Asthma is defined as a chronic inflammatory disorder of the airways with bronchial hyperresponsiveness and variable bronchoconstriction, and is one of the most common diseases in childhood and adolescence. Exercise-induced asthma-like symptoms and asthma are also frequently seen in highly trained athletes. Exercise-induced asthma (EIA) and exercise-induced bronchoconstriction (EIB) are found in 8%-10% of healthy school-aged children and in 35% of children with asthma. Highly increased ventilation, inhalation of cold, dry air and air pollutants (eg, chlorine) are thought to be important triggers for EIA and EIB. EIA is often experienced concurrently with vocal cord dysfunction, which needs to be considered during the differential diagnosis. The pharmacological treatment of EIA is similar to the treatment of asthma in nonexercising adolescents. The therapy is based on anti-inflammatory drugs (eg, inhaled glucocorticosteroids) and bronchodilators (eg, ?2-agonists). The treatment of EIB is comparable to the treatment of EIA and leukotriene modifiers offer a new and promising treatment option, particularly in EIB. Generally, athletes may not use ?2-agonists according to the prohibited list of the World Anti-Doping Agency (WADA). However, the WADA list contains specific ?2-agonistic substances that are permitted to be used by inhalation.