

## **GYMNASTICS - SPORT DEVELOPMENT AND INFLUENCE ON GROWTH RELATED INJURIES.**

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Michelle De Highden is the High Performance Program Manager and Head Coach for the MLC Gymnastics Club. The gymnastics program has over 850 members ranging from International gymnasts to Recreational and Cheerleading programs. MLC has been an integral part of the National team program since 1999, developing gymnasts onto State and National teams. Michelle is a National team coach who has placed gymnasts on the Olympic Squad (2004), World Championship team (2010) and coach of the Commonwealth Games Gold Medallist (2010). Michelle has a teaching background in Queensland where she wrote the School of Excellence program for Gymnastics. Michelle will talk about the prevalence of growth related overuse injuries to highlight the issue between training load and growth in junior gymnasts.

**KEY WORDS:** gymnastics, overuse injuries, growth.

Michelle is the current High Performance Program Manager and Head Coach at MLC Gymnastics Club in Melbourne and has held this position for 17 years. The Club is situated within a private school and is a National benchmark for “Star 5” Clubs in Australia. The gymnastics program has over 850 members ranging from International gymnasts to Recreational and Cheerleading programs. MLC has been an integral part of the National team program since 1999, developing gymnasts onto State and National teams. Michelle is a National team coach who has placed gymnasts on the Olympic Squad (2004), World Championship team (2010) and coach of the Commonwealth Games Gold Medallist (2010). Originally from a teaching background in Queensland where she wrote the School of Excellence program for Gymnastics, Michelle has 30 years’ experience coaching at all levels of the sport and educating young coaches, judges and managers at the Club, State and National level. Michelle has been a volunteer for various International events, including 2000 Olympic Games, 2006 Commonwealth Games and 2005 World Championships as a management team member. Michelle is currently on the National Sports Management Committee for Gymnastics and a recipient of the Award of Merit from Gymnastics Australia in 2007.

### **FIG Directive – Code of points – 4 year cycle – International Trends – impact on Coaching**

- Influence on direction of the sport for International competition – 4 year Olympic cycles
- Influence on **coaching direction** – with Development athletes – Major injury focus.
  - IDP / Development athletes are working 2 cycles prior to their competition cycle
    - Australian IDP Program 2008-2012 is developed for 2020 Olympic Cycle athletes
    - Influence on Talent ID and future selection
  - National / Lower level gymnasts are influenced by this directly – National Levels
- Influence on skill direction
  - Open ended Code – Change in 2004-2008 Cycle
    - Opportunity for increased difficulty
    - Balance with execution deductions vs difficulty
  - Value of skills determines usage / benefit to gymnast
  - WAG – Floor Landings – 2008-2012 Cycle
    - Use of rebounds to “cover” – dance elements
    - Regulations for completion of elements
    - 2012-2016 Code direction for Dance
  - WAG – release connections on bars – 2008-2012 Cycle
    - Consecutive release skills on bars
  - WAG – Bars – Inside Stalder, Shap and L grip giants
    - Research on PIKE, L grip etc in female developing athletes ?

- Emphasis on artistry deductions
- Elite coaches – “Working the Code”
  - Trends for “easy use of the code”
    - Individual focus for athlete strengths
    - Dance vs tumbling styles
    - Development of “compulsory skills”
  - Trends for National Teams
    - Beam mounts, Leap series, dismounts etc etc.
  - Trends for the next code 2013-2016
    - Beam D+A (Dance)
    - Lunge on Floor (More than one)
    - More than 1 stop in the corner
    - Floor D+A Connection (D must be double)
- Equipment regulation from the FIG – landing surfaces and equipment uniformity
  - Relative differences between FIG approved equipment
  - Training vs. Competition surfaces

### **Development gymnasts – WAG IDP – aged 8-12 years**

- Major development area for skills and physical development and major growth – critical surfaces used for training
- Methods for monitoring training numbers in Junior Elite / IDP gymnasts – junior coaches working with athletes
- Loading on training vs. competition surfaces important – as increase in competition performance whilst rapidly growing. Transfer from use of soft to hard landings
- Monitoring of physical testing with relation to injury incidence and management