



Keep Your Child In the Game - Don't Forget the Pre-participation Physical

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Sports participation continues to grow at all levels of competition. For example, high school sports have increased for the 28th straight year, with close to eight million athletes competing; an 8.5% increase in the last decade.(1) Given the popularity of sporting activity among all ages and activity levels, the preparticipation physical evaluation (PPE) has become more important than ever.(2) The PPE is a required aspect of competition in both amateur and professional athletes. This evaluation provides clearance for sport participation and can optimize the general health of an athlete.(3)

The PPE is an excellent safety net to help determine the wellbeing and physical readiness of the athlete before each year of sporting competition. To maximize effectiveness of the PPE, a comprehensive evaluation utilizing a multi-disciplinary team of sports medicine experts is recommended (i.e. orthopedic surgeons, non-surgical sports medicine physicians, physical therapists, athletic trainers). Typically, vital signs (i.e. heart rate, blood pressure) are recorded and screening eye examinations are performed for visual acuity. Health professionals perform orthopaedic assessment, evaluating the bones and joints for any abnormalities that may require further investigation. Clinicians also perform a medical examination to evaluate the critical organ systems (i.e. heart and lungs). Athletes who 'PASS' the PPE may initiate participation in practice and gameplay. Those who 'FAIL' require specific follow-up with their physicians to address any medical and/or orthopedic issues before initiating their sport.

Interestingly, while PPEs are often known as sports physicals, it is often the patient's history that gives the most valuable information to the treating team. Inquiring about an athlete's personal and family history can rapidly highlight red flags (i.e. family history of early sudden death) that may need to be discussed further and/or be addressed in

more detail. Family history is an important indicator of possible health conditions that may run in families and can aid in the implementation of precautionary plans or a prompt medical work-up. With orthopaedic injuries, the biggest risk factor for future injury is prior injury.(4) Clinicians may help the athlete recognize patterns that increase their risk of a recurrent traumatic and/or overuse injury.

Although the major aspects of the PPE are mandatory, the health care team may use this event as an opportunity for additional community outreach and education. For example, this is an outstanding time for athletes and parents to learn about heat illness, signs and symptoms of concussion, and overuse orthopaedic injuries. Baseline concussion screens and neuromuscular testing may also be performed as part of the physical. The PPE can be used as a bridge to unite the athletic and healthcare communities with the goal of safe and enriching sports participation.

References

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