

LABAs what is a current
Review of Research telling me

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β_2 -Agonists and Exercise-Induced Asthma

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Abstract

β_2 -Agonists taken immediately before exercise provide significant protection against exercise-induced asthma (EIA) in most patients. However, when they are taken daily, there are some negative aspects regarding severity, control, and recovery from EIA. First, there is a significant minority (15–20%) of asthmatics whose EIA is not prevented by β_2 -agonists, even when inhaled corticosteroids are used concomitantly. Second, with daily use, there is a decline in duration of the protective effect of long-acting β_2 -agonists. Third, if breakthrough EIA occurs, recovery of lung function is slower in response to a β_2 -agonist, and additional doses are often required to achieve pre-exercise values. If a person who takes a β_2 -agonist daily experiences problems with exercise, then the physician should consider changing the treatment regimen to achieve better control of EIA. These problems likely result from desensitization of the β_2 -receptor on the mast cell, which enhances mediator release, and on the bronchial smooth muscle, which enhances the bronchoconstrictor response and delays recovery from EIA. These effects are reversed within 72 h after cessation of a β_2 -agonists. The important clinical question is: Are we actually compromising the beneficial effects of β_2 -agonists on the prevention and recovery from EIA by prescribing them daily? Patients with EIA need to ensure that their doses of inhaled corticosteroid or other anti-inflammatory therapy are optimized so that, if necessary, a β_2 -agonist can be used intermittently as prophylactic medication with greater confidence in the outcome.