

Supplementary Online Content

Roduit C, Frei R, Depner M, et al. Phenotypes of atopic dermatitis depending on the timing of onset and progression in childhood. *JAMA Pediatr*. Published online May 22, 2017. doi:10.1001/jamapediatrics.2017.0556.

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This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. Characteristics of study population with complete data (information on atopic dermatitis symptoms at all 7 time points up to 6 years)

	Study population with complete data, n=636	
	No.	%
Center		
Austria	134	21.1
Switzerland	140	22.0
France	110	17.3
Germany	155	24.4
Finland	97	15.2
Farmer	309	48.6
Sex		
Girl	303	47.6
Parents with allergy history		
0	308	48.6
1	264	41.6
2	62	9.8
Breastfeeding		
0 months	61	9.6
>0-2 months	103	16.2
3-6 months	172	27.0
≥ 7 months	300	47.2

eTable 2. Point prevalence of atopic dermatitis symptoms up to 6 years

Atopic dermatitis symptoms		
	No.	%
0-1 y	149/974	15.3
1-1.5 y	109/953	11.4
1.5-2 y	119/952	12.5
2-3 y	147/928	15.8
3-4 y	161/954	16.9
4-5 y	144/922	15.6
5-6 y	136/885	15.4

eTable 3. Association between a positive SCORAD at 1 and 6 years of age and atopic dermatitis phenotypes

		Early-transient		Early-persistent		Late	
	n	OR	95%CI	OR	95%CI	OR	95%CI
Pos. SCORAD> 0 at 1y	50/630	8.53	4.88- 14.89	17.13	9.38- 31.31	1.96	0.67- 5.76
Pos. SCORAD> 0 at 6y	97/975	2.13	0.77- 5.86	22.14	9.81- 49.96	6.20	2.42- 15.88

eTable 4. Association between exposures and atopic dermatitis phenotypes (unadjusted)

	Early-transient (n=96)			Early-persistent (n=67)			Late (n=50)		
	OR	95%CI		OR	95%CI		OR	95%CI	
Girls vs boys	1.28	(0.84-1.96)		1.79	(1.07-2.97)		1.44	(0.81-2.56)	
Allergic parent:									
2	2.53	(1.36-4.74)		5.82	(2.92-11.61)		2.45	(1.03-5.84)	
1	1.37	(0.86-2.19)		2.02	(1.11-3.68)		1.61	(0.86-3.03)	
0, ref.	1.00	-		1.00	-		1.00	-	
Farmer	0.82	(0.54-1.26)		1.44	(0.87-2.38)		0.94	(0.53-1.66)	
Prenatal exposures									
Farm milk during pregnancy	0.71	(0.46-1.10)		1.17	(0.71-1.92)		0.98	(0.55-1.75)	
Unboiled farm milk during pregnancy	0.65	(0.40-1.05)		1.29	(0.77-2.14)		0.90	(0.49-1.66)	
Work/stay in stable during pregnancy	0.91	(0.58-1.41)		1.11	(0.67-1.83)		0.83	(0.47-1.48)	
Work/stay in barn during pregnancy	1.03	(0.66-1.62)		1.15	(0.69-1.91)		1.17	(0.65-2.10)	
Animal species, during pregnancy:									
3-4 species	0.53	(0.24-1.16)		0.56	(0.21-1.49)		0.13	(0.02-0.99)	
1-2 species	0.75	(0.47-1.17)		1.05	(0.61-1.78)		0.85	(0.47-1.56)	
0 species, ref.	1.00	-		1.00	-		1.00	-	
4 animal species, continuous	0.81	(0.61-1.01)		0.90	(0.71-1.14)		0.85	(0.63-1.13)	
Contact with pets (dogs/cats):	0.76	(0.50-1.16)		0.76	(0.46-1.26)		0.89	(0.50-1.58)	

With cats	1.0 8	(0.7 1-	1.65)		0.8 2	(0.5 0-	1.37)	0.8 8	(0.5 0-	1.5 8)
With dogs	0.6 9	(0.4 3-	1.13)		1.0 2	(0.6 0-	1.73)	1.3 2	(0.7 3-	2.3 8)
Postnatal exposures										
Breastfeeding:										
0 months	0.9 3	(0.4 2-	2.07)		0.2 2	(0.0 5-	0.93)	0.1 8	(0.0 2-	1.3 4)
>0-2 months	1.2 0	(0.6 2-	2.22)		0.5 7	(0.2 6-	1.25)	0.8 1	(0.3 4-	1.9 2)
3-6 months	1.5 5	(0.9 4-	2.55)		0.7 1	(0.3 9-	1.31)	1.3 1	(0.6 9-	2.4 6)
≥ 7 months	1.0 0	-			1.0 0	-		1.0 0	-	
Yogurt introduced in the 1st y	0.9 2	(0.5 4-	1.58)		0.5 3	(0.3 1-	0.92)	0.9 7	(0.4 8-	1.9 9)

eTable 5. Association between prenatal exposures and atopic dermatitis phenotypes, stratified by allergic status of the parents

No allergic parents	Early-transient						Early-persistent						Late					
	n	95% CI			OR*	95% CI			OR	95% CI			OR	95% CI		OR*	95% CI	
N=481	n = 37							n = 18							n = 18			
<i>Prenatal exposures</i>																		
Farm milk during pregnancy	0.87	0.4-1.0	1.07	0.089	0.37-0.79	2.15	1.14	0.44-0.66	2.09	1.2-1.9	0.33	0.13-0.55	4.77	0.73-0.83	1.089	0.05-0.09	1.027	0.27-0.37
Farm milk during pregnancy: unboiled	0.71	0.35-0.54	1.04	0.059	0.25-0.59	1.40	1.03	0.53-1.19	3.03	1.8-2.1	0.33	0.13-0.38	3.49	0.66-0.66	0.22	0.09-0.11	1.079	0.20-0.30
Animal species, during pregnancy: continuous	0.93	0.68-0.87	1.02	0.099	0.67-0.99	1.44	0.96	0.64-0.94	1.04	0.49-0.66	1.02	0.5-0.55	2.71	0.57-0.72	0.301	0.15-0.15	0.055	0.11-0.13
Contact with pets (dogs or cats)	1.10	0.54-0.43	2.03	0.133	0.50-0.33	2.51	1.09	0.44-0.64	3.02	1.1-1.2	0.33	0.12-0.22	4.02	0.75-0.99	1.093	0.08-0.11	0.027	0.24-0.40

Allergic parents (at least one)	Early-transient						Early-persistent						Late					
	n	95% CI			OR*	95% CI			OR	95% CI			OR	95% CI		OR*	95% CI	
N=551	n = 59							n = 49							n = 32			
<i>Prenatal exposures</i>																		

Farm milk during pregnancy	0.69	0.37	1.29	0.72	0.34	1.55	1.52	0.83	2.78	1.45	0.67	3.12	1.39	0.67	2.90	1.79	0.68	4.72
Farm milk during pregnancy:																		
unboiled	0.67	0.34	1.34	0.72	0.33	1.57	1.66	0.89	3.09	1.40	0.68	2.88	1.30	0.60	2.83	1.23	0.50	3.07
Animal species, during pregnancy:																		
continuous	0.76	0.56	1.03	0.71	0.49	1.05	0.97	0.71	1.28	0.45	0.88	1.17	1.08	0.77	1.52	1.20	0.78	1.87
Contact with pets (dogs or cats)	0.65	0.37	1.12	0.62	0.33	1.16	0.74	0.40	1.43	0.21	0.33	0.61	1.05	0.51	2.07	0.70	0.29	1.67

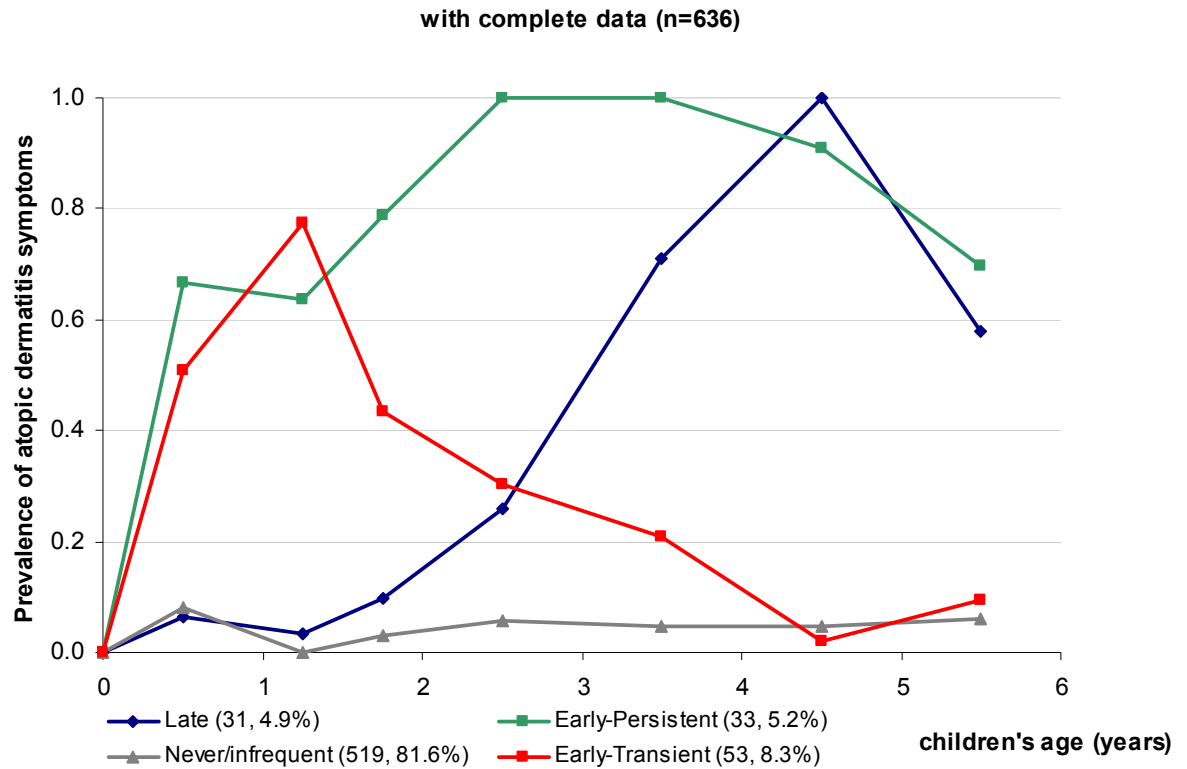
*adjusted for farmer, center, sex, parents with history of allergy

eTable 6. Association between atopic dermatitis phenotypes and sensitization to food and inhalant allergens at 1 year of age (cut-off: 0.7 IU/ml)

	Sensitization to food allergens at 1 year (37/915, 4.0%)							
	N	%	OR	95% CI		OR*	95% CI	
Early-transient	6/83	7.2	2.30	0.91-	5.79	2.24	0.87-	5.74
Early-persistent	6/59	10.2	3.34	1.31-	8.51	3.14	1.18-	8.34
Late	1/42	2.4	0.72	0.10-	5.44	0.68	0.09-	5.18
Never/infrequent	24/731	3.3	1	-		1	-	
	Sensitization to inhalant allergens at 1 year (134/915, 14.6%)							
	N	%	OR	95% CI		OR*	95% CI	
Early-transient	12/83	14.5	1.02	0.53-	1.94	0.92	0.47-	1.79
Early-persistent	10/59	17.0	1.23	0.60-	2.51	1.21	0.58-	2.53
Late	8/42	19.1	1.42	0.64-	3.15	1.38	0.60-	3.17
Never/infrequent	104/731	14.2	1	-		1	-	

*adjusted for farmer, center, sex, breastfeeding

eFigure 1. Probability of atopic dermatitis symptoms at each time point from birth to 6 years of age for each atopic dermatitis phenotype in the 4-class model. With no missing data.



eFigure 2. SCORAD scores at 1 and 6 years of age and atopic dermatitis phenotypes (only with children with SCORAD score>0)



eFigure 3. The prevalences of atopic dermatitis phenotypes stratified by the parental allergic status.

