

## GRAZIA**HEALTH**

Are you one of the growing army of health addicts who wouldn't dream of leaving home without your trusty bottle of water? Well, a new study has revealed that it may be contaminated with toxins. So what *can* you drink?

Feeling smug as you swig from a giant bottle of mineral water? You may not feel so good when you learn the latest news that what you assumed was the purest spring H,O may be contaminated with a poison called antimony, which seeps into the water from plastic bottles. It's enough to make you choke on your designer water. According to a study by Professor Bill Shotyk in the Journal Of Environmental Monitoring, water kept in a plastic bottle contains almost 630 times the amount of antimony as water that's been stored in glass, for example. And it can cause headaches, dizziness and depression extremely large doses can even lead to vomiting and death. However, the Food Standards Agency (FSA) stresses that, despite the study's findings, there's no risk from drinking plastic -bottled water. In fact, they claim you'd need to drink 860 litres in a single day to put yourself at risk. Confused? So were we, but here Dr Paula Baillie-Hamilton, fellow of Environmental Health at Stirling University and author of *Stop The 21" Century Killing You* (£12.99, Ebury Press) reveals how you can make sure your water is as pure as possible.

### <u>Bottled mineral water</u>

Of the 60 brands sold in supermarkets, almost every one is affected by antimony. However, the highest level found was still 60 times lower than the safety margins set by the EU and, the FSA says, would not pose a health risk. Here's what you can do to minimise your risk further:

DON'T drink water past its sell-by date. The longer water is stored, the more antimony seeps into it.

DO keep bottles in the fridge, as heat and sunlight encourage plastics to break down.

DON'T re-use water bottles, as the plastic breaks down more over time.

DO use bigger bottles. The smaller the bottle, the more chemical in the water — although smaller bottles aren't unsafe, according to safety levels.

DO switch to glass bottles, which are chemical free (remember to recycle). *Water cooler* 

What about the water cooler at work? 'It's less safe than bottled water,' says Baillie-Hamilton. 'Larger water bottles often use stronger plastic, called polycarbonates. And we think a compound in it, Bisphenol-A (BPA), may affect your hormones and fertility.' The World Wildlife Fund agrees, saying BPA has been shown to act as a synthetic oestrogen. However, a recent study by the FSA showed that levels of BPA in packaging are well below EU safe limits, although these are currently under review. Plus, big bottles have a greater ratio of water to plastic, so any chemicals will be diluted. DO ask your employer to switch to a metal water fountain.

DO encourage your company to store its bottled water for the shortest time possible.

#### Gym bottles

What about the refillable bottle you take to the gym? 'You can tell if they're made from a plastic that's leaching into your water because they'll smell strongly of plastic,' says Baillie-Hamilton.' According to the British Plastics Federation, gym bottles can still be made of PVC — the most controversial plastic in terms of health implications — as well as other, much safer plastics.

DO the sniff test. If your water tastes or smells of plastic, don't drink it. 'If you can smell plastic, you'll be drinking plasticized water,' says Baillie-Hamilton.

DO use the water fountain.

DO make sure your water bottle is made from one of the safer plastics. See box overleaf for our guide to bottles. **Tap water** 

Over two million tests a year are carried out on tap water to ensure it's safe to drink. And the Department for Environment, Food and Rural Affairs stresses that pesticides and oestrogens from the contraceptive pill aren't present in tap water (although they are in rivers).

However, Alison Craig of the Pesticides Action Network, which raises awareness of the problems of pesticides, has tested water from the water companies for the past two years. She comments, 'Whenever we test for any substance, including pesticides, we find it. >

# Oh no! Now <u>water's bad</u> for you.

## **GRAZIAHEALTH**

However, levels are below the legal limits.' Baillie-Hamilton adds that the chlorine added to water can exacerbate eczema.

DO drink water from the tap if there's no other option — it's free of viruses and bacteria, and any water is better than none. **Water filter system** 

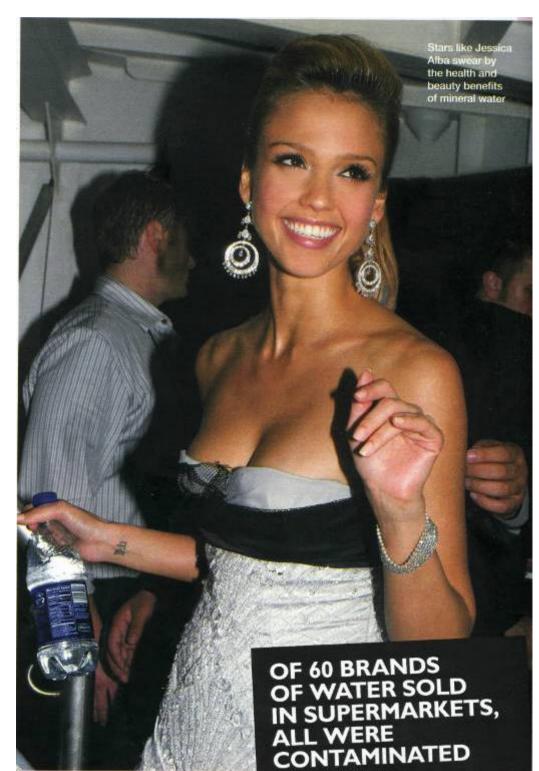
The purest water conies from a reverse osmosis system, a filter that's plumbed in under the sink. Health researcher Hazel Courtency says she spent weeks researching the complexities of drinking water before concluding in her book, 500 Of The Most Important Ways To Stay Younger (£12.99, Cico), that reverse osmosis removes toxins, pesticides and herbicides, leaving water 80-95 per cent pure. If you want the Rolls Royce of water filters, go for the even more scientific sounding 'reverse osmosis de-ionized water (RODI)', which is what David Elaine drank during his weeks suspended above the Thames in a glass box. The tiny filters used to clean water in this way can even filter out anthrax spores.

DO fit a system under your sink. They cost from £600 — find them at www.freshlysqueezedwater.com; www. freshwaterfilter.com; www.pureh2o.co.uk. Jug filter

If you baulk at the price of a plumbed-in filter, using a jug filter is better than water straight from the tap, says Baillie-Hamilton. Brita doesn't make health claims about filtered water, just that it makes water more palatable, but filter cartridges remove some limescale, chlorine, heavy metals such as lead and copper and other organic impurities.

DO use a jug filter if you haven't got a plumbed-in system.

DO keep your water jug in the fridge door, where it's cool and dark. •



## WHAT'S YOUR BOTTLE MADE FROM?

All food packaging in the UK has to comply with EU-set safety guidelines, but if you want to know which ones to avoid, look at the recycling number - you'll find it in the arrow logo, usually on the bottom of the bottle (not on all models).

(1). PET (polyethylene terephthalate) Used for water and soft drinks bottles, salad packaging, trays inside biscuit packets and salad dressings. Relatively safe.

(2). HOPE (high-density polyethylene) Used for shopping bags, milk botties, juice bottles, shampoo and detergent bottles. According to US environmental group PositiveFutures Network, this is the safest plastic.

(3). PVC (polyvinyl chloride) Used for some clingfilms, but almost no food packaging in the UK, It's worth switching to non-PCV clingfilm,

especially for fatty foods.

(4). LDPE (low-density polyethylene) Used for plastic food wrap, bin bags and black mulch film (used in gaining and agriculture). Studies have shown it to be safe.

(5). POLYPROPYLENE Used for butter tubs and some baby bottles. Generally considered to be safe.

(6). POLYSTYRENE used for foam trays, egg cartons are takeaway containers. The chemical styrene can leak into food and drinks. 'Styrene exposure can cause loss of concentration, weakness and nausea s well as cancer,' says Bale-Hamilton. But the FSA say you'd have to consume animpossible amount to suffer any ill effects.

(7). POLYCARBONATE Used for mineral-water coolers, some babybottles, CDs and DVDs.

Polycarbonate contains the controversial compound Bisphenol-A (BPA). Studies have shown it may affect brain chemistry and hormones and even adversely affect fertility levels. The FSA insist that levels you would normally be exposed to are safe. For more information, visit Dr Baillie-Hamilton's website: www.slimmingsystems.com

### THE FUTURE: POTATO PLASTIC

Belu (www.belu.com), which currently supplies Waitrose and trendy A-iist venues such as Nobu, Sketch and the Groucho Club with glass -bottled mineral water, is working on bottles made from biodegradable plastic made from extracts of beetroot, rice and potato sugars. Hopefully, it won't be long before we're all offered a choice of healthy packaging.