Controlling asthma in athletes

I agree with Dr. Welch, et al. (AAP News, October 2001) that almost all asthma deaths in young athletes are preventable. Most of their comments refer to care in the office. I would like to add some thoughts on care of athletes during practice and competition.

If their asthma is well-controlled, athletes can compete in the most demanding sports. Some of them will experience symptoms during vigorous exercise. These symptoms can be prevented by inhaling albuterol, or another beta-agonist, 15 to 30 minutes before practice or competition.

Athletes who experience symptoms of tight chest, cough, shortness of breath or wheeze despite pretreatment are candidates for a severe attack. They have significant airway inflammation in addition to bronchoconstriction. A second dose of albuterol may clear their symptoms. However, it is not safe for them to continue to play. Continued exercise will compromise their airways further.

Many athletes will not complain of symptoms at all. This toughness may cost them their life. Athletes can measure their asthma status during practice or a game by checking their peak flow. This test takes about 10 seconds. The meter sells for less than $30. A coach can get a much more accurate picture by asking players for their peak flow score than by asking them how they feel.

I queried several experts, including Dr. Welch, who agree that athletes should not play if their peak flow is less than 70% to 80% of their personal best. Though this is the "best guess" of the experts, there are no published reports that confirm this cutoff.

Athletes whose symptoms cannot be prevented by pretreatment with albuterol or other beta-agonist need daily treatment with an inhaled steroid to bring their asthma under control. This will prevent the inflammation of the airways that is a precursor to an asthma episode, and it will minimize the risk of a fatal attack. Athletes whose asthma is well-controlled with inhaled steroids will have no need to use albuterol during play. The NCAA places no ban on the use of inhaled steroids, and the International Olympic Committee allows their use with prior medical approval.

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