



NEWSLETTER

Specialists in Long Term Athlete Development

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Welcome to our November 2006 newsletter. The aim of our newsletter is to not only keep people informed of recent developments at Movement Dynamics (MD), but to continue to provide information to those individuals responsible for the 'practical' implementation of Long Term Athlete Development (LTAD).

For our existing clients we hope you continue to benefit from the MD LTAD development resource and have found the new Physical Competence Test Manual useful.

Movement Dynamics – A long term approach to athlete development

Background issues to the problems we face in athlete development:

Current research (Grund & Ritzdorf, 2006) indicates that Australian athletes do not progress from Junior to Senior levels of international sport as successfully as other nations.

The percentage of young people continuing in active sports participation after the age of 16 years is declining.

There is an increase in injury frequency in the 9 – 19 year age group especially with regard to the lower limbs in Field and Court sports and the shoulder in Swimming and Tennis (DiFiori, 1999).

56% of workplace absence is due to muscular-skeletal disorders (CIPD report, 2005)

Kelvin Giles, 2006 ASCA Conference

Snapshot Comments

Every coach, regardless of their environment is dependant upon 'what has gone before'.

Studies (Soccer) indicate, however, that increased selection opportunities favour older and physically taller boys. Proportionally fewer later maturing boys are represented on soccer teams after 13 years of age (Brewer, Balsom & Davis, 1995).

Furthermore, players born early in the competition year tend to dominate national soccer leagues (Dudink, 1994; Musch & Hay, 1999)

Every sports specific skill (running, jumping, throwing, kicking, catching, striking) demands that the body: "produce, reduce and stabilize force"

Every sports specific posture demands a level of: "Multi-joint, multi-directional and multi-plane movement efficiency"

Kelvin Giles, 2006 ASCA Conference

2006 and beyond...

Managing Director, Kelvin Giles, has continued to develop key relationships worldwide with various entities concerned with performance improvement. The Mexico Olympic Committee has issued an invitation to Kelvin to present at one of their National Conferences in 2007. He has recently delivered the keynote address to the Australian Strength and Conditioning Association's National Conference.

As diverse as this may appear, Kelvin has commenced an information-sharing project with world renowned specialists in Business Psychology – Robertson Cooper (UK). This leading firm of practitioners under the leadership of Professor Emeritus Ivan Robertson seek out performance attainment in the corporate sector and there are many common areas between our two companies.

Visit www.robertsoncooper.com

Movement Dynamics has commenced a working relationship with Athletic Logic software specialists. This forward thinking company is at the forefront of sports data management and projects are underway to improve the data collection and management of the Movement Dynamics system. Visit **Athleticlogic.com** for more information.

Although the Movement Dynamics resource and system is aimed at the broad levels of physical literacy for the developing athlete, there are several sports specific projects in the making. Movement Dynamics has commenced a long term relationship with **The Golf Athlete (TGA)** to develop a systematic program of Sports Medical, Biomechanical and Physical Competence screening and prescription. This program will be at the cutting edge of modern technology and offer the most extensive performance improvement service in the world. Visit TGA at **www.thegolfathlete.com**.

Progress continues in the development of the "Early Years' exercise streams and the updated Physical Competence Test CD. The New Year will see all current clients receiving these modules.

Our congratulations are extended to the following practitioners who are closely linked with Movement Dynamics both personally and professionally:

- **Dean Benton and Jeremy Hickmans** for their sterling work in transforming the Brisbane Broncos in the 2006 season. After some years of under-achieving this world renowned Rugby League Club became National Champions for the 6th time in their history. The dedication and innovation in coaching methods displayed by Dean and Jeremy is to be applauded.
- **Scott Dickinson** took over the S&C helm at the Newcastle Knights Rugby League Club in late 2005 after they had fallen to the bottom of the competition the year before. This great club, with Scotty's sustained influence on performance and preparation, achieved a place in the play-off's.
- **Lachlan Penfold** (Movement Dynamics Director) continues the re-building of the Brisbane Lions AFL Club's performance department. Lachlan's success at Olympic and World Championship levels in several sports will stand him in good stead for the challenges ahead.
- We all look forward to seeing the impact at South Sydney Rugby League Club of the appointment of **Vince Kelly** and **Grant Duthie** as performance specialist. Vince will head the department with Grant supporting. Former Australian Cricket Physiotherapist Errol Alcott is Performance Director and he adds a powerful arm to the triumvirate.
- **Anthony Giorgi** (Movement Dynamics Director) continues to manage the Queensland Academy of Sport (56% of QAS athletes medalled at the Athens Olympic Games) Strength and Conditioning department and is about to enter the final stages of preparation with his world class swimmers for the last two year push to Beijing.

A Snapshot of the new Physical Competence Test Manual

Physical Competence Tests

Types of Tests

Athletic 1 Tests – these are usually maximal tests of performance e.g. speed, strength and endurance.

Athletic 2 and Functional Tests – these tests/coaching observations are aimed at assembling a picture of the athlete's movement competence in a variety of settings.

The Use of Tests

Tests are usually chosen and conducted with young athletes for the primary purpose of team/squad selection and other 'talent identification' processes. These tests, presented here as **Athletic 1 Tests**, are designed primarily for the senior athlete in the more advanced stages of training. These tests include the Multi-stage Fitness Test (MSFT), 10m-40m Speed Test and Vertical Jump, etc. The use of these tests with the developing athlete raises a pertinent issue. What physical competence is required to carry out these test exercises efficiently? Expecting a developmental stage athlete to be able to carry out these tasks with efficient motor ability is unacceptable and is another example of using 'watered down' adult training models for the young. Young athletes undergoing these tests invariably focus more on the result than the execution of the required technique for their development age. These types of tests are maximal and should only be used with athletes whose technique is permanent and sound. It is recommended that the **Athletic 2 and Functional Tests** are carried out first.

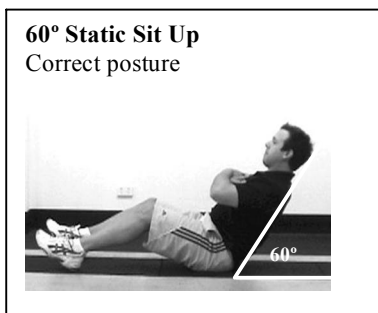
For those athletes with a long term view on their participation in physical activity, the aim is to prepare a reservoir of physical competence as wide as it is deep. Successful results in their senior years will depend upon their ability to tolerate and adapt to quite severe training loads. The world of the elite athlete is not a place for the fainthearted or, more importantly, those athletes with structural, physiological and psychological limitations. Whatever can be done must be done, to eradicate these limitations during the formative years of athletic development.

Fundamental Stage

60° Static Sit Up Test

Exercise	Desirable	Above Average	Average	Below Average	Poor
	5	4	3	2	1
60° Sit Up	≥90 sec	70-89 sec	50-69 sec	30-49 sec	<30 sec

- Sitting with bent knees the athlete leans back to 60° and holds the position. Feet can be fixed.
- Lower abdomen 'drawn in'.
- Back is kept straight with shoulder blades drawn 'down and back'.
- Arms are kept across the chest.
- Time the athlete in the correct position.



Typical errors in technique – incorrect technique – do not continue

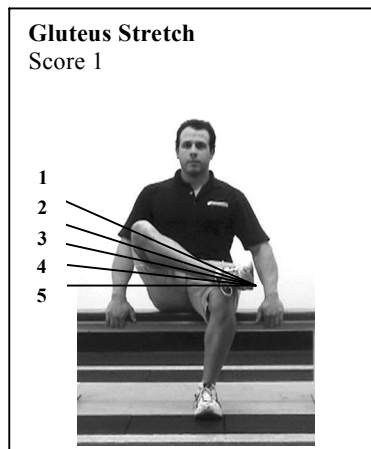
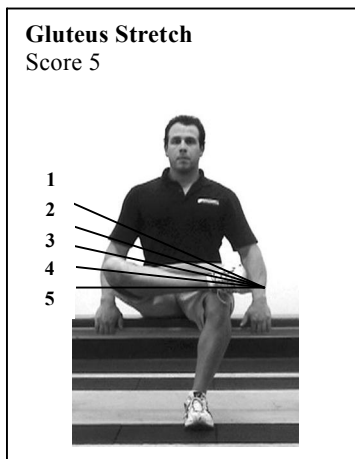


Flexibility

Seated Gluteus

Exercise	Desirable	Above Average	Average	Below Average	Poor
	5	4	3	2	1
Alt - Sitting Gluteus - measure knee height from horizontal	0-3cm	4-7cm	8-11cm	12-15cm	>15cm

- Sitting with thighs horizontal (check chair / box height)
- Bent leg lies across upper knee
- Lean forward 45°. Back Straight
- Check knee height from horizontal.



Who is using the Movement Dynamics LTAD Resource? Interest in the product continues to grow. Today the MD resource is being used in professional sporting organisations including ...

- Australian Rugby Union (by all the National Talent Squads at the Reds, Waratahs, Brumbies and Western Force)
- Irish Rugby Union
- Newcastle Knights Rugby League Club
- East's Tigers Rugby League Club – Brisbane
- Tonga National Rugby Academy
- Ashgrove Rangers Athletics Club (John Purcell), Brisbane

In academies and institutes such as the....

- Queensland Academy of Sport
- New South Wales Institute of Sport – Emerging Athlete Program
- Northern Territory Institute of Sport
- Aspire Sports Academy, Qatar
- University of Queensland Rugby Academy

In schools including...

- The King's School, Sydney, Australia
- The Scots College, NSW
- Knox Grammar School, Sydney
- Sunshine Coast Grammar School
- St. Joseph's College, Sydney
- Geelong Grammar School
- Melbourne High School, Victoria
- Bundaberg State High School - QLD Australia
- Kings Christian College - QLD Australia
- Stevenage Sports College, UK

And by large private S&C providers who work with professional teams and schools

- Acceleration Australia – Brisbane, Australia.