

FIGURE 3–20. SUMMARY OF MEASURES TO CONTROL ENVIRONMENTAL FACTORS THAT CAN MAKE ASTHMA WORSE

Allergens

Reduce or eliminate exposure to the allergen(s) the patient is sensitive to, including:

- **Animal dander:** Remove animal from house or, at a minimum, keep animal out of the patient's bedroom.
- **House-dust mites:**
 - **Recommended:** Encase mattress in an allergen-impermeable cover; encase pillow in an allergen-impermeable cover or wash it weekly; wash sheets and blankets on the patient's bed in hot water weekly (water temperature of >130 °F is necessary for killing mites): cooler water and detergent and bleach will still reduce live mites and allergen level. Prolonged exposure to dry heat or freezing can also kill mites but does not remove allergen.
 - **Desirable:** Reduce indoor humidity to or below 60 percent, ideally 30–50 percent; remove carpets from the bedroom; avoid sleeping or lying on upholstered furniture; remove carpets that are laid on concrete.
- **Cockroaches:** Use poison bait or traps to control insects, but intensive cleaning is necessary to reduce reservoirs. Do not leave food or garbage exposed.
- **Pollens (from trees, grass, or weeds) and outdoor molds:** If possible, adults who have allergies should stay indoors, with windows closed, during periods of peak pollen exposure, which are usually during the midday and afternoon.
- **Indoor mold:** Fix all leaks and eliminate water sources associated with mold growth; clean moldy surfaces. Consider reducing indoor humidity to or below 60 percent, ideally 30–50 percent. Dehumidify basements if possible.
- It is recommended that allergen immunotherapy be considered for patients who have asthma if evidence is clear of a relationship between symptoms and exposure to an allergen to which the patient is sensitive.

Tobacco Smoke

Advise patients and others in the home who smoke to stop smoking or to smoke outside the home. Discuss ways to reduce exposure to other sources of tobacco smoke, such as from daycare providers and the workplace.

Indoor/Outdoor Pollutants and Irritants

Discuss ways to reduce exposures to the following:

- Wood-burning stoves or fireplaces
- Unvented gas stoves or heaters
- Other irritants (e.g., perfumes, cleaning agents, sprays)
- Volatile organic compounds (VOCs) such as new carpeting, particle board, painting