These days we have seen lot of people presenting with various degree of allergic reactions. Therefore we decided to discuss further about allergies and how to manage them.

An allergy occurs when the body overreacts to an allergen or 'trigger' that is typically harmless to most people. Examples of allergies include hay fever, asthma, eczema, hives and food allergy. Estimates suggest that about one person in four is allergic to something and roughly half of all allergy sufferers are children. The symptoms of an allergy range from mild to severe. The most severe type of allergic reaction is anaphylaxis, which may cause death without prompt medical attention. In most cases, effective treatments are available to manage or treat allergy symptoms.

Symptoms of allergies

Symptoms depend on the allergy, but may include:

- swelling of lips, face, eyes
- sneezing
- runny nose
- red, watery and itchy eyes
- wheeze or persistent cough
- breathing problems
- swelling tongue and tightness of throat
- headache
- skin rash
- stomach pains
- vomiting and diarrhoea

Do not self-diagnose. The symptoms and signs of allergies are common to many other medical conditions and sometimes you may notice one or few of the above symptoms. It is important to see your doctor for professional diagnosis and treatment.

Common allergens

A substance in the environment that can cause an allergic reaction in susceptible people is called an 'allergen'. There are many different allergens, but they all share one thing in common – protein. Some allergens don't contain protein to begin with, but bind with protein once inside the body to provoke the allergic reaction.

Common allergens include:

- food – such as crustaceans(prawns, Crabs), eggs, fish, milk, peanuts, tree nuts (for example, almonds, cashews, pecans and walnuts), sesame and soy products
- plants – pollen from grasses and plants
- medicines – including prescription medications (such as penicillin), over-the-counter medicines (such as aspirin) and herbal preparations
- insects – such as dust mites and the venom from bees, ticks, ants and wasps
- moulds – such as mushroom and mould spores
- animal dander – such as the fur and skin flakes from domestic pets such as cats and dogs
- chemicals – including industrial and household chemicals and chemical products such as latex rubber.

The immune system reaction

Allergy is the result of mistaken identity. An allergen enters the body and is wrongly identified by the immune system as a dangerous substance. In response, the immune system makes antibodies to attack the allergen. These are specific antibodies of the IgE (immunoglobulin E) class.

When an allergen is found, IgE antibodies trigger a cascade of immune system reactions, including the release of chemicals known as mast cell chemicals. These are substances that the body normally uses to destroy micro-organisms. The most common of these is histamine. In small amounts, histamine causes itching and reddening of the local area. In large amounts, the nearby blood vessels become dilated and the area swells with accumulated fluid.

The immune system's tendency to overreact to a harmless substance is thought to be genetic. The term 'atopy' describes this genetic tendency. Doctors describe a person who has an allergy as being 'atopic' – such people usually have raised levels of IgE in their blood.

Severe Allergic Reaction (anaphylaxis)

Severe allergic reactions (anaphylaxis) and asthma attacks related to allergies need emergency first aid.

If you (or a family member) have previously had asthma or a severe allergic reaction, prepare an action plan with the help of your doctor. Follow the plan if the symptoms of an allergic reaction appear.

Symptoms of a severe allergic reaction (anaphylaxis)

Symptoms of a severe allergic reaction include:

- difficult or noisy breathing
- swelling of the tongue
- swelling or tightness of the throat
- difficulty talking or a hoarse voice
- wheeze or persistent cough
- persistent dizziness or collapse
- paleness and floppiness in young children
- abdominal pain and vomiting.

Milder allergic symptoms that can appear before a severe allergic rea tion include:

- swelling of your lips, face and eyes
- hives or welts
- tingling mouth
- abdominal pain and vomiting.

If you have experienced any of these symptoms, you are at greater risk of having another severe reaction. Ask your doctor to refer you to a medical specialist (allergist or clinical immunologist).

Emergency first aid for severe allergic reactions

A severe allergic reaction (anaphylaxis) is life threatening and requires urgent action.

Emergency responses for severe allergic reaction (anaphylaxis) are:

- lay the person flat – do not allow them to stand or walk
- administer adrenaline with an autoinjector (such as an EpiPen®)
- always dial triple zero (000) to call an ambulance in a medical emergency.

If you are at risk of a severe allergic reaction, make sure you:
have a severe allergic reaction action plan

- carry a mobile phone to call for help when needed.
- carry an adrenaline autoinjector (e.g. EpiPen®) to treat a severe allergic reaction
- wear medical identification jewellery – this increases the likelihood that adrenaline will be administered in an emergency
- avoid medication (where possible) that may increase the severity of an allergic reaction or complicate its treatment – such as beta blockers

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