

## PERIODIZED TRAINING AND WHY IT IS IMPORTANT

**Y**ou have the best intentions regarding your workout, but find that your motivation has been sapped.

Lately, no matter how hard or how often you work out, you just can't seem to progress any further. You're stuck on a plateau.

It turns out that the exercise you've been doing has worked so well that your body has adapted to it. You need to "shock" or "surprise" your body a bit. You need to give it a new challenge periodically if you're going to continue to make gains.

That goes for both strength and cardiovascular training. "Periodizing" your training is the key. Instead of doing the same routine month after month, you change your training program at regular intervals or "periods" to keep your body working harder, while still giving it adequate rest.

For example, you can alter your strength-training program by adjusting the following variables:

- The number of repetitions per set, or the number of sets of each exercise
- The amount of resistance used
- The rest period between sets, exercises or training sessions
- The order of the exercises, or the types of exercises
- The speed at which you complete each exercise
- There are many different types of periodized strength-training programs, and many are geared to the strength, power and demands of specific sports. The most commonly used program is one that will move you from low resistance and a high number of repetitions to high resistance and a lower number of repetitions.
- Such a program will allow your muscles to strengthen gradually and is appropriate for anyone interested in general fitness.

### Research Shows Better Results

A frequently cited study conducted at the Human Performance Laboratory at Ball State University has shown that a periodized strength-

training program can produce better results than a non-periodized program. The purpose of the study, which was published in the journal *Medicine & Science in Sports & Exercise* in 2001, was to determine the long-term training adaptations associated with low-volume, circuit-type training vs. periodized, high-volume resistance training in women (volume = total amount of weight lifted during each session).

The 34 women in the study were divided into those two groups, along with a non-exercising control group. Group 1 performed one set of eight to 12 repetitions to muscle failure three days per week for 12 weeks. Group 2 performed two to four sets of three to 15 repetitions, with periodized volume and intensity, four days per week during the 12-week period.

As the chart shows, the periodized group showed more substantial gains in lean muscle, greater reductions in body fat and more substantial strength gains than the non-periodized group after 12 weeks.

### Periodizing Your Cardiovascular Workout

You should also periodize your cardiovascular training for the same reasons—to further challenge your body while still allowing for adequate recovery time.

If, for example, you're a recreational runner, running for fitness, fun and the occasional short race, you'll want to allow for flat, easy runs, as well as some that incorporate hills and others that focus on speed and strength.

What you don't want to do is complete the same run every time. If you run too easily, and don't push yourself, you won't progress. And chances are you'll get bored. Conversely, too much speed or high-intensity training will lead to injury or burnout, and most likely, disap-

pointing race results.

If you are serious about improving your time in a 10K or completing a half marathon or even a full marathon, you'll need a periodized program geared to each type of race. Many such programs are available from local running clubs, in running books and magazines, from some health clubs, as well as on running websites.

Specially designed periodized training programs are also available for cycling and many other sports.

Periodized training will ensure that you continue to make measurable progress, which will keep you energized and interested in reaching your goals.

### Additional Resources

Marx, J.O et al. (2001). Low-volume circuit versus high-volume periodized resistance training in women. *Medicine & Science in Sports & Exercise*, 33, 635-643.

American College of Sports Medicine Position Stand—Progression Models in Resistance Training for Healthy Adults: [www.acsm-msse.org/pt/pt-core/template-journal/msse/media/0202.pdf](http://www.acsm-msse.org/pt/pt-core/template-journal/msse/media/0202.pdf)

American College of Sports Medicine—The Team Physician and Conditioning of Athletes for Sports: A Consensus Statement: [www.acsm.org/AM/Template.cfm?Section=Search&section=Team\\_Physician\\_Consensus\\_Statements&template=/CM/ContentDisplay.cfm&ContentFileID=353](http://www.acsm.org/AM/Template.cfm?Section=Search&section=Team_Physician_Consensus_Statements&template=/CM/ContentDisplay.cfm&ContentFileID=353)

If you are interested in information on other health and fitness topics, contact: American Council on Exercise, 4851 Paramount Drive, San Diego, CA 92123, 800-825-3636; or, go online at [www.acefitness.org](http://www.acefitness.org) and access the complete list of ACE Fit Facts!™

Marker	Periodized	Non-periodized
Lean muscle	+4.6 lb (2.1 kg)	+2.2 lb (1 kg)
Body fat%	-4%	-1.8%
Leg press	+44 lb (20 kg)	+18 lb (8.2 kg)
Bench press	+11.21 lb (5.1 kg)	+6 lb (2.7 kg)



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