## Why boys are turning into girls

Gender-bending chemicals are largely exempt from new EU regulations, warns Geoffrey Lean.





Girls will be girls and boys will be girls: everyday 'gender-bending' chemicals are feminising increasing numbers of babies

Photo: Getty Creative

Here's something rather rotten from the State of Denmark. Its government yesterday unveiled official research showing that two-year-old children are at risk from a bewildering array of gender-bending chemicals in such everyday items as waterproof clothes, rubber boots, bed linen, food, nappies, sunscreen lotion and moisturising cream.

The 326-page report, published by the EPA – Environmental Protection Agency, is the latest piece in an increasingly alarming jigsaw. A picture is emerging of ubiquitous chemical contamination driving down sperm counts and feminising male children all over the developed world. And anti-pollution measures and regulations are falling far short of getting to grips with it.

Sperm counts are falling so fast that young men are less fertile than their fathers and produce only a third as much, proportionately, as hamsters. And gender-bending chemicals are increasingly being blamed for the mystery of the "lost boys": babies who should normally be male who have been born as girls instead.

The Danish government set out to find out how much contamination from gender-bending chemicals a two-year-old child was exposed to every day. It concluded that a child could be "at critical risk" from just a few exposures to high levels of the substances, such as from rubber clogs, and imperilled by the amount it absorbed from sources ranging from food to sunscreens.

The results build on earlier studies showing that British children have higher levels of gender-bending chemicals in their blood than their parents or grandparents. Indeed WWF (formerly the World Wildlife Fund), which commissioned the older research, warned that the chemicals were so widespread that "there is very little, if anything, individuals can do to prevent contamination of themselves and their families." Prominent among them are dioxins, PVC, flame retardants, phthalates (extensively used to soften plastics) and the now largely banned PCBs, one and a half million tons of which were used in countless products from paints to electrical equipment.

Young boys, like those in the Danish study, could end up producing less sperm and developing feminised behaviour. Research at Rotterdam's Erasmus University found that boys whose mothers were exposed to PCBs and dioxins were more likely to play with dolls and tea sets and dress up in female clothes.

And it is in the womb that babies are most vulnerable; a study of umbilical cords from British mothers found that every one contained hazardous chemicals. Scientists at the University of Rochester in New York discovered that boys born to women exposed to phthalates had smaller penises and other feminisation of the genitals.

The contamination may also offer a clue to a mysterious shift in the sex of babies. Normally 106 boys are born for every 100 girls: it is thought to be nature's way of making up for the fact that men were more likely to be killed hunting or in conflict. But the proportion of females is rising, so much so that some 250,000 babies who statistically should have been boys have ended up as girls in Japan and the United States alone. In Britain, the discrepancy amounts to thousands of babies a year.

A Canadian Indian community living on ancestral lands at the eastern tip of Lake Huron, hemmed in by one of the biggest agglomerations of chemical factories on earth, gives birth to twice as many girls as boys. It's the same around Seveso in Italy, contaminated with dioxins from a notorious accident in the 1970s, and among Russian pesticide workers. And there's more evidence from places as far apart as Israel and Taiwan, Brazil and the Arctic.

Yet gender-benders are largely exempt from new EU regulations controlling hazardous chemicals. Britain, then under Tony Blair's premiership, was largely responsible for this – restricting their inclusion in the first draft of the legislation, and then causing even what was included to be watered down. Confidential documents show that it did so after pressure from George W Bush's administration, which protested that US exports "could be impacted".

Now the Danish government is planning to lobby to have the rules toughened up. It is particularly concerned by other studies which show that gender-bending chemicals acting together have far worse effects than the expected sum of their individual impacts. It wants this to be reflected in the regulations, citing its discovery of the many sources to which the two-year-olds are exposed – modern slings and arrows, as it were, of outrageous fortune.

 $Website: \underline{http://www.telegraph.co.uk/earth/earthcomment/geoffrey-lean/6418553/Why-boys-are-turning-into-girls.html}$ 

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