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# World Allergy Organization Guidelines for Prevention of Allergy and Allergic Asthma

Condensed Version

Editors:

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## House Dust Mite Allergen Reduction

*Aims to reduce the amount of mite allergens in the home*

### **Major Strategies (WHO Strength of Recommendation A)**

- Wash bedding regularly (every 1–2 weeks) at 55–60° C, if possible, to kill mites (washing with cold water removes 90% of mite allergens; washing at 55–60° C kills mites but does not denature mite allergens).
- Wash pillows and duvets in hot water 55–60°C and encase pillows and encase mattresses with documented protective coverings.
- Sufficient ventilation of dwellings to decrease humidity; aim to reduce indoor relative humidity to below 50% and avoid damp housing conditions.

### **Additional Strategies**

- Use a good quality vacuum cleaner (if possible one fitted with HEPA filter).
- Use a damp duster when dusting and cleaning surfaces.
- Replace wall-to-wall carpets with linoleum or wooden floors which can be wiped clean.
- Remove/reduce curtains and soft furnishings in the bedroom.
- Replace fabric-covered seating with leather or vinyl.
- Remove soft toys from the bedroom; wash them at 55–60°C or freeze them (in a kitchen deep-freezer) to kill house dust mites.
- Do not allow pets in the bedroom.
- House dust mites are transparent and have no natural protection against sunlight. Exposure of mattresses, rugs and carpets to direct strong sunlight (for more than 3 h) kills mites and can be used in appropriate regions.
- A hammock, easily washable and susceptible to air and sun drying, is used in many areas of the world.

## Pollen Avoidance

*Provides mechanical barriers to pollen contact*

- Keep windows closed at peak pollen times, e.g., in the evening when airborne pollens descend to lower altitudes.
- Wear glasses or sunglasses to prevent pollens entering the eyes.
- Consider wearing a mask over nose and mouth to prevent inhalation of pollens at peak time.
- Do not cut grass yourself.
- Keep windows closed when the grass has been mown.
- Use air-conditioning if possible.
- Install car pollen filters if possible.



## Pet Allergen Avoidance

*Reduces the amount of pet allergen indoors*

- If possible, find another home for the pet, and do not bring new animals into the home.
- Exclude pets from bedrooms and if possible keep pets outdoors.
- Vacuum carpets, mattresses and upholstery regularly, if a power source and equipment are available.
- Change clothes before going to school/work if you have attended your horse/cat/dog.



## Cockroach Allergen Avoidance

*Removes the cockroaches, eliminates the places and conditions in which they can live, and removes allergens*

- Eradicate cockroaches with appropriate insecticides.
- Seal cracks in floors and ceilings.
- Remove sources of food.
- Control dampness.
- Scrub floors with water and detergent to remove allergens.
- Bedding, curtains and clothing can be contaminated and must be washed.



## Mould Allergen Avoidance

*Prevents mould from growing, and mould spores from becoming airborne during mould removal*

### Indoors

- Use dehumidifiers in the home if relative humidity is constantly high (above 50%).
- Ensure heating, ventilation or air-conditions systems are properly maintained.
- Use 5% ammonia solution to remove mould from bathrooms and other contaminated surfaces.
- Replace carpets with hard flooring; replace wallpaper with paint.
- Repair indoor water damage immediately.

### Outdoors

- Avoid cutting grass in late summer when mould spores are present in decaying vegetation.



## Severe Reactions, Allergic Anaphylaxis

*Aims to prevent contact with the allergens that induce anaphylaxis in susceptible individuals, and to provide strategies for dealing with episodes of allergic anaphylaxis*

- Carry an epinephrine auto-injector and know how and when to use it; always have a spare auto-injector available.
- Carry an emergency pager or mobile telephone to call assistance.
- Carry/wear Medic-Alert information.
- When travelling abroad, carry an anaphylaxis-alert card in the language of the country being visited, detailing food, drug, and insect allergies.
- Avoid stinging insects, and learn how not to attract them:
  - do not wear perfumes or bright colours.
  - do not pick ripe fruit, avoid refuse bins and compost heaps which attract insects.
  - keep car windows closed when driving.
- Avoid allergenic ingredients in ready-made food by learning how to interpret ingredient lists.
- If eating out check with the chef that allergenic foods/oils are not used in dishes; explain the significance of avoiding allergenic ingredients.

### **In the school environment**

*Ensure that parents, teachers, fellow students, and school administrators are aware of the necessity to provide a safe environment for children at risk for anaphylaxis to foods or insect stings.*

- Create a no-food area of the school playground.
- Identify a supervisor to carry a telephone for emergencies.

### **In the occupational environment**

- Avoid contact with airborne or contact allergens; for example, airborne latex can be avoided by co-workers using powder-free latex gloves.

## Allergic Asthma and Allergic Rhinitis

*Appropriate actions for guided self-management include*

- 1 Developing good communication between patient and physician to improve patient compliance.
- 2 Promoting understanding about the basic facts, causes and triggers of allergic asthma/allergic rhinitis.
- 3 Identifying and controlling factors that aggravate asthma/rhinitis symptoms and provoke exacerbations.
- 4 Following a written action plan to avoid or handle exacerbations.
- 5 Emphasizing the importance of proper drug use and correct use of spacers and inhalers, for long-term control.
- 6 Monitoring symptoms and peak flow values in persistent asthma and adjusting medication accordingly.
- 7 Educating to decrease reliance on unproven treatments.



## Eczema

*Educational programs in eczema should include*

- 1 Informing about nature, heredity, causes and triggers of eczema.
- 2 Identification and avoidance of individual provocation factors, skin care and treatment options, including complementary therapies.
- 3 Discussion of diagnosis and treatment of food allergies and adequate nutrition in childhood.
- 4 Behaviour-oriented psychological intervention to interrupt the itching-scratching cycle.
- 5 Training to improve stress-management and reduce the negative social effects of illness-specific problems.



## Severe Reactions, Allergic Anaphylaxis

*Each patient should have an individual management protocol to include*

- 1 Carrying an epinephrine auto-injector and knowing how and when to use it; always having a spare auto-injector available.
- 2 Carrying an emergency pager.
- 3 Carrying/wearing Medic-Alert information.
- 4 Avoiding stinging insects, learning how not to attract them.
- 5 Avoiding allergenic ingredients in ready-made food.

### **In the school environment**

*Education of parents, teachers, fellow students, and school administrators is necessary to provide a safe environment for children at risk for anaphylaxis to foods or insect stings*

- 6 Creating a no-food area of the school playground.
- 7 Identifying a supervisor to carry a telephone for emergencies.

### **In the occupational environment**

Health and Safety measures should be introduced to prevent exposure of affected workers to airborne or contact allergens.

## References

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