

Too many babies are given antibiotics

PhD candidate Emmy van Daele (Microbiology) studied how the gut microbiome, the mix of micro-organisms in our intestines, develops in babies and what can go wrong during that early phase in life. She obtained her PhD at the end of May.

Van Daele wanted to find out how the microbiome of babies takes shape. ‘And what happens if they are given antibiotics, which can wipe out most of the gut bacteria in one fell swoop — including the useful bacteria. My research shows that children who are given antibiotics in the first two years of life are more likely to suffer inflammation

‘Antibiotics have long-term effects on the immune system and allergies’

in the intestines and develop coeliac disease and gluten intolerance.’

That is a problem, explains Van Daele, because many new-born babies are given antibiotics much too readily. ‘Worldwide, an average of 20 per cent of new-born babies are given antibiotics in the first week of life. In some regions, nearly 100 per cent of babies will have been given antibiotics by the time they reach six months.’

Weighing up risks

‘In one of my chapters, I write that 150 of the 450 babies born in a Dutch hospital were given antibiotics in the first week because the doctors suspected septicaemia,’ says Van Daele. ‘But in the end only three babies tested positive in the blood test and therefore needed the antibiotics. Gynaecologists don’t want to take risks, but antibiotics have long-term effects on the immune system and allergies, among other things.’

Van Daele has seen some changes since the start of her research, but change is slow because hospitals are bound by protocols. ‘On the plus side, these protocols allowed me to do my research. It would be unethical to give healthy babies antibiotics purely for the purpose of science, but because this was happening anyway for medical reasons, I was able to study the effects of various types of antibiotics on children.’ DV