

INDAGINE «REAL-LIFE» SULLE STRATEGIE DI PREVENZIONE DELLE MALATTIE ALLERGICHE NEI BAMBINI

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Recommended Approaches to Prevent Allergies

✓ Maternal dietary restriction during pregnancy



✓ Breastfeeding

✓ Dietary restrictions while breastfeeding



✓ Use of hypoallergenic formulas



✓ Delaying the introduction of certain foods into the infant's diet



tree nuts



Wood RA. Arch Pediatr Adolesc Med.2006;160:552



AMERICAN ACADEMY OF PEDIATRICS

Committee on Nutrition

Hypoallergenic Infant Formulas

Pediatrics 2000;106:346



The following recommendations seem reasonable at this time:

- A) No maternal dietary restrictions **during pregnancy** are necessary with the possible exception of **excluding peanuts**;
- B) **Breastfeeding mothers** should continue breastfeeding for the 1st year of life or longer. During this time, for infants at risk, hypoallergenic formulas can be used to supplement breastfeeding. Mothers **should eliminate peanuts and tree nuts** (eg, almonds, walnuts, etc) and **consider eliminating egg, cow's milk, fish**, and perhaps other foods from their diets while nursing.
- C) **Solid foods** should **not be introduced** for high-risk infants **until 6 months of age**, with **egg delayed until 2 years**, and **peanuts, nuts, and fish until 3 years**.

Primary Prevention of Allergic Disease through Nutritional Interventions

Feisher, JACI:In Practice 2013;1:29-36

For children with and without risk for developing allergic disease:

A. Maternal Avoidance

Dietary restriction during pregnancy and lactation not recommended

B. Breast Feeding

Exclusive breast-feeding for at least 4 months and up to 6 months is endorsed.

Breastfeeding for as long as the mother and infant wish to continue for the many nutritional and non-nutritional benefits

C. Complementary Foods

No current evidence that the delay of introduction of solid foods, including the highly allergenic foods beyond 6 months of age will prevent allergic disease

Consensus SIP-SIPPS-SIAIP 2014 - Prevenzione delle Allergie Alimentari e Respiratorie: uno strumento per la pratica quotidiana

Rivista SIPPS 2014 - ISSN 1970-8165

- **Obiettivi**


Definire le evidenze riguardanti **il reale impatto di interventi preventivi a differenti livelli**, ambientali, comportamentali e nutrizionali, **sulla prevalenza/incidenza e sulla gestione delle allergopatie respiratorie ed alimentari.**

- **Strategia di ricerca**

Sono state ricercate in primis le Linee Guida evidence-based e le Revisioni Sistematiche. La ricerca è stata poi completata con gli Studi Primari pubblicati successivamente a quelli inclusi nelle Revisioni Sistematiche.

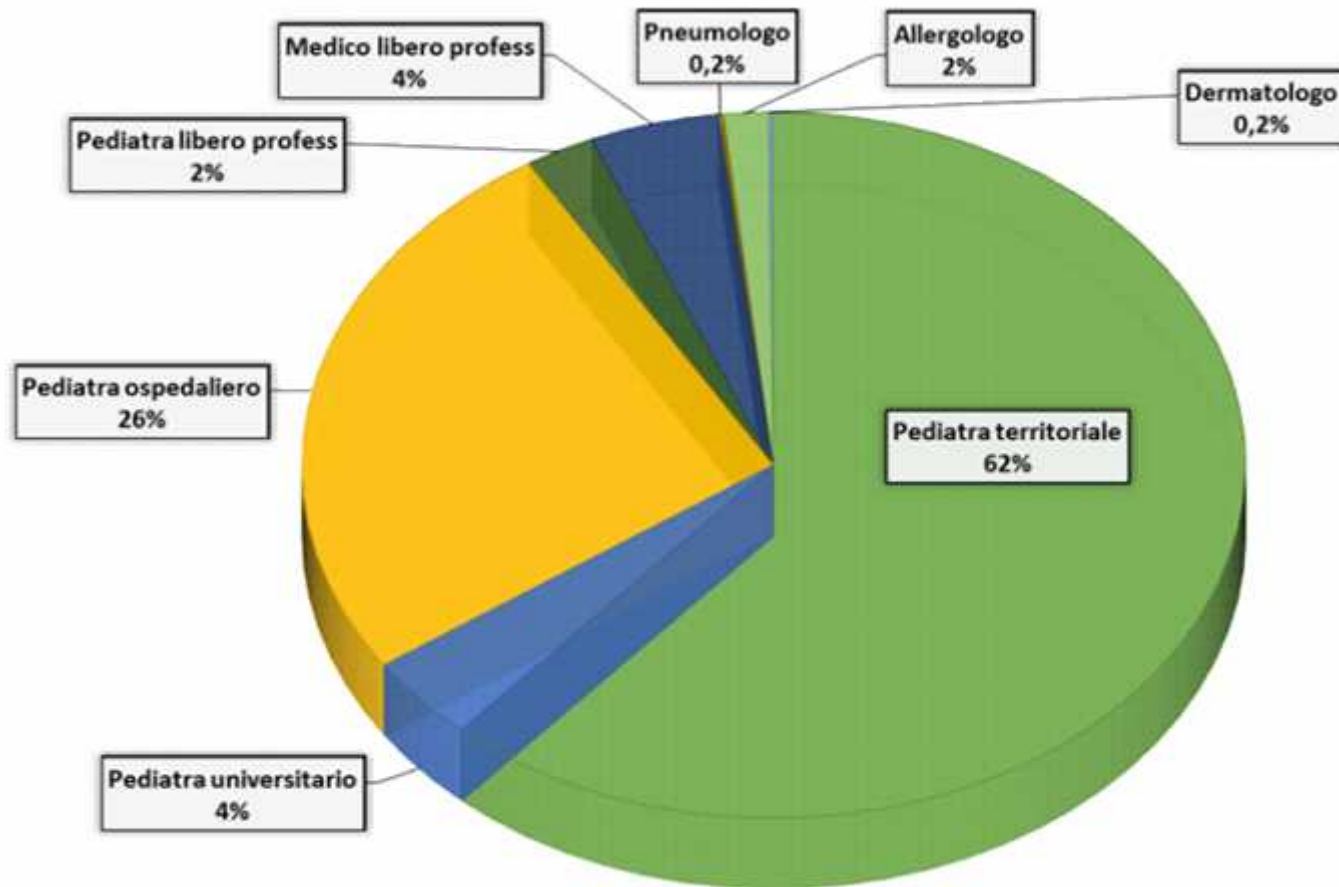


OBIETTIVI E METODI

- Indagine «*real-life*» sulla prevenzione allergica
- Consensus SIP-SIPPS-SIAIP 2014
- Questionario «*on-line*» anonimo
- Google-drive platform 
- 24 domande risposta multipla
- **587 partecipanti**



PARTECIPANTI



PARTECIPANTI TOTALI	587
Pediatra territoriale	361
Pediatra universitario	23
Pediatra ospedaliero	152
Pediatra libero profess	14
Medico libero profess	26
Pneumologo	1
Allergologo	9
Dermatologo	1

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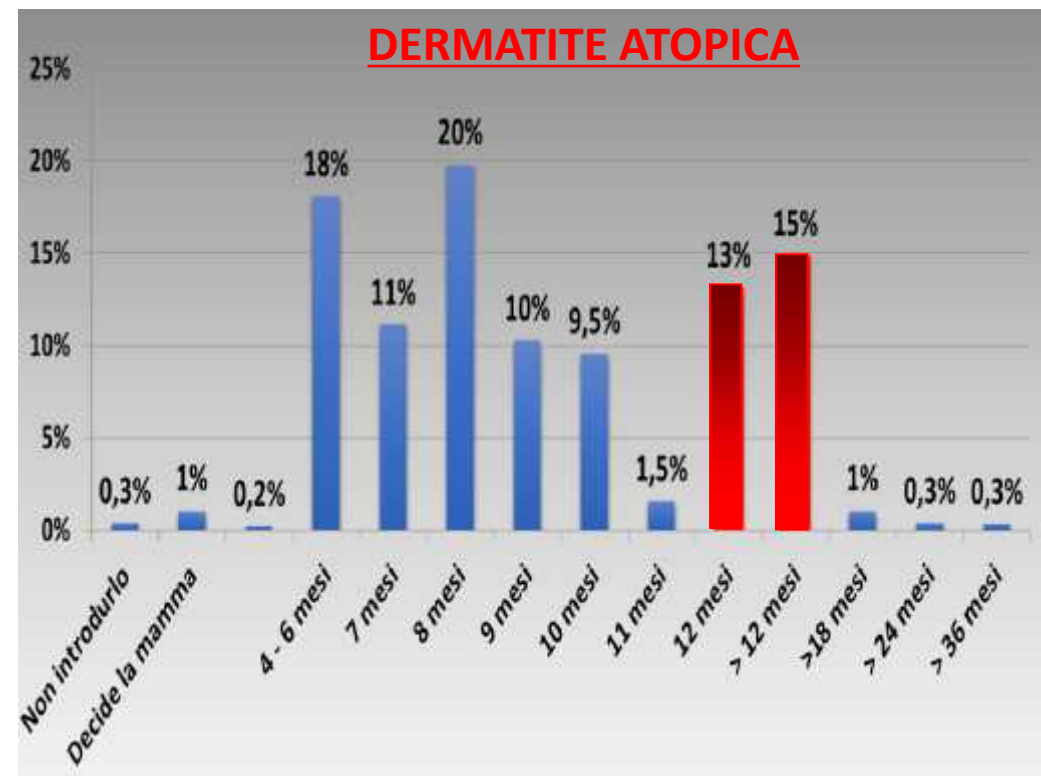
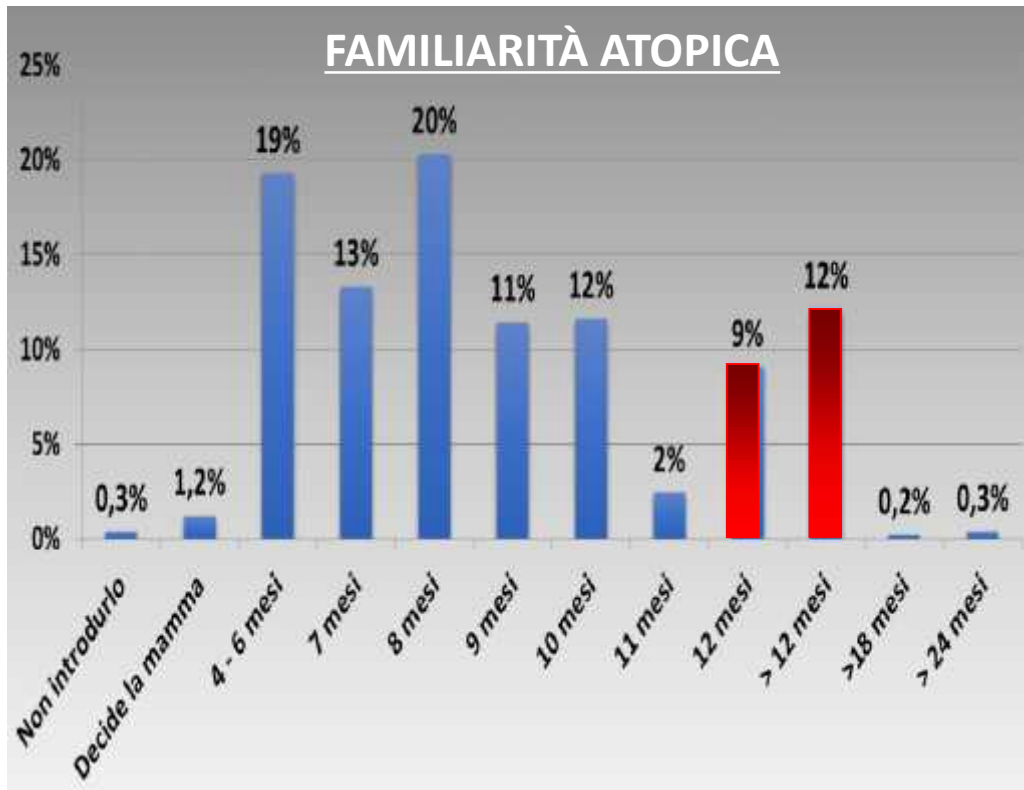
ETÀ INTRODUZIONE ALIMENTI SOLIDI



PRICK TESTS ALIMENTI PRIMA DEL DIVEZZAMENTO



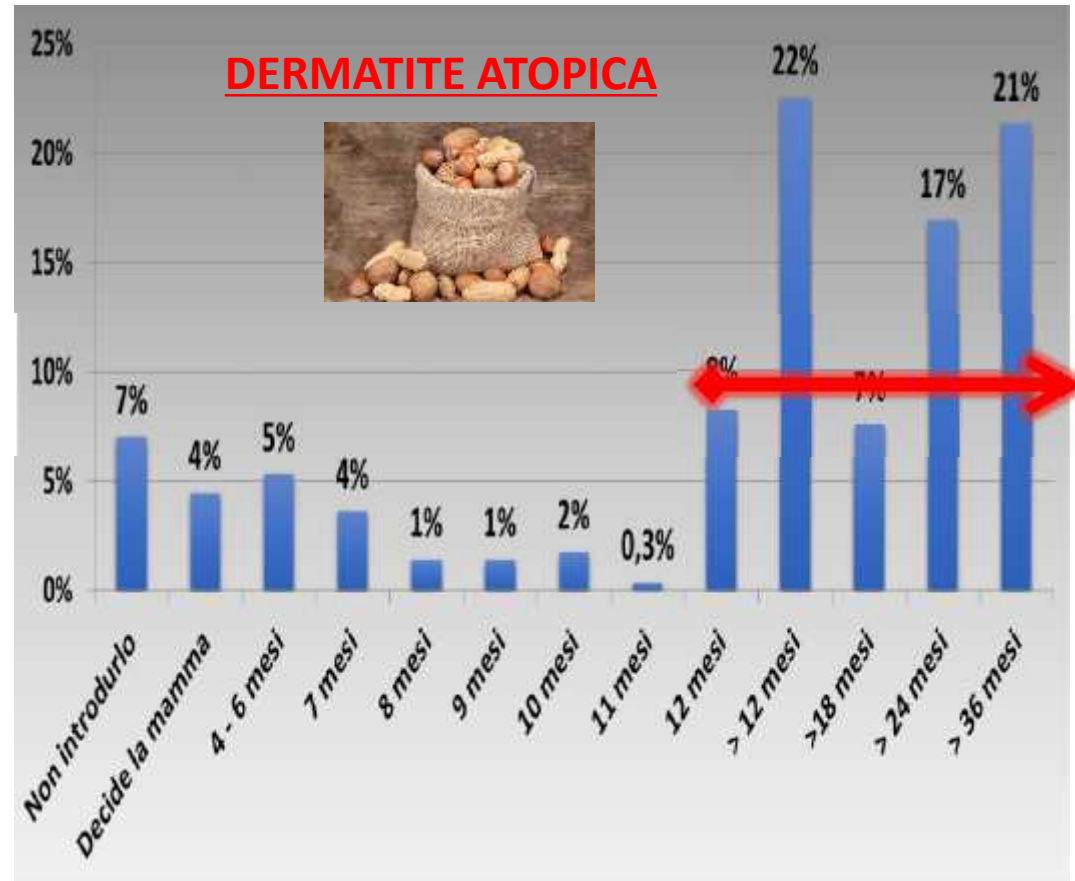
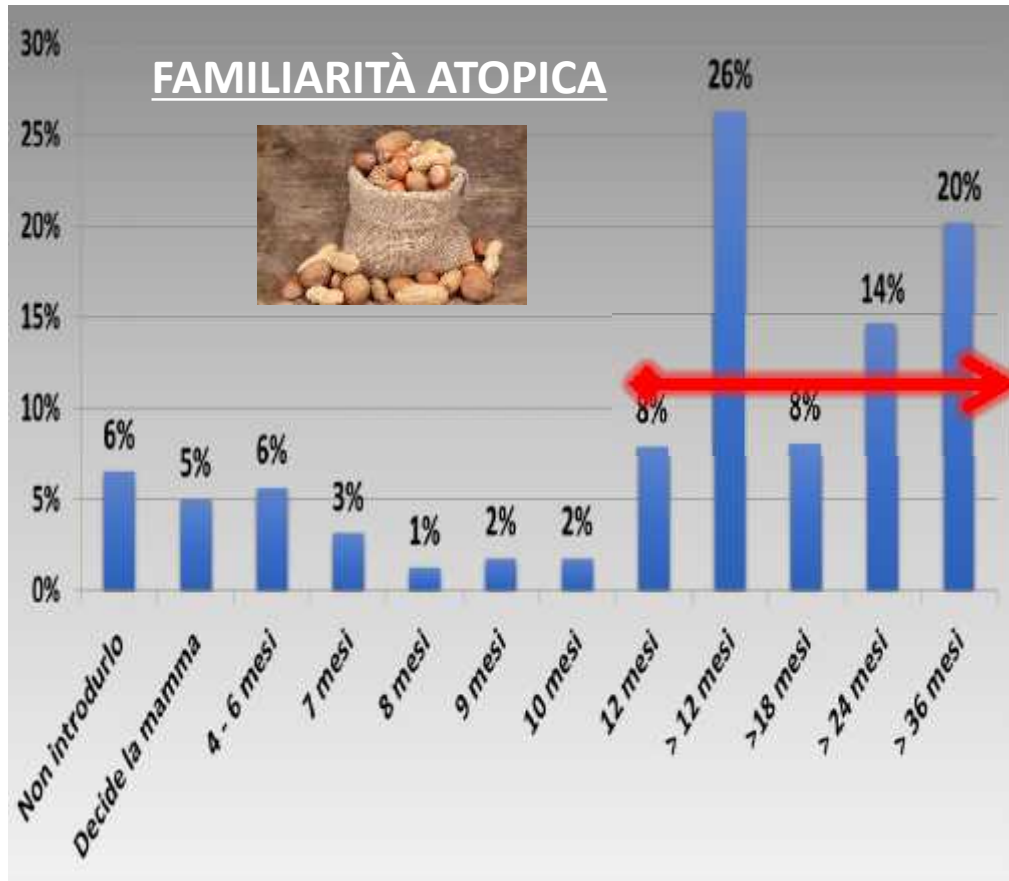
ETÀ PRIMA INTRODUZIONE UOVO



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ETÀ PRIMA INTRODUZIONE ARACHIDE E FRUTTA SECCA



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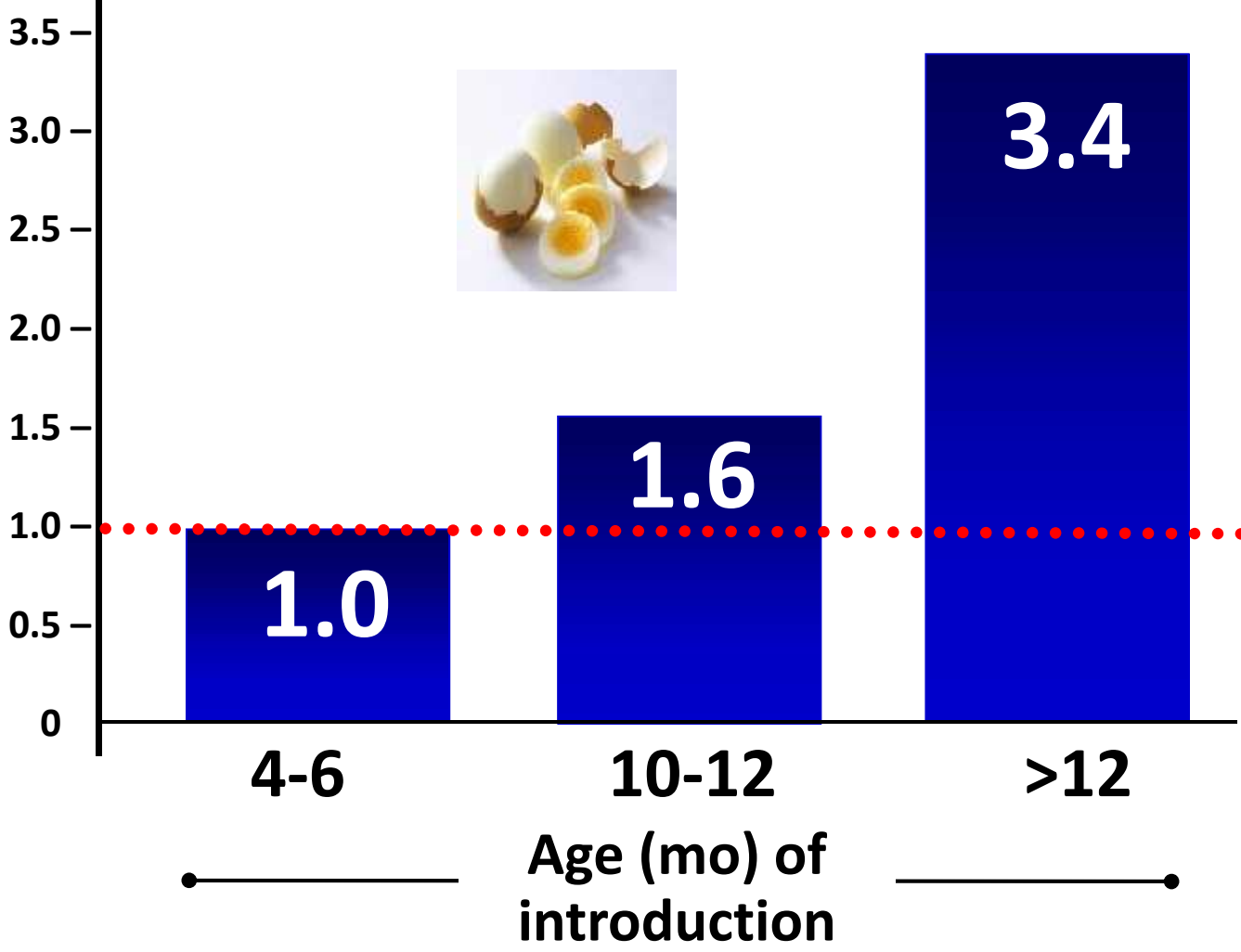
Can early introduction of egg prevent egg allergy in infants?

A population-based study *Koplin JJ, JACI 2010;126:807*

✓ Population-based cross-sectional study

✓ 2589 infants

OR for development of Egg Allergy



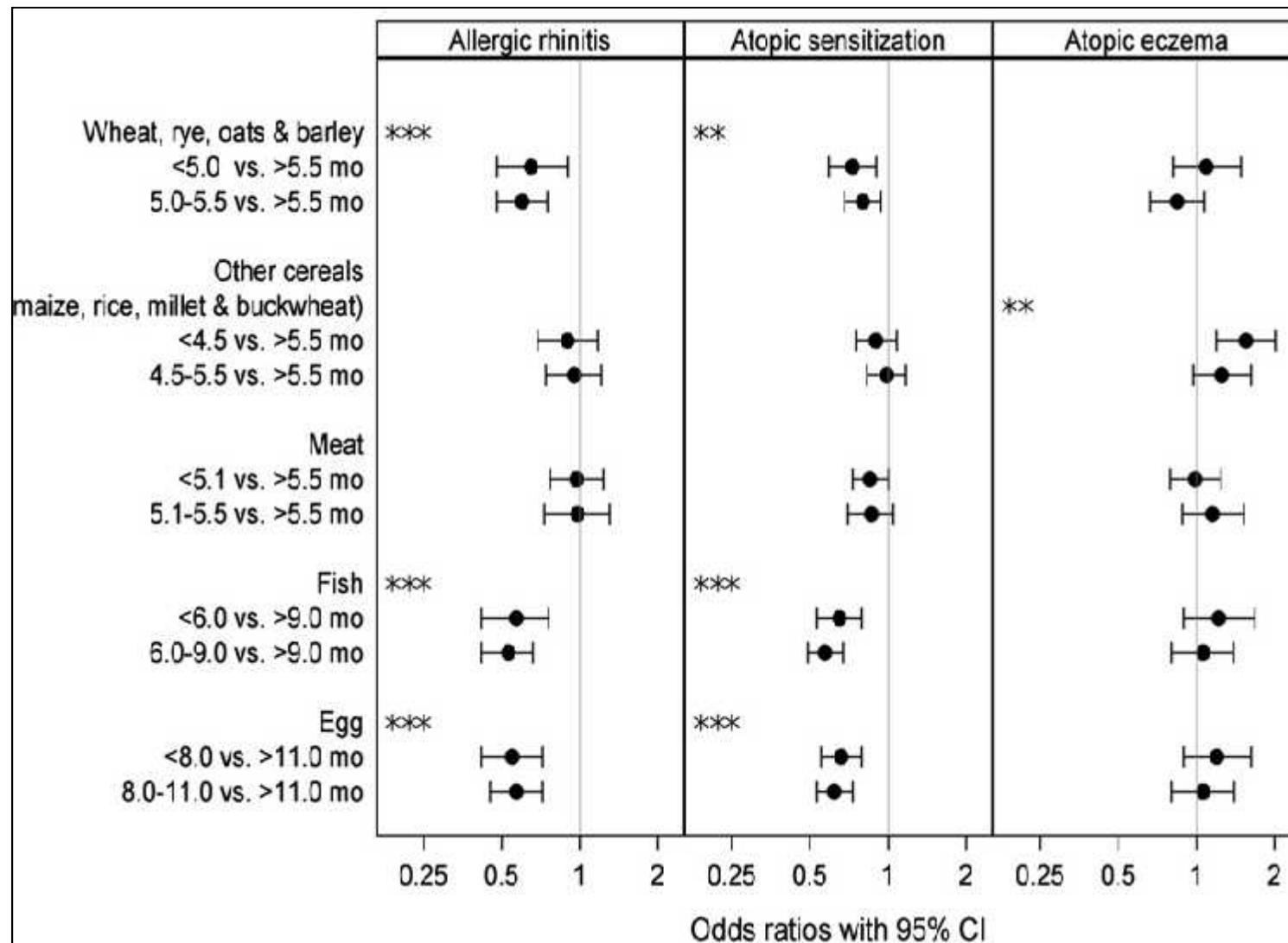
Timing of infant feeding in relation to childhood asthma and allergic diseases

Nwaru B, JACI 2013;131:78-86

✓ Finnish T1 Diabetes Prediction and Prevention study (DIPP), a prospective, birth cohort study

✓ **3781 infant** with HLA-conferred susceptibility

✓ Breastfeeding, age at the introduction of solid foods, ISAC Q. for Asthma, AR, AE and sIgE levels **at 5 years**



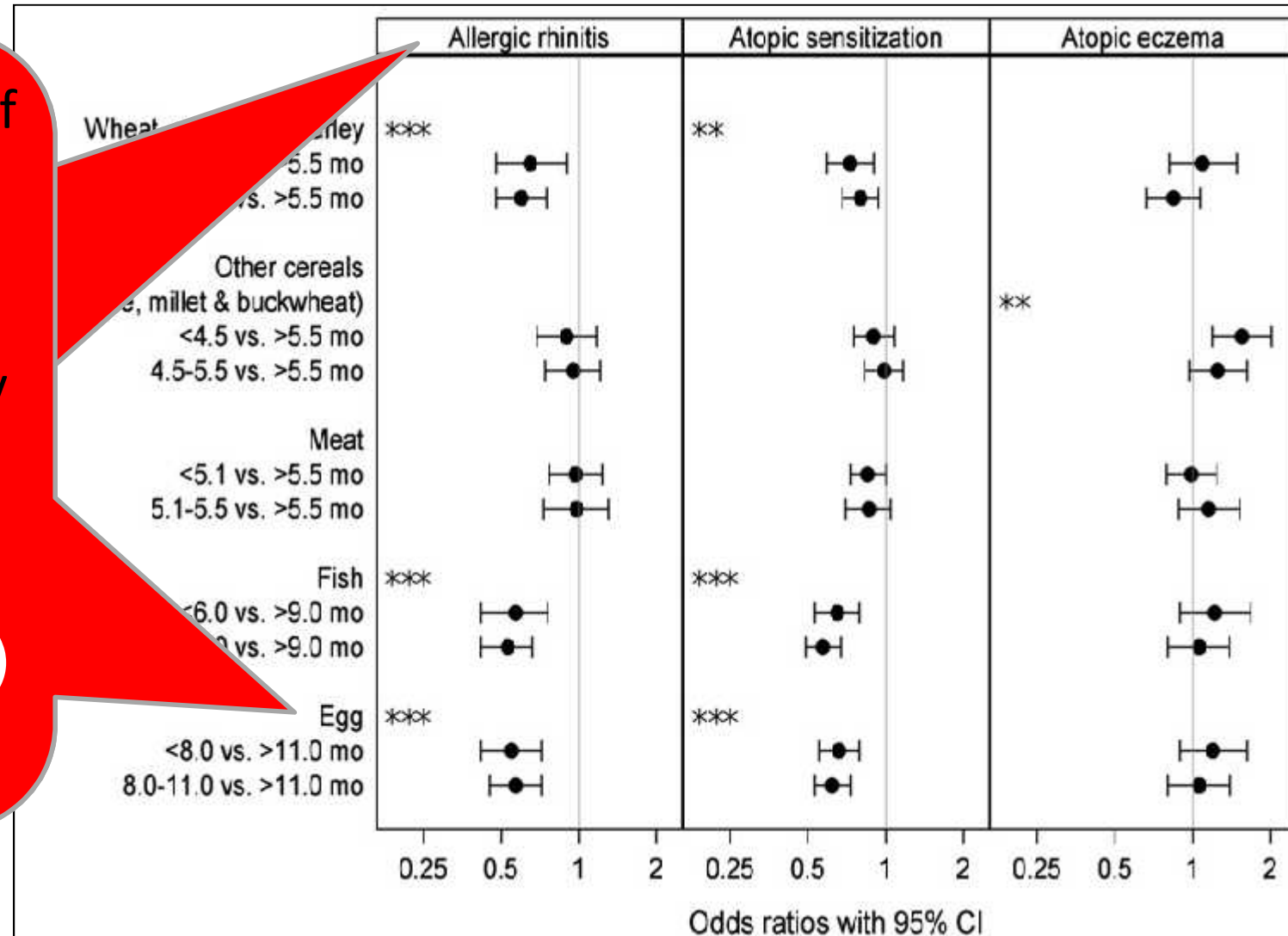
Timing of infant feeding in relation to childhood asthma and allergic diseases

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Delayed introduction of

- CEREALS (>5mo),
- FISH (> 8mo),
- **EGG (> 10 mo)**

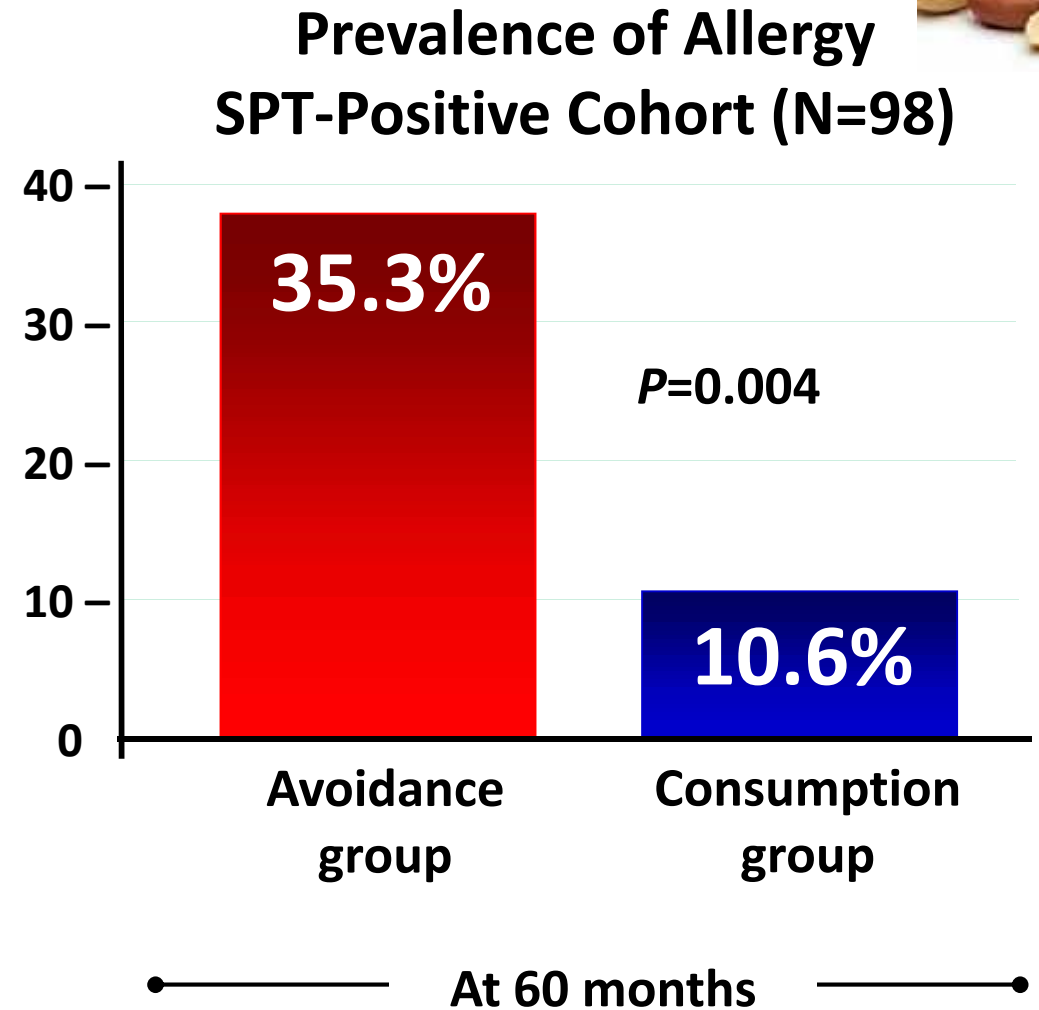
might increase not only the risk of atopic sensitization, allergic rhinitis, and atopic asthma (especially egg) by the age of 5 years



Randomized Trial of Peanut Consumption in Infants at Risk for Peanut Allergy

Du Toit G, NEJM 2015;372:803-13

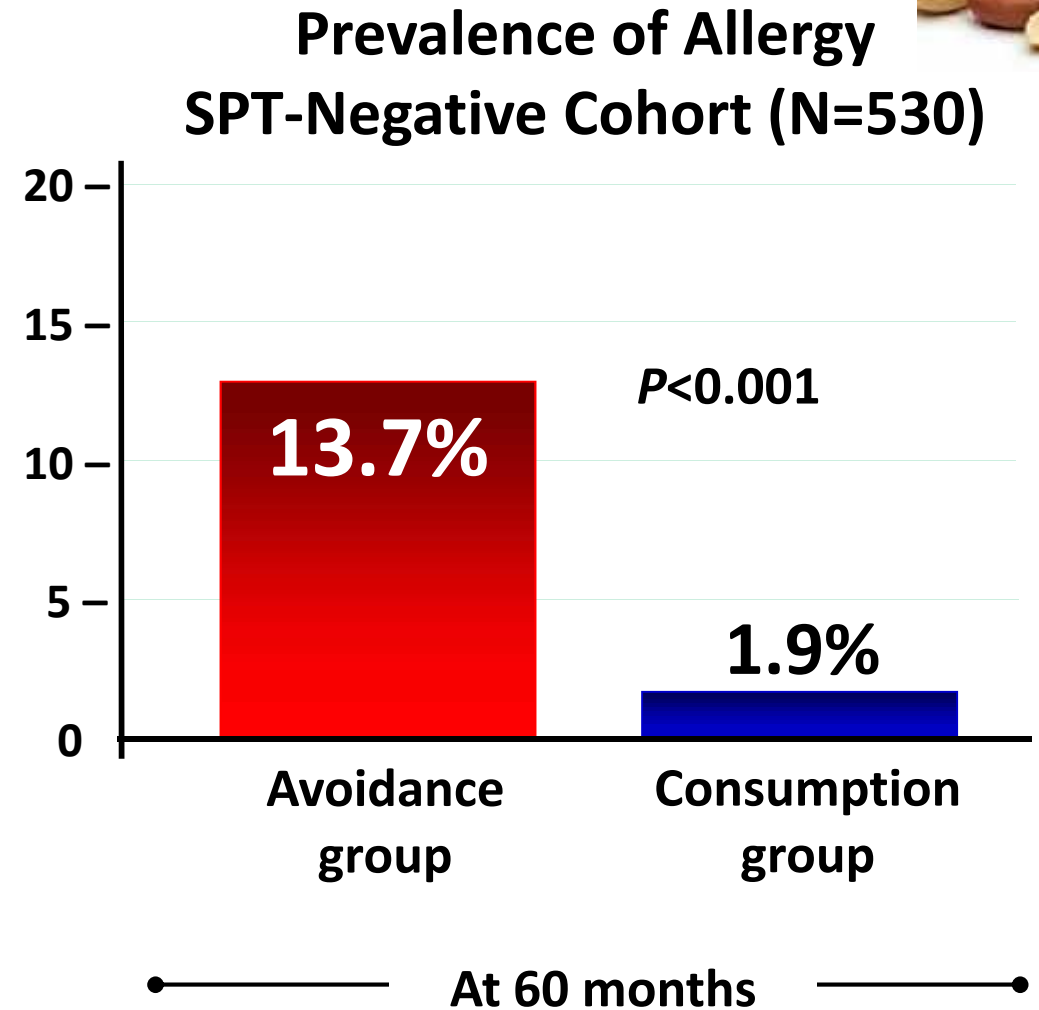
- ✓ 640 infants (4 mo – young than 11 month) with severe eczema, egg allergy, or both, **consume or avoid peanuts until 60 months of age**
- ✓ Randomization on the basis of preexisting sensitivity to peanut extract (SPT), consisting in no measurable wheal vs a wheal measuring 1 to 4 mm
- ✓ Peanut allergy at 60 months of age (open OFC)



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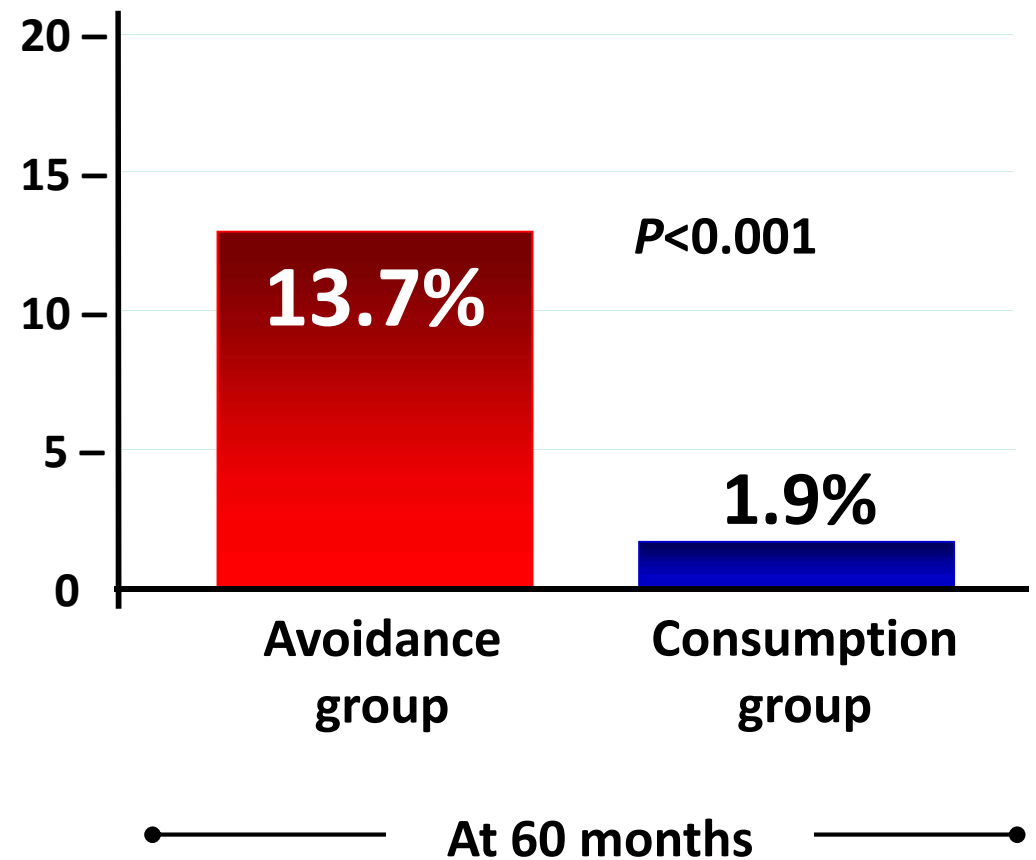
Du Toit G, NEJM 2015;372:803-13

Limits of the Study:

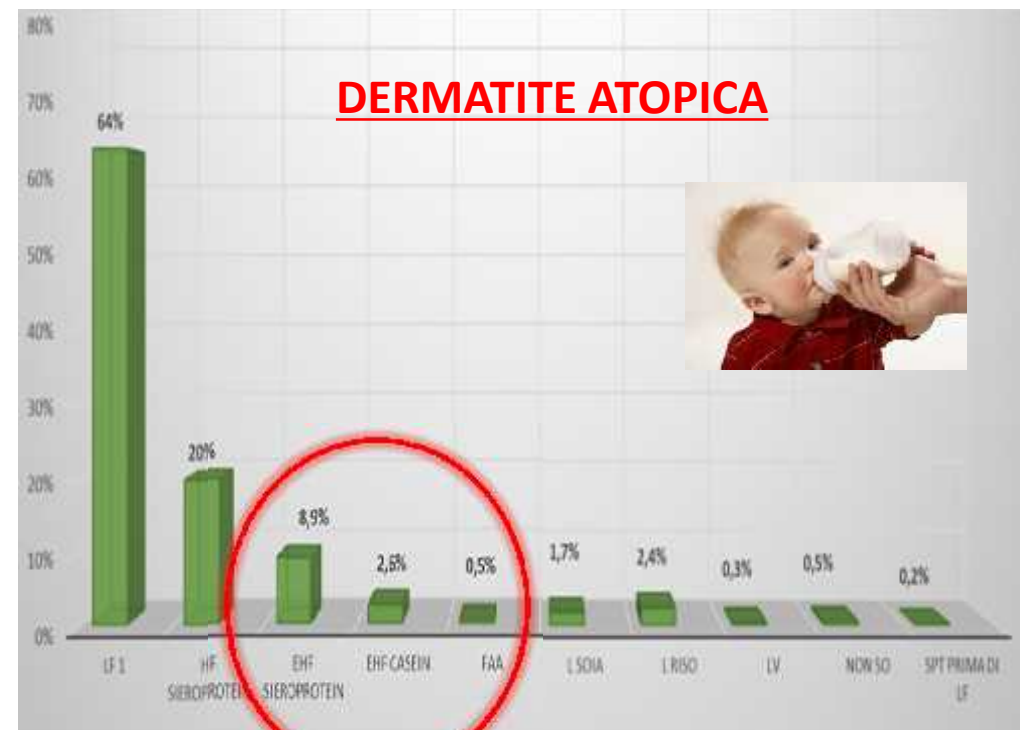
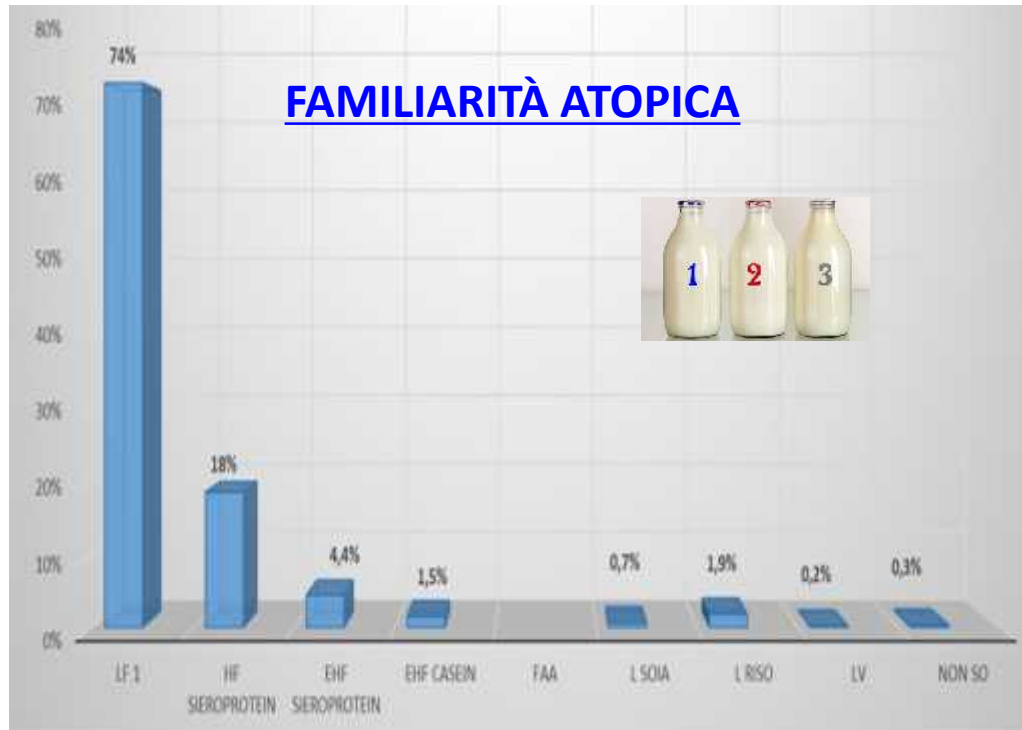
1. Lack of a placebo regimen;
2. Eterogeneous population (eg. infants with severe eczema and/or egg-allergy; & infants already eaten peanut);
3. No low-risk infants and SPT >4 mm in diameter;
4. No directly applicable to other foods (eg. Egg or milk)



Prevalence of Allergy SPT-Negative Cohort (N=530)



ALLATTAMENTO COMPLETAMENTE



Primary Prevention of Allergic Disease through Nutritional Interventions

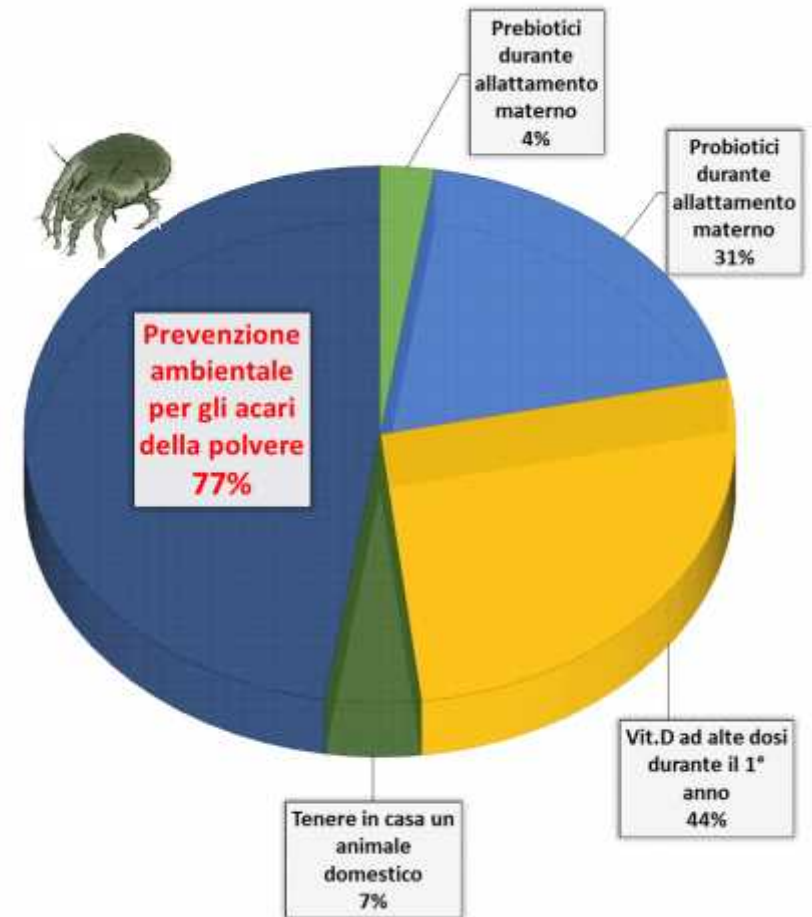
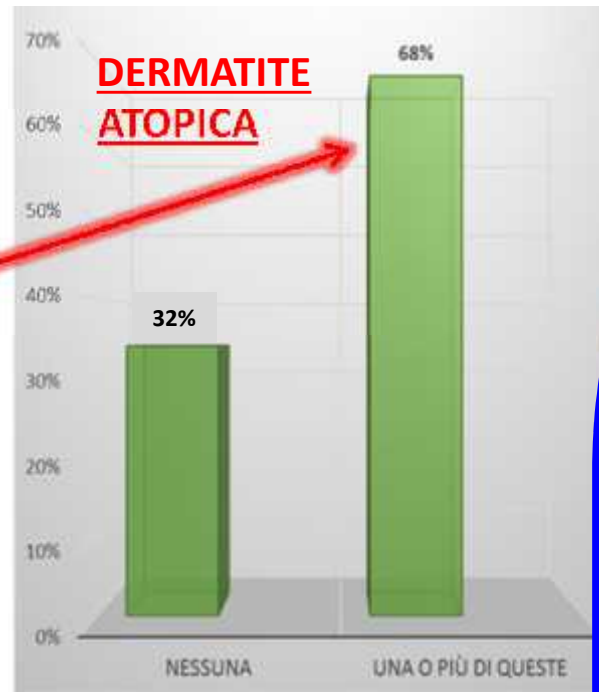
Feisher, JACI:In Practice 2013;1:29-36

Selection of infant formula for primary prevention of allergic disease

- Evidence is not conclusive to support the use of a formula over breast-feeding to prevent atopic disease.
- For those infants at increased risk of allergic disease who cannot be exclusively breast-fed for the first 4 to 6 months of life, a hydrolyzed formula (eHF > pHF) appears to offer advantages to prevent atopic eczema, but the data are inconclusive.



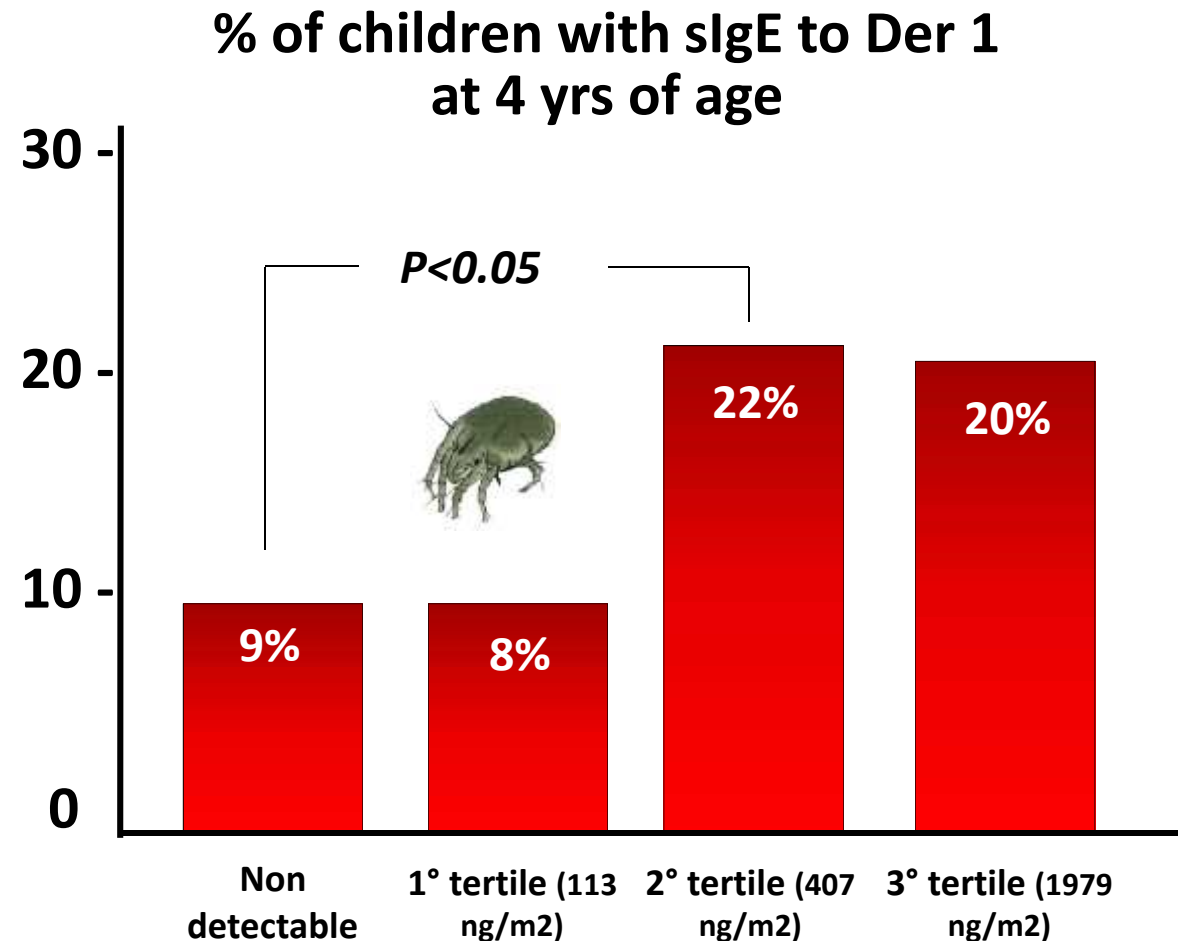
ALTRE STRATEGIE DI PREVENZIONE ALLERGICA



Allergen exposure in infancy and the development of sensitization, wheeze, and asthma at 4 years

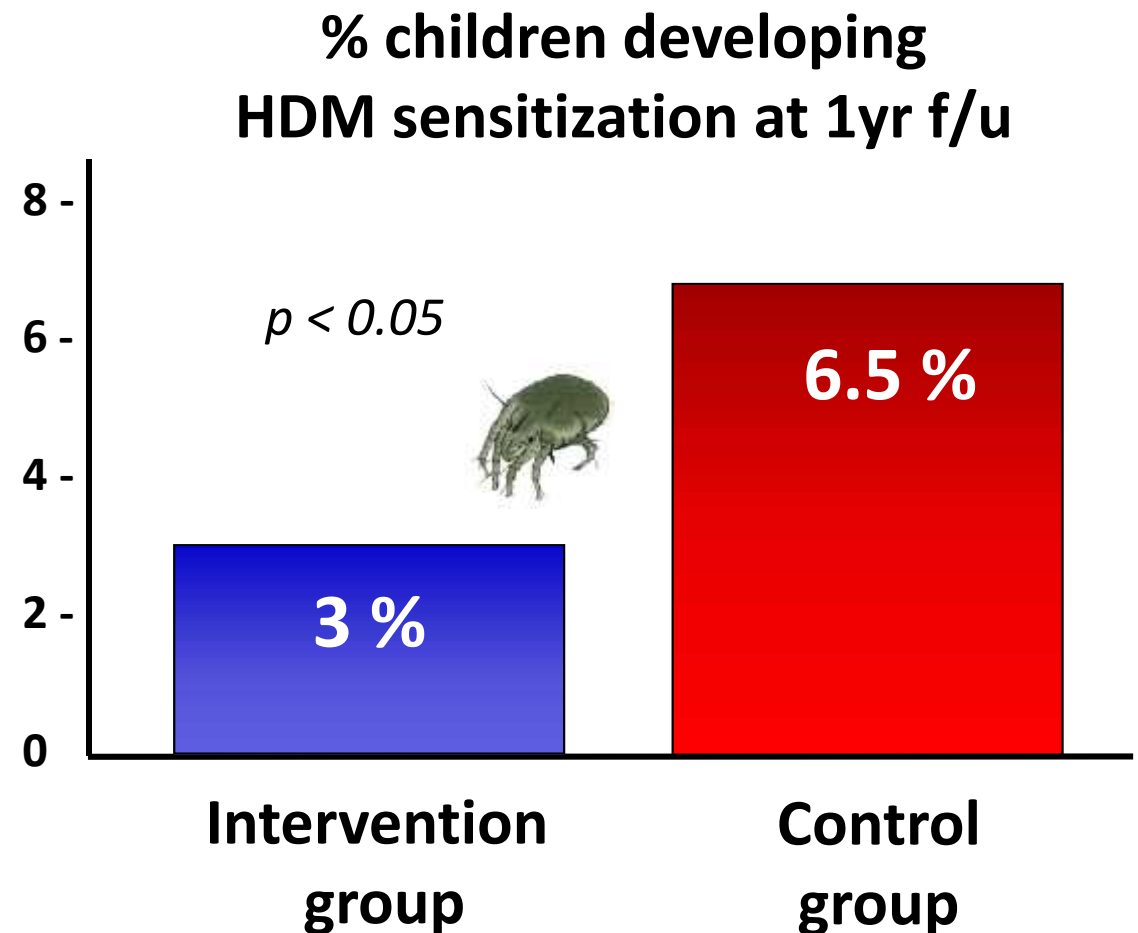
Brussee, J Allergy Clin Immunol 2005;115:946

- ✓ PIAMA birth cohort
365 children +/- an atopic mother.
- ✓ HDM allergen exposure at 3 months (from mattress dust samples)
- ✓ sIgE to Der p 1 + Der f 1 (Der 1) at 4 years



Randomized trial to prevent sensitization to mite allergens in toddlers and preschoolers by allergen reduction and education: one-year results. *Tsitoura S, Arch Pediatr Adolesc Med. 2002; 156: 1021*

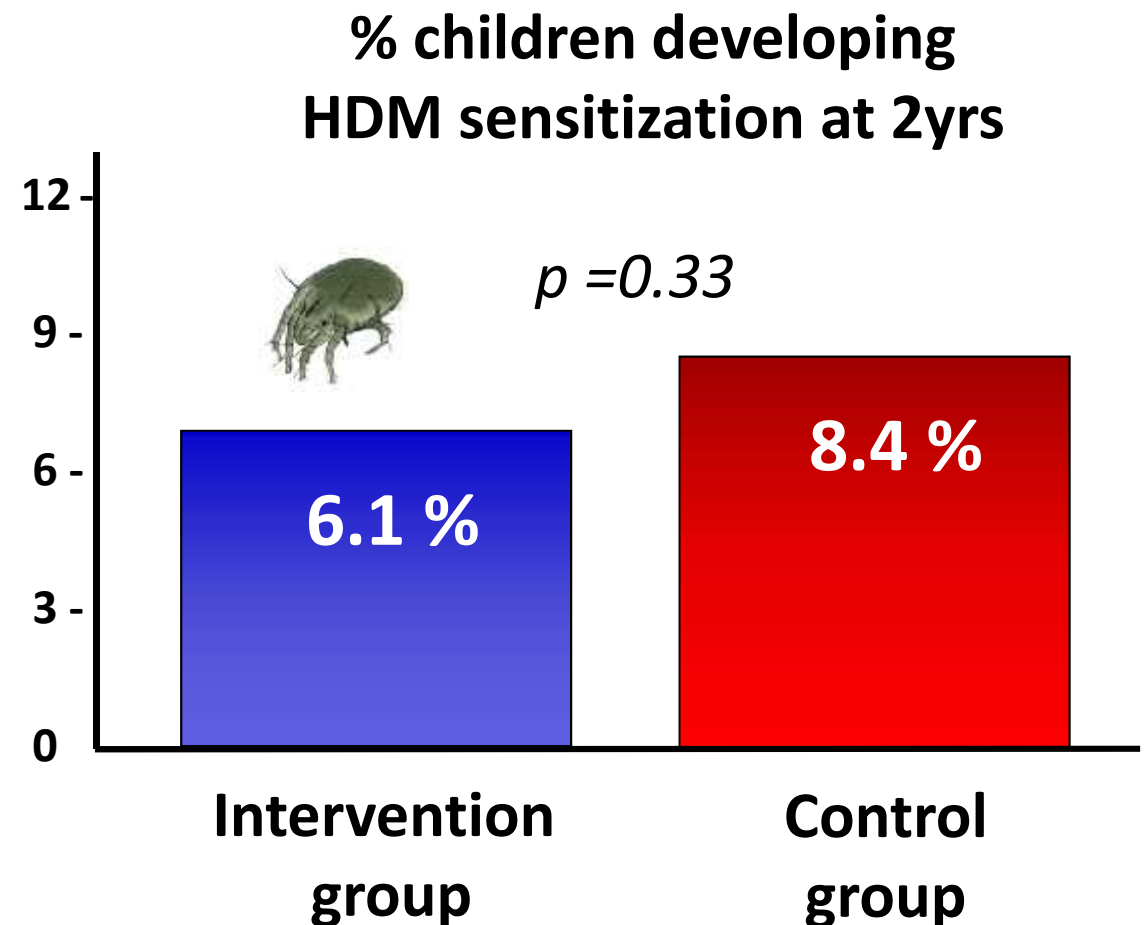
- ✓ Multicenter prospective study with 1yr follow-up
- ✓ 631 children age <5 yr at “high atopic risk” not sensitized to HDM
- ✓ HDM avoidance : mattresses cover and education (n=330) **vs** control (n=306)



Effect of mite-impermeable mattress encasings and an educational package on the development of allergies in a multinational randomized, controlled birth-cohort study – 24 months results of the Study of Prevention of Allergy in Children in Europe

Horak F, Clin Exp Allergy 2004; 34:1220

- ✓ Multicenter birth-cohort follow-up at age 2 yrs
- ✓ 696 children at “high atopic risk”
- ✓ HDM avoidance: mattresses encasement & education (n=349) *vs* control (n=347)



- **Ritardare l'introduzione degli alimenti solidi dopo il 6° mese di vita (ed oltre per gli alimenti allergizzanti) non sembra conferire benefici ai fini della prevenzione allergica**
- **Non è possibile attualmente individuare una sicura efficacia preventiva dei latti idrolisati, vitamina D e dei probiotici/prebiotici sulle malattie allergiche**
- Non ci sono evidenze per raccomandare di tenere un animale domestico o di allontanarlo per prevenirne l'allergia
- **La prevenzione «primaria» dell'allergia agli acari è difficile per la possibile sensibilizzazione da esposizione intermittente fuori casa**

Grazie per l'attenzione

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