

**Fig 1. Environmental modifiers in allergic disease: a) risk factors and b) preventive interventions that may alter development of food allergy and atopic disorders**

**a) Risk factors**

- Tobacco smoke <sup>A</sup>
- Environmental pollutants <sup>Φ A</sup>
- Abnormal intestinal flora colonization <sup>A</sup>
- Decreased exposure to sunlight <sup>B</sup>

- Early introduction of solid foods before 3-4 months of age <sup>B</sup>
- Formula feeding? <sup>B</sup>
- Diet low for n-3PUFA<sup>#</sup>, antioxidants and soluble fiber <sup>B</sup>
- Delayed introduction of solid foods <sup>B</sup>
- Vitamin D deficiency <sup>C</sup>



Pre conception

Pregnancy

Perinatal

1<sup>st</sup> year of life

Older than 1 year

**b) Interventions**

?

- Healthy, balanced diet <sup>\*\*\*</sup>
- Pro and prebiotics <sup>\*\*</sup>
- n-3PUFA <sup>\*\*</sup>
- Vitamin D <sup>\*</sup>

- Breast-feeding for minimum 6 months <sup>\*\*\*</sup>
- Hypoallergenic infant formula in the first 6 months if breastfeeding is not possible <sup>\*\*\*</sup>
- Introduction of solids foods 4-6 months <sup>\*\*\*</sup>
- Pro and prebiotics <sup>\*\*</sup>
- n-3PUFA <sup>\*</sup>

- Healthy and balanced diet <sup>\*\*\*</sup>
- Pro and prebiotics <sup>\*\*</sup>
- n-3PUFA <sup>\*</sup>

## Figure 1 Legend

Φ Environmental pollutants: traffic exhaust particles, polychlorinated biphenyl compounds (PBCs), organochlorine pesticides, dioxins, phthalates, heavy metals

# n-3PUFA: omega-3 polyunsaturated fatty acids

### Strength of evidence for risk factors:

A High; convincing body of evidence exists

B Moderate; limited evidence exists

C Low; needs more investigation

### Strength of evidence for interventions:

\*\*\* Currently included in official guidelines

\*\* Likely to be of benefit, based on growing evidence, but not yet part of recommended guidelines

\* Requires more investigation