

The role of mites as a source of house dust allergens has been known for many years. Advances in technology now enable us to measure the amount of mite allergens in the environment as well as the IgE antibody levels in patients. However, since individual susceptibility varies, it is difficult to set a minimum exposure level for the general population. Some experts have provided provisional standards for allergen exposures that lead to sensitization and symptoms. The chart below indicates the known threshold levels where chronic exposure to animal dander, insects, mites and molds may cause sensitization.

Source	Allergen	Molecular Weight (kD)	Action Level (per gram of collected dust)
<b>Animals</b>			
Felis domesticus (cat)	Fel d 1	35	8,000 ng/g
Canis familiaris (dog)	Can f 1	25	
Mus musculus (mouse)	Mus m 1	19	
<b>Insects</b>			
Blattella germanica (German cockroach)	Bla g 1	28	≥ 1 unit/g
Peripaneta americana	Per a 1	20-25	
<b>House Dust Mites</b>			
Dermatophagoides farinae	Der f 1	25	2,000 ng/g
	Der f 2	14	
Dermatophagoides pteronyssinus	Der p 1	25	2,000 ng/g
	Der p 2	14	
<b>Fungus</b>			
Aspergillus fumigatus	Asp f 1		1,000 spores/m <sup>3</sup> <u>or</u> ≥ 10,000 colonies
Penicillium			1,000 spores/m <sup>3</sup> <u>or</u> ≥ 10,000 colonies
Cladosporium			1,000 spores/m <sup>3</sup> <u>or</u> ≥ 10,000 colonies

Note: The above table was included in the continuing education (Lesson 3, Volume 12—Immunotherapy and Allergen Avoidance for Allergic Airway Disorders) provided by the American College of Chest Physicians, 2003.