However, this practice can seriously hamper peer interaction and physical health. Exercise is advantageous for children with asthma, and most children can participate in activities at school and in sports with minimal difficulty, provided their asthma is under control. Evaluate participation on an individual basis. Appropriate prophylactic treatment with  $\beta$ -adrenergic agents or cromolyn sodium before exercise usually permits full participation in strenuous exertion.

## **Breathing Exercises**

Breathing exercises and physical training help produce physical and mental relaxation, improve posture, strengthen respiratory musculature, and develop more efficient patterns of breathing. For motivated children, breathing exercises and controlled breathing are of value in preventing overinflation and improving efficiency of the cough. However, these exercises are not recommended during acute, uncomplicated exacerbation of asthma.

## Hyposensitization

The role of hyposensitization in childhood asthma is somewhat controversial. In the past, immunotherapy was used for seasonal allergies and when single substances were identified as the offending allergen. It is not recommended for allergens that can be eliminated, such as foods, drugs, and animal dander. Immunotherapy is considered for asthma patients in the following situations (Kwong and Leibel, 2013):

- Patient's preference
- Poor adherence to therapy
- Incomplete response to allergen avoidance
- Significant medication side effects or adverse effect
- Multiple and/or high dose medication requirements

Injection therapy is usually limited to clinically significant allergens. The initial dose of the offending allergen(s), based on the size of the skin reaction, is injected subcutaneously. The amount is increased at weekly intervals until a maximum tolerance is reached, after which a maintenance dose is given at 4-week intervals. This may be extended to 5- or 6-week intervals during the off-season for