



*Dr Wolfgang Muller (Consultant Paediatrician)*

## Parent Information Guide:

### Vaccine Ingredients (UK & US) — Last 10 Years

Over the past 10 years, childhood vaccines in both the UK and US have been very stable in terms of their formulations and ingredients. The following information reflects the vaccines that have been used routinely over this period.

#### United Kingdom (UK) Vaccines

| Vaccine                           | Brand         | Key Ingredients                                                                                                              |
|-----------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------|
| <b>6-in-1 (DTaP/IPV/Hib/HepB)</b> | Infanrix Hexa | Aluminium hydroxide (0.5 mg), formaldehyde (trace), neomycin/polymyxin B (trace antibiotics), lactose, sodium chloride       |
| <b>Pneumococcal (PCV13)</b>       | Prevenar 13   | Aluminium phosphate (0.125 mg), polysorbate 80, succinate buffer                                                             |
| <b>Rotavirus</b>                  | Rotarix       | Sucrose, dextran, sorbitol, amino acids, calcium carbonate                                                                   |
| <b>MenB</b>                       | Bexsero       | Aluminium hydroxide (0.5 mg), histidine, sodium chloride, sucrose                                                            |
| <b>MenACWY</b>                    | Nimenrix      | Sucrose, sodium phosphate buffer, no aluminium                                                                               |
| <b>MMR</b>                        | Priorix       | Amino acids, neomycin (trace), sorbitol, mannitol, no aluminium or thimerosal                                                |
| <b>Influenza (nasal spray)</b>    | Fluenz Tetra  | Sucrose, arginine, gelatine (porcine), gentamicin (trace), no aluminium or thimerosal                                        |
| <b>HPV (9-valent)</b>             | Gardasil 9    | Aluminium hydroxyphosphate sulfate (0.5 mg), sodium chloride, polysorbate 80, yeast protein traces                           |
| <b>Td/IPV booster</b>             | Revaxis       | Aluminium phosphate (0.39 mg), formaldehyde (trace), phenoxyethanol (preservative), neomycin/polymyxin B (trace antibiotics) |



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## United States (US) Vaccines

| Vaccine                           | Brand                      | Key Ingredients                                                                                     |
|-----------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------|
| <b>DTaP/IPV/HepB/Hib</b>          | Pediarix                   | Aluminium hydroxide (0.85 mg), yeast protein, neomycin/polymyxin B (trace), formaldehyde (trace)    |
| <b>DTaP/IPV/Hib</b>               | Pentacel                   | Aluminium phosphate (0.33 mg), formaldehyde (trace), polysorbate 80, glutaraldehyde (trace)         |
| <b>Pneumococcal (PCV13/15/20)</b> | Prevnar 13/20, Vaxneuvance | Aluminium phosphate (0.125 mg), polysorbate 20                                                      |
| <b>Rotavirus</b>                  | RotaTeq, Rotarix           | Sucrose, sodium citrate, amino acids                                                                |
| <b>MenB</b>                       | Bexsero                    | Aluminium hydroxide (0.5 mg), histidine, sucrose                                                    |
| <b>MenACWY</b>                    | MenQuadfi, Menveo          | No aluminium; sucrose, sodium phosphate buffers                                                     |
| <b>MMR</b>                        | M-M-R II                   | Sorbitol, neomycin (trace), gelatin (porcine), no aluminium or thimerosal                           |
| <b>Influenza (inactivated)</b>    | Fluzone, Fluarix           | Single-dose: no thimerosal; multi-dose: may contain thimerosal                                      |
| <b>Influenza (nasal spray)</b>    | FluMist                    | Sucrose, arginine, gelatine (porcine), no aluminium or thimerosal                                   |
| <b>HPV (9-valent)</b>             | Gardasil 9                 | Aluminium hydroxyphosphate sulfate (0.5 mg), yeast protein (trace), sodium chloride, polysorbate 80 |

## Key Safety Notes

- No routine UK or US childhood vaccines have contained thimerosal (mercury) for over a decade.
- Aluminium is used as an adjuvant in some vaccines in small, regulated amounts to boost immune response.
- Stabilizers like sugars (sucrose, mannitol), amino acids, and buffers help preserve vaccine stability.
- Trace antibiotics (neomycin, polymyxin B) may remain to prevent contamination during manufacturing.
- Gelatin (porcine origin) is used in some live vaccines (e.g., MMR, FluMist/Fluenz nasal spray).



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### **Summary for Parents**

- Vaccines have been carefully monitored and stable for at least the past 10 years.
- Thimerosal (Mercury) is not present in routine childhood vaccines.
- All ingredients used serve important safety or effectiveness roles.
- Vaccines continue to be rigorously evaluated for safety by health authorities like the NHS, MHRA, CDC, and FDA.

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**Date: 01/06/2025**