

ALLERGY

# HARMED BY THE HYGIENE HYPOTHESIS

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A new paper by a British-Kazakhstan-Armenian group nicely summarizes [why we need good hypothesis papers](#).

As a deterring example they use the hygiene hypothesis

the hygiene hypothesis that was originally proposed by David Strachan in 1989. David Strachan studied the epidemiology of hay fever in a cohort of 17,414 British children and concluded that declining family size and improved personal hygiene had reduced the chances of cross infections in families, resulting in epidemics of atopic disease in post-industrial Britain. Over the past four decades, several related hypotheses have been proposed to expand the potential role of symbiotic microorganisms and parasites in the development of human physiological immune responses early in life and protection from allergic and autoimmune diseases later on.

I agree with the description although David never claimed to be the first author writing about the hygiene hypothesis. When I spoke to him the last time London he wasn't even happy with this popularity.

[The chain certainly started also much earlier](#) than 1989 with "continuing activity of an immune system made redundant by man's cleanliness" (Godfrey, 1975) continued with Gerard 1976, Frick 1986, Busse, 1989 until David Barker argued in 1985 that there is a "decreased incidence of infection among children, especially in wealthier families, that changed their pattern of immunity".

The harm inducted by the hygiene hypothesis is described as

The misunderstanding of the hygiene hypothesis that primarily aimed to shed light on the role of the microbiome in allergic and autoimmune diseases resulted in decline of public confidence in hygiene with dire societal implications, forcing some experts to abandon the original idea. Although that hypothesis is unrelated to the issue of vaccinations, the public misunderstanding has resulted in decline of vaccinations at a time of upsurge of old and new infections.

I fear the authors are right – some people may have been harmed by the hygiene hypothesis leading them back in the pre-Semmelweis era.

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