PFAS exposure – potential for human health effects and guideline values

Australian Government Department of Health

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What are the health risks from exposure to PFAS?

• The potential hazards associated with PFAS chemicals became known in the early 2000s.

• Studies on laboratory animals have shown that these chemicals can cause health problems in those animals.

• Epidemiological studies on humans are inconsistent in demonstrating an association between exposure and potential health effects.
IARC identifies factors that can increase the risk of human cancer, including chemicals, complex mixtures, occupational exposures, physical agents, biological agents, and lifestyle factors.

- **Group 1**: *carcinogenic to humans*: tobacco smoke, alcohol, processed meat, mustard gas, asbestos, arsenic;
- **Group 2A**: *probably carcinogenic to humans*: DDT, glyphosate (Round-up), red meat;
- **Group 2B**: *possibly carcinogenic to humans*: PFOA, petrol, talc-based body powder, chloroform;
- **Group 3**: *not classifiable as to its carcinogenicity to humans*: tea, coffee, paracetamol
- **Group 4**: *probably not carcinogenic to humans*: caprolactam
Current health advice

• The current health advice for PFAS exposure is:
  • There is currently no consistent evidence that exposure to PFOS and PFOA causes adverse human health effects.
  • Because these chemicals persist in humans and the environment, enHealth recommends that human exposure to these chemicals is minimised as a precaution.
Human health standards for PFOS and PFOA

• Before June 2016 there were no Australian human health standards for PFOS and PFOA.

• In June 2016, enHealth made recommendations on interim standards that could guide the assessment of human health risks at contaminated sites.

• Standards were needed so that authorities could provide advice to communities while more work was undertaken.
What did enHealth recommend?

• enHealth looked at the standards developed by overseas regulatory agencies, and the methodology these agencies used.
• enHealth recommended that Australia adopt the approach used in Europe because the approach is the same as used in Australia to set standards for chemicals.
• The method used by the European agency is the most widely adopted internationally.
The enHealth standards were independently reviewed

- In August 2016, the enHealth interim standards were independently reviewed by an expert in chemical regulation and toxicology.
- The review found enHealth’s decision was appropriate and is protective of public health.
FSANZ Food Standards Australia New Zealand

Partnership between Australian and New Zealand Governments and Australian States and Territories.
Main objectives for FSANZ

*In developing or reviewing food regulatory measures, FSANZ focuses on…*

- Protection of public health and safety.
- Provision of adequate information to consumers.
- Prevention of misleading or deceptive conduct.

*Food Standards Australia New Zealand Act 1991*
FSANZ is now assessing PFAS

• FSANZ is working on final health based guidance values that will replace the interim ones established by enHealth.

• FSANZ’s work will look at potential exposure to PFAS from food at contaminated sites and the general food supply.
What can you do now?

- For some, the biggest risk of becoming unwell from PFAS contamination will be through stress and worry.
- It is important to understand where contamination has been detected, what the level of contamination is, and where necessary, how to avoid being exposed.
Further information.

Further information is available from the Department of Health website at: