

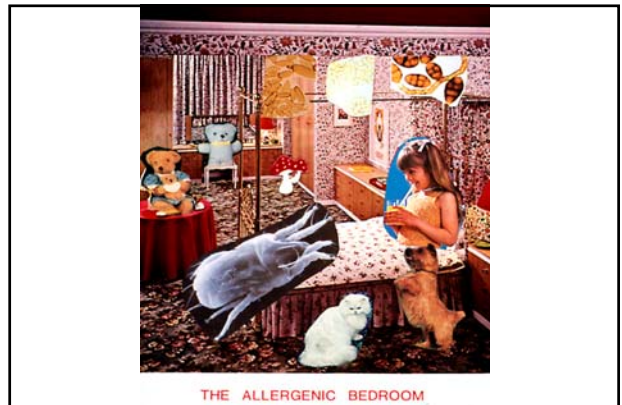
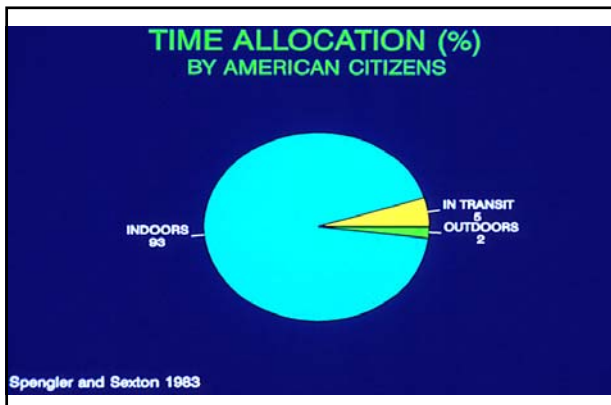
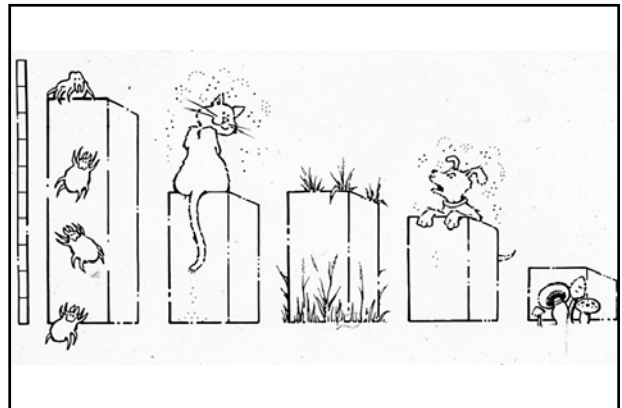
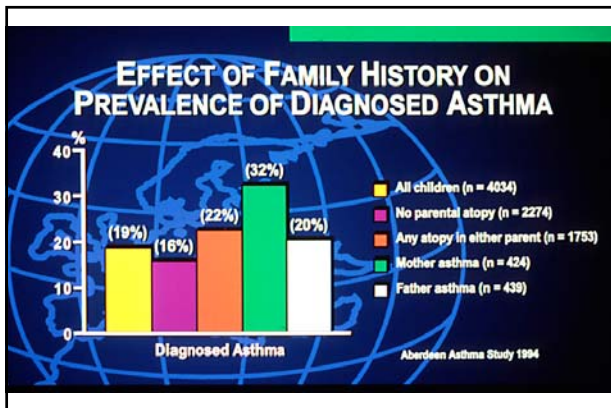
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Allergen Avoidance in Primary, Secondary and Tertiary Prevention

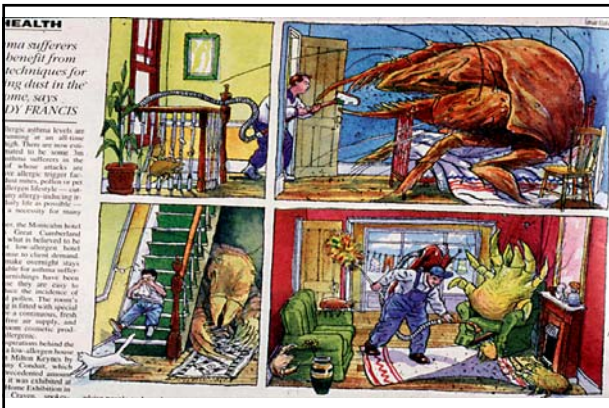
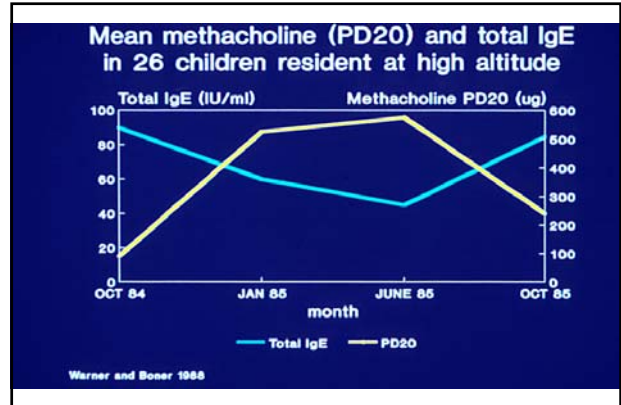
Jill A Warner PhD
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Prevention of Allergy

- **Primary Prevention** – before sensitisation occurs
- **Secondary Prevention** – after sensitisation, but before symptoms
- **Tertiary Prevention** – treatment of symptoms



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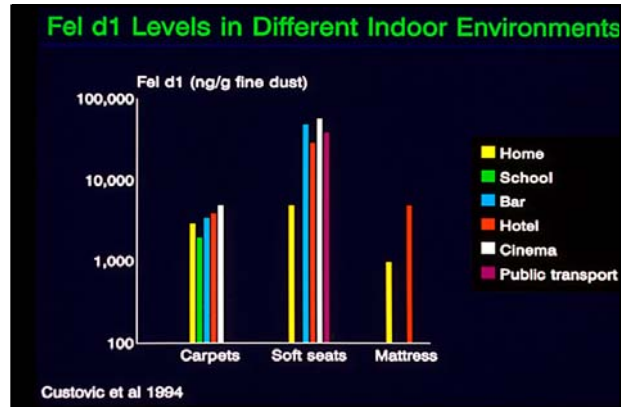


RELATIONSHIPS BETWEEN HOUSE DUST MITES AND HUMANS

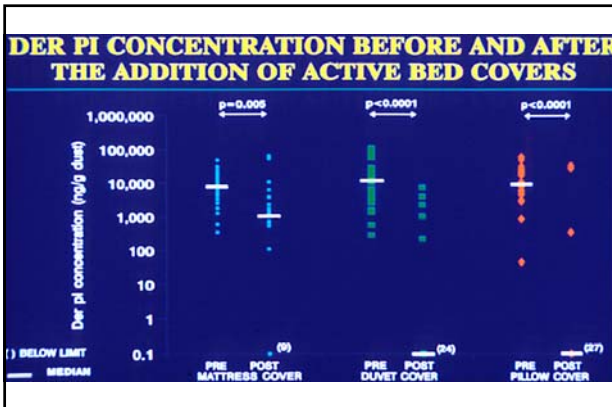
- House dust mites thrive at 75-80% relative humidity
- They reproduce fastest at 25-30 degrees centigrade
- They eat human skin scales colonised with fungi
- Humans shed 1g of skin scales every day
- Humans produce 500ml of sweat in their beds every night

Fel d1 Characteristics

- Present in sebaceous gland secretions and saliva
- Carried on particles of .25 - >10um
- 3 to 7ug produced by a single cat per day
- Under hormonal control
- Detectable in houses with and without cats



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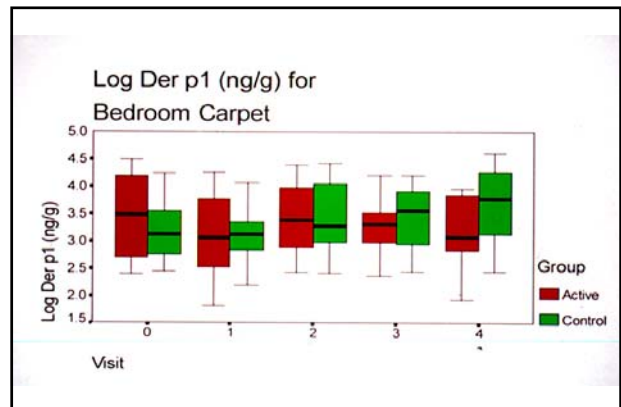
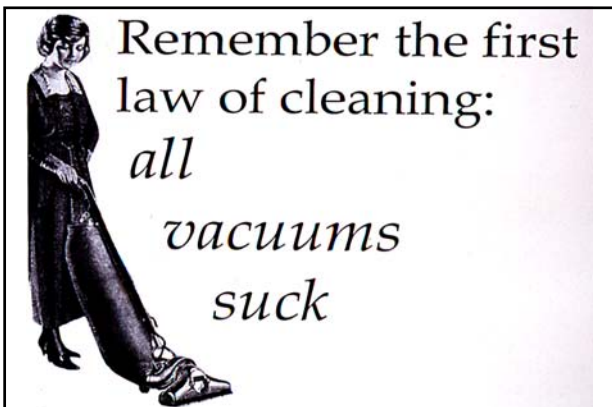
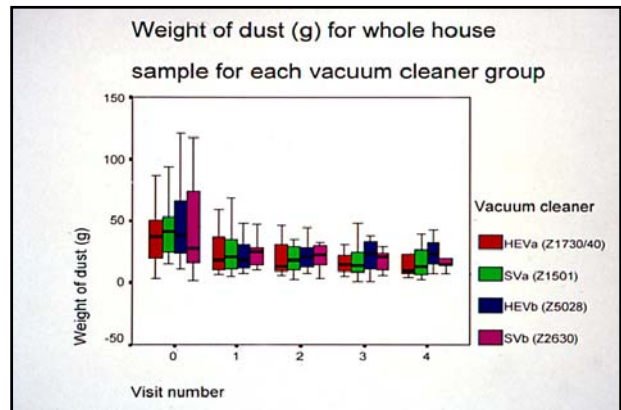
Intervent Clinical Results Diary Card

ACTIVE COVERS- Daytime Wheeze
 Decrease after 1 month p = 0.04
 Decrease after 2 months p = 0.05

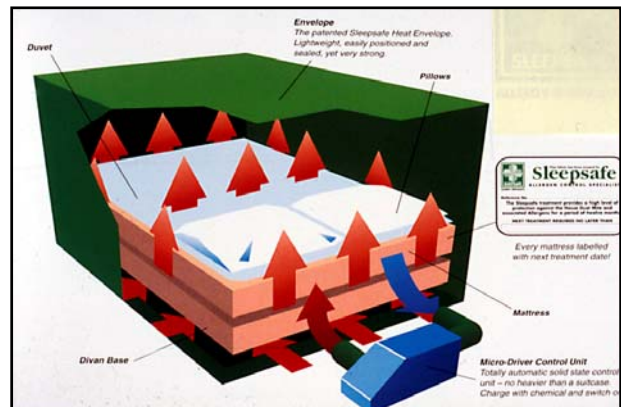
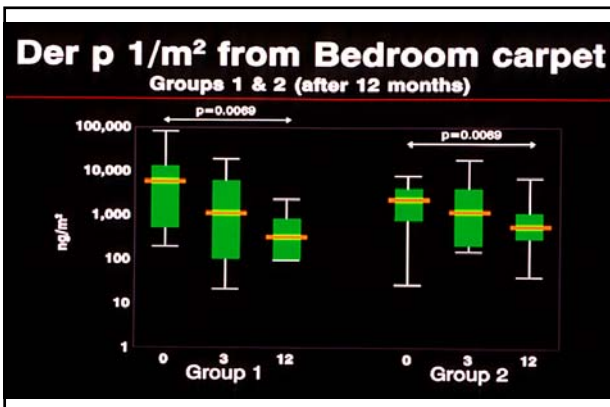
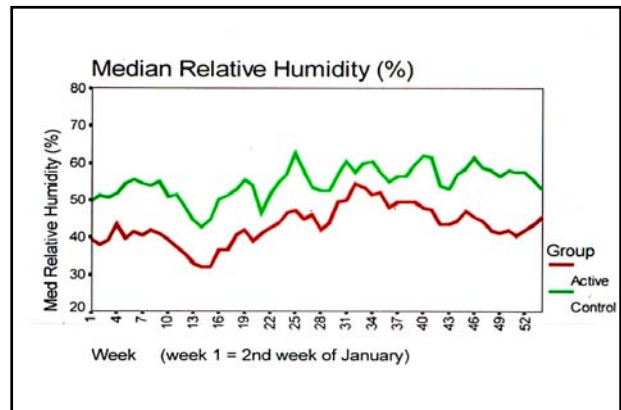
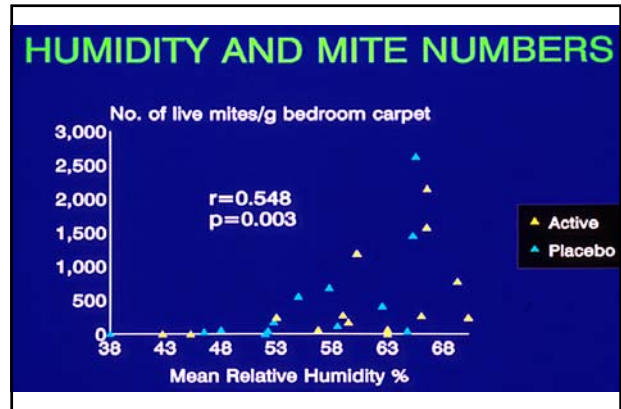
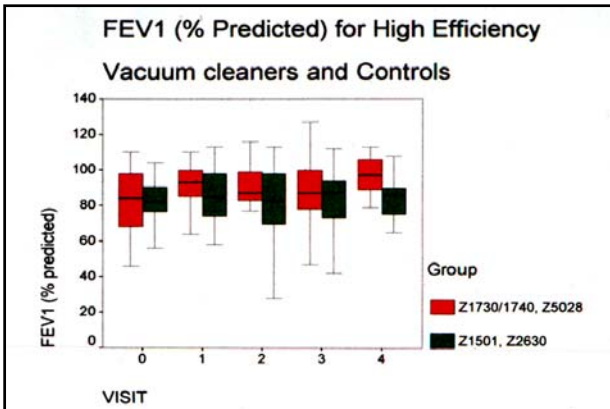
ACTIVE COVERS - Exercise Tolerance
 Increase after 1 month p = 0.03
 Increase after 2 months p = 0.03

*

PLACEBO COVERS - no significant changes in symptoms



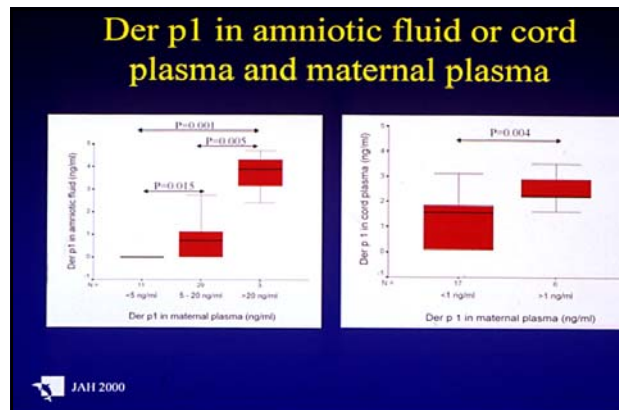
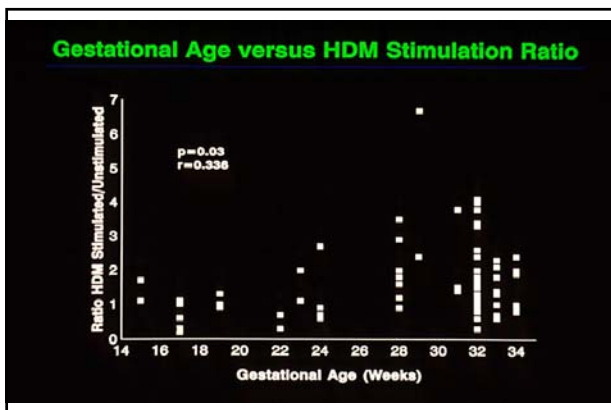
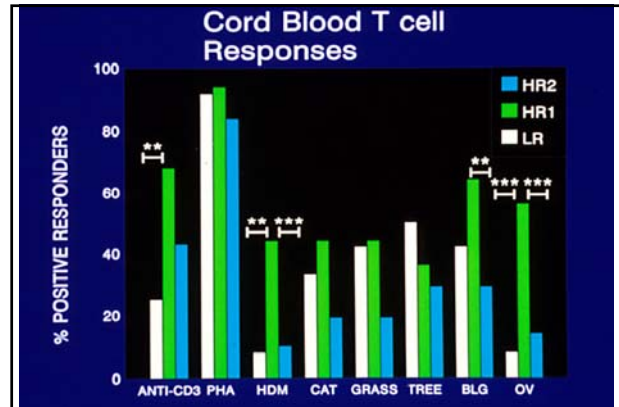
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Can we reduce inhalant allergens sufficiently to prevent primary sensitisation?

When should avoidance start?

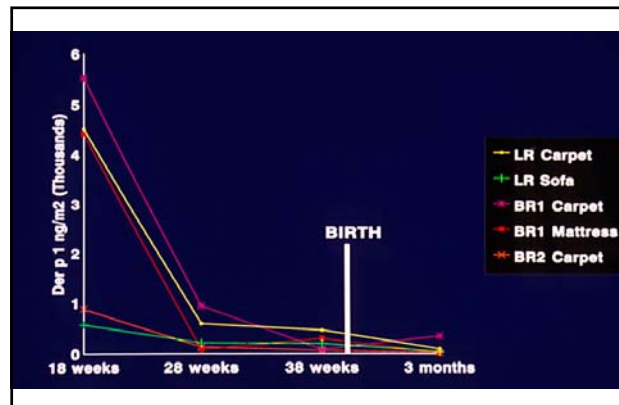


SCHEDULE OF ALLERGEN AVOIDANCE

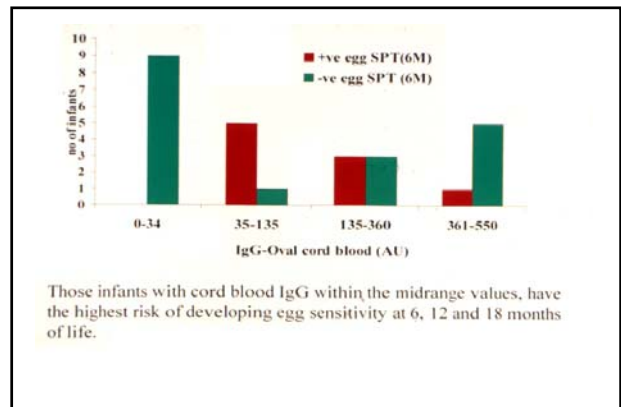
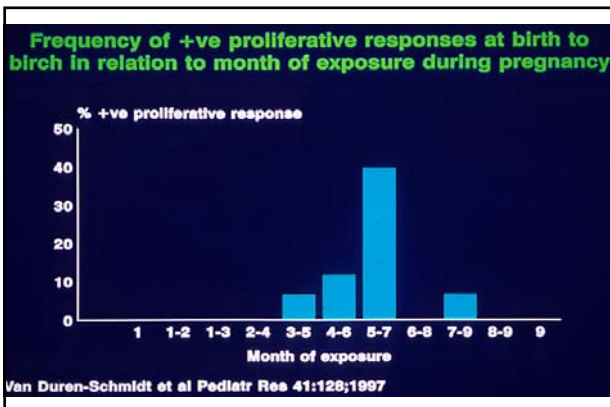
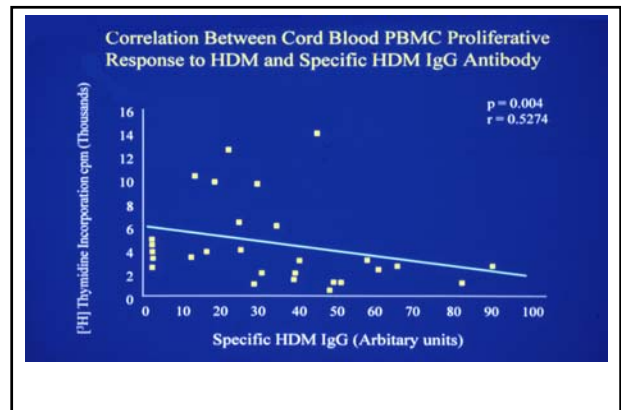
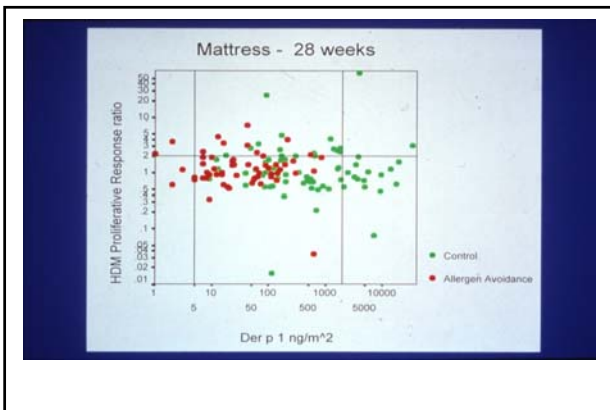
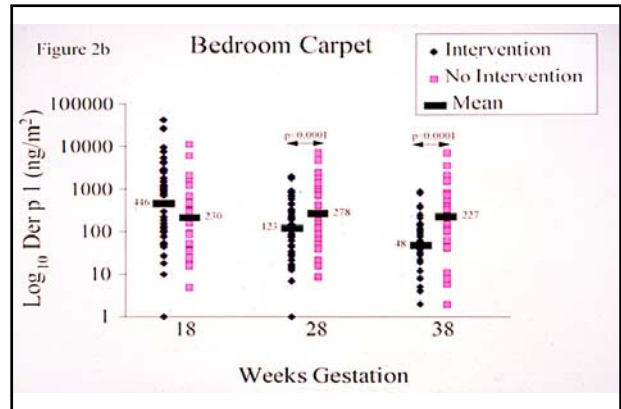
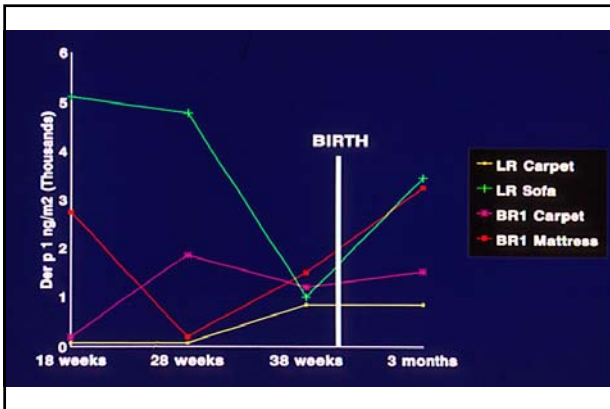
GROUP	2ND AND 3RD TRIMESTER OF PREGNANCY	1ST YEAR OF LIFE
1	AVOIDANCE SCHEDULE	AVOIDANCE SCHEDULE
2	NO AVOIDANCE	NO AVOIDANCE

AVOIDANCE

- 1) No cats and dogs
- 2) 3 monthly treatments with acaricide/liquid nitrogen
- 3) All bedding covered with Intervent covers
- 4) Frequent vacuuming with designated vacuum cleaner
- 5) Ventilation /dehumidification systems installed



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Summary

- Effective allergen avoidance for secondary and tertiary prevention is likely to comprise a multi-source approach
- However well allergens are reduced in the home they will still be encountered elsewhere
- Sometimes complying with the alterations to lifestyle required is harder than coping with the disease
- Techniques that are used in secondary and tertiary prevention may not be universally helpful in primary prevention
- Primary prevention will probably be most successful if immune modulation can be promoted to induce tolerance

Conclusions

- An atopic mother generates a more allergy promoting interuterine environment for the fetus than a non-atopic mother.
- The timing of fetal allergen exposure during pregnancy is critical to whether sensitisation or "tolerance" develops.
- Very low or very high maternal allergen exposure is protective against fetal sensitisation.
- Mechanisms which elevate specific maternal IgG during pregnancy may prevent subsequent allergic disease in the infant.

IM&JOW