

# Guide to Allergy (RAST) Testing

4Cyte pathology offers a wide range of allergy testing using the Phadia ImmunoCAP™ system. Allergic disease may manifest as rhinitis (hay fever), conjunctivitis, bronchospasm (asthma), food allergy or anaphylaxis. Diagnosis is made by careful history and examination, and can be confirmed by detection of specific IgE to allergen by “RAST”. Note that a positive RAST is evidence of sensitisation; allergic disease can only be diagnosed with both sensitisation AND a history of symptoms upon exposure. Note also that the level of positivity is correlated with the likelihood of true allergy, ie the higher the RAST level, the more likely it is to be relevant to the patient’s symptoms. Finally, RAST is unlikely to be useful in conditions *not* mediated by IgE, such as food intolerances (e.g. lactose or non-coeliac gluten intolerance) or chronic urticaria/angioedema.

It is therefore important to select carefully which allergens are likely to be relevant to the patient’s symptoms. At 4Cyte, we will perform up to **four** single allergens from the table below OR **two** allergen mixes OR **one** allergen mix and **two** single allergens. To make this process easier, we have designed ‘Panels’ which can be selected quickly for common allergies. In very select circumstances, testing to allergen *components* may be diagnostically useful, but we ask that you call the Immunopathologist to discuss individual patients prior to ordering.

*Prof David A. Fulcher, Immunopathologist, 4Cyte Pathology, Ph: 0418 283 495*

## SELECT **ONE** OPTION:

- A. ONE PANEL
- B. TWO ALLERGEN MIXES
- C. ONE MIX & TWO SINGLE ALLERGENS
- D. FOUR SINGLE ALLERGENS

### A. Panels—SELECT ONE PANEL ONLY

- Adult panel (dust mite, grass mix, animal mix)
- Child panel (dust mite, grass, cat, staple food mix)
- Pet panel (cat, dog, guinea pig, rabbit)
- Grass pollen panel (fescue, rye grass, timothy)
- Tree pollen panel (acacia, olive, birch)
- Mould panel (Alternaria, Aspergillus, Cladosporium)
- Nut panel (peanut, almond, hazelnut, cashew)
- Staple food panel (egg white, milk, wheat, peanut)
- Grain panel (wheat, barley, rice, soy)
- Seafood panel (fish, tuna, prawn, crab)
- Fruit panel (banana, kiwi, melon)
- Meat panel (beef, chicken, pork)
- Insect panel (honey bee, paper wasp, yellow jacket)

### OR...B. SELECT up to TWO MIXES

*(Please note that positive to an allergen mix suggests sensitisation to **one** or more of the included allergens)*

- Animal mix (Cat, Horse, Cow, Dog) ex1
- Grass mix (Cocksfoot, Meadow Fescue, Rye grass, Timothy grass, Meadow grass) gx1
- Australian Tree mix (Olive, Willow, White Pine, Eucalyptus, Acacia, Melaleuca) tx7
- Australian grass/weed mix (Bermuda, Ryegrass, Bahia, Ragweed, Plantain, Goosefoot) rx3
- Mould mix (Penicillium, Cladosporium, Aspergillus, Alternaria) mx1
- Nut mix 1 (Peanut, Hazelnut, Brazil nut, Almond, Coconut) fx1
- Nut mix 2 (Pecan nut, Cashew nut, Pistachio, Walnut) fx22
- Cereal mix (Wheat, Oat, Corn, Sesame seed, Buckwheat) fx3
- Staple food mix (Egg white, Milk, Fish, Wheat, Peanut, Soybean) fx5

## OR...C. SELECT ONE MIX and TWO SINGLE ALLERGENS OR...D. SELECT up to FOUR SINGLE

### Perennial Allergens

#### Dust

- House dust mite (European: *D. Pteronyssinus*) d1
- House dust mite (US: *D. farinae*) d2
- Cockroach (German) i6

#### Mould

- Alternaria m6
- Aspergillus fumigatus m3
- Cladosporium m2
- Penicillium m1

#### Animals

- Cat e1
- Dog e5
- Guinea pig e6
- Rabbit e82
- Horse e3

### Miscellaneous / drugs

- Latex k82
- Anisakis p4
- Penicilloyl G c1
- Penicilloyl V c2
- Amoxicilloyl c6
- Ampicilloyl c5
- Cefaclor c7

### Components

*(must discuss with Immunopathologist)*

- Ara-h2 (peanut) f423
- Omega-5 Gliadin, Wheat f416
- Gal-alpha-1,3-Gal (Thyroglobulin bovine) u953
- Egg (nGal d 1, Ovomuroid) f233

### Seasonal Allergens

#### Grass/weed pollens

- Grass (Fescue) g4
- Rye grass g5
- Timothy grass g6
- Bermuda grass g2
- Johnson grass g10
- Paspalam (Bahia) g17
- Plantain w9
- Ragweed w1

#### Tree pollens

- Acacia (Wattle) t19
- Olive t9
- Birch (silver) t3
- Australian pine t73

#### Insects

- Honey bee i1
- European wasp (Yellow jacket) i3
- Paper wasp i4
- Mosquito i71

### Food Allergens

#### Nuts / seeds

- Peanut f13
- Hazelnut f17
- Almond f20
- Cashew f202
- Brazil f18
- Pecan nut f201
- Coconut f36
- Pistachio f203
- Sesame seed f10
- Pine nut f253

#### Fruit

- Banana f92
- Kiwi fruit f84
- Melon f87

#### Staples

- Egg white f1
- Milk f2
- Wheat f4
- Soy f14
- Barley f6
- Oats f7
- Rice f9
- Beef f27
- Chicken f83
- Pork f26

#### Seafood

- Fish (cod) f3
- Crab f23
- Prawn f24
- Lobster f80
- Salmon f41
- Tuna f40