

ENTEROBACTER SAKAZAKII IN A NUTSHELL?

Even the name *Enterobacter sakazakii* is too large to fit into a nutshell...

What is this *sakazakii* anyway – is it a motorbike? Is it a delicious Japanese dish?

- It is a micro-organism that can be found in tins of powdered infant formula.
- It has a family name, being a member of the *Enterobacteraceae* family of colony-forming or coliform bacteria
- It belongs to the genus *Enterobacter* and is a species with the given name of *sakazakii*, being no doubt named after the person who researched its nasty habits.
- Until 1980 it was called “yellow-pigmented *Enterobacter cloacae*”: that is disgusting enough when you look up the word “cloaca” in the dictionary.
- It tolerates high temperatures (so it is heat-resistant) and survives in dried-out or desiccated form.
- It is harmful, or pathogenic, and can cause severe or life-threatening illnesses such as meningitis or necrotising enterocolitis.
- Most reported cases are in infants, especially in neonates or babies with compromised immune systems, but infections are reported in older babies and adults.
- The documented case-fatality rate is high, which means that if the babies fall sick they have a 40-60% chance of dying. Those that survive can be left brain-damaged.
- It seems that *E. sakazakii* may be resistant to many antibiotics (now called antimicrobials).
- Hospital milk kitchens with blenders to make up infant formula for newborns can provide ideal breeding grounds for these germs.
- “Bugs like milk, especially warm milk”: this is the subtitle of one academic Dutch study.
- Documented cases of infections linked to *E. sakazakii* are rare, but the lack of testing facilities in many countries means that no-one knows how frequently these infections occur, nor their consequences.

Up to now, the baby food industry stated that if bottles of infant formula were contaminated, this was because the water was impure or the bottles were dirty. This was called “extrinsic contamination”. Now research shows that it is the milk powder itself that is contaminated – this is called “intrinsic contamination”. Or we could say that before the contamination was EX-TIN-SIC and now it is IN-TIN-SIC as well.