Our Approach to Allergy and Intolerance: We provide a holistic approach to treatment. This includes the avoidance of drug therapy where possible. Depending on each individual this may include dietary amendment and supplementation, elimination diet and challenge protocols, measurement and correction of environmentally triggered alterations in gut permeability and intestinal flora, use of proven methods of detoxification, measurement of specific biochemical pathways and a low-dose desensitising technique (see below).

Low Dose Immunotherapy ('Neutralisation'): This is a safe and well tolerated treatment that has been used to help more than three million patients world-wide and is a first-line treatment of allergy by members of the American Academy of Otolaryngology (ear, nose and throat doctors).

It can be used clinically for inhalant allergies, food allergies and intolerances and chemical sensitivities. The process involves testing and treatment using a series of dilutions that are prepared from the suspected causal factors. It is particularly useful when the provoking substance is hard to avoid (common foods, house dust mite or pollens for example) and helps to prevent the ever increasing limitations to dietary intake and environmental exposure that some people necessitate to remain symptom-free.

It is generally believed that an antigen is a substance that can cause an immune response, resulting in production of an antibody, which neutralises the antigen in the body. The immune system reacts to large or small doses of the offending substance, but somewhere inbetween there is a fairly exact dose that is tolerated. This is known as the **neutralising dose,** or **end-point**. This often varies from person to person and is different for each substance to which a person is allergic or intolerant.

Low Dose Immunotherapy has a significant amount of research backing, with over 40 papers published in the peer reviewed medical literature. Details of some of these key papers are attached. This treatment approach is safe and well tolerated.

First Step – Testing Phase: Usually this is done by intradermal skin tests, using a series of small painless injections to the upper arm. Small concentrations of antigen vaccine are injected just under the first few layers of skin. As the body reacts to the initial concentration of antigen vaccine, a bump or 'wheal' will appear at the injection site. (With children or those who fear needles, drops may be placed on the back of the hand or under the tongue and the evaluation process is different from the skin tests).

Where the antigen has been injected under the skin, after a few minutes, the wheal will either remain active or it will dissipate. If the wheal is still active after 10 minutes, a sequentially lower concentration of antigen vaccine will then be injected at an adjacent site and after another waiting period, the new wheal will be evaluated for reaction. This process is repeated with the sequentially lower concentrations of antigen vaccine until a satisfactory wheal is obtained. This neutralising concentration of antigen vaccine is termed the 'end-point'. A personalised vaccine solution is then produced with the exact substances and concentrations required.

Second Step – Treatment Phase: Treatment involves daily neutralisation of the allergic reactions by injection or oral administration of the selected antigen vaccine. This involves injecting the antigen vaccine at least once per day, sometimes more frequently. Alternatively, drops of the vaccine may be placed under the tongue two to three times daily. By stimulating the production of antibodies using the antigen vaccines, when the allergen is next encountered, the body is already prepared to deal with it and this often stops any symptoms provoked by the allergen.

Initial testing may take a full or half day and is performed by Medical and Nursing staff. This follows consultation to highlight likely causative factors. Once the correct dilutions are found the vaccine is provided for ongoing use. Re-testing is usually required after 2-3 months or at the onset of any further symptoms.

Who could benefit?: Benefits are seen for a variety of conditions, including:

- Food allergies and intolerance
- Hayfever, Asthma and Eczema
- Chronic Fatigue Syndrome
- Irritable Bowel Syndrome
- Migraines and headaches
- Dust and chemical sensitivity – and many more

Vaccine Storage and Administration: The high quality vaccines are stored at the patients home for daily administration as drops under the tongue or as a small injection. The nursing and medical staff will provide education and support in the

process of vaccine administration. The vaccines are stored in the patient's home freezer and contain no added preservatives to prevent sensitivity to the commonly used phenol or benzylalcohol. Further information will be given by the nurse or doctor performing testing and a demonstration of how to use the vaccines.

Around the time of testing

- Patients are asked to wear a short sleeve shirt on the day of testing as skin tests are performed on the upper arm.
- Patients must not take any anti-histamine medication on the day of testing or for the 24 hours prior to testing.
- Patients must not consume any of the foods that are due for testing on the day of the test.
- If booked for a full-day test, the patient should bring some lunch with them.

What's the next step?

Please phone through to book an appointment with our medical team or to ask further questions on 01962 718000. We will then arrange for the testing and treatment process to commence according to your specific needs.

Key Papers Published in the Peer Reviewed Medical Literature on Low Dose Immunotherapy

1.**Boris M, et al**. Antigen induced asthma attenuated by neutralisation therapy. Clin Ecol. 1985;3:59-62.

ABSTRACT: The effect of neutralisation therapy on animal antigen-induced asthma was tested. The neutralisation dose was determined by the serial dilution technique. Subjects received, in a double blind crossover study, either the neutralising dose or placebo, followed by animal antigen bronchoprovocation challenge. Evaluation through pulmonary function tests demonstrated significant protection after neutralisation therapy (p<0.010.

2.**Enrique E, Cistero-Bahima A**. Specific immunotherapy for food allergy: basic principles and clinical aspects. Curr Opin Allergy Clin Immunol. 2006;6:466-9.

SUMMARY: Allergen-specific immunotherapy (SIT) has been used since it was first described in 1911. It is widely used in the treatment of respiratory allergy. The treatment of food allergy has classically been with food avoidance, but immunotherapy for food allergies has a long history for people with oral allergy syndrome. Allergy to foods of plant origin is frequently caused by pollen – vegetable food cross-reactive TgE; therefore, pollen SIT can benefit pollen-related food allergy. A recent study of SIT for hazelnut food allergy showed an increase in serum hazelnut-specific igG4 and interleukin (IL)-IO, confirming that SLIT (sublingual immunotherapy) for food allergy produces immune changes which underlie food tolerance.

3.**'Gerrard Jw, King DS**. A double-blind study on the value of low dose immunotherapy in the treatment of asthma and allergic rhinitis. Clin Ecol. 1989;6:43-6.

ABSTRACT: Twenty children with asthma and 20 with allergic rhinitis associated with positive prick skin tests to the local tree, grass and weed pollens and who were on low dose immunotherapy, were first taken off immunotherapy. Symptoms in 31; 17 with asthma and 14 with allergic rhinitis, increased in severity, suggesting that they were being benefited by immunotherapy. These children were then enrolled in a double-blind, placebo-controlled trial using low-dose immunotherapy. Each child received one month's treatment with either the active or placebo extract, then a two-week washout period, followed by a further month's treatment with the alternative (placebo or active) extract. The study was carried out between May and September, during the pollen season. Response to treatment was gauged by symptom scores and dependence on medications. Of the 29 children who completed the study, 17 were benefited by the active extract and eight by the placebo; in four the active extract was no better than the placebo. The active extract was significantly more effective than the placebo (p = 0.054).

4. **Rea WJ, Podell RN, Williams ML.** Elimination of oral food challenge reaction by injection of food extracts. A double-blind evaluation. Archives of Otolaryngology 1984;**110**:248-52.

This study found a statistically significant protective effect against adverse reactions with active treatment compared to placebo (statistically significant for 6 different outcome measures, using number of positive or negative reactions rather than numerical data: signs and symptoms, Visual Analogue Discomfort rating, Symbol Digit Modalities Test, Aaron- -Smith Symbol-Digit Modalities subtest, apical heart rate, subject's signature)