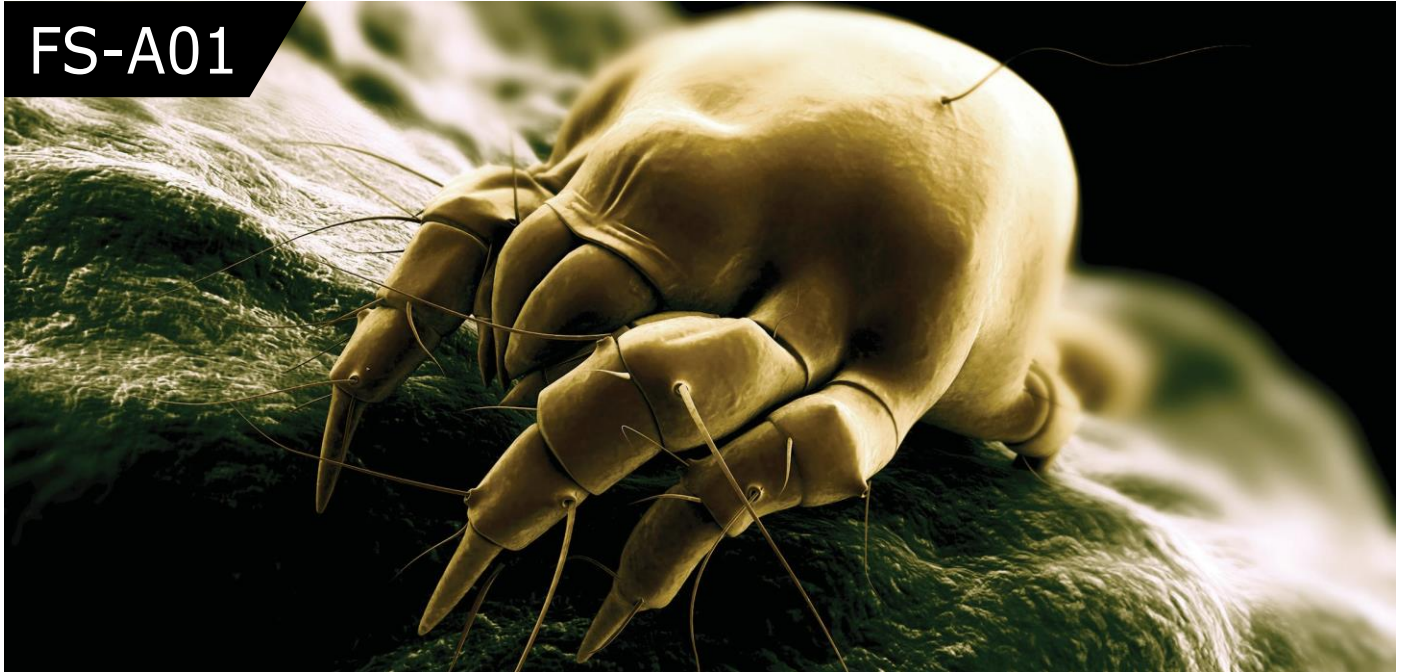


FS-A01



Dust mites do not pose a problem for most people, but they certainly do for people who are allergic to them. Dust mites are not visible to the naked eye and feed on the flakes from human or animal skin contained in dust. Dust mites prefer to live in mattresses, bedding, upholstery, carpets/rugs, and almost all textile items (including children’s stuffed toys). Dust mites are perhaps the most common cause of perennial allergic rhinitis and also can produce symptoms of asthma. Dust mite allergies are rarely caused by the dust mites themselves, but rather by their waste-products. These waste-products, which are proteins, actually provoke the allergic reaction. They thrive at temperatures between 20 to 30 degrees c (68 to 84 degrees f) and a relative humidity of 65 to 80%.

Studies have shown that taking steps to minimize dust mite exposure in the bedroom leads to a decrease in allergic symptoms. Emphasis is placed on the bedroom since people spend one third or more of each 24 hours there and because it is the room with the greatest number of dust mites.

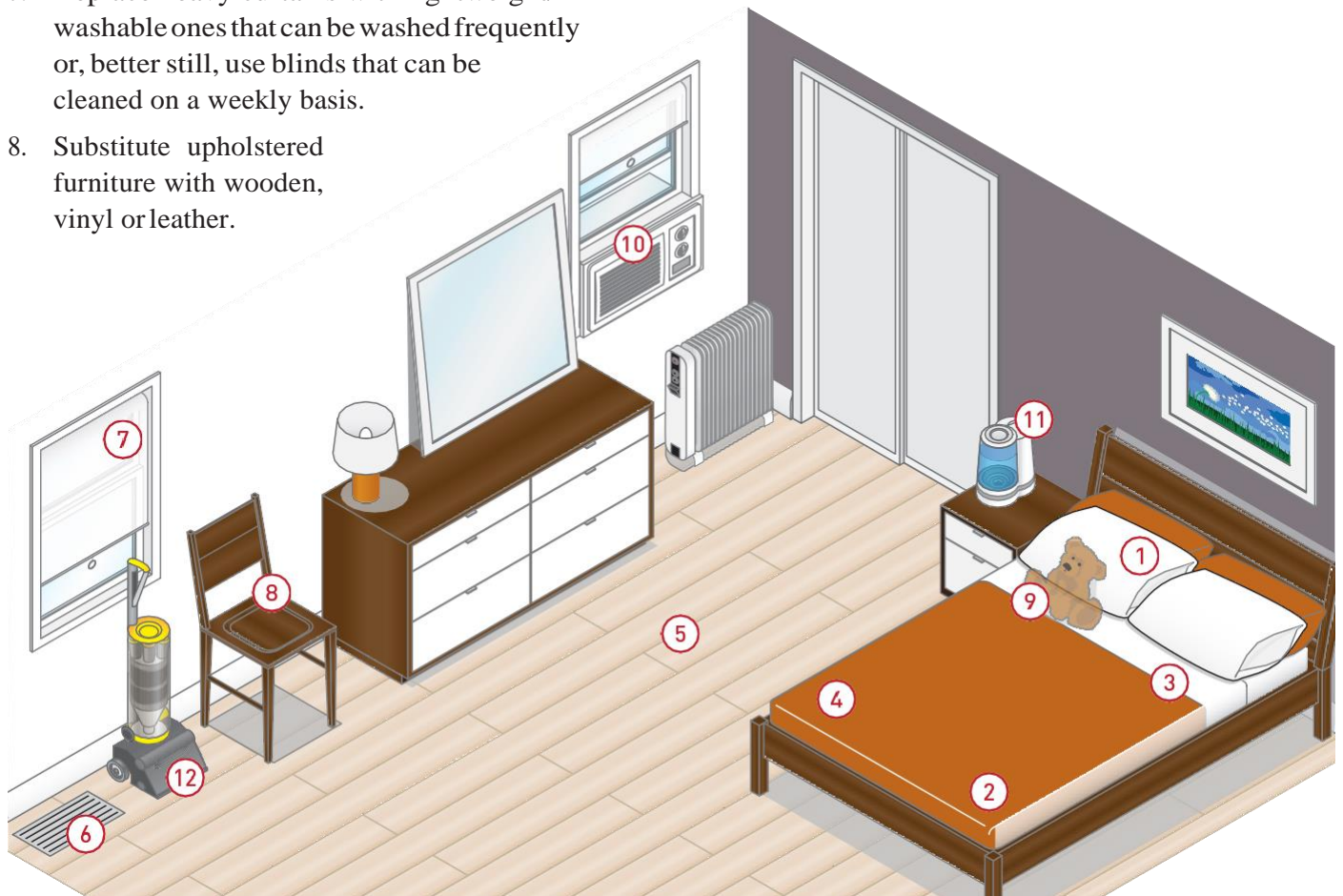
SYMPTOMS

Symptoms can include any of the following:

- Sneezing
- Runny nose
- Nasal congestion
- Cough
- Itchy eyes, red eyes, nose and/or throat
- Watery eyes
- Poor sense of smell
- Sore throat
- Sinus headache, frequent sinusitis
- Blocked ears, tinnitus, earache, poor hearing, dizziness, vertigo
- Itchy ears
- Postnasal drip
- Nasal Polyps
- Bronchial asthma

TIPS FOR ENVIRONMENTAL CONTROL

1. Seal all mattresses, all pillows and box springs in allergen impermeable, non-quilted, zippered encasings.
2. If there is more than one mattress in the bedroom all should be encased. It is recommended that cloth tape be placed over the encasing zipper
3. Wash all bedding in hot water (130°F/54°C) every two to four weeks to kill the mites and remove their allergen.
4. Buy comforters that can be washed at high temperatures or use mite allergen-proof zippered cover.
5. Remove all carpeting.
6. Cover air vents with filters to clean the air.
7. Replace heavy curtains with lightweight/washable ones that can be washed frequently or, better still, use blinds that can be cleaned on a weekly basis.
8. Substitute upholstered furniture with wooden, vinyl or leather.
9. Remove stuffed toys from children's bedrooms. If a favourite toy is a must, then chose a washable toy. Alternatively, place the toy in a plastic bag in the freezer till frozen once a week to kill dust mites.
10. Air conditioning can prevent the high heat and humidity which stimulate mite growth. Special filters can be added to help trap the airborne allergens. Use a dehumidifier to help reduce humidity levels.
11. If using a humidifier in the winter, avoid over-humidification. The ideal relative humidity is 40–50%. Use a humidity gauge to monitor the levels in your room/home.
12. Use HEpa filter on vacuum or use a central vacuum.



FS-A02



Each spring, summer, and fall, tiny pollen grains are released and hitch rides on currents of air. Most of the pollen that causes allergic reactions comes from plants that don't have showy flowers, such as trees, weeds, and grasses. These plants make small, light, and dry pollen grains that are made to be carried by wind. Pollen can enter your eyes, nose, and throat and trigger pollen allergy. Because airborne pollen can drift for many miles, removing an offending plant may not help. Most allergy-causing pollen comes from plants that produce it in huge quantities. For example, a single ragweed plant can generate a million grains of pollen every day. Although some people may think they are allergic to colourful or scented flowers like roses, it's not usually the case. Most people have little contact with the large, heavy, and waxy pollen grains of flowering plants because this type of pollen is not carried by wind, but by insects such as butterflies and bees.

Each plant pollinates more or less at the same time from year to year. Exactly when a plant starts to pollinate seems to depend on the relative length of night and day—and therefore on geographical location—rather than on the weather. A pollen count is a measure of how much pollen is in the air. Pollen counts tend to be the highest early in the morning on warm, dry, breezy days and the lowest during chilly, wet periods.

SYMPTOMS

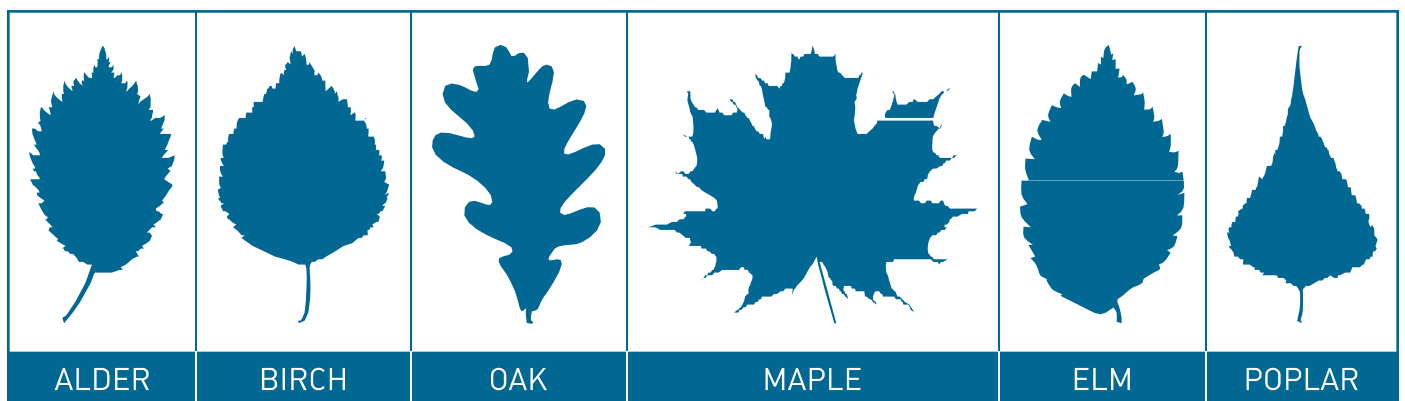
Symptoms can include any of the following:

- Sneezing
- Runny nose
- Nasal congestion
- Cough
- Itchy eyes, nose and/or throat
- Watery eyes
- Poor sense of smell
- Sore throat
- Sinus headache, frequent sinusitis
- Blocked ears, tinnitus, earache, poor hearing, dizziness, vertigo
- Itchy ears
- Postnasal drip
- Nasal Polyps
- Bronchial asthma

POLLEN SEASONS FOR THE OTTAWA AREA

TREES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
ALDER				■	■	■	■					
BIRCH				■	■	■	■					
OAK				■	■	■	■					
MAPLE				■	■	■	■					
ELM				■	■	■	■					
POPLAR				■	■	■	■					
RAGWEED								■	■	■	■	
GRASSES						■	■	■	■			

IDENTIFYING TREE SPECIES



TIPS FOR AVOIDANCE

- Close windows during pollen season
- Use air conditioning in your home and car
- Remove shoes and jackets when coming indoors
- Do not dry clothes outside during the pollen season
- Keep pets that spend time outdoors out of the bedroom. In addition to animal dander allergens, they may carry and deposit pollen stuck to their fur.
- If possible, avoid being outside in the morning or on windy days.
- Take a shower and wash hair when coming in from outside or at night before bed
- Washing your hands reduces the chance that you will get pollen in your eyes or nose. You can easily pick up pollen on your hands by touching door handles, running your hands through your hair or touching other outdoor surfaces. If you rub your eyes or nose with those pollen-covered hands, you can cause an allergy attack.

FS-A03



The dander (dead skin that is continually shed), urine and saliva of feathered or furry animals such as cats, dogs, birds and rodents (hamsters, gerbils, mice etc.) can cause allergy and asthma symptoms.

There appears to be a major dog allergen found primarily in the sebaceous glands in the skin of dogs. The allergen is very sticky and clings to shed skin and hair. Therefore, the animal's hair is the carrier, not the source. Every dog breed that exists shares this allergen and all other animals with fur or hair (rabbits, gerbils, hamsters, horses and cats) produce similar allergens. When animal hair is shed on sofas or carpets, humans pick up the dander when they come in contact with it. Breeds that shed less are not allergen-free, but they do leave less of it behind. A small dog may produce a lesser amount of the allergen than a large dog but this is only due to size. **No breed is entirely free of allergen.**

Cats are more likely to produce a more severe allergic reaction than dogs. This may be due to more intense or intimate exposure.

In addition to the glands surrounding the hair follicles, allergic protein can be found from other animal sources. Rat and mouse urine contains protein usually responsible for allergic reactions. The protein of blood serum in a horse is known to cause allergic reactions. Saliva of cats and dogs can produce allergic protein. The lick or bite from a cat or dog may cause hives or itchy skin.

SYMPTOMS

Symptoms can include any of the following:

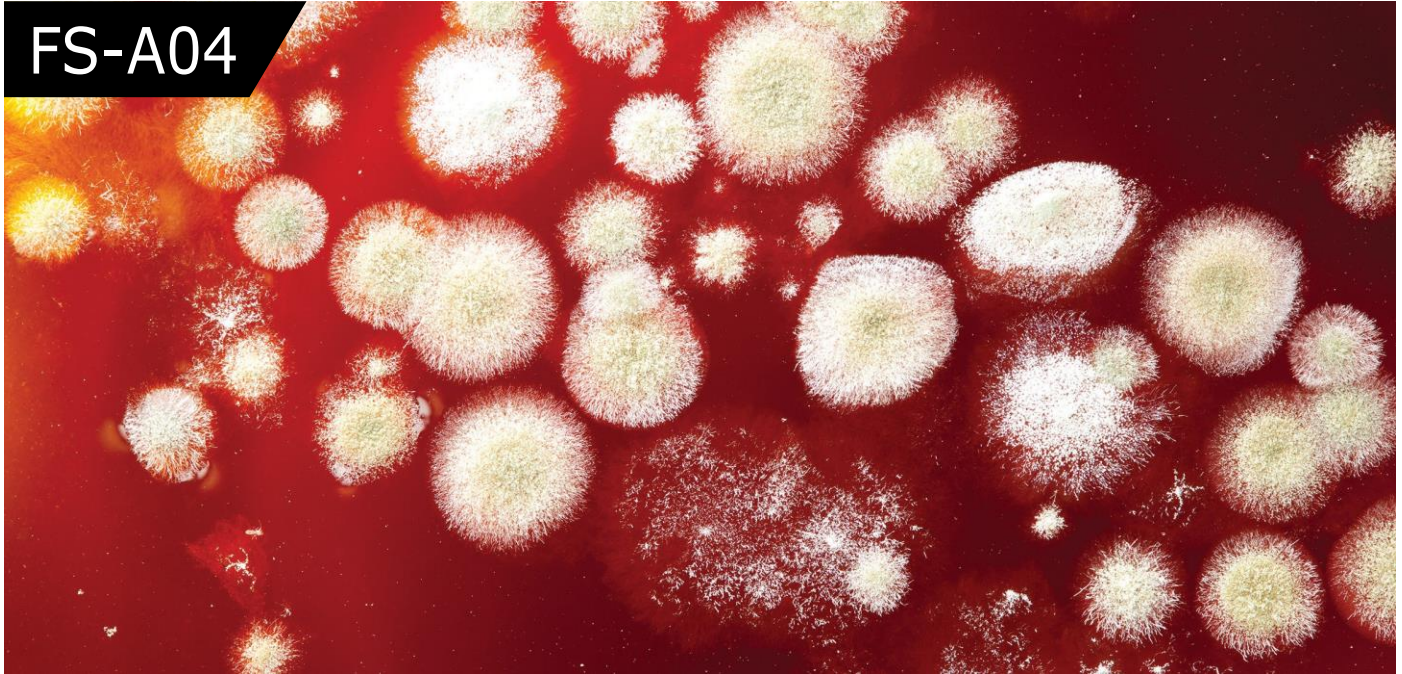
- Sneezing
- Runny nose
- Nasal congestion
- Cough
- Itchy eyes, nose, and/or throat
- Watery eyes
- Itchy skin, rash, or hives
- Nasal Polyps
- Sore throat
- Sinus headache, frequent sinusitis
- Blocked ears, tinnitus, earache, poor hearing, dizziness, vertigo
- Itchy ears
- Postnasal drip
- Poor sense of smell
- Bronchial asthma

TIPS FOR ENVIRONMENTAL CONTROL

The most effective way to reduce pet allergen is to remove the pet from your home. If that is not possible, environmental controls may help to reduce the level of exposure. Many environmental controls are for the entire home, but the bedroom is the most important because it is where people usually spend a third to half of their time.

- Keep the pet outdoors whenever possible
- If it is not possible to keep pet outdoors, try to keep the pet confined to one room.
- Non-carpeted floors prevent accumulation of pet hair.
- If the pet is on the furniture, substitute upholstered furniture with wooden, vinyl, or leather.
- Wipe surfaces with damp cloth.
- Keep the pet out of the bedrooms at all times.
- Change the furnace filter as frequently as every month.
- Have a non-allergic person wash the pet weekly.

FS-A04



Molds are microscopic fungi that live on plant or animal matter. Their growth is encouraged by warmth and high humidity. Many molds reproduce by releasing spores into the air. These airborne mold spores are far more numerous than pollen grains and when inhaled can produce allergy or asthma symptoms. Molds are found both indoors and outdoors. Outdoor mold spores may provoke allergies in the spring, summer and fall while indoor molds can cause problems year round.

Any house can develop a mold problem given the right conditions. You might not see it growing on the walls, but it may still be present in your home.

SYMPTOMS

Symptoms can include any of the following:

- Sneezing
- Runny nose
- Nasal congestion
- Cough
- Itchy eyes, nose, and/or throat
- Watery eyes
- Poor sense of smell
- Sore throat
- Sinus headache, frequent sinusitis
- Blocked ears, tinnitus, earache, poor hearing, dizziness, vertigo
- Itchy ears
- Postnasal drip
- Nasal Polyps
- Bronchial asthma

TIPS FOR ENVIRONMENTAL CONTROL

Throughout the House:

1. Keep the indoor moisture low.
The ideal humidity level is 30–40 percent.
2. Use a dehumidifier or central air conditioning to control the temperature inside your house. Central air conditioning reduces indoor humidity. Clean the dehumidifier regularly.
3. If using a humidifier in the winter, **avoid over-humidification and clean the humidifier regularly.**

In the Kitchen:

4. Use an exhaust fan to remove water vapour when cooking.
5. Empty water pans below self-defrosting refrigerators frequently.
6. Discard spoiled foods immediately.
7. Empty the garbage daily.

In the Bathroom:

8. Use an exhaust fan or open a window to remove moisture after showering.
9. Wipe down the damp surfaces after showering.
10. Repair any damaged caulking or grout. Replace shower curtain when mold growth is noted.
11. Wash bathrooms with a mold-preventing or mold-killing solution at least once a month.

Outside:

12. Remove leaves, clippings and compost from around your house.
13. Avoid cutting grass and raking leaves or wear a face-mask for these activities.



Cockroaches

Blattaria

FS-A05



The German cockroach is one of the most common household cockroaches in the world. Measuring about 1.3 cm to 1.6 cm (1/2 to 5/8 inch) long, it is tan to light brown with two dark parallel streaks running from the head to the base of the wings. Cockroaches have wings, but are unable to sustain flight.

Cockroaches will inhabit any area where food, water and shelter are available. They are attracted to food sources which contain starches, sugars and protein, but will eat almost anything when hungry. Cockroaches are particularly fond of inhabiting restaurants, food processing facilities, hotel rooms, nursing homes and schools. They are attracted to buildings because of the warm, damp conditions offered by kitchens, bathrooms, basements and plumbing areas.

Their presence does not necessarily mean unsanitary conditions exist, as they can hitch a ride on various objects including used furniture, food items and shipping cartons. Cockroaches are most active at night so they may go unnoticed for some time.

When most people think of allergy “triggers,” they often focus on plant pollens, dust, animals and stinging insects. In fact, cockroaches also can trigger allergies and asthma. Cockroach allergen is believed to derive from feces, saliva and the bodies of these insects. Cockroach allergen can be found in house dust or air. The allergen particles are large and settle rapidly on surfaces. They become airborne when the air is stirred by people moving around. As in other common allergies, symptoms can range from mild to severe.

Many houses have dust that contains parts of cockroaches. This is most common in older, multifamily housing and in the inner city where complete extermination of cockroaches is very difficult. Individuals with an allergy to cockroach protein, particularly those with asthma, tend to have increased symptoms if they live in such houses. Patients with cockroach allergies can develop acute asthma attacks. The frequent hospital admissions of inner-city children with asthma often are directly related to their contact with cockroach allergens.

SYMPTOMS

Symptoms can include any of the following:

- Sneezing
- Runny nose
- Nasal congestion
- Cough
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- Watery eyes
- Poor sense of smell
- Sore throat
- Sinus headache, frequent sinusitis
- Blocked ears, tinnitus, earache, poor hearing, dizziness, vertigo
- Itchy ears
- Postnasal drip
- Nasal Polyps
- Bronchial asthma

Allergy Treatment

Desensitization Immunotherapy

FS-A06



The best treatment of allergy symptoms is to identify and avoid the substance causing the symptoms. Where this is not possible, and the symptoms are mild or occasional, the use of anti-allergy medications may be tried.

In the case of moderate to severe symptoms when the substance causing the symptoms (the allergen) cannot be completely avoided then desensitization (immunotherapy) may be indicated for some allergens. Immunotherapy is a method of using mixtures of extracts of allergens which are given by injection. Over a period of time, the injections should produce a gradual increase in tolerance to these allergens and a decrease in symptoms. This treatment is begun by using tiny doses which are increased at weekly or twice-weekly intervals. **After about 20 injections, a dose is reached which is called the maintenance dose and this is repeated at 3–4-week intervals for the duration of the year.** Improvement will usually continue to increase over several years.

The allergist will review the progress every year or two and will decide the time to stop the treatment when there will be the least chance of relapse.

This form of treatment has been used since 1911. In the period of time no long term 'toxicity' or other significant adverse effects have been documented. However, since the technique involves the injection of material to which the person is allergic there is a definite but small risk of a systemic or anaphylactic reaction, which is usually easily treatable. Severe reactions are infrequent; very serious reactions (including fatalities) have rarely been reported.



After the injection of a dose of the extract, it is expected that there may be swelling, itching and redness at the site, which usually subsides within a few hours. It is felt that this local reaction should not exceed about 2.5 cm or the size of a Loonie and should not last longer than 24 hours. If it does, the office giving the injections should be notified and the subsequent schedule may be modified. For larger local reactions a cold compress and an antihistamine may be helpful or advised. Generally it is best not to be excessively active (e.g. tennis, soccer) for a few hours after the injection and it is best not to come to the office hot, sweaty and perspiring from physical exertion prior to the injection. If you are unwell (e.g. fever, cold, flu, flare up of asthma...) the physician/nurse should be advised before the injection is given. Under such circumstances, it may be preferable to postpone the injection until you are feeling better.

You should remain in the office for 30 minutes after an injection. The dosage schedule supplied with the extract is a suggested schedule only and may be modified by the doctor. The rare patient may be slow in developing a tolerance and may react to the suggested dosage increase with excessively large swelling and/or a flare up of symptoms that are being treated. This usually happens in the office and should be immediately brought to the doctor/nurse's attention.

Use of an antihistamine and/or Adrenalin (epinephrine) may be necessary. If any injection is followed by the appearance of symptoms of faintness, itching of the palms, soles, axillae, throat irritation, cough or shortness of breath, this must be reported immediately. If this happens out of the office, you should get back to the office or to a hospital emergency department, whichever is closer. If an antihistamine is available take a dose and do not delay getting to the office or hospital. In the presence of any of these more serious reactions the allergist should be consulted regarding the subsequent dosage schedule.

If you become pregnant while undergoing immunotherapy, you should consult your allergist to determine whether your treatment should be continued.

Allergy patients should not be given (if at all possible) a class of drug called beta blocker, especially while on immunotherapy.

Please feel free to discuss with the allergist's office any questions or problems concerning the extract and dosage schedule.