Radioallergosorbent (RAST) test

A blood test that measures specific antigen IgE levels in the serum.

RAST test mechanism

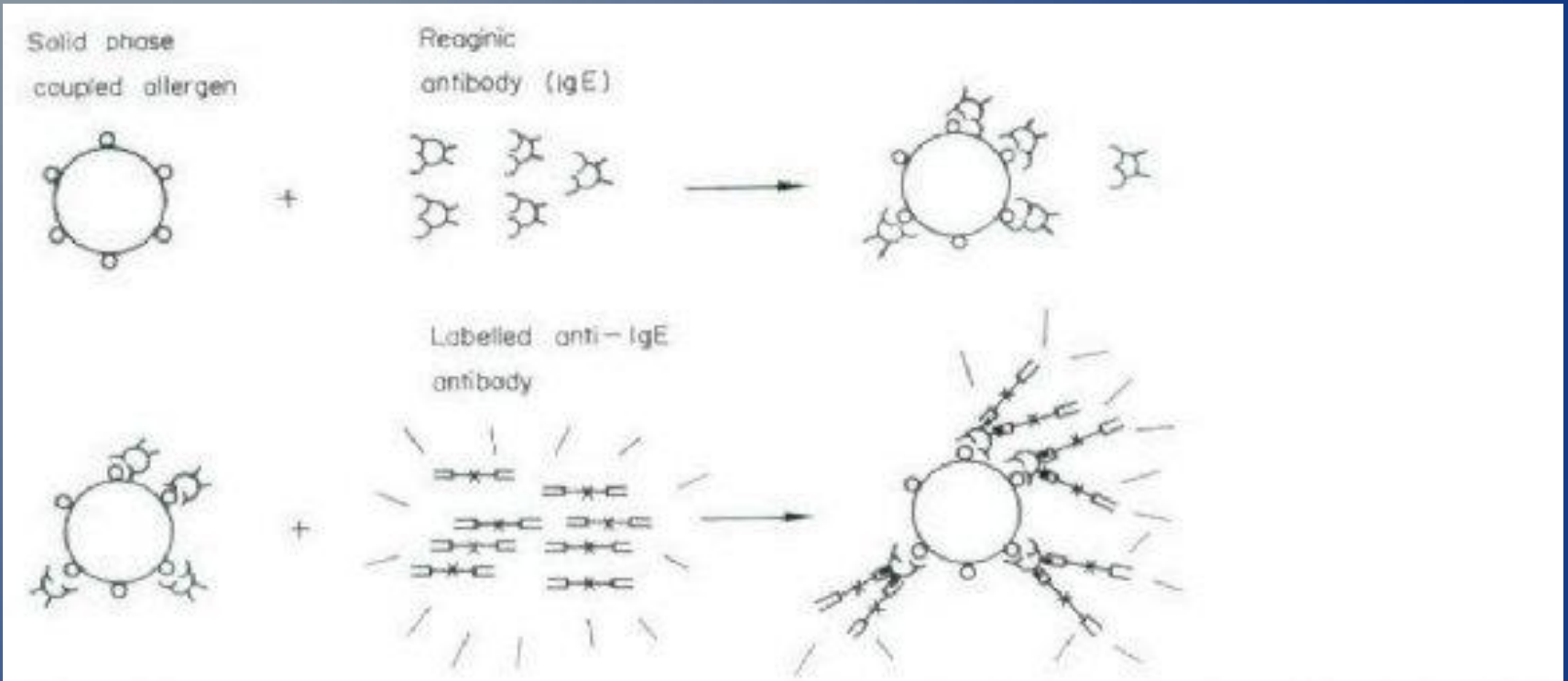

Fig. 1. The principle of the radioallergosorbent technique (RAST) for detection of reaginic (IgE) antibodies to different allergens (from: Wide, 1971).

Taken from – Wide L. (1973). Clinical significance of measurement of reagenic (IgE) antibody by RAST. *Clinical Allergy.* **3.** pp. 583-595.

Level of radioactivity is directly correlated with the level of IgE antibodies to that paritcular antigen

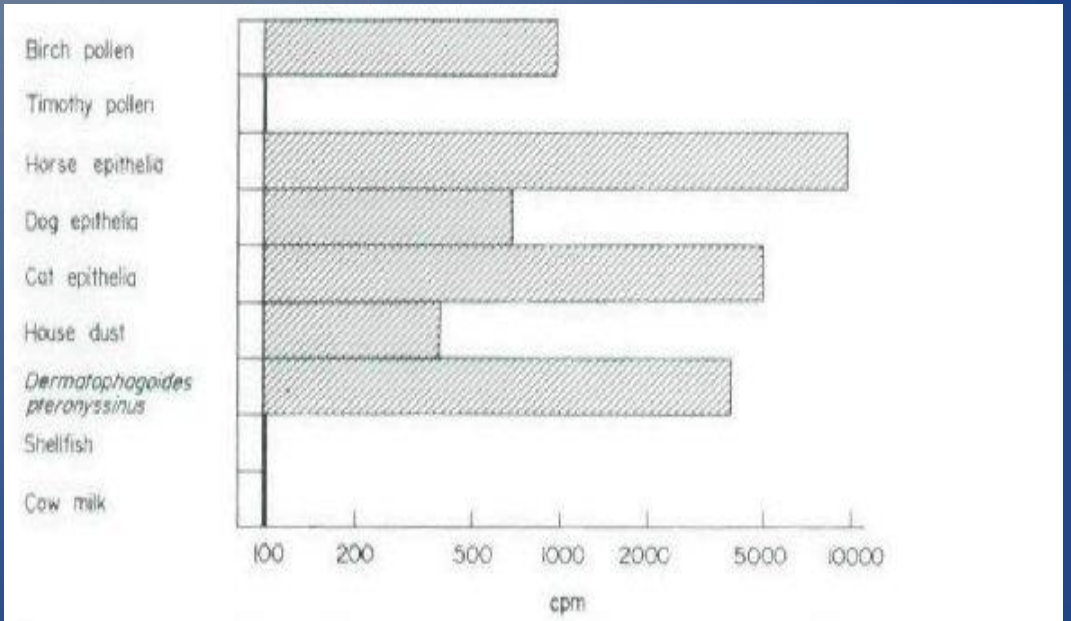

Fig. 2. Reaginic (IgE) antibody activity to nine different allergen extracts in one serum sample assayed by RAST. The activities are expressed in counts per minute (cpm). The reaction is positive for six allergens and negative for three (timothy, shellfish and cow milk).

Performing the test

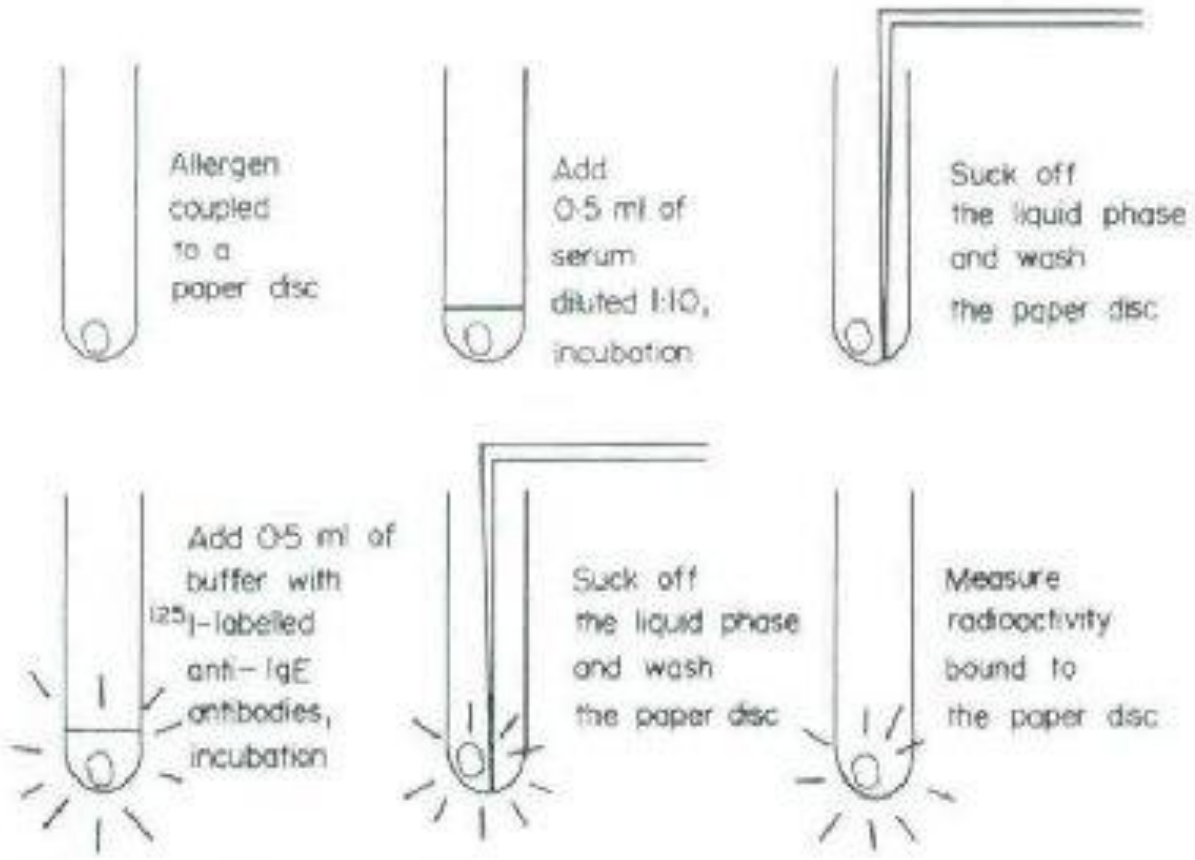

Fig. 3. The principle of RAST using paper disc coupled allergens (from: Wide *et al.*, 1971).

Results

Results are reported in arbitrary units and divided into classes predicting the allergic reaction

RAST rating	IgE level (kU/L)	
0	< 0.35	Undetectable level of IgE
1	0.35 - 0.69	Low level
2	0.70 - 3.49	Moderate level
3	3.50 - 17.49	High level
4	17.50 - 49.99	Very high level
5	50.0 - 100.0	Very high level
6	> 100.0	Extremely high level