Triclosan Promotes *Staphylococcus aureus* Nasal Colonization

**Triclosan**
- a biocide
- used for over 40 years
- manufacture of toothpaste, soaps, clothing & medical equipment
- found as an environmental pollutant, & in serum, urine & milk

**Potential Impact of triclosan on Health (mediated via microbiome)**
- *S. aureus* is an opportunistic pathogen,
- Known to colonises noses & throats 30% of the population
- increases risk to several types of infections
- triclosan found in nasal secretions of healthy adults & it's presence correlates to nasal colonisation by *S. aureus*

**Mechanism:**
- promotes binding of *S. aureus* to host proteins (collagen, fibronectin & keratin) as well to innate objects (glass & plastic).
- Increases susceptibility to *S. aureus* nasal colonisation in triclosan-exposed rats
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**Importance:**
- influences the ability of *S. aureus* to bind surfaces and alters *S. aureus* nasal colonization.

- Significant findings because *S. aureus* colonization is a known risk factor for the development of several types of infections.

- Unintended consequences of unregulated triclosan use

- Study contributed to the growing body of research demonstrating inadvertent effects of triclosan on the environment and human health.

**Reference:**