

Managing Physical Education & Activity

ABOUT PHYSICAL EDUCATION & ACTIVITY

Promoting participation in physical activity and sports among young people is a critical national priority, given our nation's sedentary lifestyle and the unprecedented rates of childhood obesity plaguing the United States. Physical activity is the first leading health indicator highlighted in Healthy People 2010. Regular participation in physical activity during childhood and adolescence helps build and maintain healthy bones, muscles, and joints; helps control weight, build lean muscle, and reduce fat; prevents or delays the development of high blood pressure and helps reduce blood pressure in some adolescents with hypertension; and reduces feelings of depression and anxiety.^{1,2}

Physical activity has been shown to increase adolescents' self-esteem and reduce anxiety and stress³, which may increase students' capacity for learning. One study conducted by the California Department of Education in 2002 identified a distinct relationship between academic achievement and physical fitness. Specifically, higher reading and math achievement was associated with higher levels of fitness at three grade levels measured and students who met minimum fitness levels in three or more physical fitness areas showed the greatest gains in academic achievement at all three grade levels.⁴ Clearly, physical education classes and recess offer children these critical opportunities for physical activity during the school day. Their value to students' overall health and ability to learn should not be minimized.

HOW PHYSICAL ACTIVITY CAN AFFECT CHILDREN WITH ASTHMA

Children with well-controlled asthma are able to participate and are encouraged to participate in all forms of physical activity. For those students whose asthma is not well controlled, however, vigorous exercise will cause asthma symptoms.

¹ U.S. Department of Health and Human Services, U.S. Department of Education. Promoting Better Health for Young People Through Physical Activity and Sports. Washington, DC. U.S. Department of Health and Human Services, December 2000.

² U.S. Department of Health and Human Services. Healthy people 2010: Understanding and Improving Health. Washington, DC: U.S. Department of Health and Human Services, Government Printing Office, 2000.

³ U.S. Department of Health and Human Services. Physical Activity and Health: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 1996.

⁴ "State Study Proves Physically Fit Perform Better Academically" (Rel #02-37). California Department of Education news services. California Department of Education Web site (<http://www.cde.ca.gov/news/releases2002/rel37.asp>); accessed December 12, 2002

Many students with asthma have “exercise-induced asthma” (EIA). Episodes are triggered by rapid breathing of cold or dry air which occurs with exercise. Students with EIA can and should participate in physical activities. They may need to warm-up gradually and usually need to take pre-exercise medication.

Implementing an asthma-appropriate physical activity program in a school will require education of students, parents, and staff. Its success will rely on a clear channel of communication among the school nurse and/or clinic aide, coaches, athletic trainers, physical education and other teachers, as well as parents, students, and physicians.

As with asthma education and other AFSI components, any policy changes you effect to ensure an asthma-friendly physical activity program can make a long-lasting impact on students with asthma.

PHYSICAL EDUCATION & ACTIVITY COMPONENTS

- ◆ Four components are recommended for ensuring asthma-appropriate physical activity. All are detailed in hand-outs, which include reference materials.
- ◆ Encourage full participation.
- ◆ Manage physical activity for students with asthma.
- ◆ Assure ready access to medication.
- ◆ Provide options for modified activity.

◆ Recommended Component: Encourage Full Participation When Students are Well

Students with asthma can participate fully in physical activity when they are symptom-free and in their personal “green” peak flow zones. CDC’s School Health Index suggests that schools consider using a second teacher to assist students and using peer teaching to team students as a way to maximize participation.

Students and teachers/coaches/trainers should pay attention to how the student is feeling, as well as to a reduced peak flow. In accordance with their individual asthma plans, students should check peak flow prior to activity and plan physical activity accordingly. For example, if the student is in the “yellow” zone, he or she may feel fine but should modify activity so as not to exacerbate symptoms. Modifying activity at this point can prevent a full-blown asthma episode. Taking medication may allow the child to move back to the green zone. Several peak flow posters and education materials are available. An American Lung Association Tip Sheet: Peak Flow Meter Readings & Physical Activity Notes is included with this hand-out. (See the Resources section of this toolkit for American Lung Association materials, as well as “Super Web Sites,” which will list many peak flow materials.)

REFERENCE MATERIALS

- ◆ American Lung Association Tip Sheet: Peak Flow Meter Readings & Physical Activity Notes



**American Lung Association Tip Sheet:
Peak Flow Meter Readings & Physical Activity Notes**

| Color | Peak Flow Reading | Physical Activity Notes |
|--------------|--------------------------|---|
| Green | 80-100% | Full participation |
| Yellow | 50-80% | <ul style="list-style-type: none">• student should take rescue inhaler as prescribed• modified participation• inquire about pre-medication• increase warm-up and cool-down periods, etc., per student's Asthma Action Plan |
| Red | less than 50% | <p>Medical Alert:</p> <ul style="list-style-type: none">• student should take rescue inhaler as prescribed• may require emergency protocol• check student's Asthma Action Plan• no physical activity• if student improves after taking medication as prescribed, include student in activities such as time- or scorekeeper |

