

**Abstracts from my papers**  
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**1972-1979**

(Eriksson, Formgren et al. 1972; Eriksson 1973; Ahlstedt, Belin et al. 1975; Eriksson, Lindgren et al. 1975; Eriksson, Lindgren et al. 1975; Formgren and Eriksson 1975; Borulf, Eriksson et al. 1976; Eriksson 1976; Eriksson, Ahlstedt et al. 1976; Ahlstedt and Eriksson 1977; Eriksson 1977; Eriksson 1977; Eriksson 1977; Eriksson and Ahlstedt 1977; Lindgren, Eriksson et al. 1977; Nordell, Eriksson et al. 1977; Eriksson 1978; Eriksson 1978; Eriksson and Lindgren 1978; Eriksson, Ahlstedt et al. 1979)

**1980-1989**

(Eriksson, Haglind et al. 1980; Eriksson 1981; Eriksson, Formgren et al. 1982; Eriksson, Haglind et al. 1982; Eriksson, Haglind et al. 1983; Eriksson, Wihl et al. 1983; Lowenstein and Eriksson 1983; Eriksson 1984; Eriksson 1984; Eriksson, Vedal et al. 1984; Eriksson, Wihl et al. 1984; Strandhede, Wihl et al. 1984; Eriksson, Hidingen et al. 1986; Dreborg, Basomba et al. 1987; Dreborg, Belin et al. 1987; Dreborg, Sjogren et al. 1987; Eriksson 1987; Eriksson, Lowhagen et al. 1987; Eriksson, Wihl et al. 1987; Eriksson 1989; Eriksson, Ryden et al. 1989; Wass, Belin et al. 1989)

**1990-1999**

(Eriksson 1990; Eriksson 1994; Eriksson, Holmen et al. 1995; Eriksson and Holmen 1996; Eriksson and Moller 1996; Eriksson and Moller 1996; Eriksson 1997; Holmen, Blomqvist et al. 1997; Eriksson, Holmén et al. 1998; Foucard and Eriksson 1999)

**2000-2005**

(Eriksson, Möller et al. 2000; Eriksson, Moller et al. 2003; Eriksson, Moller et al. 2004; Wedback, Enbom et al. 2005)

Eriksson, N. E., H. Formgren, et al. (1972). "[Infusion treatment of status asthmaticus. Hydrocortisone or betamethasone?]." Lakartidningen **69**: Suppl 3:44-9

Eriksson, N. E. (1973). "[Physicians and torture]." Nord Med **88**(7): 217-8 \*

Ahlstedt, S., L. Belin, et al. (1975). "Quantity and avidity of antibodies against birch pollen in atopic patients during hyposensitization. A preliminary study." Int Arch Allergy Appl Immunol **48**(5): 632-41.

The degree and strength of the binding of radioactively labelled allergen by antibodies in the sera of birch pollen-sensitive individuals was studied during the course of hyposensitization with alun-precipitated aqueous-pyridine extracted birch pollen antigens using the ammonium-sulphate precipitation technique originally described by FARR. The allergen binding was measured before and after absorption of the sera with anti-human IgE antibodies conjugated to Sepharose. It was noted that IgE antibodies of low avidity caused clinical sensitivity as well as IgE antibodies of higher avidity. The nasal sensitivity to birch pollen allergen of six of the seven patients studied significantly decreased by the treatment without any quite uniform change of serum-binding capacity for the allergen. Thus the clinical improvement was

accompanied either by disappearance of the specific IgE antibodies, concomitant with formation of antigen-binding non-IgE antibodies, or by increased formation of IgE antibodies with very slight contribution by non-IgE antibodies to the totally increased antigen-binding efficiency. It is felt that the serological antibody changes may not reflect the most relevant immunological events during successful hyposensitization therapy.

Eriksson, N. E., S. Lindgren, et al. (1975). "A double-blind comparison of beclomethasone dipropionate aerosol and prednisolone in asthmatic patients." Postgrad Med J **51 Suppl 4**: 67-70.

Eriksson, N. E., S. Lindgren, et al. (1975). "Long term treatment of steroid dependent asthmatic patients with beclomethasone dipropionate." Allergol Immunopathol Madr **3(2)**: 77-86.

In the efforts to avoid the side-effects of the peroral cortisone drugs in the treatment of asthma, trials have been made since the early fifties with the administration of steroids in aerosol form applied direct on the bronchial mucosa. Hydrocortisone as well as prednisolone and dexamethasone have been used with a documented effect on the obstruction. However, the drugs were found to be resorbed and thus resulted in suppression of adrenal function and appearance of Cushing syndrome and other well-known steroid side-effects (12). More recently, beclomethasone dipropionate -- a steroid with potent topical activity -- has been used as a pressurised aerosol. In 1972 Morrow Brown et al. (1) as well as Lal et al. (10) reported a good therapeutic effect with this drug and at the same time found evidence for the opinion that its systemic effect, if any, was insignificant. Less positive results were reported by Choo-Kang et al. (4) and also by Herxheimer (8), who considered beclomethasone spray not to possess any advantages as compared with the earlier steroids. The purpose of the present study was to assess the clinical value of beclomethasone in the treatment of adult patients previously on long-term oral steroids.

Formgren, H. and N. E. Eriksson (1975). "Effects of practolol in combination with terbutaline in the treatment of hypertension and arrhythmias in asthmatic patients." Scand J Respir Dis **56(4)**: 217-22.

After a run-in period practolol was given in the dose of 100 mg twice daily to 29 patients with chronic bronchial asthma on the indication hypertension (12) and supraventricular arrhythmia (17). During the run-in period, as well as during the practolol period, a long-acting beta2-stimulator, terbutaline, was given in the dose of 5 mg three times daily. Peak expiratory flow (PEF), heart rate and blood pressure were measured under standardized conditions. No change of the lung function was observed during practolol therapy. Systolic as well as diastolic blood pressure fell significantly. The heart rhythm was normalized in 15 of the arrhythmic subjects. No subjective worsening of the asthmatic symptoms or any other side effects were noted. It is suggested that practolol can be safely used in patients prone to bronchospasm, provided a long-acting beta2-stimulating drug is given concomitantly on the usual indications for beta blockers in acute situations.

Borulf, B., N. E. Eriksson, et al. (1976). "Letter: Medical care in Sweden." Jama **235**(2): 145 \*LHM: Denna tidskrift finns tillg nglig p  Sjukhusbiblioteket.

Eriksson, N. E. (1976). "[Letter: Physicians died after torture]." Lakartidningen **73**(18): 1671 \*LHM: Denna tidskrift finns tillg nglig p  Sjukhusbiblioteket.

Eriksson, N. E., S. Ahlstedt, et al. (1976). "Diagnosis of reaginic allergy with house dust, animal dander and pollen allergens in adult patients. I. A comparison between RAST, skin tests and provocation tests." Int Arch Allergy Appl Immunol **52**(1-4): 335-46.

RAST analyses were performed with house dust, animal dander and eleven pollen allergens in 410 adult patients with asthma and/or rhinitis and the findings were compared with skin test and provocation test results. The overall correlation between 1,316 provocation tests and RAST was 78% and the correlation between 1,778 skin tests and RAST was 66%. The relationships between RAST and in vivo tests differed considerably from allergen to allergen. No significant differences were found between various age groups. According to the in vivo tests the RAST showed more often positive results in patients with pronounced allergy than in patients with low-grade allergy. Higher RAST classes were most often combined with positive in vivo tests. It is concluded that in cases with RAST classes 2-4, a reasonably well-established allergy diagnosis can be reached without the inclusion of additional in vivo tests. In other cases, however, application of further diagnostic methods is required.

Ahlstedt, S. and N. E. Eriksson (1977). "Immunotherapy in atopic allergy--antibody titres and avidities during hyposensitization with birch and timothy pollen allergens." Int Arch Allergy Appl Immunol **55**(1-6): 400-11.

Eriksson, N. E. (1977). "Diagnosis of reaginic allergy with house dust, animal dander and pollen allergens in adult patients. II. A comparison between skin tests and provocation tests." Int Arch Allergy Appl Immunol **53**(4): 341-8.

The results of skin tests (ST) were compared with those of 2,055 provocation tests (PT) in 403 patients with asthma and/or allergic rhinitis. The overall agreement between ST and PT results was 77%. Various correlation figures were found for different allergens. In patients with pronounced allergy in the shock organ the proportion of positive ST was higher than in those with low-grade allergy. It is concluded that only strong ST reactions should be relied upon. In other cases additional diagnostic methods are recommended. The diagnostic precision of ST is of the same order of sizes as that of the radioallergosorbent test.

Eriksson, N. E. (1977). "Diagnosis of reaginic allergy with house dust, animal dander and pollen allergens in adult patients. III. Case histories and combinations of case histories, skin tests and the radioallergosorbent test, RAST, compared with provocation tests." Int Arch Allergy Appl Immunol **53**(5): 441-9.

Case histories alone and combined with the results of skin tests and/or the radioallergosorbent test (RAST) were compared with the results of provocation tests in 397 patients with asthma or allergic rhinitis. Case histories often turned out to be doubtful. The agreement between negative histories and negative

provocation tests was 77% and that between positive histories and positive provocation tests 64%. When case histories were supported by concordant skin test or RAST results, the agreement with provocation tests increased to about 90%. When a scoring system for the combinations of different diagnostic methods was employed, a 100% agreement with provocation tests was obtained for cases with high scores. It is concluded that by using the case history in conjunction with RAST and/or skin test results, a reliable diagnosis can be achieved, eliminating the necessity of provocation tests.

Eriksson, N. E. (1977). "Diagnosis of reagenic allergy with house dust, animal dander and pollen allergens in adult patients. IV. An evaluation of the clinical value of skin test, radioallergosorbent test, case history and combinations of these methods." Int Arch Allergy Appl Immunol **53**(5): 450-8.

With the assumption that a provocation test gives the correct diagnosis, the possibility of predicting an allergy by means of the case history, a skin test, radioallergosorbent test (RAST) and combinations of these methods was evaluated for house dust, cow-, cat-, dog-, and horse-dander, timothy-, marguerite-, dandelion- and birch-pollen allergens. All procedures were found to give a reliable diagnosis provided that a group with doubtful group, requiring further diagnostic investigations, was smallest when all three methods were used in combination. It is suggested that, in addition to the case history, the first procedure in routine diagnosis with inhalant allergens should be a skin test. RAST should be used primarily for selected cases and as a complement to the case history and skin test, making provocation tests superfluous for the majority of patients.

Eriksson, N. E. and S. Ahlstedt (1977). "Diagnosis of reagenic allergy with house dust, animal dander and pollen allergens in adult patients. V. A comparison between the enzyme-linked immunosorbent assay (ELISA), provocation tests, skin tests and RAST." Int Arch Allergy Appl Immunol **54**(1): 88-95.

An enzyme-linked immunosorbent assay (ELISA) employing allergen adsorbed onto the internal surface of a plastic tube, and alkaline phosphatase conjugated anti-IgE was used for the determination of specific IgE antibodies to various inhalant allergens in serum samples from 255 individuals with asthma and/or allergic rhinitis. A total of 541 analyses were carried out and the results were compared with those of provocation tests, skin tests and the RAST. It was found that negative ELISA values with high probability indicated nonallergy and very high ELISA values (class greater than or equal to 5) indicated allergy. However, the proportion of positive ELISA values which did not correspond to clinical allergy was high, as were the number of intermediate, inconclusive values (class 1-2). Although significant correlations between the ELISA values and provocation test, skin test or the RAST were obtained with some allergens, it was concluded that our version of the ELISA has not advantages over currently used methods for allergy diagnosis.

Lindgren, S., N. E. Eriksson, et al. (1977). "Experience of local inhalation of beclomethasone dipropionate (becotide) in the treatment of adult steroid-dependent asthmatic patients." Scand J Respir Dis Suppl **101**: 163-72.

Nordell, K. M., N. E. Eriksson, et al. (1977). "NBT-test in asthmatic patients with regard to bacterial infections and steroid therapy." Scand J Respir Dis **58**(3): 185-7.

In this communication we report our negative experience in differentiating bacterially infected from non-infected adult asthmatic patients, using a simplified modification of the NBT-test. The outcome of the test was unrelated to the steroid dose of the patient.

Eriksson, N. E. (1978). "Allergy to pollen from different deciduous trees in Sweden. An investigation with skin tests, provocation tests and the radioallergosorbent test (RAST) in springtime hay fever patients." Allergy **33**(6): 299-309 \*LHM: Denna tidskrift finns tillg.,nglig p† Barnkliniken.

92 adult patients with springtime allergy were investigated with skin tests, provocation tests and the RAST. Allergen extracts from 12 different deciduous trees were used. Positive reactions, often of high intensity, were most often found with birch, alder, bog-myrtle, beech and hazel allergens whereas oak, aspen, linden, elm, willow, maple and poplar allergens more often gave negative or only weak positive test results. Cross sensitizations were found between botanically related as well as between less related species of the trees. Almost all patients with a clinically relevant tree pollen allergy had positive provocation tests with birch pollen. No patient had positive reactions to all the 12 allergens included in the study. 68% had positive provocation tests with the combination birch, alder and hazel. It is concluded that for diagnostic screening purposes it is sufficient to use birch pollen allergen. If the majority of relevant tree pollens are to be included in a diagnostic or therapeutic programme in Western Sweden it should contain birch, alder, hazel, beech and bog-myrtle allergens.

Eriksson, N. E. (1978). "Food sensitivity reported by patients with asthma and hay fever. A relationship between food sensitivity and birch pollen-allergy and between food sensitivity and acetylsalicylic acid intolerance." Allergy **33**(4): 189-96 \*LHM: Denna tidskrift finns tillg.,nglig p† Barnkliniken.

Among adult patients with bronchial asthma and/or allergic rhinitis undergoing allergological investigation with skin test, nasal provocation test and RAST, 1129 answered a questionnaire regarding food sensitivity (FS). 276 (24%) of the patients reported some kind of allergic symptoms on eating or handling various foods, of which hazel nut, apple and shell fish were the most often named. Females reported FS more often than males. A correlation was found between birch pollen allergy and FS with nuts, apple, peach, cherry, pear, plum, carrot and new potato. The higher the degree of birch pollen allergy, according to skin test, RAST or provocation test, the higher the frequency of FS. A correlation was found too between acetylsalicylic acid intolerance and FS with some foods, e.g. nuts, strawberry, almond, green pepper, hip, chocolate, egg, cabbage, milk and wine. The connection between birch pollen allergy and FS is probably explained by the structural relationship between birch pollen allergen and some allergens of the foodstuffs, whereas the high incidence of FS in acetylsalicylic acid-intolerant patients is probably explained by additives in foods as well as salicylates or benzoates naturally occurring in some food.

Eriksson, N. E. and S. B. Lindgren (1978). "The rapidity of bronchodilatation. A comparison of isoprenaline, terbutaline and rimiterol." Scand J Respir Dis **59**(1): 30-6.

The onset of action of three sympathomimetic drugs (rimiterol 0.2 mg, terbutaline 0.25 mg and isoprenaline 0.08 mg) administered by metered dose inhaler was compared in 12 asthmatics. In order to evaluate side effects of the drugs, a second dose of the aerosols, 8-10 times higher than the first one, was given after 30 min. The effects were measured in terms of VC, FEV1.0, PEF and heart rate. All the substances caused a significant increase in spirometric values within 1.5 min, the results with isoprenaline being slightly better than those with terbutaline. An increased heart rate was observed after the first dose of isoprenaline whereas no further increase was found after the higher dose. Two patients complained of palpitations, one after isoprenaline and one after rimiterol. No other side effects were recorded. It is concluded that there is a small, clinically insignificant, difference in the onset of action of isoprenaline compared with that of the selective beta2-stimulating aerosol, terbutaline.

Eriksson, N. E., S. Ahlstedt, et al. (1979). "Immunotherapy in spring-time hay fever. A clinical and immunological study comparing two different treatment extract compositions." Allergy **34**(4): 233-47 \*LHM: Denna tidskrift finns tillg.,nglig p† Barnkliniken.

In a study of the efficacy of two different treatment schedules for perennial immunotherapy, 47 adult patients with spring-time hay fever due to allergy against birch and other deciduous trees were randomly assigned to three treatment groups: one group received birch, alder and hazel allergen in Allpyral, another group received the same Allpyral mixture and in addition all relevant tree pollens in aqueous extract and a control group received no injections. For determination of antibody titres the radioallergosorbent test (RAST) and the ammonium sulphate precipitation (ASP) technique were used. Cellular responsiveness was studied by measuring birch pollen (BP) induced leucocyte histamine release in peripheral blood. The clinical and immunological response was similar in the two treated groups. Treated patients had less symptoms and a lower consumption of antihistamine tablets during the pollen season than the control group. Non-IgE BP antibodies and IgE antibodies recorded with the ASP technique increased after immunotherapy while RAST values did not change significantly. A decrease of RAST values from postseasonal values during the first year to preseasonal values in the following year was seen in all patient groups but was less pronounced in treated than in untreated patients. The decrease was more pronounced in patients with high RAST values of postseasonal sera than in patients with low RAST values. Cellular reactivity increased slightly during the first phase of therapy but returned to the pre-treatment level later. Clinical improvement was positively correlated to the percentage increase of non-IgE antibody titre and to the pre-treatment non-IgE/IgE antibody ratio. Patients with high preseasonal RAST titres or high cellular sensitivity tended to have more severe symptoms during the pollen season. It is concluded that a mixture of birch, alder and hazel is sufficient for immunotherapy in spring-term hay fever. It is obvious that changes of a single immunological variable do not account for the therapeutic results in immunotherapy.

Eriksson, N. E., K. Haglind, et al. (1980). "A new inhalation technique for freon aerosols. Terbutaline aerosol with a tube extension in a 2-day cross-over comparison with salbutamol aerosol." Allergy **35**(7): 617-22 \*LHM: Denna tidskrift finns tillg.,nglig p† Barnkliniken.

In a double-blind, cross-over, 2-day study 32 adult asthmatic patients compared the bronchodilating effect of 0.5 mg terbutaline sulphate aerosol, administered via a 10 cm tube extension attached to the actuator of a pressurized aerosol, with that of 0.2 mg salbutamol sulphate, administered by a conventional pressurized aerosol. New instructions for the inhalation technique were given for the terbutaline aerosol, dividing the actuation of the aerosol and the slow inhalation into two steps. The salbutamol aerosol was to be taken according to the instructions enclosed, i.e. coordinating the actuation of the aerosol and the inhalation. The improvement in peak expiratory flow rate (PEFR) values was similar for the two treatments. Subjective assessments by the patients showed no differences between the two regimens. As the effect seems to be equal, an aerosol actuator furnished with a tube extension, with no strict demands of synchronizing the actuation of the aerosol and the inhalation, could be a suitable alternative treatment in patients who find self-administration with conventional asthma aerosols difficult.

Eriksson, N. E. (1981). "[Allergy diagnosis in hay fever. Screening by questionnaire and prick test]." Lakartidningen **78**(17): 1756-60 \*LHM: Denna tidskrift finns tillg.,nglig p† Sjukhusbiblioteket.

Eriksson, N. E., H. Formgren, et al. (1982). "Food hypersensitivity in patients with pollen allergy." Allergy **37**(6): 437-43 \*LHM: Denna tidskrift finns tillg.,nglig p† Barnkliniken.

Six hundred patients with pollen allergy answered a questionnaire about food hypersensitivity. Hypersensitivity to various nuts, fruits and roots was reported more often by patients with birch pollen allergy (70%) than by patients without birch pollen allergy (19%). The stronger the skin test reaction to birch pollen, the higher was the incidence of food hypersensitivity. A negative correlation was found between grass pollen allergy and food hypersensitivity. In the diagnosis of springtime hayfever, the presence of hypersensitivity to nuts, fruits and roots supports a diagnosis of birch pollen allergy.

Eriksson, N. E., K. Haglind, et al. (1982). "A comparison of sustained-release terbutaline and ordinary terbutaline in bronchial asthma." Br J Dis Chest **76**(2): 202-4.

The effects and side effects in steady state of a sustained-release preparation of terbutaline 7.5 mg twice daily were compared with ordinary tablets 5 mg three times daily. The study performed for two weeks was double-blind, double-dummy, cross-over with randomized allocation of the drugs. 20 patients completed the trial and the results show higher mean morning PEFR values and a tendency to milder side effects with depot tablets.

Eriksson, N. E., K. Haglind, et al. (1983). "Combined theophylline/beta-agonists maintenance therapy in chronic asthma." Eur J Respir Dis **64**(3): 172-7.

The therapeutic value of adding a slow-release theophylline product (Theo-Dur) to the regular treatment program consisting of beta-stimulants and steroids was evaluated in 31 adult asthmatics. Theophylline in a dose of 300

mg or placebo was administered twice daily during two 14-day periods in a randomized double-blind cross-over study. PEF and asthma symptoms were recorded daily. In the morning, 12 h after tablet intake, spirometry was performed and the theophylline concentration determined. The addition of theophylline slightly, but statistically significantly, increased the daily PEF values and reduced dyspnoea, but not cough, sputum volumes and aerosol consumption. The patients showed preference for the combined treatment. Spirometry at the end of each period did not differ significantly between treatments. The mean theophylline concentration in the morning 12 h after tablet intake was 39  $\mu\text{mol/l}$  (range 15-81  $\mu\text{mol/l}$ ). The results of the study suggest that the addition of a slow-release theophylline preparation to beta-stimulant therapy provides further relief of asthma symptoms without an unacceptable increase in the incidence of side-effects.

Eriksson, N. E., J. A. Wihl, et al. (1983). "Birch pollen-related food hypersensitivity: influence of total and specific IgE levels. A multicenter study." *Allergy* **38**(5): 353-7  
\*LHM: Denna tidskrift finns tillg.,nlig p† Barnkliniken.

Total IgE, RAST results with tree pollen allergens, and prick test results with birch, grass and mugwort pollen allergens were correlated to 872 hay fever patients' reported food hypersensitivity (FH). A positive correlation was found between FH and the RAST and prick test results with birch pollen allergen. At each level of birch pollen sensitivity the incidence of FH was lower in patients with high total IgE than in those with lower total IgE. A negative correlation was found between grass pollen allergy and FH in birch pollen allergics. It is suggested that antigens in some foods have a specific ability to bridge anti-birch IgE molecules on mast cells. An explanation of the negative correlation between FH and total IgE and grass pollen allergy could be that a high number of non-birch-specific IgE molecules on the mast cells will reduce the probability that two anti-birch IgE molecules should bind on nearby sites.

Lowenstein, H. and N. E. Eriksson (1983). "Hypersensitivity to foods among birch pollen-allergic patients. Immunochemical inhibition studies for evaluation of possible mechanisms." *Allergy* **38**(8): 577-87 \*LHM: Denna tidskrift finns tillg.,nlig p† Barnkliniken.

Several statistical investigations have indicated that an immunological partial identity might exist between birch pollen and some foods because of the existence of concurrent hypersensitivity symptoms to both sources. In order to study this, two groups of BP (birch pollen)-allergic patients (20 with (F+) and 20 without (F-) food hypersensitivity) were skin prick tested with extracts of various foods prepared in different ways. Sera from these patients were inhibited with different foods, including a lectin, Con A (concanavalin A), before analysis in BP-RAST and -CRIE. Corresponding experiments using sera from grass pollen allergics were performed as controls. The two groups of patients showed identical skin reactivities to BP extract whereas the F+ patients bound twice as much BP-specific IgE in RAST and CRIE as the F- patients. BP-RAST performed with sera from F+ patients were in some cases inhibited with foods and Con A; corresponding BP-CRIE were not. Neither BP-RAST (with one exception) nor -CRIE performed with sera from F- patients were inhibited with foods and Con A. TP (timothy pollen)-RAST performed with sera from timothy allergic patients were inhibited with some foods and with Con A;

corresponding TP-CRIE were not. Controls performed on sera from normal individuals revealed no inhibition at all in the BP and TP systems. As no direct evidence for immunological partial identity was found from these results the clinical hypersensitivity against some foods among BP-allergics are discussed particularly regarding content of lectin in foods and common carbohydrate components in pollen allergens and food molecules.

Eriksson, N. E. (1984). "Allergy diagnosis and specific therapy in asthma--when, where and how?" Eur J Respir Dis Suppl **136**: 139-59.

Eriksson, N. E. (1984). "Clustering of foodstuffs in food hypersensitivity. An inquiry study in pollen allergic patients." Allergol Immunopathol Madr **12**(1): 28-32.

600 pollen allergic patients were questioned about hypersensitivity symptoms from various foodstuffs. The answers regarding one foodstuff were compared with those of other foodstuffs making 780 tables, from which the Spearman's correlation coefficients were calculated. Most of the combinations of foodstuffs showed statistically significant correlations. The highest value of the correlation coefficient was found for certain combinations: Various nuts reciprocally as well as nuts combined with apple and stone fruits. Stone fruits reciprocally and even stone fruits combined with apple and pear. Apple and pear. Kiwi fruit and avocado. Potato and carrot. Swede, parsnip and celery reciprocally. Strawberry and wild strawberry. Fish and bread, fish and cheese. Beer and wine. Several of the foodstuffs showing high degrees of correlation are known to be associated with birch pollen allergies. It is probable that at least some of these correlations are due to true IgE-mediated cross-reactivity with common allergens in birch pollen and foodstuffs. Other, hitherto less well understood mechanisms, might be at work as well. It is concluded that clustering of foodstuffs is common in food hypersensitivity and that in Sweden this phenomenon mostly is due to the association between birch pollen and some foodstuffs.

Eriksson, N. E., S. Vedal, et al. (1984). "[Red mosquito larvae triggered IGE-mediated allergy in aquarium owners]." Lakartidningen **81**(43): 3951-3 \*LHM: Denna tidskrift finns tillgänglig på Sjukhusbiblioteket.

Eriksson, N. E., J. A. Wihl, et al. (1984). "Tree pollen allergy. II. Sensitization to various tree pollen allergens in Sweden. A multi-centre study." Allergy **39**(8): 610-7 \*LHM: Denna tidskrift finns tillgänglig på Barnkliniken.

In a multi-centre study, comprising 16 clinics, 871 adult hay fever patients were studied. Most patients included had springtime hay fever. Skin prick tests were performed with 20 different tree or bush pollen (lignoses) allergens. RAST determinations were done with eight different tree pollen allergens in 590 patients. Birch pollen (BP) allergen gave the highest frequency of positive test results. The test results with the various tree pollen allergens in patients with BP allergy were compared with those in patients without BP allergy. With all the allergens a significantly higher frequency of positive test results was found in those with BP allergy than in those without. Only very small differences were noted between various parts of the country, and sensitization against various tree pollens was common even in regions where the corresponding trees do not grow. It was concluded that a high degree of cross-

sensitization exists among tree pollens, and testing with BP allergen is sufficient for the diagnostic screening of tree pollen allergy.

Strandhede, S. O., J. A. Wihl, et al. (1984). "Tree pollen allergy. I. Features of plant geography and pollen counts." *Allergy* **39**(8): 602-9 \*LHM: Denna tidskrift finns tillgänglig på Barnkliniken.

The distribution of trees and bushes in Sweden (viz. lignoses) of possible allergic importance is presented and comments made on analyses of pollen counts of lignose taxa from different parts of the country. Based on these data, 20 lignose taxa were selected for an allergen panel and used in a multi-centre study covering Sweden with the aim of revealing the pattern of sensitization to these plants among sufferers of springtime hay fever.

Eriksson, N. E., K. G. Hiding, et al. (1986). "Airflows after inhalation of terbutaline sulphate aerosol from a 750-ml spacer for four weeks." *Clin Ther* **8**(2): 211-8.

Terbutaline sulphate was administered to 40 adult asthmatic patients via an ordinary metered-dose inhaler (MDI) or one connected to a 750-ml spacer in an open, randomized, crossover study. Spirometry was obtained before the start of the study and again after four weeks of treatment with each inhaler. The patients recorded on a diary card the severity of their asthma symptoms and the peak expiratory flow rate (PEFR) in the morning before and after drug administration and in the evening. Preinhalation spirometric values were higher after four weeks with the 750-ml spacer than at the start of the study (P less than or equal to 0.05). Daily morning and evening PEFR values were higher after use of the 750-ml spacer than after use of the ordinary MDI (P less than 0.05). Daily symptom scores were generally low. A significantly better effect (P less than or equal to 0.05) with the 750-ml spacer was achieved only in daytime dyspnea. The investigators conclude that the attachment of a 750-ml spacer to an ordinary metered-dose inhaler can improve the efficacy of terbutaline sulphate in the long-term treatment of asthma.

Dreborg, S., A. Basomba, et al. (1987). "Biological equilibration of allergen preparations: methodological aspects and reproducibility." *Clin Allergy* **17**(6): 537-50.

A method for biological equilibration (BE) of allergen reference preparations using the skin-prick test (SPT) method and histamine HCl 10 mg/ml as reference substance (reference method), was evaluated. The precision was low for weals less than 10 mm<sup>2</sup>. The slope (log weal area/log concentration) of allergen and histamine did not vary significantly between investigators and allergens. The median slopes were 0.39 (n = 384) and 0.34 (n = 397), for allergen and histamine, respectively (P less than 0.01). The concentration of allergen eliciting a weal of the same size as that of histamine HCl 1 mg/ml (Chl) in the median sensitive patient, 1000 Biological Units/ml (BU/ml), did not vary significantly between clinics/geographical regions (grasses, mites and moulds). As BE is repeatable between regions, BUs estimated by this method are generally valid. A high correlation (r = 0.91, P less than 0.001) was found between the median Chl as estimated with histamine 1 and 10 mg/ml as reference substance, respectively. Thus, this reference method for BE is valid. The precision of the SPT method with histamine HCl 1 mg/ml is not as good

as with 10 mg/ml, which is therefore recommended as the reference concentration.

Dreborg, S., L. Belin, et al. (1987). "Results of biological standardization with standardized allergen preparations." *Allergy* **42**(2): 109-16 \*LHM: Denna tidskrift finns tillgänglig på Barnkliniken.

The aim of biological standardization (BS) is to equilibrate the activity (potency) of allergen extracts from different source materials. This was done by performing skin prick tests (SPT) on patients who were sensitive to one of the following 10 allergens: Birch, alder, hazel, timothy, rye grass, velvet grass, cultivated rye, mugwort, *D. farinae* and *Cladosporium herbarum*. Patient sensitivity varied within a range of three to four powers of ten for each allergen investigated. The weal size in each patient corresponding to that elicited by histamine 1 mg/ml was calculated using the model  $\log(\text{mean weal diameter}) = a + b \log(\text{concentration})$ . The correlation coefficients of the regression lines of the allergen dose response relationship were found to be greater than 0.85 in most cases. The median slope for all extracts was 0.24. The slope for *Cladosporium* was significantly steeper than that for pollens. The amount of material in microgram dry weight (d.w./ml) equal to 1000 biological units/ml (BU/ml) varied within a factor of three between species for all tested purified allergen preparations but *Cladosporium*. For *Cladosporium*, about 30 times more material was needed than for *D. farinae*. When using crude rather than purified material, it was necessary to use five to ten times more to elicit a reaction corresponding to 1000 BU/ml, but the difference was significant only for *Cladosporium*. The narrow range of allergen concentrations used by us as well as other investigators does not assure positive skin prick test results in all patients with clinical symptoms due to the allergen in question. Skin prick testing should therefore be done over a wide range of concentrations to improve the methods for BS.

Dreborg, S., I. Sjogren, et al. (1987). "Selection of patients for biological standardization as exemplified by standardization of mugwort, goosefoot and English plantain pollen allergen extracts/preparations." *Allergy* **42**(7): 485-95 \*LHM: Denna tidskrift finns tillgänglig på Barnkliniken.

The biological activity of a partly purified, biochemically/immunochemically characterized mugwort pollen allergen preparation and crude pollen extracts of mugwort, goosefoot and English plantain was determined by means of skin prick test (SPT). The patient inclusion criteria with mugwort were a well-defined positive clinical history and a positive SPT. Symptoms related to goosefoot/English plantain pollens are difficult to define, as these weeds flower during the grass pollen season. Thus patients tested with these allergens did not fulfill the most important inclusion criterion for so-called biological standardization. To elicit a wheal of the same size as that produced by histamine 1 mg/ml required 100 to 10,000 times more material from these weeds, than from mugwort and other pollen allergen extracts investigated earlier. One thousand Biological Units/ml (BU/ml) corresponded to 8.3 micrograms dry weight (dw/ml) of the crude and 1.8 micrograms dw/ml of the purified mugwort pollen allergen preparation. Only 7/22 goosefoot-and English plantain-tested patients were positive at conjunctival or nasal challenge. All three weeds showed a similar composition with 5-10 allergens by CIE/CRIE

analysis and 10-13 by immunoblotting analysis. One dominating allergen (approx. 15,000 d), could be identified for each weed species by protein gel blot after separation by SDS g-PAGE. There was no other explanation for the difference in biological activity than the criteria of selection. If there is no obvious clinical history, which is the main patient inclusion criterion in biological standardization, then additional criteria should be used.

Eriksson, N. E. (1987). "Allergy screening in asthma and allergic rhinitis. Which allergens should be used?" Allergy 42(3): 189-95 \*LHM: Denna tidskrift finns tillg.,nglig p† Barnkliniken.

To detect atopy by a screening method employing skin prick testing with a limited number of allergens, the test results of 939 patients with allergic airways diseases were analysed. It was found that an allergen panel consisting of cat, timothy and house dust mite could detect 85% of atopic patients with asthma and/or rhinitis. For subgroups of patients the results were even more favourable. Thus 98% of atopic patients with seasonal allergic rhinitis were detected by an allergen panel consisting of timothy, birch and mugwort. It is concluded that screening methods using only three of four allergens could be used for detecting atopy in patients with airways diseases. The method should be most valuable for in vitro tests used in combination with standardized questionnaires.

Eriksson, N. E., O. Lowhagen, et al. (1987). "Flowers and other trigger factors in asthma and rhinitis--an inquiry study." Allergy 42(5): 374-81 \*LHM: Denna tidskrift finns tillg.,nglig p† Barnkliniken.

Six hundred and eighty adult patients with asthma and/or rhinitis were questioned about symptoms elicited by 46 different flowers and 10 common non-specific environmental trigger factors listed in a questionnaire. Flowers or birch twigs were reported to elicit symptoms in 79% of the patients, somewhat more often in rhinitis than in asthma patients, and caused symptoms as often in non-atopics as in atopics. Birch twig and marguerite most frequently induced symptoms, followed by strongly smelling flowers such as hyacinth, lilac, and lily of the valley. Unspecific irritants caused symptoms in 98% of the asthmatics and in 67% of patients with rhinitis. Tobacco smoke and perfumes were the most important troublemakers. A significant positive correlation was found for elicitation of symptoms from flowers and from certain non-specific irritants. It is concluded that non-specific hyperreactivity as well as reaginic hypersensitivity are the mechanisms involved when birch twigs and flowers elicit symptoms.

Eriksson, N. E., J. A. Wihl, et al. (1987). "Tree pollen allergy. III. Cross reactions based on results from skin prick tests and the RAST in hay fever patients. A multi-centre study." Allergy 42(3): 205-14 \*LHM: Denna tidskrift finns tillg.,nglig p† Barnkliniken.

872 adult hay fever patients were investigated with skin tests, using 20 different tree pollen allergens, and Phadebas RAST, using eight different tree pollen allergens. Correlation between test results with the different allergens were studied employing the Spearman's correlation coefficient (Rho). Most combinations showed statistically significant correlations. The highest values of Rho (0.8-0.9) were found for pollen from combinations of trees belonging to

the families Betulaceae, Corylaceae and Fagaceae (birch, alder, hazel, beech and oak). High values were also found between pollens from aspen and willow (belonging to Salicaceae). With several of the trees a high degree of pollen cross sensitization was found, even with trees from a different plant family. Since most of the patients were allergic to birch pollen, some of the reactions to other pollens could be due to allergens shared by birch. To exclude this possibility, a separate analysis was performed for patients having no birch pollen allergy. Even in these patients evidence of cross sensitization was found. It is concluded that cross reactions are common among tree pollens and are most pronounced within botanical families.

Eriksson, N. E. (1989). "Total IgE influences the relationship between skin test and RAST." Ann Allergy **63**(1): 65-9.

Positive correlations were found between total IgE, skin prick test (SPT) and RAST results with tree pollen allergens. The relationship between SPT and RAST was influenced by the level of total IgE. At each level of atopy, defined according to the strength of SPT, patients with high total IgE had higher RAST values than patients with low total IgE.

Eriksson, N. E., B. Ryden, et al. (1989). "Hypersensitivity to larvae of chironomids (non-biting midges). Cross-sensitization with crustaceans." Allergy **44**(5): 305-13

\*LHM: Denna tidskrift finns tillgänglig på Barnkliniken.

In 2,368 consecutive adult patients with asthma and/or rhinitis the incidence of positive skin prick test (SPT) with a chironomid extract (CHIR) (produced from "red feather mosquito larvae" used as fish food) was 14% (26% in atopics and 4% in non-atopics). RAST with chironomid was positive in 4% of 110 consecutive sera (8% in atopic sera). Significant correlations were found between RAST and SPT results with chironomid and between SPT results with CHIR and with various crustaceans. Correlations were also found reciprocally among SPT results with different crustaceans and between some crustaceans and molluscs (clam and oyster) as well as among RAST results with chironomid, shrimp and crab. Inhibition experiments showed that chironomid extracts inhibited RAST with shrimp, and vice versa. It is concluded that Chironomidae might be allergens of clinical importance in asthma and rhinitis in Sweden, that cross-allergy exists between chironomids and shrimp and that cross-allergy also might occur among chironomids, crustaceans and molluscs.

Wass, U., L. Belin, et al. (1989). "Immunological specificity of chloramine-T-induced IgE antibodies in serum from a sensitized worker." Clin Exp Allergy **19**(4): 463-71.

A procedure for the preparation of chloramine-T (CT) conjugates used to assay IgE antibodies was developed using response surface methodology and serum from a subject occupationally exposed to the substance. The conjugates, synthesized by reacting CT with human serum albumin (HSA) and other protein carriers, were used as antigens in a radio-allergosorbent test (RAST). Human serum albumin was found to be a suitable carrier, although other protein carriers also gave specific IgE-binding of a similar extent. The CT-HSA conjugates used in the RAST were characterized by high performance liquid chromatography, electrophoresis, immunodiffusion and ammonium sulphate precipitation. However, no strong correlation was seen

between the ability of the conjugates to bind IgE and their physical or immunochemical properties. The hapten and carrier specificity of CT-induced IgE antibodies in the subject's serum were studied by direct RAST and RAST inhibition. No existence of new antigenic determinants related to the carrier could be demonstrated. Although HSA as a carrier was altered immunochemically by CT, the IgE antibodies were found to be specific to hapten only. Chloramine-T-specific IgG antibodies could not be demonstrated in the subject's serum.

Eriksson, N. E. (1990). "Allergy screening with Phadiatop and CAP Phadiatop in combination with a questionnaire in adults with asthma and rhinitis." Allergy **45**(4): 285-92 \*LHM: Denna tidskrift finns tillg.,nglig p† Barnkliniken.

The efficiency of the new screening tests for atopy, Phadiatop and CAP Phadiatop, was studied by comparing their results with a clinical diagnosis of atopy in 100 consecutive adults with asthma and/or rhinitis. Further, the diagnostic efficiency of a combination of Phadiatop and a few standardized questions was studied. The Phadiatop was found to have a specificity of 0.98, and a sensitivity of 0.92 and the CAP Phadiatop a specificity of 0.94 and a sensitivity of 0.96. When the Phadiatop was combined with a few questions, a sensitivity of 1.00 was achieved. It is concluded that Phadiatop and CAP Phadiatop have a higher diagnostic precision than other hitherto used methods for screening of atopic allergy. The place of Phadiatop in a diagnostic flow chart is suggested.

Eriksson, N. E. (1994). "Diagnosis of IgE mediated allergy in clinical practise." Allergol Immunopathol Madr **22**(4): 139-51.

The basis of an allergy diagnosis is the patient's case history. In patients with inhalant allergy, an accurate diagnosis is often received when the case history is supported by the result of skin prick test (SPT) or in vitro-test for allergen specific IgE. IgE screening tests should, in cost-effective clinical routines, preferably be used in patients with a doubtful allergy history, in order to find out which patients do not require allergen specific testing. Determination of allergen specific IgE in the serum could be used when there is suspicion of allergy against only one or a few allergens, whereas SPT should be used when testing with many allergens is necessary. In patients with suspicion of allergy against food stuffs or drugs, test methods are of more limited value than in inhalant allergy and double blind placebo controlled challenge tests often have to be performed in order to get a definitive diagnosis. In insect venom allergy, the history should be supplemented with SPT and determination of venom specific IgE before starting desensitisation therapy.

Eriksson, N. E., A. Holmen, et al. (1995). "A prospective study of cancer incidence in a cohort examined for allergy." Allergy **50**(9): 718-22 \*LHM: Denna tidskrift finns tillg.,nglig p† Barnkliniken.

In order to assess the association between atopy and cancer risk, a cohort of 6593 skin-prick-tested patients was established. Among atopic subjects, no overall increased cancer risk was found, but the incidence of both breast cancer (standardized incidence ratio (SIR) 2.50, 95% CI 1.01-5.16) and malignant lymphomas (SIR 4.40, 95% CI 1.20-11.3) was significantly enhanced. Atopic subjects with asthma showed a decreased overall cancer

risk (SIR 0.73, 95% CI 0.27-1.60), as compared with the other asthmatic subjects (SIR 1.46, 95% CI 1.03-2.04). The cancer risk for subjects with rhinitis was near unity (SIR 1.11), irrespective of whether the subjects were atopic or not. An almost significant risk increase for cancer was observed among subjects with urticaria (SIR 1.70, 95% CI 0.99-2.80). Our results support neither the original hypothesis of an overall cancer protective effect of atopy, nor that of an opposite effect; rather, they strengthen the view that the association between atopic diseases and cancer is complex.

Eriksson, N. E. and A. Holmen (1996). "Skin prick tests with standardized extracts of inhalant allergens in 7099 adult patients with asthma or rhinitis: cross-sensitizations and relationships to age, sex, month of birth and year of testing." J Investig Allergol Clin Immunol **6**(1): 36-46.

The results of skin prick tests (SPTs) performed between 1981 and 1992 on 7099 adult patients with asthma and/or rhinitis were retrospectively analyzed. Standardized Soluprick extracts of *Dermatophagoides pteronyssinus*, animals and pollen, and unstandardized extracts of *Cladosporium*++ and chironomids (red mosquito larvae, Chir), were used. The proportion of atopics (patients with positive SPT results) was 44 percent, decreasing from 61 percent in patients 14-20 years old to 18 percent in patients 61-70 years old. The decrease with age was most pronounced with timothy, cat and horse allergens. In the whole patient group, timothy, cat and birch gave the highest number of positive SPTs. Positive SPTs with dog and Chir were more common in asthmatics than in patients with rhinitis, whereas pollen allergy was more common in patients with rhinitis. Sensitization against *D. pteronyssinus*, timothy and Chir was more common in men than in women. Of the atopic patients, 65 percent were sensitized against several allergens and 35 percent had a mono-allergy, most frequently to *D. pteronyssinus* (7.4 percent) and timothy (70 percent). The proportion monoallergies/multi-allergies was higher in older patients than in younger ones. The degree of atopy, expressed as the sum of plusses of the test results with eight allergens for each patient, was higher in younger patients than in older ones. The size of the wheals induced by the positive histamine control increased with age, and the histamine-induced wheals were larger in men than in women and larger in non-atopics than in topics. Strong correlations were found between test results with cat, dog and horse. A greater proportion of the patients with an isolated pollen allergy were born in February-May than was to be expected. The proportion of positive SPTs with mugwort (*Artemisia*), in relation to positive SPTs with other pollen allergens, decreased from 1981 to 1992. It can be concluded that sensitization to various inhalant allergens is influenced by age, and to a lesser extent by sex, and that pollen sensitization is influenced by the month of birth. During a 12-year period, sensitization to mugwort showed a decrease, as compared to other pollen allergens.

Eriksson, N. E. and C. Moller (1996). "Cockroach and *Dermatophagoides pteronyssinus* cross-react [letter]." J Allergy Clin Immunol **98**(2): 471-3.

Eriksson, N. E. and C. Moller (1996). "Cockroach and *Dermatophagoides pteronyssinus* cross-react." J Allergy Clin Immunol **98**(2): 471-3.

Eriksson, N. E. (1997). "[Health care personnel could slow down the greenhouse effect]." Lakartidningen **94**(30-31): 2632.

Holmen, A., J. Blomqvist, et al. (1997). "Frequency of patients with acute asthma in relation to ozone, nitrogen dioxide, other pollutants of ambient air and meteorological observations." Int Arch Occup Environ Health **69**(5): 317-22.

**OBJECTIVE:** To study the association of the daily frequency of registration of patients with acute asthma at the emergency department of a central hospital in the south-west of Sweden with levels of air pollution and meteorological observations. **METHODS:** A retrospective longitudinal study was made of asthma patients taken from a hospital registry. This information was correlated with measurements of ozone, nitrogen dioxide, sulphur dioxide, toluene, temperature and relative humidity. Patients were from the catchment area of the Central Hospital of Halmstad containing around 120,000 inhabitants. A total of 4127 visits of patients with acute asthma to the emergency department at the Central Hospital of Halmstad were registered during a period of 1247 days from January 1990 to May 1993. The differential optical absorption spectroscopy (DOAS) technique was used to monitor levels of air pollutants over a distance of 1000 m in the central part of the town of Halmstad. Data on temperature, relative humidity, precipitation, wind speed and wind direction for the time period were supplied by the Swedish Meteorological and Hydrological Institute (SMHI). **RESULTS:** There were many statistically significant correlations between the levels of air pollutants and the meteorological measurements and a strong negative correlation between ozone and nitrogen dioxide. There was a statistically significant effect on asthma visits in children of low temperature and high nitrogen dioxide levels, and on asthma visits in adults of high temperature and high levels of ozone. **CONCLUSIONS:** There was a different reaction pattern in children and adults with asthma regarding temperature and ozone/nitrogen dioxide. The strong correlations between temperature and air pollution and between the levels of ozone and nitrogen dioxide made the true relation between asthma, air pollution and temperature hard to evaluate statistically.

Eriksson, N., A. Holmén, et al. (1998). "Sensitization according to skin prick testings in atopic patients with asthma or rhinitis at 24 allergy clinics in Northern Europe and Asia." Allergology International **47**: 187-196.

Foucard, T. and N. E. Eriksson (1999). "[Annoyances of summer--current data on stings and bites]." Lakartidningen **96**(25): 3044-6.

Eriksson, N., C. Möller, et al. (2000). "(In Lithuanian) Atopisku zmonilu, serganciu bronchine astma arba alergiflu rinitu sensibilizacija remiantis 24 kliniku Siaurės Europoje ir Azijoje duomenimis." Vaiky pulmonologija ir alergologija **3**(3): .991-1004.

The aims of this multi centre study were to find the prevalence of sensitization with two insects ? RML and cockroach - in atopic patients in Nordic countries and relate indoor environmental factors to the sensitization with these and other allergens. Furthermore, we wanted to evaluate the cross?sensitization patterns among inhalant allergens and crustaceans.

Skin prick tests (SPTs) with common inhalant allergens as well as cockroach, red mosquito larvae (RML) and shrimp were performed on 2113 atopic patients

from eight countries. Allergen specific IgE in the sera of 550 patients was determined, using CLA with 16 different inhalant and food allergen extracts. CAP RAST was used for determination of allergen specific IgE against cockroach the sera of 50 individuals having positive SPT but negative CLA with cockroach. On sera from 16 selected patients, having strongly positive SPT with the insects, RAST was performed with nine commercially available insect allergens.

Positive SPT with cockroach was found in 19 proc. of the atopic patients and with RML in 9 proc.. Positive CLA with cockroach was obtained in only 12 proc. of those having positive SPT. Among 50 patients, however, who had strongly positive SPT and negative CLA with cockroach, 28 (56 proc.) had positive CAP RAST with cockroach. The figure for positive CLA with RML among those having positive SPT with RML was 20 proc.,

Positive relationships were found between reports of cockroaches at home and sensitization to cockroaches and between contacts with RML used as aquarium fish foods and specific serum IgE against RML as well as with IgE against cockroaches. Correlation was also found between symptoms on exposure to house dust and positive SPTs with DP and DE. Strongly positive correlations were seen between test results (with SPT as well as with IgE) within (but not between) the allergen groups insects/ crustaceans/mites, moulds, mammalian and pollens.

A practical conclusion for clinical work is that a positive test result with one insect allergen does not necessarily mean that this unique insect is of clinical importance for the patient. Furthermore, positive test results with crustaceans in a patient sensitized to insects do not necessarily indicate clinically relevant crustacean allergy, and vice versa.

Eriksson, N. E., C. Moller, et al. (2003). "The hazards of kissing when you are food allergic. A survey on the occurrence of kiss-induced allergic reactions among 1139 patients with self-reported food hypersensitivity." J Invest Allergol Clin Immunol **13**(3): 149-54.

**BACKGROUND:** According to a few case reports, kissing can induce symptoms due to food allergy. **OBJECTIVE:** We wanted to investigate the occurrence of kiss-induced allergic symptoms and other social inconveniences among patients with self-reported food hypersensitivity. **METHODS:** A questionnaire was answered by 1139 patients (1-84 years old, mean age 29 years, 393 males and 746 females) who considered themselves to be food allergic. **RESULTS:** 12% of the patients experienced allergic symptoms when in close contact with (e.g., kissing) a person who had eaten a nontolerated food prior to the contact. Some case histories suggested that the symptoms only appeared if the food intake had occurred immediately before the kiss. In addition, the questionnaires showed that 55% had problems in daily life finding tolerable food, 44% were afraid of a severe reaction from eating nontolerated food, 13% could experience symptoms when sitting beside a person who was eating such a food, and 17% could experience symptoms in the kitchen when someone else was preparing such food. **CONCLUSIONS:** What other people eat can influence the quality of life of food-allergic patients.

Eriksson, N. E., C. Moller, et al. (2004). "Self-reported food hypersensitivity in Sweden, Denmark, Estonia, Lithuania, and Russia." J Investig Allergol Clin Immunol **14**(1): 70-9.

AIM: The main aim of the study was to describe the differences between some Northern countries regarding what foods, according to the patients, elicit hypersensitivity symptoms. METHODS: At the participating clinics, patients with a history of food hypersensitivity (n = 1139) were asked to fill in a questionnaire in which 86 different foodstuffs were listed. Skin-prick tests (SPT) were performed with common inhalant allergens. RESULTS: The foods that were reported as eliciting symptoms differed between countries. In Russia, Estonia, and Lithuania; citrus fruits, chocolate, honey, apple, hazelnut, strawberry, fish, tomato, egg, and milk were most often reported as causes of hypersensitivity. In Sweden and Denmark; birch pollen (BP) related foods, such as nuts, apple, pear, kiwi, stone fruits, and carrot were the most common causes. In all countries, children, more often than adults, had symptoms of allergic reaction to citrus fruits, tomato, strawberry, milk, egg, and fish. Most patients (95%) reported hypersensitivity to several foodstuffs (median: eight foods). The most common symptoms were oral allergy syndrome and urticaria. Severe symptoms were most common with fish, shellfish, nuts, and milk. Slight symptoms were most common with rice, coriander, poppy seed, lingonberry, corn, caraway red currant, and fig. Earlier well-known correlations, such as that between BP sensitization and some fruits and vegetables, as well as that between mugwort and some spices, were corroborated. Positive correlations were found between self-reported hypersensitivity to crustaceans and SPT with horse. A negative correlation was seen between hypersensitivity to crustaceans and SPT with BP. CONCLUSIONS: The foodstuffs that often are reported to cause food hypersensitivity, differ between Sweden/Denmark on one side and the Baltic States and Russia on the other. BP-related foods dominate in Scandinavia, whereas some mugwort-related foods are of more importance in Russia and the Baltic States.

Wedback, A., H. Enbom, et al. (2005). "Seasonal non-allergic rhinitis (SNAR)--a new disease entity? A clinical and immunological comparison between SNAR, seasonal allergic rhinitis and persistent non-allergic rhinitis." Rhinology **43**(2): 86-92.

We have earlier described a group of patients suffering from rhinoconjunctivitis during the early pollen season, but with negative allergological investigation. The present study aimed to evaluate this syndrome called Seasonal Non-Allergic Rhinitis (SNAR). Seventeen patients with SNAR were compared with 20 patients with seasonal allergic rhinitis (SAR) and 13 patients with persistent non-allergic rhinitis (PNAR). They were analyzed with skin prick tests (SPT) and nasal provocation tests (NPT) with pollen extracts, and for IgE antibodies in serum and inflammation mediators in nasal lavage. Daily symptoms and medicine consumption were recorded. Late reactions after SPT occurred in two SNAR, eight SAR and two PNAR patients. Weak immediate and late reactions after NPT were induced in 3/15 and 7/15 SNAR patients, respectively, and in 1/13 and 5/13 PNAR patients. All SAR patients had immediate and 9/18 had late reactions. The total IgE levels were lower in SNAR compared to SAR. In the SNAR group 1/15 was positive in Phadiatop. Increased tryptase levels after NPT were only observed in SAR. The SNAR patients had high daily symptom scores already before birch pollen season.

Sneezing was more common in SNAR and SAR than in PNAR; eye-symptoms more prominent in SAR than in SNAR or PNAR. SNAR seems to be different from SAR and PNAR regarding immunological mechanism and symptom period. We conclude that the cause of SNAR is unknown.