



Factsheet

Blood testing and REACH

We have a once-in-a-generation opportunity to have safer chemicals and a healthier future for wildlife and people. The draft REACH regulation offers a chance to identify and phase out the worst chemicals. New markets for safer products, and increased trust, should make it good news for the chemical industry too.

Why biomonitoring?

Blood testing, or biomonitoring, is an accepted means of testing for exposure to substances like chemicals. The Dutch EU Presidency recommended plans for EU-wide human biomonitoring (HBM) to support EU action on environment and health, stating: “HBM is a powerful tool to assess human exposure to environmental stressors and potential health effects”.

WWF’s blood tests for specific chemicals with harmful properties were the most comprehensive tests ever conducted in Europe and identified one substance never before found in human blood.

Results showed that ALL people tested have multiple chemicals present in their bodies. This global experiment of exposing everyone to chemicals goes to the heart of the debate about REACH.

WWF and many of those blood tested therefore call for REACH to identify and phase out the most harmful chemicals.

Why WWF is concerned to find even low concentrations of chemicals

We cannot be sure about the safety of the many chemicals that contaminate our bodies, even in low concentrations, for the following reasons:

A) For many chemicals there is still an alarming lack of safety information. A Commission survey of 1999 found that 86% of the approximately 2500 chemicals produced in the highest quantities did not

have enough safety information publicly available to do a basic safety assessment.

- B) Even for ‘well-known’ chemicals, new information often comes to light over time about unexpected harmful effects.
- C) People have a cocktail of chemicals in their bodies and nobody has tested the effects of these mixtures of chemicals. For some mixtures, however, there is now good evidence that chemicals can act additively together – such that assessing substances singly would underestimate the actual effects caused.
- D) Hormone-disrupting chemicals are present in people’s bodies. With hormone-disruption it appears to be the timing of exposure, not the amount of exposure which matters most. This should make us especially careful about these chemicals, which persist in our bodies and wildlife, and can be passed on during pregnancy.

Where is the safety data on chemicals?

Industry’s contradiction: Industry claims REACH is expensive because companies must provide basic safety data. This assumes the companies do NOT possess this data. At the same time, industry feels able to state confidently that exposure to chemicals is not significant.

Either industry DOES have the safety data and REACH is not such a significant cost, OR industry does NOT have the safety data and we do not know the impact of chemical contamination of our blood.

Scientific evidence that chemicals are causing harm to human health

a) The World Health Organisation (WHO) has publicly criticised the European Chemistry Industry Council for ignoring scientific evidence linking some substances with childhood illnesses. Dr Roberto Bertollini of the WHO recently told the BBC:

“How can you possibly deny that the chemicals in the particulates are involved in the crisis of asthma? Again, there's the link between benzene and childhood leukaemia.

What the [chemical] industry is doing is using uncertainty to deny that there are any effects. I'm not saying that all chemicals are causing damage, but that in certain circumstances certain chemicals are undoubtedly linked to childhood illnesses.”

b) Absence of evidence is not the same as evidence of absence of harm. It is known that the chemicals found in our bodies DO have harmful properties. Proving that these chemicals cause specific diseases is quite a challenge, however. Scientists are increasingly concerned about the possible links between chemical exposures and birth defects, and the rise in some cancers, including childhood cancers. It is particularly worrying that mothers may pass on the chemicals in their bodies to the foetus during pregnancy.

We cannot afford to wait for absolute proof. Past experience shows how long it took to establish that tobacco caused lung cancer, and for governments to acknowledge the effects of asbestos.

c) Scientists' Declarations on Chemicals
Such is the concern about the lack of action to control chemicals that a multitude of top scientists have signed declarations and statements, including:

Over 60 scientists from 14 EU member states signed a WWF Declaration stating that we should reduce our exposure to very persistent and bio-accumulative chemicals and replace them where safer alternatives exist.

The Paris Appeal, launched by the French Cancer Research organisation ARTAC and signed by many leading scientists calls for: “Applying the precautionary principle to all chemicals that.. are persistent, bioaccumulative toxic (PBT) or very persistent and very bioaccumulative (vPvB), ...without waiting for the definite proof of an epidemiological link, so as to ...avoid serious and/or irreversible sanitary or ecological damage..”

WWF believes: People have a right to know about their contamination

WWF is informing the public of little-known facts – that we are contaminated with a cocktail of chemicals with harmful properties. In doing so, we have been careful not to make exaggerated claims and to base our information on scientific research. We believe our biomonitoring has helped to raise public awareness of this fact.

FIVE GOOD REASONS FOR BLOOD-TESTING

New information on chemicals in humans:

1) A health risk is established with information about both toxicity and exposure. There are already well-founded concerns about the possible harm caused by chemicals. Testing for chemicals in human blood shows exposure – and information on the range of exposures of the general public has been lacking for some of these chemicals..

2) WWF's blood tests have shown that there are a number of different chemicals in our bodies. Much research currently focuses on individual substances - we need to know more about the effect of mixtures.

3) WWF's blood tests have identified the presence of one substance not believed to have been found previously and it tested for a bigger range of substances than ever before in Europe.

Public awareness of chemicals & health:

4) It reminds people of the huge potential for REACH to improve public health – to be considered alongside cost and 'workability'.

5) WWF's blood tests have helped raise public awareness of REACH and encouraged a public debate about the chemicals law, through substantial newspaper and TV coverage.