



## Section 1. What is an Allergy?

### Chapter 1. The Range of Allergic Symptoms

One of the difficulties facing us at the outset of any discussion on allergy is the sheer diversity of allergic symptoms. At first glance, the list of possible symptoms seems far too extensive to be credible. However, if you consider for a moment that virtually any organ in the body may be affected by an allergic reaction, you will begin to appreciate just why there are such manifold symptoms. And if you further consider that these reactions can be triggered by virtually anything in the environment, you cannot fail to be amazed at the enormity of our task. Indeed, the work of an allergist is frequently compared to that of a detective. We must pick up allergic clues in the clinical history; we must sift through the environment at home, at work and at play, in our search for suspects; and we must apply a working knowledge of the underlying mechanisms of allergy, in so far as we understand them at the present time. Our difficulty is compounded by the fact that the symptoms of allergic disease may also occur in other diseases, and so we are duty-bound to ensure that there are no other explanations for the symptoms under investigation. Thus, rather than accepting allergic symptoms at face value, we must put them through the rigours of a thorough medical evaluation. Not all that sneezes, itches or wheezes is an allergy!

The vast majority of those who present themselves to an Allergy Clinic do so with one pressing question in mind. They want to know if their symptoms could be caused by allergy. This question leads to others: 'If there is a possibility that my symptoms are caused by allergy, how do I find out whether I have an allergy or not?' and 'If I do have an allergy, what on earth am I allergic to?' Doubtless, some of you already possess a fairly clear knowledge of what is causing your trouble. You would like to confirm your suspicions, and acquire a better understanding of your condition. You would also like, if feasible, to find an effective treatment. Others amongst you may feel confused. Perhaps you have been misled by questionable 'allergy tests', and are still pestered by symptoms in spite of your rigorous dieting. Most of you, however, will readily concede that you have no idea what you are allergic to, or even whether you have any allergies at all. You may have symptoms, of course, and symptoms with which you are only too familiar. You may also have a legacy of failed treatments, both orthodox and alternative, and you may still be searching for relief. Or you may simply feel uncomfortable about suppressing your symptoms with drugs, and you hope for a drug-free solution. You know

instinctively that if you could discover the cause of your symptoms, you could also regain control of your health.

Most people are aware that the eyes, nose and lungs are frequently affected by allergic disease. The skin is also a well-recognised target for allergy. But other parts of the body are also likely to react, including the muscles and joints; the bladder and kidneys; the mouth and intestine; the heart and blood vessels; and even the brain itself. Remember, also, that allergy may occur in isolation, affecting just one part of the body; or as a multiple problem, affecting many organs at once. By way of illustration, allow me to construct a hypothetical 'day in the life' of an Allergy Clinic. Although this will of necessity be a limited view, it should help to impart a flavour of the myriad symptoms which may (or may not) have an allergic basis.

### **9 a.m. Peter**

Our first patient is a four-year-old boy, whom we shall call Peter. (All names of patients have been changed.) He was referred by his family doctor with a number of problems. In the first place, his mother already knew that he was allergic to eggs. 'He breaks out in a rash if he so much as touches them!' she said. 'I gave him a spoonful once, when he was six months old, and he vomited for the whole day.' Sensibly, he was never given egg again. Peter, however, had other complaints. For instance, he had a cough that just wouldn't go away; and he wheezed when he became excited, or when he ran about. These are the symptoms of asthma. He also had a 'runny' nose, which he was in the habit of rubbing in a very typical way. He would press the tip of his nose onto the pad of his middle finger and run his hand skywards with a big sniff. We call it the 'allergic salute', and he had a permanent horizontal crease on his nose to show for it. In addition, he had dry, itchy skin. He was always scratching himself, and in his sleep would frequently draw blood by tearing at the worst-affected sites. We call this eczema. Finally, and as if that wasn't enough to contend with, he was hyperactive. Peter's mother noticed particularly bad behaviour whenever he ate certain foods. Oranges and biscuits, for example, would 'send him wild'. Cutting these out of his diet helped a little, but did not solve the problem. His parents wondered whether some other food, still in his diet, was affecting his conduct.

Skin tests revealed that Peter was very sensitive to house dust mites. This allergy may well be relevant to many of his symptoms, including his asthma, nasal allergy and eczema. We also went through a standard assessment for hyperactivity. His score on the rating scale was indeed suggestive of a problem in this area. Moreover, there were good reasons to suspect that food was a contributing factor in his case: he already had a known sensitivity to egg, his behaviour was noticeably worse after eating certain foods, and he had all of the other allergic conditions mentioned above. There is, however, no reliable skin or blood test to help us with his hyperactivity. A formal and painstaking investigation of his diet is the only way to determine which foods, if any, are contributing to his difficult behaviour.

### **9.30 a.m. Mark**

Our next patient, Mark, is a 35-year-old farmer who has returned to the Allergy Clinic for review. When he first attended some months ago he complained of 'sinus and chest trouble'. His nose was constantly 'bunged up'. Sometimes it poured like a tap, especially

when he got one of those sneezing attacks. It used to take him an age to fall asleep at night because he could not breathe properly. He woke in the mornings 'with a throat like sandpaper', dry and sore — a common complaint in those who (for whatever reason) breathe through their mouth during sleep. He also had a wheeze for as long as he could remember, but this had become much worse in recent years, and his inhalers were not as effective as they once were. What worried him most, however, was the fact that his livelihood was now at stake. 'When I visit the market all of my old symptoms flare up, and I get new ones too,' he explained. His eyes would become red and 'itch like crazy' within minutes of contact with cattle. Doing business under these circumstances had become increasingly difficult for him. After investigation, Mark was found to be allergic to dust mites and cattle. He also had some degree of food allergy. He responded very nicely to treatment, and was now able to breathe easily, sleep through the night, and attend the mart with minimal symptoms.

### **10 a.m. Karen**

Karen is a ten-year-old girl who has returned with her parents for the results of a blood test. A few weeks earlier, she had experienced a rather frightening swelling of her mouth together with an intense itch of the tongue after eating fish. Her father pointed out that she had since developed similar symptoms after using a fork which had previously been used on fish. And yet, in spite of such a clear and dramatic clinical history, the blood test came back negative. We were, therefore, still no wiser, and it was now time to proceed to skin tests. By way of precaution, and because we did not want to spark off an allergic attack in such a sensitive patient, we diluted the fish extract 15,000 times! Within ten minutes Karen had produced a skin reaction to even this tiny amount, confirming that she was indeed extremely sensitive to fish. The rest of this visit was spent in conversation with Karen and her parents. We covered several important topics. She must now avoid fish in any guise and at all costs. The next allergic reaction could be much more serious; in fact, this is a potentially life-threatening allergy. She needed instruction on self-treatment in an emergency, and needed to understand that these precautions could never be relaxed. They must become a way of life for her, and remain so for the rest of her days.

### **11 a.m. Joyce**

Joyce has done really well. She had been dogged by ill health for the best part of fifteen years. She had frequent migraine headaches; joint and muscle pains; digestive problems (indigestion, abdominal discomfort and bloating, and bouts of diarrhoea); asthma; chronic sinus trouble; and debilitating fatigue. Actually, she was so tired that she often fell asleep at her desk in the office! Although hopeful, Joyce thought it unlikely that she was allergic to foods. 'It couldn't be a food, doctor, because I'm not eating anything new.' This is a common misunderstanding. It is only ever possible to become allergic to something if we have come across it before, in some form or other. To prove the point, Joyce had lost all of her symptoms within ten days of adopting a prescribed diet. Her head was clear, her joints were free, her tummy was quiet and she could smell again. She could not remember when she had last felt so well. As she expanded her diet she reacted adversely to many foods, including onion, mushroom, melon, wheat, dairy produce, corn and malt.

Today we discussed an effective treatment which would, in time, enable Joyce to eat these foods without getting symptoms.

### **11.30 a.m. Mary**

Mary has also come back for review. She is a twenty-year-old student who was plagued with recurrent swellings of the eyes and lips. So disfiguring were these swellings that she was too embarrassed to leave her lodgings. She also told me about an itchy rash which covered her whole body, and a long-standing history of asthma. She noticed that her asthma was much worse when the rash flared, and that she had a 'constant cold'. She then told me a very interesting fact: all symptoms got worse when she took an aspirin for headache. This was an important clue. Although Mary was not aware of it, some 25 per cent of her regularly eaten foods contain a substance very similar (but not identical) to aspirin. Furthermore, this 'triad' of itchy rash, asthma and nasal problems is sometimes associated with aspirin sensitivity. She had now completed one month on a 'low-aspirin' diet. 'It's great!' she said, 'I have had no swelling or itch, and I have missed no lectures as a result.' 'But what about the asthma and nasal symptoms?' I enquired eagerly. 'Oh, they're as bad as ever,' she said. Back to the drawing board! Aspirin-containing foods were obviously relevant to some of her symptoms, but not to others. Skin tests revealed a sensitivity to grass pollen and dust mites. Given that it was the wrong time of year for grass pollen symptoms, we now concentrated on dust mites, and the various measures Mary could adopt to reduce her exposure to these.

### **12 a.m. Sandra**

Sandra has come to the Allergy Clinic today because she is convinced that certain foods are making her ill. She gives a very long and complex history, characterised mostly by symptoms of depression. Some years ago she was admitted to a psychiatric hospital, and she enjoyed considerable benefit from treatment at the time. The diagnosis of depression, however, did not sit comfortably with her then, and still unsettles her today. She is now tired. Her memory and concentration are impaired, her sleep is restless and unrefreshing, and she feels short of breath. She also complains of frequent headache, poor appetite and muscle pains. After a while, Sandra admitted rather reluctantly that her marriage was on the rocks, and had been for some time. Moreover, things had come to a head recently, and there was talk of separation. In the recent past, she brought herself to an 'allergist'. There she was told that her problems were caused by food allergy. She had since avoided a number of foods in the firm belief that she was 'allergic' rather than 'depressed'. Her symptoms, however, did not improve, and hence her visit to the clinic today. She was quite sure that some other food, as yet unidentified, was holding her down.

Having listened carefully to her sad story, I had several reasons to doubt the 'allergic' theory, and I expressed my doubts to Sandra. We now found ourselves in a conflict of attribution: the patient attributes her symptoms to one thing, whilst her doctor attributes them to another. This is a crucial moment for Sandra. If she vigorously defends her 'not depressed' position when she is in fact depressed, she will not get the help she so badly needs, and will remain depressed. If on the other hand I am wrong, she will suffer the same fate. The only way to resolve this question is to invite Sandra to challenge her own belief. She can do this by agreeing to a supervised investigation of her diet. The first step is to eat all omitted foods for a period of two weeks. If this brings about a significant

worsening of symptoms, she may be on the right track after all. If she is right, she should then notice a dramatic and lasting improvement on a prescribed Low Allergy Diet. From my experience with other patients in the same boat, I expect Sandra to return in a fortnight with no appreciable change in her symptoms. My hope is that she will then be ready to explore the deeper psychosocial factors which trouble her so.

### **12.30 p.m. Margaret**

Margaret first presented seven months ago with a two-year history of a very itchy rash. She was only eleven years old at the time, but had already noticed that her rash was much worse if she ate anything with artificial colours or preservatives. Her observation was confirmed by the complete disappearance of rash on a prescribed diet which was free of these substances. Since then, she has had four injections to switch off (desensitise) her allergy. Last month I sent her away with instructions to test herself with a well-known brand of confectionery, one made up almost entirely of chemicals! I was pleased to hear that she could now eat all foods without problem. It's not that I would encourage her to gorge on 'junk food', but I did want her to enjoy a greater freedom of choice.

### **2 p.m. Michael**

Michael is a 42-year-old horticulturist who has turned to lettuce in recent years for a living. He has several growing tunnels which produce a fine crop. Recently, however, he developed a rash on both hands. This was aggravated by handling the plant at harvest time. He was quite sure that lettuce was not his problem because he has been handling it for some years now, and besides, he is able to handle the young plant with impunity. He suspects that a mould, which lives on lettuce, is causing his trouble. After further enquiry, it transpires that Michael also starts to wheeze in the tunnels, particularly when the crop is being loaded for transport to the market. As with Joyce, seen earlier in the day, Michael did not know that he could become allergic to something 'out of the blue', so to speak. The truth is, the more often we have contact with a substance, the more likely we are to become allergic to it! This explains why surgeons and nurses become allergic to their gloves, why bakers become allergic to flour, why painters become allergic to paint, and so on. Furthermore, Michael was also unaware that the adult lettuce leaf contains a substance which the young leaf does not yet possess, and that this is the substance to which he has developed an allergy. Skin tests confirmed his sensitivity to the adult leaf, and ruled out an allergy to the mould. He must now seriously consider his future. If he stays on, his wheeze is likely to develop into full-blown asthma, and if he persists further, he could remain asthmatic even after he abandons lettuce for a different crop.

### **2.30 p.m. Anne**

Anne is a 35-year-old mother of two who works in the textile industry. She presented with a number of baffling complaints. First and foremost, she is quite depressed, and does not hesitate to say so. Furthermore, she has a fairly good idea what makes her feel so low. There is no doubt, however, that she also suffers from allergy. Last year, for example, she broke out in a rash after a visit to the hairdresser. Her scalp and neck were affected at first, but then the rash spread to her upper chest and back. Quite nasty it was too, but at least she could understand it, and it seemed to settle down after a while. What baffled her now, however, was the similar rash which recurred in spite of her staying away from hair

colours. Her doctor tried to help by ordering a blood test for allergy, and this threw up some interesting results. She was, on blood test, allergic to wheat, egg, milk, soy and peanut! Anne therefore stayed away from these foods as best she could, but she still ate them from time to time in small quantities. Were these small amounts, she wondered, still causing her trouble? Skin tests confirmed her allergy to hair dye. They also revealed an allergy to nickel. Significantly, the dye is also found in leathers, and nickel is present in fasteners and zips. Anne is in regular contact with these substances at work. Many of her symptoms disappeared away from work and on a prescribed diet. The subsequent (closely supervised) food reintroductions were largely uneventful. In other words, although her blood test suggested that many food allergies were present, these were not at all relevant to her symptoms. These are referred to as dormant, or latent, allergies, and they may remain dormant for a lifetime. This example brings home the wise words of an esteemed elderly colleague: ‘Allergy tests should not be relied upon to tell us what we don’t know, they should be used only to confirm our clinical suspicions.’ What Anne did discover, however, was that an accumulation of artificial chemicals in food, together with the other chemicals referred to above, were the combined cause of her skin trouble. She felt considerably lighter in mood once her problem was sorted out.

### **3 p.m. Mrs Talbot**

Mrs Talbot is a 65-year-old woman who has arthritis in her hips. One of these is now so painful that she has decided to go ahead with a hip replacement. She told the orthopaedic surgeon about her allergy to jewellery, and about a rash she had on both sides of her face. The pattern of this rash was very suggestive of an allergy to her spectacle frames. These are the typical symptoms of nickel allergy. The surgeon requested a full evaluation of Mrs Talbot’s allergies before proceeding with the operation. He knew, of course, that most hip replacements contain nickel, and that the new (metal) hip would not last long if she was allergic to it. Skin tests had been applied forty-eight hours previously and it was now time to read the results. As expected, Mrs Talbot had a very strongly positive reaction to nickel. She had an equally strong reaction to cobalt, another metal. These metals frequently cross-react, i.e. if you are allergic to one, you are very likely to be allergic to the other. What we did not expect, however, was the strong reaction to rubber and certain disinfectants. We were now in a position to advise the surgeon that his suspicions were correct, and that he should use a cobalt- and nickel-free hip. He was further able to prevent a potentially nasty allergic reaction during the operation itself by avoiding the use of rubber gloves and the aforementioned disinfectant.

### **3.30 p.m. David**

David looks better! When I first saw him four weeks ago he was in an awful state. He is a 41-year-old business executive who presented with a twenty-five-year history of ‘embarrassing itch’. He described a burning painful itch on his bottom and in ‘the back passage’. Over the years he had tried every sort of cream and potion imaginable, but without joy. Whatever self-control he had during waking hours was lost during sleep. He frequently woke in the night to find himself tearing at the itch, but the more he scratched, the worse it got. This incessant interruption of his sleep had finally left him exhausted, and was very likely the reason behind his muscular aches and pains, and his feeling of general malaise. David confirmed that he felt marvellous — in fact, he couldn’t get over

it himself. All he had done between his first visit and today's review was adopt a different form of toilet hygiene. It was not a question of improving his cleanliness, for he was perfectly clean; we just wanted to give him a rest from toilet tissue! 'I didn't tell you last time, doctor, because I thought it would sound crazy, but whenever the itch was at its worst, I used to sneeze a lot! Now, my itch has completely cleared up, and my nose is no longer blocked!' Consequently, he was able to enjoy refreshing sleep for the first time in ages, his exhaustion was gone and he no longer had aching muscles.

David is allergic to formaldehyde, a well-known source of allergic symptoms. Toilet tissue, and other tissue papers, are impregnated with this substance during manufacture. Whenever toilet tissue containing formaldehyde was brought into contact with his skin, it sparked off the allergic itch. Simply handling tissue would be enough to spark off his allergic nose. Think about that for a moment! You get a bit of a sniffle so you reach for a tissue. Then you have an allergic reaction to the tissue. But you think this is just a bit more of the original sniffle so you reach for another tissue. Before you know where you are, you have a permanent allergic nose caused by the very tissues you use to blow your nose!

#### **4 p.m. Paula**

Paula is now towards the end of her dietary investigation for food allergy. She has suffered from rheumatoid arthritis for the past thirty years. Ever since her fifteenth birthday she has been on a roller-coaster ride of joint stiffness, pain and swelling. Over the past year, however, her symptoms had become more persistent. In addition, she complained of fluid retention (swollen ankles and bloated abdomen), sinus problems and fatigue. Before she embarked on this diet, she had morning stiffness in most joints for about thirty minutes. Thereafter, she would feel a bit better, but sitting down for any length of time would quickly lead to her joints 'seizing up' again. Within fourteen days of a prescribed diet she reported that she was no longer stiff in the mornings, she had much less pain, and she had taken no arthritis tablets for the previous five days — a feat heretofore un-imaginable for her. Her symptom diary showed clear reactions to chicken, cabbage, soy, yeast and wheat, with minor reactions to banana and beef. Between reactions she remained perfectly well. If she wanted to, she could now continue to expand her diet, find as many safe foods as possible, and simply avoid the offending foods. However, Paula wants to try a course of desensitisation because she leads far too busy a life to be forever watching her diet.

#### **4.30 p.m. Marie**

Marie suspects that she has 'candida', and that she is allergic to yeast. She has been troubled by many symptoms over the years, such as bloating of the abdomen, constipation, fatigue and headaches. She finds it hard to get off to sleep, and her mood swings have become more pronounced, causing much personal and family unhappiness. Marie also told me about a family tragedy which took place shortly before she became ill. Some time after this she read a book about 'candida' in which she found many of her symptoms explained, as she thought, and she has been dieting ever since. She has spent a small fortune on doctors and unqualified practitioners. Marie's symptoms only partially responded to diet, but this had not weakened her resolve. I was alarmed at her weight, a mere six and a half stone when it should have been nine! I was also concerned that her

menstrual periods were scanty, and that her present diet was grossly deficient in calcium. I took a blood test three weeks ago to find out if she did have a problem with yeast overgrowth in the bowel. Then I asked her to go home and eat everything she could lay her hands on, including the foods she had been so strenuously avoiding. I was afraid that she had an eating disorder, such as anorexia nervosa, and was using the 'candida' as a cover-up; or that she was trying as best she could to hide the fact that she had lost her appetite in the aftermath of the family tragedy, a tragedy from which she had not yet recovered.

The results of her blood test are available to us today. They confirm the presence of a very small overgrowth of yeast, but this is not, in any way, sufficient to explain her symptoms. Meanwhile, Marie has enjoyed eating all manner of foods over the past few weeks, and has managed to put on a little weight. A short course of anti-yeast medication, without dietary restriction, will quickly restore balance to the bowel. I will invite her to return in one month to review her progress. Whatever symptoms remain at that stage cannot be attributed to 'candida', but may well respond to other, perhaps more appropriate, forms of treatment.

#### **5 p.m.**

The end of what you might call an absorbing day! But as you can appreciate, it is impossible to represent the full scope of allergic symptoms within the context of a single day in the clinic. Indeed, I could fill this book with case histories as fascinating as these, and still have more to tell. However, we need to move on now, and spend a little time looking at the immune system. In so doing, you will begin to understand the mechanisms by which allergic symptoms develop. Before we leave the subject of symptoms, have a look at the following drawing, which summarises the possible manifestations of allergic disease.