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SMART TRAINING, PERIOD...ization!

By Cameron Baker

Can any of you remember a time when Russian athletics were dominating the world of Olympic and professional sports and their finest athletes seemed at times supernatural? For over three decades, Russian athletes spent the majority of their time standing on the winner's podium gazing down on the rest of the world's finest competitors and elite athletes. Yes, there were some Eastern Bloc women who resembled NFL linebackers, and that was not likely natural, but the true explanation is ultimately something called "periodization." Tudor Bompa, who is considered the father of periodization, refined the ideas of Russian sports scientists in the early 1960s. During the 1940s, the Russian scientists tried dividing the training year into different training periods. Previously, the training was to maintain the same constant stresses year round. The new method was to create some periods of training that were easier than the others to promote rest and to let the body grow stronger.

Periodization is most widely used in resistance program design to avoid over-training and to systematically alternate high loads of training with decreased loading phases to improve components of muscular fitness (e.g. strength, strength-speed, and strength-endurance). Its driving force is the S.A.I.D. principle (Specific Adaptation to Imposed Demand), which states that if a person is put under physical stress of varying intensities and duration, the person attempts to overcome the stress by adapting specifically to the imposed demands. The periodization model of training is typically divided up into three types of cycles: microcycles, mesocycles, and macrocycles. A microcycle is generally considered a period of about 1 week. The mesocycle may be anywhere from 2 weeks to a few months and can further be classified into preparation, competition, peaking, and transition phases. The macrocycle refers to the overall training period, typically representing one year.

"Hoping to improve performance with an unchanging training program is like expecting to become a math wizard while working on only the simple equations encountered in first-year algebra." — Owen Anderson

Your body's tendency to merely maintain the status quo means that if you want to improve performance, your workouts must progress to a higher level of difficulty. To progress, you could simply increase your intensity, volume, and/or frequency of training over time. As long as you weren't exceeding your body's ability to adapt, you would steadily get better. The trick would be to avoid exceeding your body's biomechanical and physiological limits; too much stress would actually begin to break your body down, rather than build it up. By using the principles behind periodization, you help keep your body from "guessing" and stay one step ahead. Instead of getting into a long term plateau, every phase will be followed by a short burst of growth and then a leveling off. Long term periodization will lead to better muscle and strength gains. So for those of you "creatures of habit" who are wondering why you haven't seen any substantial improvements in your training lately despite working out religiously, check your program and switch it up...period!

Sample Macro-cycle:

	General Conditioning	Strength	Power	Maintenance	Active Recovery
Sets	2 to 3	2 to 3	3 to 4	1 to 2	1
Reps	8 to 12	6 to 8	3 to 5	6 to 10	10 to 12
Intensity	moderate	high	high	moderate	low
Volume	high	moderate	low	moderate	moderate

Sample Meso-Cycle:

Week or Microcycle (1-10); Percent of 1Rep max

Weeks	1	2	3	4	5	6	7	8	9	10
% of 1 Rep max	70%	75%	80%	65%	85%	75%	80%	85%	70%	90%

Assistant Director of Education and Curriculum Development for ISSA, Cameron Baker has been in the fitness/sport science industry for over 8 years and is an educator, writer, consultant, performance coach and trainer whose educational background includes a Bachelors degree in Kinesiology with an



emphasis in Biomechanics. He is a certified personal trainer with certifications from both the ISSA and the American College of Sports Medicine. He also holds certifications as both a Specialist in Sports Conditioning and a Specialist in Performance Nutrition through the ISSA. Cameron has worked in a variety of different settings, including teaching collegiate courses in strength and conditioning, serving as a personal trainer and strength and conditioning coach for both amateur and elite professional athletes, as well as working as a clinical rehabilitation specialist in an outpatient physical therapy clinic.



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