

Athletic

Journal

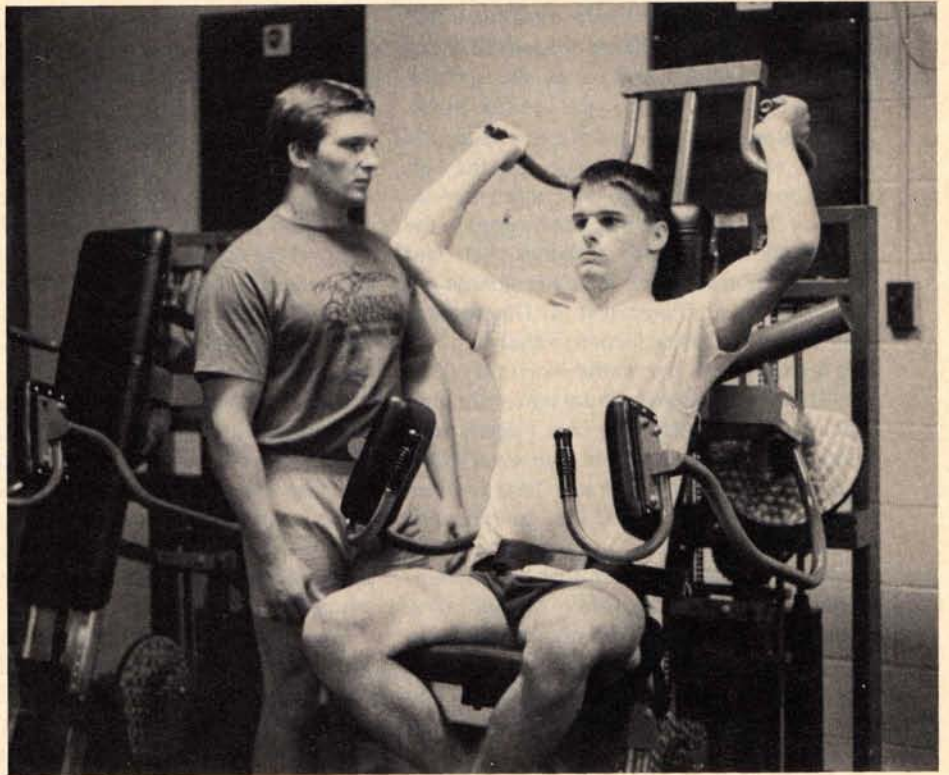
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**Variety in
Training**



Variety in Training

By providing a variety in training, a coach can enhance his athletes' compliance to the strength program and assure continued strength gains.

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The stimulus for muscular growth is best produced by a system based on brief exercise of high intensity which incorporates a progressive overload. In other words, an athlete should attempt to perform one more repetition than last time and/or use more resistance than during the previous session.

Assuming adequate recovery and proper nourishment, one set of each prescribed exercise performed to the point of momentary muscular failure (i.e. when no further movement is possible) will promote maximum possible gains in both size and strength.

Inevitably, an athlete will reach a point in

the course of his training where strength gains have leveled off. Quite often, this is a result of overtraining - the athlete is performing entirely too much work causing his muscular system to be overstressed. In effect, the demands have exceeded his recovery ability. In this case, an athlete needs to reduce the volume of work being done in the weight room.

Sometimes, however, an athlete's strength will plateau due to performing the same routine each session over long periods of time. The workout becomes a form of unproductive labor which is monotonous and dull.

How can a coach prevent this situation from occurring? Quite simply, the answer is to vary the stimulus. A number of ways exist in which a routine may be modified. In some cases, only one or two parts of the workout need to be changed.

REARRANGE THE ORDER

One of the easiest ways to modify a workout is to rearrange the order in which the exercises for a particular body part are performed. Suppose an athlete's shoulder strength reaches a plateau. If the original prescription called for a lateral raise followed by a seated press, the athlete can switch these two movements, performing the seated press first and the lateral raise next.

Remember, when varying the order of exercises, the weights must be adjusted accordingly. Let's say an athlete uses 100 pounds in the lateral raise followed immediately by a seated press using 80 pounds. If the order is changed (i.e. the seated press is done first), his shoulder musculature will be relatively fresh for the seated press and, therefore, he will now be able to handle more resistance. However, he must use less weight in the lateral raise since his deltoids will be more fatigued than usual.

An additional possibility is to exercise the muscle groups in a different sequence. Instead of going from chest to back to shoulders, an athlete might do shoulders, chest, then back. Again, the weights must be adjusted accordingly.

CHANGE THE MODALITY

Another way to vary an athlete's training is to change the modality or equipment used. If an athlete plateaus on the bench press, he can perform the same movement using different equipment. A bench press may be done with a barbell, dumbbells, manual resistance or any of the various bench press machines available on the market. Obviously, the extent to which this is accomplished depends upon the equipment on hand.

ALTERNATE THE EXERCISES

A third means of varying the stimulus is to alternate the exercises which involve the same muscle group(s). For instance, a bench

press, incline press, decline press, dips and manual resistance pushups all work the chest, shoulders and triceps. Therefore, when an athlete peaks in one of these exercises, he can substitute another movement which employs the same musculature. Once again, the availability of equipment will determine how much the exercises may be alternated.

VARY THE STYLE

A final option is to vary the style in which a particular exercise is performed. Leg extensions, for example, may be done at least four different ways. The typical way is to do the exercise using both legs at the same time (bilaterally). In addition, the movement may be done unilaterally (one leg at a time). Leg extensions may also be performed in a "negative only" manner by having a training partner raise the weight and allowing the lifter to lower the weight under control in about 6-8 seconds per repetition. A fourth way is to do the exercise in a "negative accentuated" fashion in which the lifter raises the weight with both legs and lowers the weight with one leg.

Remember, only one set of each prescribed exercise done to the point of muscular failure is necessary to stimulate maximum gains. No more than 14-18 exercises should be performed during any one workout. The routine should take no more than 30-40 minutes to complete. When coupled with rest (48-72 hours between workouts) and nourishment, this stimulus will promote the greatest possible gains within an individual's genetically-imposed limitations. Doing any more than the suggested amount of exercises constitutes overtraining, which will adversely effect the potential results.

Occasionally, the stimulus needs to be changed. At least four ways exist to vary workouts: (1) rearrange the order of exercises; (2) change the modality/equipment; (3) alternate the exercises which involve the same muscle group(s); and (4) vary the style in which an exercise is performed. By providing for variety in training, a coach will enhance his athletes' compliance to the strength program and ensure that their strength gains continue. □

A graduate of Penn State University, Matt Brzycki became the assistant strength coach at Rutgers in September, 1984. A former powerlifter in the 165 lb. class, He served on the health and fitness staff at Princeton University.

