Skin Prick Test

Dato’ Dr. S. Sellappan
MBBS(Mys), MRCP(UK), MRCP(Ireland),
M.Sc.(UK), DCH(London), DCP(UK), Allergy Diploma (UK)

Consultant Paediatrician

Allergy Specialist

LohGuanLye Specialist Centre, Penang
Definition

Allergy - from the Greek words
- "allos" meaning changed or altered state and
- "ergon" meaning reaction or reactivity)
ALLERGY

Heredity

Infection
Reduces allergic sensitization

Indoor pollutants
Nitrogen dioxide

Cigarette smoke

Car exhaust
Diesel particulates

Exposure to allergens
- House dust mite
- Cat
- Dog
- Peanut
- Milk
- Egg
ALLERGY

Four types of allergy
1. Respiratory allergy
2. Skin-related allergy
3. Food allergy
4. Allergy to insects
ALLERGY MARCH

GI symptoms  Rhinitis  Asthma

Wheeze

IgE  IgE  IgE  IgE  IgE  IgE
House Dust Mites

The Killer

in your bed
ALLERGY

Diagnosis
ALLERGY DIAGNOSIS

- Detailed History
- **Skin Prick Test**
- Specific IgE Test
- Patch Test
- Intra Dermal Test
- Skin Scratch Test
- Nasal Flush Test
SKIN PRICK TEST

Immediate Reaction Test

Used for Type 1 IgE mediated Allergic Reactions
SKIN PRICK/ SCRATCH TEST

A skin prick test, also called a puncture or scratch test, checks for immediate allergic reactions to as many as 40 different substances at once. This test is usually done to identify allergies to pollen, mold, pet dander, dust mites and foods. In adults, the test is usually done on the forearm. Children may be tested on the upper back.

Allergy skin tests aren't painful. This type of testing uses needles (lancets) that barely penetrate the skin's surface. You won't bleed or feel more than mild, momentary discomfort.
CONTRAINDICATIONS

1. **Anti histamines**
   1. First Generation – stop for 2 days
   2. Second Generation – stop for 4 – 7 days

2. Beta blockers
3. ACE inhibitors
4. Tricyclic Antidepressants
5. Phenothiazines
6. H2 receptor Antagonists
SKIN PRICK TEST

Skin Prick Test
Lancets
SKIN PRICK TEST

- Gentle prick through a drop of allergen extract on the surface of your arm.
- Results in a small swelling and a reddening of the skin.
SKIN PRICK TEST

Reaction

Usual: Wheal (Flare)

Itchiness

Severe: Anaphylaxis
SKIN PRICK TEST
SKIN PRICK TEST

Skin Prick Test
Allergy skin prick testing

Skin prick test / positive result
Allergic Rhinitis

Treating Allergy at its Root

- Diagnosis of allergy with Skin Prick Test

The LohGuanLye Specialist Centre experience
Skin Prick Test

Conditions tested

Allergic Rhinitis
Asthma
Urticaria

Age: 3 - 69 years
Skin Prick Test

1. Histamine (Positive Control)
2. Saline (Negative Control)
3. House Dust Mites (DF & DP)
4. Tropical Mite (BT)
5. Mould Mite (TP)
6. Cat
7. Dog
8. German Cockroach
9. Pollen
10. Milk
11. Chicken
12. Egg White
13. Egg Yolk
14. Fish Mix
15. Wheat
<table>
<thead>
<tr>
<th>ALLERGEN</th>
<th>% POSITIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>House Dust Mites</td>
<td>55.0 %</td>
</tr>
<tr>
<td>Dermatophagoides farinae &amp; pteronyssinus</td>
<td></td>
</tr>
<tr>
<td>German Cockroach</td>
<td>11.3 %</td>
</tr>
<tr>
<td>Blattella germanica</td>
<td></td>
</tr>
<tr>
<td>Cats</td>
<td>3.7 %</td>
</tr>
<tr>
<td>Dogs</td>
<td>4.1 %</td>
</tr>
<tr>
<td>Tropical Mites</td>
<td>45 %</td>
</tr>
<tr>
<td>Blumia tropicalis</td>
<td></td>
</tr>
<tr>
<td>Mould Mites</td>
<td>34.5 %</td>
</tr>
<tr>
<td>Tyrophagus putrescentiae</td>
<td></td>
</tr>
</tbody>
</table>