimulus for growth to take place. Failure to "overload" a muscle with sufficient stress will result in submaximal gains. Unfortunately, no one knows exactly how much stress is necessary to stimulate growth. The only way you know that a muscle received enough stress is by training with maximal intensity. The following example should make things more clear:

Did you ever have a coach who asked you to wrestle with somewhat less than maximal effort? it's literally impossible to measure any level of effort...except for maximal effort. Let's try to draw a parallel between this situation and strength training. Suppose 85% intensity created adequate stress for a muscle to get stronger. How do you know if you are training with 85% intensity . . . . or 90%

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Stimulating Muscular Growth

intensity . . . or another level? The fact is that the only level of effort that you can measure accurately is 100% or an all-out effort. Therefore, the only way to ensure that your muscles have received an overload is by training with maximal intensity. This is typified by lifting to the point of momentary muscular failure (when no further repetitions are possible).

Lastly, the overload must be progressive. Every workout, your athletes should attempt to perform one more repetition than the last time, use more resistance than the previous session, or both.

ADEQUATE RECOVERY

A second requirement is that your muscles must be allowed to recover from strength workouts. It is during the recovery period that a muscle adapts to the imposed stress. If a strength training program does not provide for adequate recovery, your wrestlers will gradually reach an overtrained state with a resulting loss of size and strength.

Some individuals have a high tolerance for exercise and recover quickly; others have a low tolerance for exercise and recover slowly. You can determine which of your wrestlers has a low tolerance for exercise by monitoring their progress in the weight room. These individuals will need a little more recovery time.

Generally speaking, most individuals require 48-72 hours of recovery time between strength workouts. This means that your wrestlers should strength train 3 times per week (every other day). Their increased activity level from practices will necessitate more recovery time, so during the season you'll need to reduce their sessions in the weight room to twice a week. One workout should come the day after your meet and the next session should be done no sooner than 48 hours before your next meet.

PROPER NOURISHMENT

The last requirement is that the body receive proper nourishment as a fuel for growth. Remember, you can have a car with the most finely-tuned, powerful engine in the world, but it won't respond properly with lousy gasoline.

It should be evident that the strength training of your athletes doesn't have to be complicated. Your wrestlers need to train each set with maximal effort, allow themselves a recovery period and eat properly. In short, for a muscle to get stronger you must stress it, rest it and feed it. The results will speak for itself.

Weight Training Continued

or adult, is the cardiovascular and blood pressure response to lifting weights. High blood pressure resulting from weight training is a fear of some parents and coaches. The National Strength and Conditioning Association reports that incidents of high blood pressure, blackouts and heart beat irregularities are infrequent and have occurred only when maximal lifts were attempted and the athletes held their breath during the lift. When proper programs are implemented weight training has been shown to decrease the blood pressure of adolescents with high blood pressure.

Though it is difficult to establish when a boy is old enough to handle intense physical training, wrestling is ideal for preadolescents from the stand point that boys are required to be of equal size to compete against one another. This provides competition between boys of very similar physical ability and reduces the chance of injury. Nevertheless, strength training programs can be of benefit for the prevention of injury of young wrestlers if these suggestions are followed:

1. Require medical clearance for participant.