



AUSTRALASIAN COLLEGE OF SPORT AND EXERCISE PHYSICIANS POSITION STATEMENT
Sport Specialisation in Young Athletes

1. The Australasian College of Sport and Exercise Physicians (ACSEP) re-affirms the well-recognised position that for the vast majority of young individuals, regular exercise is not only safe but should be encouraged.
2. Exercise has a beneficial effect on many health outcomes and may also help improve academic performance.
 - a. Regular moderate to vigorous physical activity (MVPA) in the childhood and adolescent years has both short and long-term benefits. These include improved aerobic fitness and strength, more favourable body composition, improved bone density, reduced symptoms of anxiety and depression, improved school performance and reduced cardiometabolic risk.
3. The ACSEP supports the WHO, Australian Government Department of Health, and New Zealand Ministry of Health guidelines for physical activity for children and youth aged 5-17.
 - a. Children and youth should accumulate at least 60 minutes of moderate - to vigorous intensity physical activity daily.
 - b. Amounts of physical activity greater than 60 minutes provide additional health benefits.
 - c. Most of the daily physical activity should be aerobic. Vigorous-intensity activities and those that strengthen muscle and bone should be performed at least 3 times per week.
 - d. Sitting time should be broken up and recreational screen time should be limited to no more than two hours per day.
4. However, the ACSEP notes that there has been a growing trend toward young athletes specialising at an early age in a single sport. It appears that the major societal driver of this is a perception that early specialisation leads to increased sporting success.
5. In this position statement the following definitions are used. These reflect the most commonly accepted definitions in the relevant literature:
 - a. A 'young athlete' is defined as an athlete 18 years old or younger.
 - b. Sport specialisation is defined as the intensive, year-round training in a single sport at the exclusion of other sports.
 - c. 'Early' specialisation is defined as sport specialisation occurring before the age of 12.
6. A young athlete's degree of specialisation may be ascertained by the use of three questions:
 - a. Does the athlete play or train for more than eight months per year in a given sport?
 - b. Does the athlete choose a main single sport?
 - c. Has the athlete stopped playing other sports to focus on a single sport?
7. The ACSEP notes that, with the exception of rhythmic gymnastics, there is no evidence that early specialisation is beneficial in achieving elite status in sports where peak performance is attained in adulthood.
 - a. In fact, there is evidence to the contrary, suggesting that athletes who maintain a broader sporting base till after the age of 12, then specialize, are more likely to be 'successful' in their chosen sport.
 - b. There is one paper that suggests that a combination of organised training and free play based on a single sport may lead to increased sporting success at a junior level. This has not been proven or disproven to lead to success at an adult level.
 - c. Popular concepts that advocate early specialisation (e.g. the 10,000 hours concept), were never intended to be applied to sport and are not relevant in the sporting context.
 - i. The concept of early sports specialisation improving the chances of 'future success' largely came from retrospective studies comparing expert and non-expert musicians.



8. There is evidence to suggest that there are physical harms associated with sport specialisation.
 - a. There is evidence that young athletes with overuse injuries are more likely to be highly specialised than uninjured athletes.
 - i. This risk is independent of age, sex, and total hours of organised sport.
 - b. However, athletes with acute injuries may be less likely to be sport specialised.
 - c. Resistance training among these at-risk populations has been shown to reduce injury risk by up to 68% and improve sport performance and health measures, in addition to accelerating the development of physical literacy.
9. There is an association between early sport specialisation and a number of more general harms. There is evidence that early sport specialisation may lead to:
 - a. Lower overall perception of health,
 - b. Earlier cessation of sporting activity and possible burnout,
 - c. Less fun derived from playing sport,
 - d. 'Psychological needs' dissatisfaction – which is a predictor of mental illness.
10. There are a number of simple rules that can guide appropriate training loads in young athletes. These can be used by those who have a duty of care over young athletes. Therefore, the **ACSEP recommends that**
 - a. At any available opportunity, parents, coaches, athletes and sporting bodies should be made aware of both the lack of benefits and the increased risks of harms associated with early specialisation.
 - b. Athletes under the age of 12 should be encouraged to partake in a wide range of physical activities, both organised and informal, to maximise their health outcomes.
 - c. Informal physical activity ('free play') should be encouraged as a valid form of physical activity especially in those under 12.
 - d. Those who wish to focus on a single sport should be encouraged to delay specialisation until after the age of 12, or even until late adolescence.
 - e. An athlete's readiness to specialise should not be determined by physical maturity alone. Social, emotional and psychological maturity is also required in order to successfully specialise in one sport.
 - f. Those individuals who have control over the training parameters of young athletes consider the use of simple guidelines in order to minimise the risk of issues relating to early specialisation, sport specialisation and training volume. These include:
 - i. Limiting total sport participation (training and competition) to no more than 16 hours per week, irrespective of the total number of sports played,
 - ii. Ensuring that the ratio of hours spent in organised sport (training and competition) to those spent in 'free play' does not exceed 2:1,
 - iii. Limiting hours spent in organised sport (training and competition) per week such that they do not exceed the athlete's age. E.g. a 10 year old should not train more than 10 hours per week across all sports (this supersedes point 10.f.i above where relevant),
 - iv. Adhering to the evidenced-based load guidelines for a specific sport (e.g. Cricket Australia Youth Pace Bowling Guidelines).



Reviewed and Endorsed by the ACSEP Research Committee
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