



## Q / How useful are genital exams during boys' sports physicals?

### EVIDENCE-BASED ANSWER

**A** / EXAMINATION MAY BE USEFUL to identify hernia but not testicular cancer. Insufficient evidence exists to recommend for or against screening genital exams for boys playing sports. Given the low risk of harm, screening for hernias as a part of a preparticipation physical evaluation (PPE) is recommended by several specialty

organizations (strength of recommendation [SOR]: C, expert opinion).

Screening for testicular cancer doesn't benefit asymptomatic adolescents and adults. Because clinical outcomes are excellent without cancer screening, routine screening isn't recommended (SOR: C, expert opinion).

**Morteza Khodaei, MD, MPH**  
Department of Family Medicine, University of Colorado, Denver

**Jeffrey A. Housner, MD**  
Departments of Family Medicine and Orthopedic Surgery, University of Michigan, Ann Arbor

**Elizabeth M. Tweed, MLIS, AHIP**  
University of Colorado, Denver

**Insufficient evidence exists to recommend for or against screening genital exams for boys playing sports.**

### Evidence summary

No patient-centered studies have evaluated the effectiveness of male genital examinations during a PPE. Examination is performed mainly to identify an inguinal hernia. The incidence of infantile inguinal hernia is 0.8% to 4.4%, with a male-to-female ratio of 6 to 1.<sup>1</sup> About 4% of the population will develop an inguinal hernia, but its incidence among adolescents and young adults isn't known.<sup>1</sup> The natural history of inguinal hernias is poorly understood.

### Screening turns up hernia more often than other genital problems

In a study involving juniors and seniors attending a Richmond County, Georgia high school, 48 of 562 students (9.1%) and 34 of 706 students (4.8%) were found to have genital problems or a hernia during examinations conducted in 2 consecutive years of preparticipation physicals.<sup>2</sup> No data were available to differentiate the type or severity of the genitourinary problems identified.

A study of 3205 elementary school boys 6 to 12 years of age in western Iran found that 213 (6.64%) had inguinal hernia and penoscrotal abnormalities. The most common ab-

normality was indirect inguinal hernia (2.4%).<sup>3</sup> The rates of other external genital abnormalities, such as retractile testes (1.22%), undescended testes (1.12%), hydrocele (0.87%), and hypospadias (0.78%), were lower.

### Students' attitudes toward screening aren't known

Students' knowledge of, and attitude toward, genital screening during PPE are unknown. In 1 study, 50% of junior high school, high school, and college athletes in northeastern Ohio didn't know why a genital examination is performed during the PPE.<sup>4</sup>

### Sensitivity and specificity of physical examination for hernia

The sensitivity and specificity of physical examination hasn't been well studied. One study, assessing the accuracy of methods of diagnosing inguinal hernia in 55 laparoscopically documented cases, found that the sensitivity and specificity were 74.5% and 96.3%, respectively, for physical examination; 92.7% and 81.5% for ultrasound; and 94.5% and 96.3% for MRI.<sup>5</sup> The patients were asymptomatic, however, which makes it likely that

➤ Examination is performed mainly to identify an inguinal hernia.

the accuracy of these diagnostic methods in screening asymptomatic patients would be overestimated.

■ **Managing hernia.** Surgery isn't the only option for managing inguinal hernia.<sup>6</sup> Watchful waiting is safe and acceptable for asymptomatic or minimally symptomatic individuals. Acute complications are rare, and patients who delay surgery don't have a higher risk of operative or postoperative complications.

### What about routine testicular cancer screening?

The US Preventive Services Task Force (USPSTF) hasn't made a recommendation on hernia screening, but recommends against routine screening for testicular cancer in asymptomatic adolescents and adults.<sup>7</sup> The recommendation is based on the low prevalence of testicular cancer and the unknown accuracy of testicular examination in detecting it. Even without screening, current treatments produce very favorable health outcomes.

Although the USPSTF didn't identify any

potential harm from screening for testicular cancer, no evidence suggests that screening provides any benefit over current case-finding practices. Moreover, because some evidence suggests that testicular cancer is often misdiagnosed initially, resources might be better dedicated to proper evaluation of patients with symptoms.

### Recommendations

Routine male genitourinary examination during the PPE, including testicular and hernia evaluation, is recommended by the American Academy of Family Physicians (AAFP), American Academy of Pediatrics, American College of Sports Medicine, American Medical Society for Sports Medicine, American Orthopedic Society for Sports Medicine, and American Osteopathic Academy of Sports Medicine.<sup>8</sup>

The latest AAFP position statement reflects the USPSTF recommendation against routine screening for testicular cancer in asymptomatic adolescents and adults.<sup>9</sup> **JFP**

### References

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