



NEWSLETTER

**Specialists in Athlete
Development**

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Welcome to our July 2010 newsletter. The aim of our newsletter is to not only keep people informed of recent developments at Movement Dynamics UK, but to continue to provide information to those individuals responsible for the 'practical' implementation of Athlete Development.

Isle of Man

Great place, great people. It is always a pleasure to meet practitioners from the coal-face of performance and the recent visit to the Isle of Man Institute of Sport was no different. Over two days we met and discussed all aspects of Athletic Development. There was an underlying atmosphere of wanting to learn coupled with a real pride in their environment. My thanks go to Chris Quine who organised the complex conference and to all those who have made contact.

There seems to be good opportunity to try some interventions along the entire performance continuum and no better place to start than the schools system with some Physical Competence assessment and '5 in 5' work.

Al Ain FC, UAE

Have started my work with Al Ain FC in the UAE. Staff and players have made me very welcome and we have completed the first round of screening. Michael Dalglish did a sterling job with the muscular-skeletal screening and Mick McDermott put together the Physical Competence screening.

The biggest step forward was integrating all this with the coach's needs. Marco da Cunha is holding the reins at the moment and he seems to understand the link between the Technical, Tactical, Mental and Physical (the four corners of performance). Marco will assemble notes on the player's on-field strengths and weaknesses and we will link these back to the physical components.

By coordinating everyone to the same destination (player welfare and performance) we can not only share the load but also ensure that everything we do is player specific. There are always difficulties when new people introduce new ideas. The key for everyone is to have an open mind regardless of experience, history tradition. The best piece of advice I was ever given was: *'When the best idea isn't yours, the smartest thing to do is to back it to the hilt.'*

**Apprentorship 2010
June 18th – 23rd
Fort Lauderdale**

I thought that it was even better than last year with a host of delegates willing and able to make a contribution. As planned, the course looked at issues across the entire performance and well-being continuum.

I managed to spend additional time with Sam Bradley from the ECB and Chris West from the Northampton Saints who showed great knowledge and enthusiasm for creating a better way for their respective organisations.

The gathering produced many memorable moments and concepts. Greg Thompson introduced us all to the PAT theory (Perspiration Aversion Theory) when he commented on the dire state of modern Physical Education. Frans Bosch introduced the Complexity Theory during his explanation and demonstration of neural learning processes. Jimmy Radcliffe again inspired us with his detail of program assembly for winning. John Perry illustrated Propriobility in a very practical setting.

So many other major contributors to a successful gathering of open minds all led brilliantly by Vern Gambetta. This is a 'must-do' course for all practitioners involved in the performance continuum.

To be able to screen and intervene with a 9.98sec world class 100m sprinter allowed all the delegates the opportunity of seeing Sports Medicine, Sports Science and Athletic Development work cooperatively on behalf of the athlete and coach.

Remember

Gathering information from all screening processes (Biomechanical, Muscular-Skeletal, Physical Competence, Game / Training Analysis) is only 1% of the issue...

The key is: **What do you do next?**

It is still interesting to see the 'How?', 'What?' and 'When?' answers that coaches come up with for the solutions to Athletic Development. I guess the main question to ask is 'where are the players limitations?' In nearly every case the limitations we see are in movements not in individual muscles. Obviously after serious injury there may be some case to focus on individual muscles for a short period of time but for Athletic Development CONNECTION must be prioritised.

The body moves by a series of inter-connecting levers, all moving at just the right time with just the right amount of force in the right direction IN SEQUENCE. Yes – what happens in one part of the body critically affects other parts. Just look at yourself in the mirror – you are not a conglomerate of individual units – you are a whole, dynamic, connected machine so....

....Train that way!

Exercise Selection
Modified and adapted from Vern Gambetta

As a general rule for the Field and Court athlete – if they are sitting down to do the exercise your selection was **WRONG**. The logic is that 'toenails to fingernails' movements more closely reflect the strength demands of the game. Using Lunges, Step Ups and Jumps serve as an injury prevention function to help with the force reduction component of high speed stops.

In many of the machines you are seated. This is a disadvantage in that most sports movements do not occur in this position. The body will not learn to effectively position and reposition its orientation to gravity if the strength training is done in this environment. Even in machines done in standing positions the resistance is guided which allows you to "lean on the machine" for stability. That allows you to "lift more" but it is an artificial environment that does not effectively transfer to unsupported movements.

Most machines only allow movement in one plane, primarily the Sagittal plane yet we already know that function demands movement in all three planes. Most machines isolate, in that they work one joint. This definitely gives a burn, particularly if you train to failure on that particular machine. From the perspective of functionally training an athlete this is not an advantage. It is not about having the athlete feel the burn; the goal is strengthening through the range of the movement, not isolating the muscle, this will better prepare the athlete for the forces that occur in the competitive arena.

Because most machines work one joint in one plane, athletes who primarily train on machines do get "bigger." Isolating out muscle groups and training slowly increases time under tension which stimulates growth. Is this bigger better? This type of lifting compromises overall athleticism in order to increase muscle mass.

We need to train movements not muscles.

Further Comment Regarding the 'Core'

"... all core muscles are needed for optimal stabilization and performance." I find it very ironic that many experts who preach functional multi-joint and multi-plane movement in the rest of the body strongly advocate isolating the muscles of the core, especially the Internal Oblique and Transverse Abdominus. Isolation does not work; in fact with the deep muscles of the core it is very difficult. Movement is integrated regardless of the body segment. **Isolation creates neural confusion!**

Venu Akuthota MD and Scott F. Nadler, DO. *Core Strengthening*, March 2004 Archives of Physical Medicine Rehabilitation. Vol 85, Supplement 1