Adverse reactions to foods are heterogeneous in structure, including produce food intolerances [1] and food allergies (HA), the latter considered characteristic immunological mechanism of [2]. The true incidence of AD is unknown, the prevalence of AD goes according to some authors from 0.3 - 7.5% [1] at a young age, according to the other is 15 - 40% [3], and in older children and adults ranging from 1 5% to 3% [2]. By allergens affecting the child (eggs, soy, milk and wheat), with their strict exclusion from the diet, there is resistance for 1 or more years, and in patients with a history of which there were serious cases of food reactions, clinical tolerance produced during several years. A number of allergens such as peanuts, shellfish, fish tend to affect the body throughout life and are common for adults and children. According to researchers [4] 93% of all allergic reactions in children are caused by eight major products: for it is the frequency of the eggs, peanuts, milk, soy, walnuts, fish, shellfish and wheat, and allergic to chocolate, which is considered a leading factor in the emergence of food reactions are not apparent in any of the patients. The literature discusses the causal role of food allergens in the development of allergic diseases, including study glycoprotein - a component of food that is most involved in the mechanism of AD [5]. Allergenic glycoproteins are water-soluble, heat-resistant and resistant to acids in the proteolytic digestion. These properties glycoprotein is particularly important given the fact that the normal intestinal converts antigens in allergenic forms that have different structure and cause weaker immune responses when stimulated CD - 8 cells. The increased presence of antigens leads to a decrease in CD - 8 cells and tolerance of food with the following cellular immune responses, confirming the role of lymphocytes in the formation of tolerance [6] - immunological insensitivity to the effects of specific antigens, in particular food protein. Neimunolohichni, mechanical barriers that gastro - intestinal tract - the secretion of acid and proteolytic enzymes that contribute to protein processing in less antigenic molecules by reducing the size or restructuring. Other physical barriers plays a significant role making mucus secretion which reduces potential allergen contact with mucous membranes of the alimentary canal and intestinal epithelium provides
protection against a large macromolecular absorption. There are immunological barriers in the form of local immune alimentary canal [7], where in response to food intake is increased production of Ig A, which is present in the mucus barrier and provides protection by binding proteins forming complexes deceleration absorption and inhibition of the release of Ig G, Ig M and Ig E.

Food hypersensitivity is caused by the loss or lack of tolerance, which may be caused by several factors. Most often it occurs in infants and young children, because of the immaturity of the immune system as well as the physiological function of the digestive system. Thus, even in the first trimester of fetal development on the formation of atopic constitution heredity affect the fetus, especially atopy mother, 2 - 3 trimesters - pregnant women, the effect of adverse factors, the impact on pregnant allergens [5]. It was established that the decrease in Ig A newborn immature intestine, combined with the relative decline of CD - 8 cells or suppressor activity of macrophages [8] can be available in case of a genetic predisposition trigger AD in children. In children, there is reduced acid secretion, less efficient secretion of mucus and characteristic differences in the physical and chemical properties of glycoproteins, reduced enzyme activity. All these factors, combined with immunological immaturity, contacts with adverse exogenous factors (early infection, intestinal microbial colonization violations, environmental pollutants) [6], combined with immunological immaturity of the intestine in newborns may increase the risk of allergies.

Since the emergence of antigen sensitization should prokontaktuvaty of lymphocytes in the intestinal lamina propria, peyzerovyh plaques, lymph nodes, spleen or bloodstream, either - which reduce compensation or termination of immune or non-immune barrier violates antigen processing leads to increased production and Ig E the occurrence of food hypersensitivity. Ig E - mediated reactions cause most cases of food hypersensitivity and resulting degranulation of mast cells in contact Fce - receptor with food allergen that causes the release of histamine, interleukins, prostaglandins. These reactions occur acutely, for 1 hour, sometimes within a few minutes, have a late phase of manifestation, ie 4 - 6 hours.
As a result of these processes occurs contraction of smooth muscle vasodilation, capillary bleeding, mucus hypersecretion, for several hours produced cytokines that play a key role in the late phase reaction allergic inflammation. Eosinophils, monocytes, lymphocytes in the late phase directed to the affected area and release cytokines, inflammatory mediators. There is evidence of the key role of eosinophils in allergic inflammation [9] due to activation of mediators migration in the area of inflammation and tissue damage due to the release of reactive oxygen species and toxic proteins. We describe the four main types of chemokines that mediate acute or chronic inflammation by activating eosinophils, neutrophils, monocytes. For example, through cytokines, which are synthesized by eosinophils, activated by other cells (dendritic, mast, endothelial, fibroblasts), which produced various chemokines (eotaksyny, MCP - 2 - 3 - 4) regulating the function of blood granulocytes. Eosinophils are able to significantly alter their functional properties after activating chemokine. Ig E - mediated food reactions may be associated not only with oral contact and inhalation but fused antigens characteristic of children are allergic to house dust, the components of which are epidermal mites and food components that reflect the cross ("cross") reaction [10] on food and household allergens. Censybilizatsiya that occurs through inhalation fused protein, causes bronchial hyperresponsiveness and causes respiratory symptoms. These adverse reactions may occur in patients with intolerance or food during cooking, because the clinical manifestations of AD is nedozozalezhnymy. Food processing, including lyophilization, can destroy the antigenicity of some foods (proteins in fish canning, milk boiling), but other factors during thermal processing may take antigenicity [10]. Thus, the question of mechanisms of AD are not fully studied, but the question of early diagnosis should recognize the extremely important because their decision will have a positive impact on the incidence of bronchial asthma (BA).

Among allergic reactions leading place occupies HA associated with immune mechanisms of food intolerance [11]. HA significant impact on morbidity and mortality, speaking home sign so-called "allergic march". Typical food
hypersensitivity is protracted anaphylaxis compared to adrenaline resistant, rugged character reactions possible lethal consequences. Clinical manifestations of AD are very different [2] can be isolated and combined to perform part of a generalized anaphylactic reaction. These include variations in clinical symptoms of headache, behavioral disorders, ulcerative - necrotic lesions of the mucous membranes, dermatitis phenomena, to abdominal pain, gastrointestinal motility - tract, physical development, cardio - vascular lesions i anaphylaxis. The most common reaction to HA is cutaneous manifestations from acute urticaria or angioedema to koropodibnoho itchy rash. HA is a rare cause of chronic urticaria, but one third of children with atopic dermatitis (AD) double blind placebo - controlled provocation testing (DBPCFC) confirmed the presence of HA. Second place is occupied by the frequency of gastro - intestinal manifestations of AD, which include changes in motility of the digestive canal, dyspeptic disorders, oral allergy syndrome (itching, angioedema of the lips, tongue, palate and oropharynx). Symptoms of oral allergy occurring suddenly and occasionally involve other organs - the target, but the consumption of products that often provoke food anaphylaxis, this symptom may indicate the development of severe AD. Allergic eosinophilic eosinophilic infiltrate hastroenteropatiya manifested any - who love the alimentary canal, accompanied by abdominal pain, nausea after eating, vomiting, diarrhea, weight loss, presence of melena, anemia, hypoalbuminemia, eosinophilia, peripheral edema [12]. In some patients eosinophilic hastroenteropatiya is Ig E - determined and combined with asthma, allergic rhinitis and is accompanied by high levels of Ig E and positive skin tests to foods. Gastro - intestinal symptoms triggered by the consumption of food is the most common for children, such as infant colic - a syndrome that occurs in infants and children under the age of 3 months, characterized by recurrent bouts of irritability, crying, during which the child suchyt legs available signs of bloating and cramps that disappear after a bowel movement and discharge of gases. Typically, colic occur in the afternoon, after feeding, last up to several hours. This clinical syndrome is multifactorial, it is influenced by social, emotional factors, environment, nature feeding
perehoduvannya or nedohoduvannya. Some researchers pidkrreslyuyut protective nature of breastfeeding babies on the development of their HA [13].

Respiratory manifestations of AD is part of a generalized anaphylactic reactions are characterized by rhinorrhea, sneezing, itchy eyes, bronchospasm, laryngeal edema. Violation of bronchial obstruction as a result of chronic persistent allergic inflammation of the bronchial tree, which determines the course of asthma is one of the most common clinical signs of AD, when as provoking factors are the components of food [14]. And despite the fact that potential allergens can be many types of foods and their ingredients actually food allergies is the result of only a few of them. In patients with asthma identify children likely higher levels of serum specific to trofalerheniv IgE - antibodies, total Ig E, positive skin tests with trofalterhenamy. Weekly bilsha need bronchodilators in patients with a high content of specific serum Ig E to food and secretions in the respiratory tract Ig E form complexes with specific antigens, which further exacerbate allergic inflammation because it is a potent inducers than the allergen. Early terms of increasing the content Ig E in serum of children with allergies to cow's milk is not only associated with a prolonged course, but with the development of food polialerhiyi, asthma and allergic rynokon'yunktyvitiv [15]. In patients with asthma of children with symptoms of AD to egg proteins having problems with vaccine containing components of chick embryos. Children age lose their clinical hyperreactivity milk, soy, eggs and wheat bread, and hypersensitivity to fish, peanuts, walnuts and shellfish stored up to 14 years. Thus, the clinical manifestations of AD in children with systemic field and polymorphic nature does not always correlate with the results of the oropharynx, hypopharynx, especially given the fact that asthma as a clinical manifestation of AD is a risk factor for fatal its consequences.

Identifying the cause - significant allergens in food sensitization and its differential diagnosis from psevdoalerhichnymy reactions, food intolerance seems very topical issue. The main diagnostic methods, including immunological, morphological, biochemical, clinical - nutritional [10] at this stage is often unattainable because of the material - technical limitations. Diagnosis of AD
requires careful cleaning history to differentiate food intolerance and true
hypersensitivity reactions. When collecting history into account the type of product
that causes allergies, the amount of food that can cause a reaction; the reaction; the
length of the interval between eating and the development of reaction; symptoms
disappear after cessation of contact with the allergen. Confirm the presence of HA
allow experiments in vivo i in vitro. Among the experiments in vivo paramount
skin tests (epikutanni - "patch" -testy, ukolochni - "prick" - tests) are recommended
for patients that require Ig E - caused by food hypersensitivity. With these tests
found that among children the highest food hypersensitivity caused fish, milk,
seafood products, soy and orange. These alerhotesty is very reliable and allow a
short time to get useful information. In numerous studies shows the relationship of
skin prick - tests and specific serum Ig E [1], an association of severity of the
course of AD, asthma severity. Probability of false negative results alerhotestiv
skin is very low - negative predictive value is 95%, but the positive predictive
value of this method is much lower at only 60% of patients, including the
prevalence of AD is quite high. There is evidence of literature that intradermal
tests give more chances to trigger the development of systemic symptoms and get a
more accurate number of false-positive results than skin tests [6]. Intradermal tests
to achieve a close contact with the allergen sensitized cloth, they are very sensitive,
all current number of allergen reacts with sensitized cloth that allows alerhometrychne titration. False negative results during the few, even when tested
drug allergens. However, these results are known and studies in patients with
asthma in the background HA, phrase known causative allergen positive
alerhotestamy the same allergens only 50 - 65% of cases. Thus, we can conclude
that skin tests with food allergens do not provide the necessary information to
identify effective AD in children with asthma and their diagnostic significance
reaches only 49%.

Diagnosis of AD in vivo may also include diet of which involves abstinence
from food that can cause allergic reactions, within 7 - 14 days. If you suspect there
are some foods diet can be repeated by refraining from new types of food. When
saving allergy symptoms on the background diet, come to a conclusion about the safety of the product. To obtain this information usually advised to keep a food diary, which make data on the types of food consumed, and the reaction to their reception. However, the diagnostic process is lengthy trudomiskym and, in addition, in patients early age, where the cause - often significant act cow's milk proteins [15] - a staple food, extracting it from the diet presents certain difficulties. The disadvantages of this method can be considered that the withdrawal of the diet of certain foods can cause digestive disorders in children and prolonged withdrawal (for 1 or more years) with diet causative allergens in children with serum still present specific Ig E antibodies. In older children with respiratory forms of HA can be used bronhoalerhenni tests, but they can cause severe reactions in these patients, including severe bronchospasm, because such investigations should be carried out only if absolutely necessary.

Among the most informative laboratory methods are considered immunological: radioaleralhosor bentnyy (RAST), by enzyme immunoassay (ELISA) that detects a high probability of specific Ig E - antibodies to various food allergens. With passive hemagglutination reaction (TPHA) of red blood diagnosticums can determine Ig G antibodies to various components of cow's milk, cereals, egg protein, soy; for the detection of sensitization to food allergens is proposed as a method of inhibition of migration of leukocytes influenced by food allergens, which reflects the delayed-type hypersensitivity in HA. Diagnostic value of these methods is 87 - 90% [4], but these methods.