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 [Epidemiology](#)

 [Volume 8](#)

[Issue 6](#)

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Is infant immunization a risk factor for childhood asthma or allergy?

[Kemp T](#), [Pearce N](#), [Fitzharris P](#), [Crane J](#), [Fergusson D](#), [St. George I](#), [Wickens K](#), [Beasley R](#)

Epidemiology 1997 Nov **8**:6 678-80

Abstract

The Christchurch Health and Development Study comprises 1,265 children born in 1977. The 23 children who received no diphtheria/pertussis/tetanus (DPT) and polio immunizations had no recorded asthma episodes or consultations for asthma or other allergic illness before age 10 years; in the immunized children, 23.1% had asthma episodes, 22.5% asthma consultations, and 30.0% consultations for other allergic illness. Similar differences were observed at ages 5 and 16 years. These findings do not appear to be due to differential use of health services (although this possibility cannot be excluded) or con-founding by ethnicity, socioeconomic status, parental atopy, or parental smoking.

MeSH

[Adolescence](#) ; [Asthma](#) ; [Child](#) ; [Child, Preschool](#) ; [Confidence Intervals](#) ; [Confounding Factors \(Epidemiology\)](#) ; [Cross-Sectional Studies](#) ; [Eczema](#) ; [Female](#) ; [Human](#) ; [Hypersensitivity](#) ; [Infant](#) ; [Infant, Newborn](#) ; [Longitudinal Studies](#) ; [Male](#) ; [New Zealand](#) ; [Odds Ratio](#) ; [Retrospective Studies](#) ; [Risk Factors](#) ; [Support, Non-U.S. Gov't](#) ; [Vaccination](#) ; [Virus Diseases](#) ;

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 [Schweiz Med Wochenschr](#)

 [Volume 127](#)

[Issue 21](#)

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[New aspects in the treatment of bronchial asthma and chronic obstructive lung diseases]

[Wyser C](#), [Soler M](#), [Perruchoud AP](#)

Schweiz Med Wochenschr 1997 May 24 **127**:21 885-90

Abstract

The expansion of our knowledge regarding the pathogenesis of asthma has now made clear that it is an

inflammatory disease. Although the treatment of bronchospasm associated with asthma is essential, it is important to consider the inflammatory aspect of the disease. The first therapeutic approach is to control environmental hazards (allergen, air pollution, tobacco smoke). It should always be remembered that patient education is of critical importance. Patients with only occasional asthma symptoms (2-4 times a week) should receive inhaled short-acting beta-2 agonists as needed. Treatment with inhaled corticosteroids is instituted in all asthmatics except the mildest cases. Long-acting beta-2 agonists are an additional therapy for patients with unsatisfactory symptom control despite an optimal dose of inhaled steroids, particularly when there are nocturnal symptoms. Chronic obstructive pulmonary disease is defined as a disease state characterized by the presence of airflow obstruction due to chronic bronchitis or emphysema. Although the airflow obstruction is generally progressive, comprehensive therapeutic management benefits all patients including those with severe disease: stopping smoking, vaccination against influenza and pneumococcus, pharmacologic therapy. The judicious use of bronchodilators increases airflow and reduces dyspnea. Ipratropium and beta-2 agonists are equally efficacious and may work synergistically. The use of corticosteroids is controversial. Thus a closely monitored steroid trial of therapy should be considered in patients who have continuing symptoms or severe airflow limitation despite maximal therapy with other agents. Broad spectrum antibiotics are beneficial in severe exacerbations.

MeSH

[Asthma](#) ; [Combined Modality Therapy](#) ; [English Abstract](#) ; [Human](#) ; [Lung Diseases, Obstructive](#) ; [Patient Education](#) ;

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 [Immunology](#)

 [Volume 90](#)

[Issue 1](#)

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Vaccination with a multi-epitopic recombinant allergen induces specific immune deviation via T-cell anergy.

[Cao Y](#), [Yang M](#), [Luo Z](#), [Mohapatra SS](#)

Immunology 1997 Jan **90**:1 46-51

Abstract

Prophylactic vaccination has recently emerged as a major paradigm toward the prevention and therapy of allergies and asthma; however, the immunological basis of this approach remains to be elucidated. We examined the potential and mechanism of prophylaxis of allergic response in B6D2F1 mice with a multi-epitopic recombinant allergen, rKBG8.3 (MERA-8.3), which represents a major group of allergens of grass pollens, used herein as a model of MERA vaccine. Vaccination (subcutaneous) with soluble MERA-8.3, prior to immunization with the MERA-8.3 in alum, led to suppression of the IgE antibody response and a concomitant increase in IgG2a antibody response specific to the MERA-8.3 in a dose-dependent manner. Analysis of cytokine patterns in spleen and lymph node cells revealed a marked decrease of interleukin-2 (IL-2) and IL-4 production and to a lesser extent a decrease of interferon-gamma (IFN-gamma) synthesis, resulting in an increased ratio of IFN-gamma: IL-4 in vaccinated-immunized mice compared with untreated-immunized control mice. Furthermore, splenocytes of mice treated with the MERA-8.3 alone proliferated to MERA-8.3 in vitro with reduced capacity compared with the splenocytes of MERA-8.3-alum immunized mice, owing to a markedly reduced level of IL-2 production in the former. Collectively, these results suggest that vaccination with the MERA-8.3 induces T-cell anergy, which is pivotal to deviation of specific immunity from Th2- to Th1-like, and may serve as an important approach to prevention and therapy of allergic disorders.

MeSH

[Allergens](#) ; [Animal](#) ; [Clonal Anergy](#) ; [Cytokines](#) ; [Female](#) ; [IgE](#) ; [IgG](#) ; [Immune Tolerance](#) ;

[Interleukin-2](#) ; [Mice](#) ; [Mice, Inbred C57BL](#) ; [Mice, Inbred DBA](#) ; [Polymerase Chain Reaction](#) ; [Recombinant Proteins](#) ; [RNA, Messenger](#) ; [Support, Non-U.S. Gov't](#) ; [T-Lymphocytes](#) ; [Vaccination](#) ; [Vaccines, Synthetic](#) ;

Author Address

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[The vaccinal prevention of diphtheria and tetanus in children suffering from bronchial asthma and asthmatic bronchitis]

[Kostinov MP](#), [Gervazieva VB](#), [Balabolkin II](#), [Maksimova NM](#), [Pereverzeva NV](#)

Zh Mikrobiol Epidemiol Immunobiol 1993 May-Jun3 76-80

Abstract

The course of the vaccinal process was studied in 69 children with bronchial asthma and asthmatic bronchitis after the injection of adsorbed diphtheria-tetanus (DT) toxoid with reduced antigen content. After immunization all these children were found to form protective levels of anti-diphtheritic and antitetanus antibodies irrespective of the severity and duration of the remission of the main disease prior to vaccination; at the same time no obstructive changes in bronchial ventilation were observed after immunization with adsorbed DT toxoid with reduced antigen content. The schemes of the preparatory medicinal treatment of patients at the period of vaccination are given with due regard for the duration of the remissions of bronchial asthma and asthmatic bronchitis.

MeSH

[Adolescence](#) ; [Antibodies, Bacterial](#) ; [Asthma](#) ; [Bronchitis](#) ; [Child](#) ; [Child, Preschool](#) ; [Clostridium tetani](#) ; [Comparative Study](#) ; [Corynebacterium diphtheriae](#) ; [Diphtheria](#) ; [Diphtheria Toxoid](#) ; [Drug Combinations](#) ; [English Abstract](#) ; [Human](#) ; [Immunization, Secondary](#) ; [Infant](#) ; [Spirometry](#) ; [Tetanus](#) ; [Tetanus Toxoid](#) ; [Time Factors](#) ;



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 [Eur J Pharmacol](#)

 [Volume 62](#)

[Issue 4](#)

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The effects of Haemophilus influenzae vaccination on anaphylactic mediator release and isoprenaline-induced inhibition of mediator release.

[Schreurs AJ](#), [Terpstra GK](#), [Raaijmakers JA](#), [Nijkamp FP](#)

Eur J Pharmacol 1980 Apr 4 62:4 261-8

Abstract

The influence of Haemophilus influenzae on anaphylactic mediator release from ovalbumin-sensitized isolated guinea pig lungs was investigated. Lungs from H. influenzae-vaccinated animals released prostaglandins and thromboxanes following a smaller dose of ovalbumin than was effective in non-vaccinated animals. Histamine release was significantly increased in 4 day-vaccinated animals but not 1 or 10 days after vaccination, while broncho-constriction was potentiated in 1 and in 4 day-vaccinated animals. This increased histamine release was achieved following 2 micrograms ovalbumin. In contrast, doses of 10 micrograms and 1 mg ovalbumin respectively did not affect and

decreased histamine release in the vaccinated group. The inhibition of anaphylactic mediator release by an infusion of 6×10^{-9} M isoprenaline was significantly attenuated by H. influenzae vaccination. These results indicate an increased sensitivity to antigenic challenge and suggest that the functioning of beta-adrenoceptors was decreased as a result of H. influenzae vaccination.

MeSH

[Anaphylaxis](#) ; [Animal](#) ; [Arachidonic Acids](#) ; [Asthma](#) ; [Autacoids](#) ; [Bradykinin](#) ; [Bronchial Spasm](#) ; [Disease Models, Animal](#) ; [Guinea Pigs](#) ; [Haemophilus influenzae](#) ; [Histamine](#) ; [Histamine Release](#) ; [In Vitro](#) ; [Isoproterenol](#) ; [Lung](#) ; [Male](#) ; [Ovalbumin](#) ; [Prostaglandins](#) ; [Rabbits](#) ; [Rats](#) ; [Thromboxanes](#) ; [Vaccination](#) ;



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[Rev Ig Bacteriol Virusol Parazitol Epidemiol Pneumoftiziol Pneumoftiziol](#)

[Volume 25](#)

[Issue 1-2](#)

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[Experience in the field of microbial allergic asthma]

[Seropian E](#)

Rev Ig Bacteriol Virusol Parazitol Epidemiol Pneumoftiziol Pneumoftiziol 1976 Jan-Mar **25:1-2** 17-22

Abstract

The present paper reports on the effect of prolonged microbial hyposensitization applied in 206 cases of microbial allergic asthma in comparison to 95 asthmatic patients of the same category in which this treatment was not applied; improvement was obtained in 78% of the former lot as against 17% in the latter. The quantity of the improvement obtained and the dependence of the results upon the various diagnostic criteria used are discussed. Microbial hyposensitization has proved efficient in asthmatic patients although its mechanism of action is not yet known, nor the difference that exists from this point of view with the current microbial vaccination. The data obtained suggest that microbial hyposensitization acts by the mechanism of microbial vaccination in all the variants of infectious asthma.

MeSH

[Adult](#) ; [Asthma](#) ; [Bacterial Infections](#) ; [Bacterial Vaccines](#) ; [Desensitization, Immunologic](#) ; [Human](#) ; [Middle Age](#) ; [Respiratory Hypersensitivity](#) ; [Respiratory Tract Infections](#) ;

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[Allerg Immunol \(Leipz\)](#)

[Volume 23](#)

[Issue 3](#)

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[Immune responses and blood group genetics in patients with asthma bronchiale (author's transl)]

[Ksenofontow JP](#)

Allerg Immunol (Leipz) 1977 **23:3** 221-5

Abstract

The combination of MN(Hp 2-2) blood group is more frequent in bronchial asthma patients than in the normal population. The highest changes of blood serum proteinogram were observed within the first week after anti-typhus-paratyphus-tetanus vaccination in persons with haptoglobulin of 2-2 type, especially in combination with NN and MN blood groups of MN system. The most intense increase of antibody titer to typhoid bacillus was observed in a month after the vaccination in persons with 2-2

type of haptoglobin.

MeSH

[Adult](#) ; [Antibodies, Bacterial](#) ; [Asthma](#) ; [ABO Blood-Group System](#) ; [Blood Bactericidal Activity](#) ; [Blood Groups](#) ; [Child, Preschool](#) ; [English Abstract](#) ; [Female](#) ; [Haptoglobins](#) ; [Human](#) ; [Isoantigens](#) ; [Male](#) ; [MNSs Blood-Group System](#) ; [Rh-Hr Blood-Group System](#) ; [Typhoid](#) ; [Typhoid-Paratyphoid Vaccines](#) ;



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 [Pediatr Allergy Immunol](#)

 [Volume 7](#)

[Issue 3](#)

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Evaluation of efficacy of traditional Chinese medicines in the treatment of childhood bronchial asthma: clinical trial, immunological tests and animal study. Taiwan Asthma Study Group.

[Hsieh KH](#)

Pediatr Allergy Immunol 1996 Aug 7:3 130-40

Abstract

Traditional Chinese medicines (TCM) have been used to treat bronchial asthma for several centuries and a certain degree of clinical benefit has been observed; however, scientific substantiation is lacking. A multicenter, double-blind and placebo-controlled study was therefore conducted to evaluate the clinical efficacy in terms of symptom score, medication score, morning and evening PEFRs, and changes of immunoregulatory function, such as distribution of lymphocyte subsets and in vivo and in vitro production of lymphokines (IFN-gamma and IL-4) and inflammatory mediators (histamine, PGE2 and LTC4). Furthermore, the protective effect of TCM on the late asthmatic reaction (LAR) was evaluated by using asthmatic guinea pigs. Three hundred and three asthmatic children were classified by Chinese doctors, according to a standardized questionnaire designed on the basis of basic logic of Chinese medicine, into three groups of specific constitution (group A, B and C). Group A consisted of 32 herb A-treated patients and 34 placebo-treated; group B, 74 herb B-treated and 64 placebo-treated; and group C, 55 herb C-treated and 44 placebo-treated. The study period was six months. The results were: 1) Both treatment group and placebo group showed an improvement in all clinical parameters, thus demonstrating a placebo effect. However, the improvement was usually greater in the former than the latter, although only the difference in PEFr was significant; 2) Herb A could increase total T cell and decrease B cell; 3) Herb A and B enhanced production of PGE2 but not LTC4, IFN-gamma and IL-4; 4) There was a general tendency for in vivo and in vitro production of histamine to decrease at the end of study in both treatment group and placebo group; however, the decrease was significantly greater in the former than the latter; 5) In asthmatic guinea pigs, 10-day's pretreatment with Chinese herbs could reverse the decrease of sGaw, suppress eosinophilia in bronchoalveolar lavage fluid (BALF), prevent the eosinophil infiltration of airways, increase PGE2 production and decrease LTC4 production in serum and BALF. Thus, traditional Chinese medicines did show a certain degree of clinical efficacy. The decreased production of histamine and LTC4, increased production of PGE2 that were found in both asthmatic children and asthmatic guinea pigs, and prevention of occurrence of LAR by suppressing eosinophil infiltration of airways and preserving airway conductance that were observed in asthmatic guinea pigs after allergen challenge might be used to account partly for the effectiveness.

MeSH

[Adolescence](#) ; [Animal](#) ; [Asthma](#) ; [Bronchi](#) ; [Bronchoalveolar Lavage Fluid](#) ; [Child](#) ; [Dinoprostone](#) ; [Double-Blind Method](#) ; [Drug Monitoring](#) ; [Drugs, Chinese Herbal](#) ; [Eosinophilia](#) ; [Eosinophils](#) ; [Female](#) ; [Guinea Pigs](#) ; [Histamine](#) ; [Human](#) ; [Interferon Type II](#) ; [Interleukin-4](#) ; [Kidney](#) ; [Leukotriene C4](#) ; [Lymphocyte Subsets](#) ; [Male](#) ; [Ovalbumin](#) ; [Peak Expiratory Flow Rate](#) ; [Questionnaires](#) ; [Severity of Illness Index](#) ; [Spleen](#) ; [Support, Non-U.S. Gov't](#) ; [Vaccination](#) ;

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[Genetika](#)

[Volume 12](#)

[Issue 9](#)

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[Genetic markers and several indices of immune reactivity]

[Ksenofontov IuP, Rumiantsev SN](#)

Genetika 1976 **12:9** 150-3

Abstract

The highest changes of blood serum proteinogram were observed within the first week after anti-typhus-paratyphus-tetanus vaccination in persons with haptoglobin of 2-2 type, especially in combination with NN and MN blood groups of MN system. The most intense increase of antibody titer to typhoid bacillus was observed in a month after the vaccination in persons with 2-2 type of haptoglobin. The combination of MN (Hp 2-2) blood group is more frequent in bronchial asthma patients than in the normal population.

MeSH

[Adult](#) ; [Antibodies, Bacterial](#) ; [Asthma](#) ; [English Abstract](#) ; [Female](#) ; [Haptoglobins](#) ; [Human](#) ; [Male](#) ; [MNSs Blood-Group System](#) ; [Paratyphoid Fever](#) ; [Rh-Hr Blood-Group System](#) ; [Typhoid](#) ; [Vaccination](#) ;

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[Eur J Pediatr](#)

[Volume 156](#)

[Issue 12](#)

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Vaccination strategies for children with specific medical conditions: a paediatrician's viewpoint.

[Siegrist CA](#)

Eur J Pediatr 1997 Dec **156:12** 899-904

Abstract

Children with underlying medical conditions have to be given careful attention at the time of planned immunization in order to define the individual benefit/risk ratio of a given vaccination. Analysis of available data demonstrates that vaccine administration is indeed both safe and efficient in most children. Immunization of very premature infants may require specific vaccine strategies consisting either of short-term deferral of immunization or the addition of an extra vaccine dose. With the exception of influenza immunization of children with egg allergy, immunization is safe and efficient in atopic or asthmatic children. A family or personal history of seizure without evidence of encephalopathy is no longer considered a limitation to pertussis immunization. Children with mild intercurrent infection can be immunized without further delay. Repeated pneumococcal immunization should be offered to children at high risk of pneumococcal disease after the age of 2 years. Optimal protection of immunodeficient children could include immunization of family members. CONCLUSION: This article attempts to review existing data upon which immunization practices have been recommended by expert societies. It outlines some areas that need additional studies before specific recommendations can be made and it proposes attitudes that could be considered in the meantime.

MeSH

[Acute Disease](#) ; [Asthma](#) ; [Child](#) ; [Child, Preschool](#) ; [Glucocorticoids, Synthetic](#) ; [Health Status](#) ; [Hematologic Diseases](#) ; [Human](#) ; [Hypersensitivity](#) ; [Immunologic Deficiency Syndromes](#) ; [Infant](#) ; [Infant, Newborn](#) ; [Infant, Premature](#) ; [Nervous System Diseases](#) ; [Vaccination](#) ; [Vaccines](#) ;

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 [JAMA](#)

 [Volume 278](#)

[Issue 18](#)

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Postlicensure effectiveness of varicella vaccine during an outbreak in a child care center [see comments]

[Izurieta HS](#), [Strebel PM](#), [Blake PA](#)

JAMA 1997 Nov 12 **278**:18 1495-9

Abstract

CONTEXT: Because lyophilized varicella vaccine must be stored frozen at -15 degrees C or less (> or = 5 degrees F) and administered within 30 minutes after reconstitution, the potential exists for decreased vaccine effectiveness when the vaccine is used under field conditions. OBJECTIVES: To describe an outbreak of varicella in a child care center and to determine postlicensure effectiveness of varicella vaccine. DESIGN: Retrospective cohort study. SETTING: A child care center in DeKalb County, Georgia, in 1996. PARTICIPANTS: Of the 184 children registered in the child care center, 148 were eligible for the study based on absence of history of varicella before January 1, 1996. MAIN OUTCOME MEASURES: Data on disease status, severity and impact of disease, and risk factors for varicella and for vaccine failure were obtained from parents and their children's pediatricians. Varicella vaccine effectiveness was calculated among children aged 12 months or older (eligible for vaccination) using the cohort method. RESULTS: The outbreak started on January 17, 1996, and lasted 15 weeks. Of the 148 eligible children, 81 (55%) developed varicella. Cases among children younger than 12 months (n = 7) were more severe than cases among older children. Varicella occurred in 9 (14%) of 66 vaccinated children and 72 (88%) of 82 unvaccinated children. Varicella was less severe and resulted in fewer days of absence from the child care center among vaccinated compared with unvaccinated cases. Varicella vaccine effectiveness against all forms of disease was 86% (95% confidence interval [CI], 73%-92%), and against moderate-to-severe varicella disease it was 100% (95% CI, 96%-100%). Vaccinated children with asthma or other reactive airway diseases were 7.1 times more likely to have varicella than were vaccinated children without reactive airway diseases (95% CI, 2.4-21.3). CONCLUSIONS: Varicella vaccine administered under routine conditions in physicians' offices was highly effective in preventing varicella in an outbreak characterized by intense exposure. The role of asthma and other reactive airway diseases as risk factors for varicella disease and vaccine failure deserves to be investigated further.

MeSH

[Asthma](#) ; [Chickenpox](#) ; [Chickenpox Vaccine](#) ; [Child Day Care Centers](#) ; [Child, Preschool](#) ; [Cohort Studies](#) ; [Disease Outbreaks](#) ; [Georgia](#) ; [Human](#) ; [Infant](#) ; [Retrospective Studies](#) ; [Risk Factors](#) ; [Statistics, Nonparametric](#) ; [Treatment Failure](#) ;

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 [Pediatr Infect Dis J](#)

 [Volume 16](#)

[Issue 7](#)

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Varicella vaccination for adolescents with asthma.

[Schaffner W](#)

Pediatr Infect Dis J 1997 Jul **16**:7 723

MeSH

[Adolescence](#) ; [Adrenal Cortex Hormones](#) ; [Asthma](#) ; [Chickenpox Vaccine](#) ; [Human](#) ; [Vaccination](#) ;

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 [Ann Allergy Asthma Immunol](#)

 [Volume 79](#)

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Specific antibody responses to diphtheria/tetanus revaccination in children evaluated for immunodeficiency.

[McCusker C](#), [Somerville W](#), [Grey V](#), [Mazer B](#)

Ann Allergy Asthma Immunol 1997 Aug **79**:2 145-50

Abstract

BACKGROUND: Assaying specific antibody levels against well-defined antigens such as diphtheria (D), tetanus (T), and more recently Haemophilus is used as one indicator of humoral immune reactivity when evaluating patients for immunodeficiency. The nature of the response to booster vaccine in this group of patients is not well defined. **OBJECTIVE:** To define the response to D/T booster vaccination in patients with nonprotective antibody levels in order to distinguish immunocompetent from immunodeficient children. **METHODS:** Patients between the ages of 16 months and 17 years referred for possible immunodeficiency were assessed for specific antibody levels as part of a standard immunologic evaluation. Twenty-six previously immunized patients had antibody titers less than or equal to 0.2 IU against D and/or T or another abnormal vaccine response. All of these patients received boosters of diphtheria and tetanus vaccine (D2T5). Diphtheria and tetanus antibody levels were assayed 4 weeks following booster vaccination. **RESULTS:** Of the twenty-six subjects, a subset of patients (6) failed to show significant elevations in specific-serum antibody titers to diphtheria and/or tetanus and were thus labeled nonresponders. These patients were retrospectively compared with their responder counterparts examining specific antibody titers pre-immunization and post-immunization, serum immunoglobulins, and clinical presentation. The groups showed no significant difference in baseline specific antibody measures but following re-immunization responders showed a 31.34-fold and 22.33-fold increase in D and T antibody levels, respectively. In contrast, nonresponders produced only a 2.62-fold to D and 6.15-fold increase to T (all group comparisons $P < .05$). Clinical presentation also tended to be more severe in the nonresponder group. **CONCLUSIONS:** These data stress the importance of specific antibody titers pre-immunization and post-immunization in the assessment of immunodeficiency states, and emphasize the different characteristics of responses between diphtheria and tetanus toxoids. The ability to achieve the minimum protective antibody level does not necessarily denote immune competence. Serum immunoglobulin levels and baseline antibody titers are insufficient for the functional assessment of the immune response. The ability to generate antibody responses

following booster vaccination is a more complete measure of overall immune competence and should be considered when evaluating patients for replacement immunoglobulin therapy.

MeSH

[Adolescence](#) ; [Antibodies, Bacterial](#) ; [Antibody Specificity](#) ; [Child](#) ; [Child, Preschool](#) ; [Diphtheria](#) ; [Diphtheria Toxoid](#) ; [Enzyme-Linked Immunosorbent Assay](#) ; [Female](#) ; [Haemophilus influenzae](#) ; [Human](#) ; [IgA](#) ; [IgG](#) ; [IgM](#) ; [Immunization, Secondary](#) ; [Immunocompetence](#) ; [Immunologic Diseases](#) ; [Infant](#) ; [Male](#) ; [Tetanus Toxoid](#) ;

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 [Lancet](#)

 [Volume 344](#)

[Issue 8931](#)

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Difficulties and dangers of vaccination strategies for asthma and other autoimmune disorders [letter; comment] [see comments]

[Petrovsky N](#)

Lancet 1994 Oct 29 **344:8931** 1227-8

MeSH

[Asthma](#) ; [Autoimmune Diseases](#) ; [Ethics, Medical](#) ; [Human](#) ; [T-Lymphocytes, Helper-Inducer](#) ; [Vaccination](#) ;



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 [Chest](#)

 [Volume 106](#)

[Issue 3](#)

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Effect of influenza vaccine on bronchoprovocation testing in normal subjects.

[Duval NJ](#), [Lahren KM](#), [O'Neil KM](#)

Chest 1994 Sep **106:3** 750-2

Abstract

A study of 55 nonasthmatic patients was undertaken to determine if recent influenza vaccination is a justifiable exclusionary criteria for bronchoprovocation testing. Healthy subjects without history of asthma and with negative methacholine challenge tests were given an intramuscular injection of killed influenza vaccine. Methacholine challenge testing was repeated 24 h later. While a statistically significant decline in FEV1 at 188 methacholine dose units was demonstrated ($p < 0.018$), this was not clinically significant; none of the 55 subjects converted a negative test to positive. We conclude that recent influenza vaccination is not a sufficient exclusionary criterion for methacholine challenge testing. Positive results in a patient recently vaccinated would still indicate asthma in the correct clinical setting.

MeSH

[Adult](#) ; [Bronchial Provocation Tests](#) ; [Comparative Study](#) ; [Female](#) ; [Forced Expiratory Volume](#) ; [Human](#) ; [Influenza A Virus, Human](#) ; [Influenza B Virus](#) ; [Influenza Vaccine](#) ; [Male](#) ; [Methacholine Chloride](#) ; [Middle Age](#) ; [Reference Values](#) ; [Vaccines, Inactivated](#) ;

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 [Kansenshogaku Zasshi](#)

 [Volume 65](#)

[Issue 11](#)

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[Characteristic features of children subjected to vaccination against influenza--in view of the state of their absence from school during a non-prevalence period]

[Satsuta K](#)

Kansenshogaku Zasshi 1991 Nov **65:11** 1403-10

Abstract

Characteristic features of children subjected to vaccination against influenza were analyzed in view of the state of their absence from school during a non-prevalence period of this disease. A total of 31,902 children were divided broadly into those with a history of asthma, allergy or cardiac disease [disease history group, 1,048 (3.3%) children] and those without such a history [non-disease history group, 30,854 (96.7%) children]. Each group was further divided into three subgroups according to the number of inoculations (0, 1, 2 inoculations) given during the period between October and November 1988. The three subgroups in each group were compared statistically with regard to the state of absence from school during the non-prevalence period of influenza between April and July 1988, and the following results were obtained. 1. Disease history groups. There was no significant difference among the three subgroups with regard to the rate of absenteeism or mean number of days of absence. Also, no significant difference among them was found in the overall or segmental distribution of days of absence. These findings indicate that the three subgroups of children with a history of disease were almost homogeneous. However, the overall rate of absenteeism was significantly high among children who received one inoculation (p less than 0.001). In this subgroup, the number of children who were absent from school for 21-30 days was greater than that of children who were absent for fewer days. This contributed to the highest overall rate of absenteeism in this subgroup.(ABSTRACT TRUNCATED AT 250 WORDS)

MeSH

[Absenteeism](#) ; [Chi-Square Distribution](#) ; [Child](#) ; [English Abstract](#) ; [Human](#) ; [Influenza](#) ; [Influenza Vaccine](#) ; [Japan](#) ; [Prevalence](#) ; [Schools](#) ; [Support, Non-U.S. Gov't](#) ; [Vaccination](#) ;

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 [Am Rev Respir Dis](#)

 [Volume 132](#)

[Issue 2](#)

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Airway responsiveness to inhaled antigen, histamine, and methacholine in inbred, ragweed-sensitized dogs.

[Mapp C](#), [Hartiala J](#), [Frick OL](#), [Shields RL](#), [Gold WM](#)

Am Rev Respir Dis 1985 Aug **132**:2 292-8

Abstract

We studied the responses to antigen in animals selected from a colony of inbred dogs sensitized to specific allergens to determine if they had characteristics similar to those of human asthmatics. They were immunized with ragweed and grass pollen extracts (10 micrograms in alum) immediately after routine vaccination with attenuated live virus (distemper and hepatitis) and killed bacteria (*Leptospira*) at 4, 8, and 12 wk of age. Subsequently, ragweed and grass injections were repeated every 2 months. Immunized dogs made specific IgE-antibodies in serum averaging 3 to 4 times that of control animals (no immunization with pollen or vaccine). They showed positive skin responses to the injection of ragweed pollen extract, whereas control dogs did not respond to ragweed pollen by quantitative skin test or inhalation challenge. In immunized dogs under barbiturate anesthesia, air-flow resistance of the total respiratory system increased from 0.60 +/- 0.07 (mean +/- SEM) before to 12.6 +/- 3.4 cm H₂O/lps 5 min after the start of antigen aerosol; respiratory resistance remained increased for 20 min and was associated with 0 hypoxemia and increased arterial plasma histamine. In addition, airway responsiveness to both inhaled histamine and methacholine was greater in immunized dogs than in nonimmunized dogs of comparable age. Airway responses to each agonist were highly reproducible on repeated testing. These results indicate that physiologic responses to antigen by inbred, ragweed-sensitized dogs resemble human asthma closely and that these dogs appear suitable for a variety of experimental studies of asthma with respect to pathogenesis, diagnosis, prevention, and treatment.

MeSH

[Animal](#) ; [Asthma](#) ; [Bronchial Provocation Tests](#) ; [Disease Models, Animal](#) ; [Dogs](#) ; [Female](#) ; [Histamine](#) ; [IgE](#) ; [Immunization](#) ; [Male](#) ; [Methacholine Compounds](#) ; [Pollen](#) ; [Radioallergosorbent Test](#) ; [Skin Tests](#) ; [Support, Non-U.S. Gov't](#) ; [Support, U.S. Gov't, P.H.S.](#) ;



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[Long-term study of various immunologic functions in children with chronic nonspecific lung diseases]

[Wiersbitzky S](#), [Ballke EH](#), [Burghardt R](#), [Spangenberg U](#), [Joswig T](#), [Baufeld W](#), [Ordt HA](#), [Paul W](#)

Z Erkr Atmungsorgane 1985 **164**:3 241-53

Abstract

For 18 years we have analysed several parameters directly or indirectly involved in immunologic functions in 713 children (age: 0-14 years) suffering from CNSRD (frequently relapsing bronchitis, chronic bronchitis, frequently relapsing or chronic obstructive bronchitis, asthma bronchiale, cystic fibrosis). In all 6,067 data were evaluated. The estimation of the immunoglobulins (in serum and secretions) and the serum level of alpha-1-antitrypsin (alpha-1-AT) had the highest relevance for diagnosis and prognosis of CNSRD. Immunodeficiencies were detected in form of humoral antibody deficiency syndromes as well as local secretory IgA deficiency (MALT insufficiency). The results suggest that the MALT-insufficiency during early childhood is a high risk factor for the development of CNSRD, especially of obstructive lung diseases. In chronic bronchitis the mean levels of serum-IgA were significantly increased (p less than 0.001) and reactively increased serum mean levels of IgM

and/or IgG were observed in some chronic bronchitis forms but not during the whole childhood. In homocytote and heterocytote defective alpha-1-AT types the prognosis of chronic lung disease (chronic obstructive bronchitis and/or bronchial asthma) was especially poor. Despite BCG vaccination in the neonatal period most children had negative tuberculin skin tests. This suggests that also the cellular immunofunctions may be depressed in children with CNSRD. Blood group, isoagglutinins, Zn and Fe serum levels had only limited importance for diagnosis and prognosis of the CNSRD. We recommend the estimation of these parameters in special cases only.

MeSH

[alpha 1-Antitrypsin](#) ; [Adolescence](#) ; [Asthma](#) ; [ABO Blood-Group System](#) ; [Bronchitis](#) ; [Child](#) ; [Child, Preschool](#) ; [Chronic Disease](#) ; [Cystic Fibrosis](#) ; [English Abstract](#) ; [Follow-Up Studies](#) ; [Human](#) ; [Immunocompetence](#) ; [Immunoglobulins](#) ; [Infant](#) ; [Iron](#) ; [Isoantibodies](#) ; [Lung Diseases](#) ; [Phenotype](#) ; [Tuberculin Test](#) ; [Zinc](#) ;



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[Am J Dis Child](#)

[Volume 141](#)

[Issue 10](#)

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Safe immunization of allergic children against measles, mumps, and rubella.

[Juntunen-Backman K](#), [Peltola H](#), [Backman A](#), [Salo OP](#)

Am J Dis Child 1987 Oct **141:10** 1103-5

Abstract

A series of 135 subjects (134 children and one adult) with documented or suspected systemic allergy were prick-tested before a measles, mumps, and rubella (MMR) vaccination. Atopic eczema was documented in 68, asthma in 47, and cow's-milk allergy in 11 examinees; eight children were evaluated because of severe systemic reactions following diphtheria-pertussis-tetanus, measles, or inactivated polio (Salk) vaccinations. In one child, there was only a suspicion of general allergy. The undiluted MMR prick test gave negative reactions in 126 cases (93%). The highest rate of nonreactivity was observed in those with atopic eczema (96%) and in children with asthma (91%) or cow's-milk allergy (82%). All examinees with systemic reactions after other vaccinations also had negative prick-test reactions. A total of 122 (95%) of the 129 examinees were eventually vaccinated with MMR. No untoward reactions developed, except mild generalized urticaria or fever in two vaccinees. We conclude that at least 95% of children with common forms of systemic allergy can be vaccinated safely with MMR and, in general, that allergic diseases should not interfere with execution of the vaccination programs.

MeSH

[Adolescence](#) ; [Adult](#) ; [Child](#) ; [Child, Preschool](#) ; [Female](#) ; [Human](#) ; [Hypersensitivity](#) ; [Immunization](#) ; [Infant](#) ; [Male](#) ; [Measles Vaccine](#) ; [Mumps Vaccine](#) ; [Rubella Vaccine](#) ;



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[Allergic vasculitis and bronchial asthma following influenza

PHYSIOLOGICAL ASPECTS AND EFFECTS OF ASTHMA FOLLOWING INFLUENZA vaccination]

[Reizis Z](#), [Frank J](#), [Sikuler E](#)

Harefuah 1987 Jan 15 **112**:2 70-1

MeSH

[Aged](#) ; [Asthma](#) ; [Case Report](#) ; [Death, Sudden](#) ; [English Abstract](#) ; [Female](#) ; [Human](#) ; [Influenza Vaccine](#) ; [Vaccination](#) ; [Vasculitis](#) ;



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 [Br Med J \(Clin Res Ed\)](#)

 [Volume 290](#)

[Issue 6486](#)

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Respiratory sequelae of whooping cough. Swansea Research Unit of the Royal College of General Practitioners.

Anonymous

Br Med J (Clin Res Ed) 1985 Jun 29 **290**:6486 1937-40

Abstract

Eight hundred and thirteen children who had had whooping cough when under 5 years of age in the 1977-9 epidemic were compared with a control group roughly four and a half years later, each child being matched by age and sex and from the same class in school. The index group showed long term respiratory sequelae of whooping cough--namely, deterioration in lung function, increase in respiratory symptoms, and increased admission to hospital for both upper and lower respiratory conditions. Asthma was significantly more common in the index group, suggesting that asthma was being regarded as a contraindication to pertussis vaccination. Only 3.5% of the asthmatic children in the index group had been vaccinated as against 29.1% of the controls.

MeSH

[Adolescence](#) ; [Asthma](#) ; [Body Height](#) ; [Child](#) ; [Child, Preschool](#) ; [Cough](#) ; [Follow-Up Studies](#) ; [Forced Expiratory Volume](#) ; [Human](#) ; [Infant](#) ; [Infant, Newborn](#) ; [Respiration Disorders](#) ; [Respiratory Sounds](#) ; [Support, Non-U.S. Gov't](#) ; [Vital Capacity](#) ; [Whooping Cough](#) ;

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 [West J Med](#)

 [Volume 147](#)

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Asthma and urticaria after hepatitis B vaccination [letter]

[Lohiya G](#)

West J Med 1987 Sep **147**:3 341

MeSH

[Adult](#) ; [Asthma](#) ; [Case Report](#) ; [Ethylmercury Compounds](#) ; [Female](#) ; [Hepatitis B](#) ; [Human](#) ; [Thimerosal](#) ; [Urticaria](#) ; [Vaccination](#) ; [Viral Hepatitis Vaccines](#) ;



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 [Wien Klin Wochenschr](#)

 [Volume 93](#)

[Issue 11](#)

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[Shortening of interval between first and second TBE vaccination in asthmatic children (author's transl)]

[Hofmann H](#), [Haschke F](#), [Popow C](#), [Götz M](#), [Klabuschnigg A](#), [Popow-Kraupp T](#)

Wien Klin Wochenschr 1981 May 29 **93**:11 358-60

Abstract

37 children suffering from asthma had to be vaccinated against tick-borne encephalitis (TBE) with an interval of only 10 days between the first two vaccinations. Sufficient antibodies were detected in samples taken 14 days after the second injection. No differences were found between the results in this group of asthmatic children and in children who were vaccinated with the usual interval of 1 to 3 months elapsing between the first two injections. The asthmatic children tolerated the vaccination very well, moreover the incidence of side reactions was not different from that of the control group.

MeSH

[Adolescence](#) ; [Antibody Formation](#) ; [Asthma](#) ; [Child](#) ; [Encephalitis, Tick-Borne](#) ; [English Abstract](#) ; [Human](#) ; [Immunization Schedule](#) ; [Immunization, Secondary](#) ; [Viral Vaccines](#) ;



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 [J Pharmacol Exp Ther](#)

 [Volume 215](#)

[Issue 3](#)

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Effects of vaccination with *Haemophilus influenzae* on adrenoceptor function of tracheal and parenchymal strips.

[Schreurs AJ](#), [Terpstra GK](#), [Raaijmakers JA](#), [Nijkamp FP](#)

J Pharmacol Exp Ther 1980 Dec **215**:3 691-6

Abstract

Haemophilus influenzae is a bacterium that can be isolated from the deeper airways of asthmatic patients. We investigated the effect of vaccination with *H. influenzae* on alpha and beta adrenoceptor function in guinea-pig tracheal spirals and lung parenchymal strips. The tracheal spirals from *H. influenzae*-vaccinated animals showed significantly less relaxation to isoproterenol as compared to controls, independent of whether the trachea was maximally contracted with carbachol or only exhibited an intrinsic tone. Furthermore, an increased contractile response to carbachol was observed in these spirals. To isoproterenol in the presence of a beta-2 adrenergic antagonist (H35/25), or to salbutamol alone, the tracheal preparations from *H. influenzae*-vaccinated animals also showed a decreased relaxation. These results suggest involvement of both beta-1 and beta-2 subtype adrenoceptors. On the other hand, lung parenchymal strips from vaccinated guinea-pigs relaxed significantly more to these drugs. This effect was not influenced by H35/25 but could be inhibited by phenoxybenzamine. Histamine-induced contraction did not differ between the groups. These results indicated that *H. influenzae* causes a partial blockade of the beta adrenoceptors in tracheal spirals and, therefore, may have important implications in asthmatic bronchitis. In contrast, parenchymal lung strips of the *H. influenzae*-pretreated group showed an increased relaxation.

MeSH

[Animal](#) ; [Asthma](#) ; [Bacterial Vaccines](#) ; [Carbachol](#) ; [Guinea Pigs](#) ; [Haemophilus influenzae](#) ; [Haemophilus Infections](#) ; [In Vitro](#) ; [Isoproterenol](#) ; [Lung](#) ; [Male](#) ; [Muscle Contraction](#) ; [Phenylephrine](#) ;

[Receptors, Adrenergic](#) ; [Support, Non-U.S. Gov't](#) ; [Trachea](#) ; [Vaccination](#) ;



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[Volume 464](#)

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A case of asthma after vaccination against smallpox.

[Ekbom K](#)

Acta Med Scand Suppl 1966 **464**: 170-1

MeSH

[Adult](#) ; [Asthma](#) ; [Human](#) ; [Male](#) ; [Smallpox Vaccine](#) ; [Vaccination](#) ;



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[Allerg Asthma \(Leipz\)](#)

[Volume 12](#)

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[On the non-specific treatment of asthma, chronic asthmatoïd bronchitis and susceptibility to infections in childhood]

[Kiehl W](#)

Allerg Asthma (Leipz) 1966 **12:2** 113-9

MeSH

[Adolescence](#) ; [Anaphylaxis](#) ; [Animal](#) ; [Antibody Formation](#) ; [Asthma](#) ; [Blood Protein Electrophoresis](#) ; [Bronchitis](#) ; [Child](#) ; [Child, Preschool](#) ; [Chronic Disease](#) ; [Copper](#) ; [Guinea Pigs](#) ; [Hay Fever](#) ; [Human](#) ; [Infant](#) ; [Infection](#) ; [Injections, Intravenous](#) ; [Serum Albumin](#) ; [Serum Globulins](#) ; [Vaccination](#) ;

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Alchemy for asthma [news]

[Cookson WO](#), [Moffatt MF](#)

Nat Med 1998 May **4:5 Suppl** 500-1

MeSH

[Adult](#) ; [Allergens](#) ; [Animal](#) ; [Asthma](#) ; [Child](#) ; [Desensitization, Immunologic](#) ; [Human](#) ; [Hypersensitivity, Immediate](#) ; [Immune Tolerance](#) ; [Mice](#) ; [Middle Age](#) ; [Vaccination](#) ;



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 [J R Soc Health](#)

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Re: Multiple vaccination [letter]

[Webb M](#)

J R Soc Health 1997 Dec **117:6** 401

MeSH

[Adolescence](#) ; [Anthrax](#) ; [Asthma](#) ; [Autoimmunity](#) ; [Bacillus anthracis](#) ; [Bacterial Vaccines](#) ; [Child](#) ; [Child, Preschool](#) ; [Cytokines](#) ; [Diphtheria-Tetanus-Pertussis Vaccine](#) ; [Great Britain](#) ; [Human](#) ; [Persian Gulf Syndrome](#) ; [Pertussis Vaccine](#) ; [Th1 Cells](#) ; [Th2 Cells](#) ; [Vaccination](#) ; [Vaccines, Combined](#) ;



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Response to pneumococcal immunization in children with and without recurrent infections.

[Silk H](#), [Zora J](#), [Goldstein J](#), [Tinkelman D](#), [Schiffman G](#)

J Asthma 1998 **35:1** 101-12

Abstract

Many children with recurrent sinopulmonary infections fail to mount an adequate humoral response following immunization with polysaccharide antigens. At present there are no controlled studies comparing responses to pneumococcal immunization in children with recurrent infections and a healthy, age-matched cohort. Immunological evaluation was performed on 66 children with recurrent sinopulmonary infections, aged 2-5 years (mean 3.06 +/- 0.92). A control group included 28 healthy, age-matched controls (mean 3.14 +/- 0.88 years). Both groups were immunized with 23 valent pneumococcal vaccine, and titers were measured before and 4 weeks after immunization. Antibody levels to 12 pneumococcal serotypes were measured via radioimmunoassay. Geometric preimmunization mean titers in the control group were 215.5 +/- 157 ngAbN/ml rising to 989.5 +/- 745 ngAbN/ml compared to 77.71 +/- 38.4 ngAbN/ml increasing to 446.7 +/- 406 ngAbN/ml in the study group ($p < .05$). Serotypes 3, 4, 7F, 8, 9N, and 18C were the most immunogenic, while serotypes 6A and 14 were the least. Overall, the control group responded to 7.71 +/- 1.24 serotypes versus 5.1 +/- 2.0 in the study group ($p < .05$), where postimmunization titers at least doubled and rose to $> \text{ or } = 300 \text{ ngAbN/ml}$. All controls responded to at least five or more serotypes, 26/28 responded to 6 or more. In contrast, only 38/66 (57%) of study patients responded to five or more serotypes, and only 27/66 (41%) responded to at least 6 of 12. Preimmunization titers of greater than 300 ngAbN/ml were present in 30% (102/336) of the control serotypes; however, only 53 of these (52%) doubled post immunization; 22% of the elevated titers decreased post immunization. Markedly elevated titers $> \text{ or } = 500 \text{ ngAbN/ml}$ were present in 20% (69/336) of the preimmunization serotypes, only 39% of these doubled post immunization. Twenty-three valent pneumococcal vaccine is immunogenic in young, healthy children. A significant percentage of children with recurrent sinopulmonary infections fail to produce adequate serotype specific antibodies following pneumococcal immunization.

MeSH

[Antibodies, Bacterial](#) ; [Bacterial Vaccines](#) ; [Case-Control Studies](#) ; [Child, Preschool](#) ; [Female](#) ; [Human](#) ; [Male](#) ; [Otitis Media](#) ; [Pneumonia, Pneumococcal](#) ; [Radioimmunoassay](#) ; [Recurrence](#) ; [Sinusitis](#) ; [Streptococcal Infections](#) ; [Streptococcus pneumoniae](#) ; [Support, Non-U.S. Gov't](#) ; [Time Factors](#) ; [Vaccination](#) ;

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