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3 Title: Preventing Adolescent Use of Performance Enhancing Substances
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5 Introduced by: Taylor Boehler for the Medical Student Section
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7 Original Author: Kathleen Duemling and Geno Mason
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9 Referred to: Reference Committee D
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11 House Action: **APPROVE**
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14 Whereas, the use of performance enhancing substances (PES) including dietary, protein and
15 creatine supplements, energy drinks, and stimulants as well more traditionally thought of anabolic
16 steroids and human growth hormone, is on the rise in adolescents^{1,6,15}, and
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18 Whereas, the US Food and Drug Administration’s regulation of PES is inconsistent, with studies
19 finding frequent contamination of supplements with steroids, hormones, higher than labeled levels of
20 stimulants, heavy metals, and other potentially harmful materials^{2,10,12,13,14,15}, and
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22 Whereas, sports physicals are a rare opportunity to see otherwise “healthy” adolescents³ and
23 those needing sports physicals are increasingly predisposed to the use of PES⁴, and
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25 Whereas, it is suggested that the use of other PES acts as a gateway to anabolic steroid use^{5,6,9},
26 and
27

28 Whereas, education may be useful in preventing use, specifically as adolescents using PES
29 often cite increased athletic performance and professional athlete use as motivators to use⁷, but
30 research has shown PES to not increase athletic performance in adolescents when compared to a
31 healthy diet^{1,12}, and
32

33 Whereas, the American Academy of Pediatrics encourages screening questions regarding the
34 use of PES and anabolic steroids in their sports preparticipation physical template⁸, and
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36 Whereas, the Michigan High School Athletic Association suggests asking questions regarding
37 PES use on only the longer of the two forms used to document sports preparticipation physicals in the
38 state of Michigan, and does not provide a space to document the questions being asked and/or
39 responses¹¹, and
40

41 Whereas, the placement and non-mandatory nature of the screening questions is unlikely to
42 encourage its inclusion by a majority of providers; therefore be it
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44 RESOLVED: That MSMS work with the Michigan High School Athletic Association to update
45 sports preparticipation physical guidelines to appropriately reflect concern about the use of
46 performance enhancing substances by adolescents.
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49 WAYS AND MEANS COMMITTEE FISCAL NOTE: NONE

Relevant MSMS Policy:

Annual School Physical Examinations

MSMS supports the following guidelines: 1. Complete physical examinations should be required for athletes entering middle school and again when entering high school. 2. During the interim years, an updated statement by parent or physician must be on file for each student who has missed practice or a game(s) as a result of injury or illness. 3. The physical health and examination of the student are the responsibility of his/her parents.

¹ Labotz M, Griesemer BA. Use of Performance-Enhancing Substances. *Pediatrics*. 2016;138(1). doi:10.1542/peds.2016-1300.

² Maughan RJ. Quality Assurance Issues in the Use of Dietary Supplements, with Special Reference to Protein Supplements. *Journal of Nutrition*. 2013;143(11). doi:10.3945/jn.113.176651.

³ Focus on Subspecialties: Sports physicals: More than a signature. Focus on Subspecialties: Sports physicals: More than a signature | AAP News | AAP Gateway. <http://www.aapublications.org/news/2016/02/09/SportsExam020916>. Published February 9, 2016. Accessed February 15, 2017.

⁴ Diehl K, Thiel A, Zipfel S, Mayer J, Litaker DG, Schneider S. How Healthy is the Behavior of Young Athletes? A Systematic Literature Review and Meta-Analyses. *Journal of Sports Science & Medicine*. 2012;11(2):201-220.

⁵ Backhouse SH, Whitaker L, Petróczy A. Gateway to doping? Supplement use in the context of preferred competitive situations, doping attitude, beliefs, and norms. *Scandinavian Journal of Medicine & Science in Sports*. 2011;23(2):244-252. doi:10.1111/j.1600-0838.2011.01374.x.

⁶ Dodge TL, Jaccard JJ. The Effect of High School Sports Participation on the Use of Performance-Enhancing Substances in Young Adulthood. *Journal of Adolescent Health*. 2006;39(3):367-373. doi:10.1016/j.jadohealth.2005.12.025.

⁷ Hoffman JR, Faigenbaum AD, Ratamess NA, Ross R, Kang J, Tenenbaum G. Nutritional Supplementation and Anabolic Steroid Use in Adolescents. *Medicine & Science in Sports & Exercise*. 2008;40(1):15-24. doi:10.1249/mss.0b013e31815a5181.

⁸ Preparticipation Physical Evaluation. Preparticipation Physical Evaluation. <https://www.aap.org/en-us/about-the-aap/Committees-Councils-Sections/Council-on-sports-medicine-and-fitness/Pages/PPE.aspx>. Accessed February 15, 2017.

⁹ Lesney MS. Performance-Enhancing Substances Tied to Drug Abuse. *Pediatric News*. 2010;44(2):31. doi:10.1016/s0031-398x(10)70067-9.

¹⁰ Jennifer Couzin-Frankel Aug. 20, 2015 , 2:00 PM, 14 2017 JMF, 14 2017 MEF, et al. Feature: Revealing the hidden dangers of dietary supplements. *Science | AAAS*. <http://www.sciencemag.org/news/2015/08/feature-revealing-hidden-dangers-dietary-supplements>. Published February 3, 2016. Accessed February 15, 2017.

¹¹ Forms & Resources. Forms & Resources | Administrators | Schools | MHSAA. <https://www.mhsaa.com/Schools/Forms-Resources>. Accessed February 15, 2017.

¹² Parr MK, Schmidtdorff S, Kollmeier AS. [Nutritional supplements in sports - sense, nonsense or hazard?]. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz*. January 2017. doi:doi: 10.1007/s00103-016-2498-1.

¹³ Budnik LT, Baur X, Harth V, Hahn A. Alternative drugs go global: possible lead and/ or mercury intoxication from imported natural health products and a need for scientifically evaluated poisoning monitoring from environmental exposures. *Journal of Occupational Medicine and Toxicology*. 2016;11(1). doi:10.1186/s12995-016-0139-0.

¹⁴ Deldicque L, Francaux M. Potential harmful effects of dietary supplements in sports medicine. *Current Opinion in Clinical Nutrition and*

¹⁵ *Metabolic Care*. 2016;19(6):439-445. doi:10.1097/mco.0000000000000321.¹⁵ Eichner A, Tygart T. Adulterated dietary supplements threaten the health and sporting career of up-and-coming young athletes. *Drug Testing and Analysis*. 2015;8(3-4):304-306. doi:10.1002/dta.1899.