Laboratory Tests for Allergy
If you write “RAST” or “Allergy serology”, but do not specify the allergens, we will perform the tests listed under A1 (for a child 6 years or less) or A2 (Adult, or child over 6 years). Any subsequently requested additional allergens are charged according to the billing policy outlined above. For panels A1, A2 or A3 we will accept the Medicare rebate.

<table>
<thead>
<tr>
<th>Allergen Specific IgE - RAST Testing</th>
</tr>
</thead>
</table>

### Our fees for different allergen types

<table>
<thead>
<tr>
<th>Type</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>$5</td>
</tr>
<tr>
<td>Mixed</td>
<td>$10</td>
</tr>
<tr>
<td>Allergen Components</td>
<td>$40</td>
</tr>
</tbody>
</table>

### Billing policy for allergy testing

Our policy is to respect your request for the allergens and encode them according to our best practice. Even if you have requested more allergens than our allowance under Medicare, we will bill your patient according to the pricing using the key above. If you have nominated the patient to be bulk-billed or if the patient has signed a Medicare assignment form, this billing policy will still apply for all tests above our allowance under Medicare. You will see in our Allergen Menu that we now list a price for each allergen reagent and that this is organised into different allergen classes: single allergens are $5, mixed allergens are $10. Our highly specialised allergen components are $40.

If the price of the allergens requested is more than the Medicare rebate of $22.80, the laboratory will not accept bulk-billing for the request and the patient will be billed according to the price on the menu with our additional allergen test fee of $25 and may claim a rebate of $22.80, subject to coning.

### For example if you request:

- Three single allergens @ $5 $15
- Two mixed allergens @ $10 $20
- One allergen component @ $40 $40

Your patient will receive an invoice for $100 (which includes our allergen test fee of $25).

### Ordering allergy tests

We ask that you specifically nominate which allergens you would like tested. Please do not write the allergens to be tested in the clinical notes section of the request form. A comprehensive menu of allergens that we test for is available in this brochure. If allergens are not available we may use cross-reactive ones or advise you on the report.

Some “allergy symptoms” may result from intolerance mechanisms (salicylates, amines, MSG, metabisulphite) and detection of IgE to them is not useful or possible. You can request the allergens using their alphanumeric codes. To assist staff performing data entry, we would appreciate if you precede these codes by “Specific IgE for” or “Allergy serology for” or “RAST for”.

### Initial Investigation Panels

If you write “RAST” or “Allergy serology”, but do not specify the allergens, we will perform the tests listed under A1 (for a child 6 years or less) or A2 (Adult, or child over 6 years). If you have nominated the patient to be bulk-billed or if the patient has signed a Medicare assignment form, this billing policy will still apply for all tests above our allowance under Medicare. You will see in our Allergen Menu that we now list a price for each allergen reagent and that this is organised into different allergen classes: single allergens are $5, mixed allergens are $10. Our highly specialised allergen components are $40.

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<tr>
<td></td>
<td>Total IgE</td>
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</tr>
<tr>
<td>F1</td>
<td>Cow’s milk</td>
<td>M6 Alternaria</td>
</tr>
<tr>
<td>F2</td>
<td>D. Pteronyssinus (Dustmite)</td>
<td>E1 Cat</td>
</tr>
<tr>
<td>F13</td>
<td>Peanut</td>
<td>E5 Dog</td>
</tr>
<tr>
<td>F14</td>
<td>Soy</td>
<td>D1 D. Pteronyssinus (Dustmite)</td>
</tr>
<tr>
<td>G5</td>
<td>Grass Pollen (Perennial Rye grass)</td>
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<tr>
<th>Food &amp; Inhalants</th>
<th>F13</th>
<th>G5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staple Foods</td>
<td>Egg white</td>
<td>Grass Pollen (Perennial Rye grass)</td>
</tr>
<tr>
<td>(egg white, cow’s milk, peanut, soy, wheat, and codfish)</td>
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Testing for IgE to specific allergens (“RAST” testing) is an important step in the diagnosis of allergy. This information provides a summary of how this testing can be best utilised and outlines the cost of testing. Due to Medicare funding constraints, the laboratory is unable to accept bulk billing requests for more than very basic allergy testing requests.

**Background**
Immediate (Type I) hypersensitivity refers to a specific type of immune response in which Immunoglobulin E (IgE) plays a central role. Clinical manifestations of immediate hypersensitivity most commonly involve the skin (urticaria), eyes (conjunctivitis), respiratory tract (rhinitis and asthma) and cardiovascular system (hypotension). IgE is produced after first exposure to an allergen (an environmental molecule that induces an allergic response). This IgE subsequently binds to mast cells in tissues, such as those mentioned above. Subsequent exposure to allergen causes activation of the mast cells, to which the allergen-specific IgE is bound, causing release of chemicals that cause the clinical manifestations of allergy (see Figure 1 below).

“RAST” tests, which due to new laboratory techniques, are more accurately referred to as specific IgE (or) sIgE tests, detect the presence of specific IgE in the serum and were introduced into clinical practice in the early 1980’s. Techniques for detection of allergen-specific IgE have improved significantly since this time. Melbourne Pathology has introduced a new platform on which sIgE testing is performed – the Phadia ImmunoCap 250. As the majority of published studies in allergy use this testing method, it is widely considered the benchmark for quantifying sIgE.

IgE attachment to mast cell

**Diagnostic use of sIgE testing**
sIgE is usually measured to confirm an allergic aetiology for symptoms when there is a history that suggests a possible allergic cause. sIgE measurements are used in the diagnostic algorithm of Type I allergy as presented in Figure 2.

Testing for sIgE is not affected by medications. Interpretation of sIgE testing is very dependent on the clinical picture.

**History and examination**

- **sIgE negative**
  - Allergy not excluded
  - Avoidance or consider desensitisation (aeroallergens and stinging insect allergy)
  - Referral to allergist, if IgE mediated pathology is considered highly likely clinically, or if the risks of a false negative result are high (eg. Allergen associated with anaphylaxis)

- **sIgE positive**
  - Allergy confirmed
  - Suggest Type I allergy
  - Doesn’t suggest Type I allergy

As with other tests in pathology, diagnostic accuracy is not 100 percent, ie. the presence of sIgE to a particular allergen is not 100 percent diagnostic of clinical reactivity to that allergen and absence of sIgE to a particular allergen does not 100 percent exclude clinical reactivity to that allergen.

While the level of sIgE correlates with the likelihood of allergy, it does not correlate with the severity of an allergic reaction. ie. severe reactions may occur in those with low level sIgE and vice versa.

*Please note: If sIgE testing has been done inadvertently in this situation and is positive, consider referral to an allergist.*

**Figure 1**

First Exposure to Allergen

- Allergen
  - B cell
  - IgE production
  - IgE attachment to mast cell

Second Exposure to Allergen

- Mast cell with allergen-specific IgE
  - Exposure to allergen
  - Allergen attachment and degranulation of mast cell

**Figure 2**
Clinical vignettes

1. A 35 year old female presents with a history of recurrent upper airway swelling following pesto. In between episodes, she has tolerated pinenut. Pesto often contains cashew nuts, so a cashew specific sIgE is ordered and returns a result of <0.35 kIU/L. Due to the seasonal nature of the symptoms, the HDM result is likely to be a clinical false positive. He underwent “Perennial Rye Grass” specific immunotherapy (desensitisation) with good effect.

2. A 17 year old male with a history of allergic rhinitis only manifest in the spring has specific IgE ordered for House Dust Mite (HDM), Cat, Dog and “Perennial Rye Grass” (a grass that only pollinates in the spring in Victoria). HDM returns a result of 1.5 kIU/L, “Perennial Rye Grass”, 3kIU/L with Cat and Dog giving results of <0.35 kIU/L. Due to the seasonal nature of the symptoms, the HDM result is likely to be a clinical false positive. She underwent “Perennial Rye Grass” specific immunotherapy (desensitisation) with good effect.

3. A 13 year old female with Type I diabetes is suffering from post prandial bloating and cramping. The symptoms follow seemingly unrelated foods, but a sIgE is performed to “exclude” an allergic cause. Milk and codfish sIgE are elevated at 1.3 and 0.9 respectively. She is told to avoid milk and fish and has mild improvement in her symptoms. As she is still symptomatic, coeliac serology is ordered and Deamidated Gliadin IgG is significantly elevated. She goes on to have an endoscopy and biopsy which confirms coeliac disease and her symptoms resolve with the institution of a strict gluten free diet. She reintroduces milk and fish without consequence. It is likely that these represented clinical false positives in the setting of a history that suggests a specific allergic cause for symptoms.

Conclusion

sIgE testing is very useful for confirmation of an allergic aetiology in the setting of a history that suggests a specific allergic cause for symptoms.

Dr Gary Unglik
MBBS, FRACP, FRCPA
Immunology

After graduating from Monash University in 1997, Dr Unglik trained at the Royal Melbourne and Alfred Hospitals. He obtained combined fellowship with both the Royal Australasian College of Physicians and the Royal College of Pathologists of Australia in 2007.

Dr Unglik joined Melbourne Pathology in February 2010 as a Consultant Immunopathologist. He is also a Consultant Clinical Immunologist and Allergist in the Department of Clinical Immunology and Allergy at the Royal Melbourne Hospital where he is also Consultant Immunopathologist in the Department of Pathology.

He is also a member of the Australasian Society of Clinical Immunology and Allergy.

Allergens which sIgE can be measured

Several hundred allergens are available for testing. Targeted testing after a good clinical history allows maximisation of predictive values of sIgE tests.

Allergens can be conveniently grouped according to Clinical Syndrome:

FOOD
Clinical manifestations of immediate hypersensitivity include one or more of acute urticaria, angioedema, wheeze or hypotension.
- Most common in children: Cow’s milk, egg, peanut, tree nuts (most commonly cashew nut), sesame seed, soy and wheat
- Most common in adults: Peanut, tree nuts, “shellfish” (especially crustacean), fish, seeds and egg

AEROALLERGENS
Clinical manifestations include one or more of rhinitis, asthma and occasionally dermatitis.
- Perennial
  - House dust mite, pet dander and less commonly moulds (eg. Penicillium/aspergillus) and cockroach
- Seasonal
  - Spring: Perennial Rye grass/Bermuda grass
  - Summer: Bermuda grass and moulds (eg, Cladosporium, Alternaria)
  - Late winter/spring: Trees (eg. Oak, Plane, Birch, Mimosa/Wattle, Cupressaceae)

VENOMS
Clinical manifestations of an immediate generalised reaction – large local reactions are not an indication for testing eg. Honeybee, Yellowjacket, Paper wasp.

DRUGS/MEDICATIONS/OTHER
Clinical Manifestations of an immediate hypersensitivity include one or more of acute urticaria, angioedema, wheeze or hypotension eg. Penicillin, Latex.

Allergens available

A full list of allergens is provided in our Allergen Menu.

Pitfalls in sIgE testing

Clinical false positives and false negatives

The presence of sIgE is required, but not alone sufficient for clinically apparent Type I allergic disease, ie. sIgE is not infrequently detected in individuals who do not suffer from allergy. Indiscriminate use of these tests, therefore, can lead to a significant number of positive results that are not clinically significant.

Furthermore, while the presence of sIgE on the surface of mast cells is a requirement for Type I allergic disease, some individuals possess mast cell bound IgE without detectable circulating IgE in the serum. Thus, if there is a high pre-test probability of allergy and the corresponding sIgE test is negative, it may be a clinical false negative.

The significance of these phenomena can be summarised in the following two statements:
1. If pre-test probability of allergy is low and RAST is low positive, post-test probability of allergy is still low.
2. If pre-test probability of allergy is high and RAST test is negative, post-test probability of allergy is still significant, ie. in the case of potentially life threatening allergies (food, insect sting, drug), referral for formal allergy assessment should be considered.

Unselected Panel Testing

This can be seen as a screen for atopy. The relevant allergen might not be included in an unselected panel, thus reducing sensitivity of the test. Conversely, testing unselected panels makes it more likely that an allergen which is not suspected based on the clinical history will yield a clinical false positive result.
Allergen Menu

Single Allergens $5 each

Note: Requests for more than four of these will exceed our allowance under Medicare.

**ANIMAL & AVIAN PROTEINS**

- Beef derm #74
- Bovine milk #73
- Bovine serum #72
- Bovine stomach #71

**MOULDS, YEASTS & TOXINS**

- Alternaria alternata #6
- Aspergillus flavus #228
- Aspergillus fumigatus #6
- Aspergillus nigri #207
- Aspergillus terreus #36
- Aureobasidium pullulans #12
- Botrytis cinerea #7
- Candida albicans (yeast) #5
- Cephalosporium acremonium #202
- Chaetomium globosum #208
- Cladosporium herbarum #203
- Cucurbita lanata #16
- Epicoccum purpurascens #14
- Fusarium moniliforme #9
- Helminthosporium halodes #8
- Malassezia spp. #227
- Mucor racemosus #4
- Penicillium glabrum #207
- Penicillium janthinellum #208
- Penicillium notatum #5
- Phoma betae #13
- Rhizopus nigricans #11
- Staphilococcus enterococci A #80
- Staphylococcus botryosum #10
- Talalid trilo/ #201
- Trichoderma viride #15
- Trichophyton ment. var. interdigitale #211
- Trichophyton rubrum #205
- Trichosporon pullulans #203
- Ulocladium chartarum #204

**GRASS & GRAIN POLLENS**

- Bahia grass #17
- Barley grain #201
- Bermuda grass #22
- Brine grass #11
- Cultivated oat #14
- Cultivated wheat #15
- Grass pollen (Fescue) #28
- Johnson grass #10
- Meadow grass #8
- Peninsular Ryegrass #5
- Sweet vernal grass #1
- Timothy grass #5
-Velvet grass #13

**INSECTS**

- Berlin beetle #76
- Blood worm #73
- Cockroach American #206
- Cockroach Oriental #207
- Cockroach (Bubalus germanicus) #6
- Fire ant (Solenopsis invicta) #70
- Green rimu (Cladodendron tasmanii) #72
- Grass seed (Stiphonurus granarius) #102
- Horse fly #124
- Mediterranean Flour Moth #1203
- Mosquito app (Aedes communis) #71
- Moth #18

**MISCELLANEOUS**

- Cotton crude fibres #5
- Samnal fluid #70
- Tebramin fish feed #203
- Tobacco leaf #201

**PARASITES**

- Anisakis #4
- Ascaris #1

**VENOMS**

- Dolichovespula maculata (White-faced hornet) #203
- Honey bee (Apis mellifera) #1
- Paper wasp (Polistes spp.) #14
- Polistes dominulus (European paper wasp) #17
- Vespa crabro (European Hornet) #15
- Yellow jacket (Dolichovespula arenaria) #13

**TREE POLLENS**

- Acacia #19
- American beech #73
- Australian pine #73
- Birch #7
- Box-elder #7
- Chestnut #7
- Cottonwood #14
- Cypress #722
- Date #724
- Elm #76
- Eucalyptus #16
- Grey alder #72
- Italian cyanus #73
- Japanese cedar #7
- Melaleuca #721
- Mountain juniper #76
- Oak #77
- Oil palm #223
- Olive #9
- Pampas reed #217
- Pine #7
- Privet pollen #210
- Red cedar #57
- Sweet gum #211
- Sycamore, London plane #11
- White ash #15
- White pine #16
- Willow #12

**VEGETABLES**

- Alphagel #304
- Castor bean #71
- Chloram T #75
- Ethylene oxide #78
- Formaldehyde/Formalin #98
- Green coffee bean #70
- Isocyanate HDI #77
- Isocyanate MDI #76
- Isocyanate TDI #75
- Isophagula #72
- Latex, Hevea braziliensis #85
- Silk #74
- Silk waste #73
- Sunflower seed #86
- Trimallic Anhydride TMA #88

**WEED AND CROP POLLENS**

- Canola (Papaseed) #203
- Canola seed #z
- Common pigweed #14
- Common ragweed #13
- Dandelion #16
- English plantain #19
- False ragweed #14
- Goosfoot Lamb’s quarters #10
- Lupin #207
- Mugwort #16
- Ox-eye daisy #31
- Penataria judaica #21
- Rough manxlander #16
- Saltwort Russian thistle #11
- Sheep sorrel #18
- Sunflower #204
- Western ragweed #2
- Wormwood #15
## Allergen Menu

### FRUIT & VEGETABLES
- Apple F49
- Apricot F237
- Asparagus F261
- Aubergine (eggplant) F262
- Avocado F96
- Bamboo shoot F51
- Banana F92
- Bassetroot F319
- Blackberry F211
- Blueberry F288
- Broccoli F260
- Brussel sprouts F217
- Cabbage F216
- Carrot F31
- Cauliflower F291
- Celery F85
- Cherry F242
- Cucumber F244
- Date F289
- Fennel (fresh) F276
- Fig F328
- Garlic F47
- Grape F259
- Grapefruit F209
- Guava F252
- Kaki fruit F84
- Orange F33
- Papaya F293
- Passionfruit F294
- Peach F95
- Pear F94
- Parsnip F301
- Pineapple F210
- Plum F205
- Potato F36
- Pumpkin F205
- Raspberry F343
- Red currant F322
- Rockmelons F87
- Rose hip F330
- Spinach F214
- Strawberry F44
- Sweet potato F54
- Tomato F26
- Watermelon F329

### MEAT
- Beef F27
- Chicken meat F83
- Mutton F88
- Pork F26
- Rabbit meat F213
- Turkey meat F264

### POULTRY
- Chicken meat F83
- Egg white F1
- Egg yolk F75
- Turkey meat F264

### SEED, LEGUMES & NUTS
- Almond F20
- Barley F6
- Beans - green F315
- Beans - Lima F182
- Beans - Red kidney F87
- Beans - Soya F14
- Brazil nut F18
- Buckwheat F11
- Cashew nut F316
- Cashew nuts F316
- Chios seeds F309
- Coconut F36
- Common milk F65
- Corn F6
- Farro F305
- Gluten F79
- Hazelnut F17
- Japanese millet F57
- Lentil F235
- Linseed F333
- Lupin F335
- Macadamia nut F345
- Oat F7
- Pea F12
- Peanut F13

### FISH & SHELLFISH
- Pecan nut F301
- Pine nut (pignola) F201
- Pistachio F203
- Poppy seed F224
- Pumpkin seed F206
- Quinoa F347
- Rice F9
- Rye F5
- Sesame seed F10
- Split wheat F124
- Sweet Chestnut F289
- Walnut F356
- Wheat F4
- White bean F15

### SPICES
- Anise F271
- Basil F269
- Bay leaf F278
- Black pepper F381
- Clove F41
- Cumin F40
- Cardamon F267
- Chill pepper F279
- Cinnamon F220
- Coriander F317
- Fennel seed F265
- Ginger F270
- Green pepper (unripe seed) F263
- Mint F332
- Mustard F89
- Oregano F265
- Paprika sweet pepper F218
- Parsley F86
- Sage F344
- Thyme F273
- Vanilla F234

### MILK
- Alfalfa F346
- Anchovy F313
- Blue mussel F37
- Catfish F369
- Clam F207
- Crab F23
- Crayfish F320
- Eel F264
- Codfish F3
- Cow's whey F236
- Goat milk F300
- Milk F2
- Sheep milk F325
- Sheep whey F326

### MISCELLANEOUS
- Mackerel F206
- Octopus F59
- Oyster F231
- Red Snapper F381
- Salmon F41
- Coffee F261
- Guac, guaj (gum E412) F246
- Gum arabic (E414) F297
- Honey F247
- Hop (fruit cone) F324
- Malt F90
- Mushroom (champignon) F347
- Tea F222
- Tragacanth (E413) F298
- Yeast (S. cerevisiae) F45

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**Single Allergens $5 each**

Note: Requests for more than four of these will exceed our allowance under Medicare.

---

Image with food items and allergy icons.
**Mixed Allergens $10 each**

*Note: Requests for more than two of these will exceed our allowance under Medicare*

### HOUSE DUST
- Dust & Mite mix: MX2
  - (H2 D1 D2 H5)

### ANIMAL DANDER MIXES
- Animal Mix 1: Cat dander, Horse dander, Cow dander, Dog dander
  - EX1
  - (E1 E3 E4 E5)
- Animal Mix 2: Cat dander, Dog dander, Guinea pig, Rabbit, Hamster, Mouse
  - EX2
  - (E1 E5 E6 E8 E9)
- Animal Mix 3: Guinea pig, Rabbit, Hamster, Rat, Mouse
  - EX70
  - (E5 E8 E4 E7 E9)

### TREE POLLEN MIXES
- Tree Mix 1: Box elder, Birch, American Beech, Oak, Walnut
  - TX1
  - (T1 T3 T5 T7 T10)
- Tree Mix 2: Box elder, Birch, Paper Birch, Oak, Sycamore
  - TX2
  - (T1 T7 T8 T12)
- Tree Mix 3: Mountain Juniper, Oak, Elm, White Ash
  - TX3
  - (T1 T3 T4 T7 T11)
- Tree Mix 4: Grey Alder, Hazel, Elm, Willow, Cottonwood
  - TX5
  - (T2 T4 T8 T12 T14)

### GRASS POLLEN MIXES
- Grass Mix 1: Cocklebur, Meadow Fescue, Perennial Ryegrass, Timothy grass, Clover, Mower grass
  - GX1
  - (G3 G4 G5 G6 G8)
- Grass Mix 2: Bermuda grass, Perennial Ryegrass, Timothy grass, Meadow grass, Johnson grass, Bahia grass
  - GX2
  - (G2 G5 G6 G8 G10 G17)
- Grass Mix 3: Sweet Vernal grass, Perennial Ryegrass, Common seed, Cultivated rye, Velvet grass
  - GX4
  - (G1, G6, G7, G12, G15)

### MOULD POLLEN MIXES
- Mould Mix 1: Penicillium chrysogenum, Cladosporium herbarum, Aspergillus furfuratus, Alternaria alternata
  - MX1
- Mould Mix 2: Penicillium chrysogenum, Cladosporium herbarum, Aspergillus furfuratus, Alternaria alternata, Alternaria alternata alternata, Alternaria alternata
  - MX2
  - (M1 M2 M5 M6 M8)
- Mould Mix 4: A. furfuratus, A. niger, A. tamari, A. baize
  - MX4
  - (M5 M507 M56 M238)

### COMBINATION INHALANT MIXES
- Inhalant 3: Bermuda grass, Perennial Ryegrass, Bahia grass, Common Ragweed, English Plantain, Gossypium Lamb’s Quarters
  - RX3
  - (G2 G5 G17 G8 W9 W10)
- Inhalant 4: Sweet Vernal grass, Bermuda grass, Perennial Ryegrass, Common Ragweed, Gossypium, English Plantain
  - RX4
  - (G2 G5 G1 W8 W8)

### OCCUPATIONAL MIXES
- Chemicals 1: Isocyanates (TDI, MDI, HDI), Phthalic anhydride, Chemicals 2: Ethylene oxide, Formaldehyde, Phthalic anhydride, Chemicals 3: Benzene, Chloramine T
  - PX1
  - (F4 F7 F8 F10 F11)
- Meat Mix: Pork, Beef, Chicken
  - PX7
  - (F26 F27 F30)
- Nut Mix: Peanut, Hazelnut, Brazil nut, Almond, Coconut
  - PX1
  - (F3 F17 F18 F20 F38)

### FOOD MIXES
- Cereal Mix: Wheat, Oat, Maize, Sesame seed, Buckwheat
  - FX3
  - (F4 F7 F8 F10 F11)
- Fruit Mix: Orange, Apple, Banana, Peach
  - FX15
  - (F3 F4 F5 F9 F5)
- Meat Mix: Pork, Beef, Chicken
  - FX7
  - (F26 F27 F30)
- Seafood Mix: Fish, Shrimp, Blue mussels, Turf, Salmon
  - FX2
  - (F3 F24 F37 F40 F41)

### OCCUPATIONAL MIXES
- Chemicals 1: Isocyanates (TDI, MDI, HDI), Phthalic anhydride
  - PX1
  - (F26 F28 F26 F29)
- Meat Mix: Pork, Beef, Chicken
  - PX7
  - (F26 F28 F29 F30)
- Nut Mix: Peanut, Hazelnut, Brazil nut, Almond, Coconut
  - PX1
  - (F3 F17 F18 F20 F38)

### VEGETABLE MIXES
- Vegetable Mix: Carrot, Potato, Spinach, Cucumber
  - FX9
  - (F3 F38 F42 F44)
- Food Mix: Meat, Fish, Shrimp, Blue mussels, Turf, Salmon
  - FX7
  - (F3 F4 F5 F6 F8)

### MIXED POLLEN MIXES
- Mixed Pollen Mixes: Grass Mix 1, 2, 3, 4, Tree Mix 1, 2, 3, 4, 5
  - TX1
  - (T1 T3 T5 T7 T8 T10)
  - TX7
  - (T9 T12 T16 T18 T19 T21)
  - TX8
  - (T1 T3 T4 T7 T11)
  - TX9
  - (T2 T3 T4 T7 T12)
  - TX10
  - (T2 T3 T4 T10)

### WOOD POLLEN MIXES
- Wood & Flower Mix: Common ragweed, Mugo pine, Dandelion, Goldenrod
  - WX5
  - (W1 W6 W7 W9 W12)
- Weed Mix: Common ragweed, Mugo pine, English Plantain, Gossypium Lamb’s Quarters, Saltwort
  - WX1
  - (W1 W6 W8 W10 W11)
- Weed Mix: Western ragweed, Mugo pine, English Plantain, Gossypium Lamb’s Quarters, Salsola Lemnacea
  - WX2
  - (W2 W6 W8 W10 W11)
Allergen Menu

### ANIMALS
- rCan f 1 (recombinant dog) E101
- rCan f 2 (recombinant dog) E102
- rFel d 1 (recombinant cat) E94
- nBos d 6 BSA, Cow Bos spp. E204
- nCan f 3 Dog serum albumin Canis familiaris E221
- nFel d 2 Cat serum albumin Felis domesticus E220

### FOODS
- nBos d 4 a-lactalbumin, Milk Bos spp. F76
- nBos d 5 b-lactoglobulin, Milk Bos spp. F77
- nBos d 8 Casein, Milk Bos spp. F78
- nGal d 1 Ovomucoid, Egg Gallus spp. F233
- nGal d 2 Ovalbumin, Egg Gallus spp. F232
- nGal d 3 Conalbumin, Egg Gallus spp. F333
- rAra h 1 Peanut A. hypogaea F422
- rAra h 2 Peanut A. hypogaea F423
- rAra h 3 Peanut A. hypogaea F424
- rAra h 8 PR-10, Peanut A. hypogaea F352
- rAra h 9 LTP, Peanut A. hypogaea F425
- rCor a 1 Cod Gadus morhua F426
- rGal d 1 Ovomucoid, Egg Gallus spp. F233
- rGal d 2 Ovalbumin, Egg Gallus spp. F232
- rGal d 3 Conalbumin, Egg Gallus spp. F333
- rAra h 1 Peanut A. hypogaea F422
- rAra h 2 Peanut A. hypogaea F423
- rAra h 3 Peanut A. hypogaea F424
- rAra h 8 PR-10, Peanut A. hypogaea F352
- rAra h 9 LTP, Peanut A. hypogaea F425
- rCor a 1 Cod Gadus morhua F426
- rGal d 1 Ovomucoid, Egg Gallus spp. F233
- rGal d 2 Ovalbumin, Egg Gallus spp. F232
- rGal d 3 Conalbumin, Egg Gallus spp. F333

### TREES
- rBet v 1 PR-10, Birch Betula verrucosa T215

### MOULDS
- rAlt a 1 (component alternaria) M229
- rAsp f 3 (recombinant aspergillus) M220
- rAsp f 1 (recombinant aspergillus) M218
- rAsp f 2 (recombinant aspergillus) M219
- rAsp f 4 (recombinant aspergillus) M221
- rAsp f 6 (recombinant aspergillus) M222

### LATEX
- rHev b 1 Latex Hevea brasiliensis K215
- rHev b 3 Latex Hevea brasiliensis K217
- rHev b 5 Latex Hevea brasiliensis K218
- rHev b 6.01 Latex Hevea brasiliensis K219
- rHev b 6.02 Latex Hevea brasiliensis K220
- rHev b 8 Proteins, Latex Hevea brasiliensis K221
- rHev b 9 Latex Hevea brasiliensis K222

### OCCUPATIONAL ALLERGENS
- nCar p 1 Papain, Papaya Carica K201
- nAsp o 1 a-amylase Aspergillus oryzae K87

### OTHERS (to exclude CCD reactivity)
- nAn a 2 Bromelin, Pineapple Ananas comosus K202
- nO214 MUXF3 CCD, Bromelin O214

### MISCELLANEOUS
- Alpha-gal (Gal-alpha-1,3-Gal Thyroglobulin, bovine) U853

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*Note: These allergens are priced as single allergens ($5 ea)*

<table>
<thead>
<tr>
<th>VENOM</th>
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<tbody>
<tr>
<td>rApi m 1 Phospholipase A2, Honey Bee I208</td>
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<tr>
<td>rVes v 1 Phospholipase A1, Common Wasp I211</td>
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<tr>
<td>rVes v 5 Common Wasp I209</td>
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<tr>
<td>rPen a 4 Tropomyosin, Shrimp Penaeus</td>
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<tr>
<td>Head Office &amp; Central Laboratory</td>
<td>Regional Laboratories</td>
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<tr>
<td>----------------------------------</td>
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<tr>
<td><strong>103 Victoria Parade Collingwood, Victoria 3066</strong></td>
<td><strong>Ballarat</strong></td>
</tr>
<tr>
<td><strong>Switchboard</strong> 9287 7700</td>
<td><strong>63 Victoria Street 3350</strong> 5331 6429</td>
</tr>
<tr>
<td><strong>Facsimile</strong> 9419 1486</td>
<td><strong>Bendigo</strong></td>
</tr>
<tr>
<td><strong>Results</strong> 9287 7777</td>
<td><strong>First Floor, 1 Chum Street 3550</strong> 5444 2382</td>
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<tr>
<td><strong>Couriers</strong> 9287 7788</td>
<td><strong>Box Hill</strong></td>
</tr>
<tr>
<td><strong>Helpdesk</strong> 9287 7799</td>
<td><strong>Epworth Eastern Medical Centre</strong></td>
</tr>
<tr>
<td><strong>Accounts Department</strong> 9287 7888</td>
<td><strong>1 Arnold Street 3128</strong> 9899 3830</td>
</tr>
</tbody>
</table>

**Regional Laboratories**

- **Ballarat**: 63 Victoria Street 3350, 5331 6429
- **Bendigo**: First Floor, 1 Chum Street 3550, 5444 2382
- **Box Hill**: Epworth Eastern Medical Centre, 1 Arnold Street 3128, 9899 3830
- **Frankston**: Frankston Private Hospital, 24-28 Frankston-Flinders Rd 3199, 9783 5582
- **Heidelberg**: Suite 11, 210 Burgundy Street 3084, 9459 7404
- **Mornington**: The Bays Hospital, Vale Street 3931, 5973 5811
- **Mulgrave**: The Valley Private Hospital, Suite 4, 529 Police Road 3170, 9790 1388
- **Richmond**: Epworth Centre, Suite 2.2, 32 Erin Street 3121, 9429 2222