



Understanding Parabens

1. What Are Parabens

- Parabens are synthetic chemicals derived from *p-hydroxybenzoic acid*.
- Common types: methylparaben, ethylparaben, propylparaben, and butylparaben.
- Widely used as preservatives in cosmetics, personal care products, and pharmaceuticals.
- Prevent the growth of harmful bacteria, mould, and yeast, extending product shelf life and maintaining safety.

2. Where Are They Found?

- **Cosmetics & Personal Care:** Deodorants, lotions, sunscreens, shampoos, conditioners, shaving creams, makeup (mascara, lipstick, foundation). Present in approximately 75-90% of cosmetic products, although in recent years this percentage has decreased because of consumer demand for paraben-free alternatives.
- **Baby Products:** Lotions, wipes, diaper rash ointments.
- **Other Uses:** Some pharmaceuticals, foods (jams, baked goods), and textiles (sportswear, upholstery).

3. Why Are They Used?

- Cosmetic manufacturers favour parabens because they are effective and inexpensive.
- They work across a broad pH range and provide reliable protection against microbial contamination, which is critical for product safety and preventing infections.

4. What Are The Health Concerns?

- **Endocrine Disruption:** Can mimic oestrogen, though activity is thousands to millions of times weaker than natural hormones.
- **Risk to foetuses:** Parabens can cross the placenta, exposing the developing foetus

- during pregnancy and potentially disrupt early hormone development.
- **Risk to infants:** Infants can be exposed to parabens through breast milk, and their immature systems make even small amounts more impactful on development and hormone balance.
- **Occupational Exposure:** Workers in salons, spas, and cosmetics manufacturing face repeated paraben exposure through skin contact and inhalation, raising occupational safety concerns.
- **Breast Cancer:** A 2004 study detected parabens in breast tumour tissue, raising concerns about a possible link to breast cancer. However, this study did not prove causation, and subsequent research has not established a definitive connection.

5. How To Reduce Exposure?

- **Check labels:** Look for “**paraben-free**” claims.
- **Limit use:** Reduce daily layering of multiple products containing parabens.
- **Safer alternatives:** Products preserved with phenoxyethanol, organic acids, or natural extracts.
- **Occupational safety:** Gloves, masks, and ventilation in salons and manufacturing sites.

6. Key Takeaway

- Parabens remain **effective and widely used preservatives**, but their **potential endocrine-disrupting effects** raise concerns, especially for **pregnant women, infants, and workers** with high exposure. While regulators currently deem them safe at allowed levels, **prudence in limiting exposure** is a sensible precaution until long-term risks are fully understood.