Pete's PETs: Performance Enhancing Tips: The Transition Period – What R & R is required?

Most of you have come home from Sprint National Championships, and have probably prescribed to your athletes to rest and recover, or have told them "I don't want to see you at the club for the next 2-3 weeks". However, do you know exactly what your athletes should be doing while not at the club? How much rest should they have? Should they train? What type of training should they do?

The transition period of the yearly training plan is usually a 3-4 week period where athletes recover from the physical and emotional stress of competing, the year of training, injuries, etc. The transition period is usually divided into two phases – the Rest and Recovery Phase (usually 1 week of total rest), and the Active Recovery Phase, characterized by low intensity, and relatively low volume physical activity. Essentially, the main goal of this period is for your athletes to completely recover from the stress of the season, as well as to maintain an acceptable level of general physical preparation. Rest is necessary to eliminate muscle, neural, physiological and psychological fatigue accumulated through the season. Ultimately, a successfully planned and implemented transition phase by you the coach will have your athletes coming back completely regenerated and ready (hungry) to train again in the fall for the new preparatory phase.

There are plenty of studies that demonstrate the effects of detraining on aerobic power and capacity, as well strength, flexibility and other athletic abilities. Fittingly, the most recent study to be published on the effects of detraining in the transition period was by Spanish researchers (Garcia-Pallares et al., 2010) in *Medicine and Science in sports and Exercise* who examined the effects of detraining on *world-class kayakers* (more specifically, the 2007 - 2008 Spanish Senior National Team – including Olympians). The athletes were divided into two groups. Each group went through a 5 week transition phase, where 1 group completely stopped any form of physical training (CT-group), while another group had a reduction of training (RT-group) as part of their transition phase. As part of their training, the "reduced training" group performed two 40 minute aerobic capacity workouts, and 1 strength training session (3 x 10 reps at 70-75% 1 RM) per week.

One of the major findings of this study was that performing 2 maintenance endurance workouts per week over 5 weeks resulted in a much lower (5.6%) drop in maximal aerobic power versus the CT-Group (11.3% drop). In addition, the 1 strength training session per week in the RT-group also reduced the loss of max strength by more than 50% versus the CT-Group. Another interesting finding from the study was the significant drop in muscle power and neuromuscular function in both groups. The study found that power and neuromuscular

function was lost at a much higher rate than maximal strength; a good indication of the importance of continuing to pay attention to speed (in some capacity) year round.

So, what can your athletes do during this 3-4 week phase? As you can see from the results from this recent study, although some complete recovery is necessary for your athletes, having your athletes be more active in the transition period can ensure they are not losing too much of their fitness during their time off. In order to give your athletes a break from being on the water, perhaps have your athletes run, hike, cycle, mountain bike, swimming, etc. In essence, the transition period should consist of active rest, fun, and general enjoyment physical activity with a change in environment (i.e. – stay away from the club…). This is probably a time for them to not be around the coach, to give them, as well as you the coach a good mental break. In addition, once your athletes have completely recovered from any neural fatigue, perhaps give your athletes the opportunity to do some fun form of speed or power training to prevent a drastic reduction in this athletic ability.

What can you do ***as a coach*** during this phase? Most importantly, ensure you the coach get *your rest and regeneration*. If you can't take care of yourself, who's going to take care of your athletes to prepare for their next stage of their careers? In addition, once you've had the chance to wind down, this is also the time for you to reflect and evaluate on the past years' performances, as well as training programs. Although rest is important, there is definitely a benefit in doing this evaluation earlier than later as the season will hopefully be somewhat fresh in your mind. Taking your reflections and evaluations from the past season, and the goals of the program for the next, it's time to start mapping and planning out your yearly training plan for when your athletes arrive for the first day of fall training.

References:

Bompa, Tudor. *Periodization – Theory and Methodology of Training*. Human Kinetics Publishers, 1999.

Garcia-Pallares, J., Sanchez-Medina, L., Perez, C.E., Izquierdo-Gabarren, M., Izquierdo, M. *Physiological Effects of Tapering and Detraining in World-Class Kayakers.* Medicine and Science in Sports and exercise, Vol. 42, No.6, pp. 1209-1214, 2010. (You can get this article through our SIRC membership.)

Issurin, Vladimir. *Block Periodization – Breakthrough in Sport Training.* Ultimate Athlete Concepts, *2008.*

The Coaches Column, Sept 7th 2010

Great Links:

Canoe-kayak has finally made it to one of my favorite websites – The Science of Sport

http://www.sportsscientists.com/

Check out this post to see Ross Tucker's analysis of the Men's K-1 1000m final at:
http://www.sportsscientists.com/2010/08/delays-and-canoe-sprint-world-champs.html

Ross also blogs about the role of sport science in high performance sport from his reflections from the 2010 Sprint World Championships.

In the next issue:

1) Fall Training and Dynamic Warm-ups
2) CKC Coaches Awards