

Training Smart: Effective Training Design

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The reason for training and its progression: The reason to train is to improve performance by stimulating the body with a 'stressor' i.e. a workout of proper intensity, and then allowing the body to adapt and super-compensate for the preparation of the next application of the stressor or workout. Long term adaptation or improvement manifests itself in 21 to 28 day cycles. Optimally after each 21-28 day cycle an approx. 5-7 day recovery or 'unloading' cycle of 10-20% less intensity should take place before beginning a more intense cycle or training theme.

The importance of rest: Rest is what improves an athletes adaptation to physical demands, not the workout or stressor. If continual stressors are applied to the athlete, the body will eventually fail to adapt, and chances of physical and mental burnout are greatly increased. Rest after an 'intense' workout or competition is especially important as volume and intensity have a direct impact on the speed of recovery and adaptation. The central nervous system recovers 7 times more slowly than a skeletal muscle cell. Use a timeline of 48 hours recovery from an intense workout or competition. (*Ex: after an important Saturday invitational: a hard speed, or intense Monday workout would not be advisable*).

The importance of mapping out a season: Can we drive to New York successfully without a map? Often not. Nor can we successfully map out a successful competitive season to be at our best for the important competitions.

By creating a master plan, and beginning from our most important competition and working backwards, can we begin to develop a calculated strategy to 'peak when it counts'.

Begin with a yearly plan, and then delineate down through phases, mesocycles, microcycles and lastly daily training units. Determine important competitions throughout the year, and manipulate workouts to be at appropriate performance abilities for those competitions.

Using a training progression, begin to build training themes or emphasis for each meso or 21-28 day cycles, culminating with a peak or taper phase where volume is reduced, and intensity increased. From this framework, now construct each weekly or microcycle to incorporate each theme working out each 'energy system' in the appropriate order.

Train with a purpose: Each workout should have a specific purpose in mind for each event group or athlete. If your emphasis is ballistic speed, don't mix energy systems by including long runs or interval distances out of that energy system's realm. Utilize a warm-up sequence with drills to rehearse the skills to be utilized, and whenever the athlete fails to properly execute the desired movement or motor skill, modify the workout rather than continue improperly executed movements. Don't train and ingrain mediocrity...know when to stop, rest, or modify.

Do not train simply to train, train smart and with a purpose!

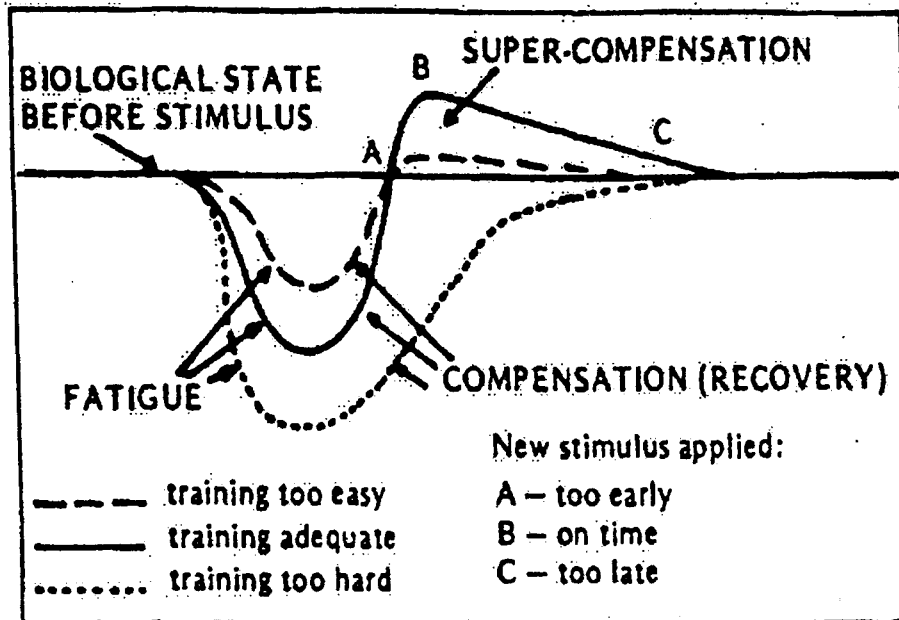
The importance of correct foods after working out to speed recovery: Our bodies have approximately one hour when any carbohydrate or protein rich food eaten will enhance the athletes ability to recover and adapt. During this hour our bodies reload glycogen stores faster than normal to compensate for the stressor applied to the body. Examples would be bagels, raisins, nutrition bars, or diluted sports drinks.

Resources:

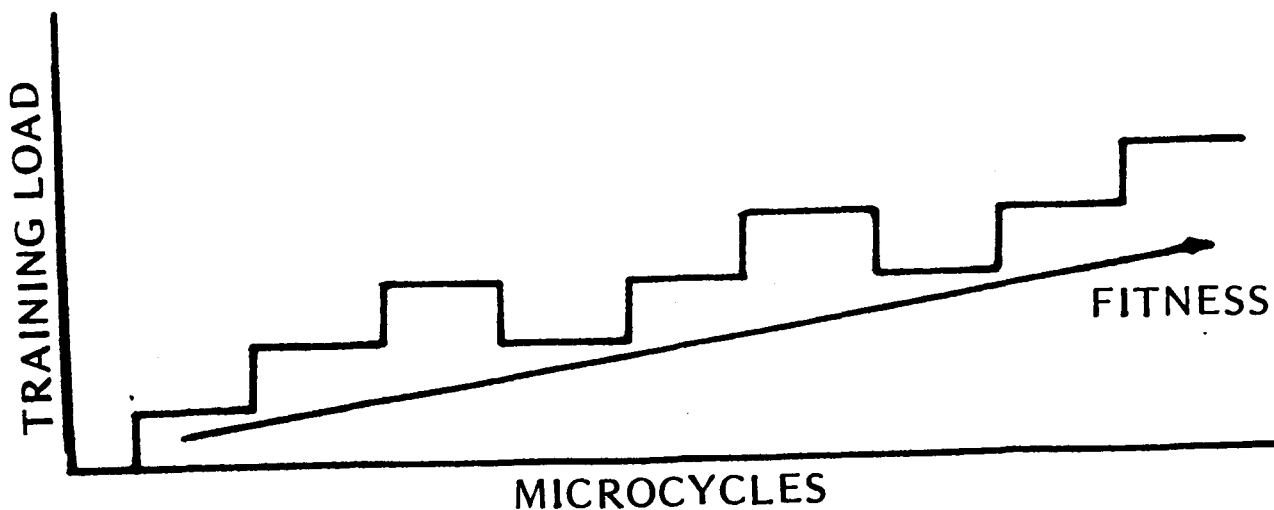
Peak When it Counts by William Freeman, Tafnews press 3rd edition available from T&F News or most equipment catalogues.

Continued on reverse...

The Law of Training Overload: If the training load was optimal, after recovery, the athlete will be more fit as a result adaptation than before the 'stressor' or workout was applied. Recovery, adaptation and super-compensation should occur with-in 36-72 hours after the workout.



Principle of Increasing Demands: You must progressively increase the 'load' or workout volume or intensity for the performance level to improve. The progression can be optimally applied with intermittent recovery or compensation cycles every 21-28 days.



yearly or macrocycle training chart

Year: _____

ANNUAL PLAN		TRAINING OBJECTIVES																																																		
		PERFORMANCE		TESTS / STANDARDS		PHYSICAL	TECHNICAL	TACTICAL	PSYCHOLOGICAL																																											
		Planned	Achieved	Planned	Achieved																																															
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MESO-CYCLE																																																				
EMPHASIS																																																				
MAINTAIN																																																				
Endurance																																																				
Strength																																																				
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Terms: macrocycle = one year
Phase = segment of training emphasis

mesocycle = segment 3-5 weeks
microcycle = 7-10 days

session = one workout

weekly or microcycle training chart

Phase: _____ Mesocycle: _____ Microcycle: _____ Dates: _____ to _____

Theme for week: _____

Competition: _____ at: _____ (developmental: _____ important: _____ focal: _____)

<p>Monday</p>	<p>Tuesday</p>	<p>Wednesday</p>
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<p>Thursday</p>	<p>Friday</p>	<p>Saturday</p>
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<p>Sunday</p>	<p style="text-align: center;"><i>Intensity of Load by Day</i></p> <table border="1"> <thead> <tr> <th></th> <th>M</th> <th>T</th> <th>W</th> <th>T</th> <th>F</th> <th>Sa</th> <th>Su</th> </tr> </thead> <tbody> <tr> <td>Hard</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Med.</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Easy</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>Rest.</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>		M	T	W	T	F	Sa	Su	Hard								Med.								Easy								Rest.								<p>Weekly details:</p>
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Hard																																										
Med.																																										
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Rest.																																										

daily or session training chart

Event Group/Athlete:	Mesocycle #:	Microcycle #:
Day/Date: Goal(s) for Session: Weather:	Comments:	

UNITS

DOSAGE

RESULTS

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