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Column Editor

summary

This column discusses the design and implementation of a circuit-style strength program and includes reasons why providing a time limit on a high school athlete's strength program is important.

Between bells sounding during the school day and whistles blowing during practice, our athlete's day is extremely structured. Why should their time in the weight room be any different?

Providing structure in the weight room should be more than "This is when the weight room will be open. Here's a program. Now have at it."

Given this type of structure, an athlete often may turn a 45-minute workout into a 90-minute workout. Consider an athlete's day:

- 7–8 hours of classes.
- 2–3 hours of practice.
- 1–2 hours of homework.

Designing a Timed Strength Program

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- 1 hour for strength training.
- 8–9 hours of sleep.

That means 19–23 hours of our athlete's day have been scheduled. Having him or her spend twice as much time in the weight room robs the athlete of time that could be spent away from school with family and friends. Utilizing a timed, station-based strength program will allow athletes to be more efficient in the weight room, allowing more time for skill development, homework, family, and friends. Providing this structured strength program will add valuable minutes to our athlete's day. This "time off" during the season may be necessary to prevent burnout.

A circuit program can provide that structured program. Our strength program for athletes is based on a circuit setup. Workouts are conducted on Mondays, Wednesdays, and Fridays. Each athlete completes exercises at 5 different stations. Within each station there can be numerous places to perform the exercises. We have set up 5 substations within each station that, when athletes work in groups of 2 or 3, will allow 50–75 athletes to work out at the same time.

Athletes begin the workout with a short

warm-up of 60 seconds of jumping rope, 15 prisoner squats (squats with hands clasped behind the head), and 15 push-ups at an angle against a wall. This short warm-up increases the heart rate and prepares the large muscle groups for the work ahead. Athletes then have 7 minutes to complete 3 sets of each exercise at each station (reps vary between 3 and 12, depending on the current phase). A coach blows a whistle to indicate when to start each set, as well as when to move to the next station. This provides the minute-by-minute structure many athletes need to get the most out of their workout. The result is a demanding workout that takes approximately 40 minutes.

Circuit programs tend to be perceived more as fitness programs, rather than strength programs. However, a properly designed circuit still can adhere to the science of strength training. During our 10-week circuit, the first 6 weeks of the program use compound sets (see Table 1). This allows about a 30- to 75-second rest between sets, an optimal time for the hypertrophy phase. At times during this part of the cycle, athletes are required to go to fatigue on certain exercises. It is extremely important to be sure that an athlete's technique does not

Table 1
Typical Early Phase Workouts

Week 1	Week 4
<p>Station 1 DB press 3 × 12 Push-ups (3 × fatigue)</p> <p>Station 2 Squat 3 × 12 Single-leg squat (body weight only) 3 × 8</p> <p>Station 3 Assisted pull-ups 3 × 10 Wall fall 3 × 30 s</p> <p>Station 4 90° hamstring activators 3 × 20 Good mornings 3 × 10</p> <p>Station 5 3-way core 3 × 30 s Lying bicycle 3 × 30 s</p>	<p>Station 1 DB incline press 3 × 10 Diamond push-ups 3 × 10</p> <p>Station 2 Front squat 3 × 10 Lunges 3 × 10</p> <p>Station 3 Reverse fly 3 × 10 Upright row 3 × 10</p> <p>Station 4 Single-leg calf raises 3 × 10 Straight leg deadlift 3 × 10</p> <p>Station 5 Cat-camel 3 × 10 s Crunches 3 × 25</p>

Note: DB = dumbbell; wall fall = standing 2 steps from a corner, fall back into the corner, catching yourself with your upper arms, and push to return to the starting position; 3-way core = 30 seconds each of left side bridge, right side bridge and prone bridge on elbows and toes; diamond push-ups = push-ups with thumb and forefinger of left hand touching thumb and forefinger of right hand; cat-camel = on hands and knees arch back up for “cat,” arch back down for “camel.”

Table 2
Typical Late-Phase Workouts

Week 7	Week 9
<p>Station 1 Bench press 3 × 6</p> <p>Station 2 High pull 3 × 6</p> <p>Station 3 Bent-over DB row 3 × 6</p> <p>Station 4 Roman curl negatives 3 × 6</p> <p>Station 5 Barbell twist 3 × 15 Skywalker 3 × 25</p>	<p>Station 1 Push press 3 × 4</p> <p>Station 2 Hang clean 3 × 4</p> <p>Station 3 Weighted pull-ups 3 × 4</p> <p>Station 4 Roman curl negatives 3 × 6</p> <p>Station 5 Knees to chest 3 × 25 Partner core 3 × 30 s</p>

Note: DB = dumbbell; skywalker = lying on back with feet in the air, raise your upper body to touch your fingers to your toes; partner core = same as 3-way core with the addition of a partner pushing down on your hip for each bridge.

break down while working toward fatigue. As the program progresses sets become shorter, due to the decreasing number of reps in each set. As a result,

rest time will increase. This will guide athletes into the strength phase. The final weeks of the circuit eliminate the compound sets (see Table 2). This allows

rest time between sets to increase to at least 2 minutes, ideal for the power phase. The elimination of compound sets should not be confused with the elimination of compound exercises. Compound exercises are essential to building strength and are continued throughout the program. Intensity can be monitored by prescribing a range of reps for each exercise. For example, if 3–5 reps are prescribed and an athlete is able to perform 5 reps, the athlete is told to add weight. If 3 reps are not completed, then the athlete is told to decrease the amount of weight.

This minute-by-minute structure of the circuit has other advantages, as well. There are no athletes continually “maxing out” on lifts. The “How much can you lift?” attitude often discourages those athletes who are not as strong as others from participating in strength training programs. The same attitude also can foster harassment. Athletes now lack the time during the workout to participate in any harassment. Due to the absence of this attitude in the structured program, more athletes feel comfortable working out.

The bottom line is this: the more structure we can provide our athletes, the more they will accomplish in a shorter amount of time. And that time is precious to our athletes. ♦

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