# **PFAS** (per and polyfluoroalkyl substances)



# Chemicals

The world is made of chemicals. Whether it is the air we breathe, the food we eat, the water we drink, the ground we walk on, the houses we live in, the things inside our houses or workplaces or what we ourselves are made of.

When thinking about chemicals, the most important thing to know is that the dose makes the poison – we have to be exposed to enough, at the right time, to cause damage.

# PFAS, Where do they come from?

PFAS are found in a range of products we use at home as well as for industrial purposes, including:

- food packaging
- waterproof treatments and clothing
- stain proof treatments (furniture, carpet)
- non-stick cookware (some types)
- cosmetics
- paints (easy to clean types)
- firefighting foams
- surfactants used in a range of industrial processes.

## How do PFAS get into the environment?

#### Around the home

Chemicals like PFAS in food packaging, cosmetic, paints, waterproofed clothing or stain proofed furniture/carpet can wash out during cleaning or can end up in dust around our homes. They then end up going down our sinks or into our garbage. What goes down the sink ends up at sewage treatment plants.

These chemicals can also be found in drinking water or food, which can end up being washed down the sink too.

These chemicals also wash off buildings and equipment directly into stormwater. Like cigarette butts or rubbish can end up in waterways when it rains, so can chemicals found on the ground, on buildings or on equipment – any surfaces that get wet during rain.

#### Around industrial sites

Similar processes occur at industrial sites, but these sites can also have spills or leaks which can mean much higher levels of PFAS can reach stormwater or sewage.



Simply because a chemical is present, does not mean it is harmful in the **amount present**.

**For more information about PFAS go to www.pfas.gov.au** Scan the QR code to see view all PFAs fact sheets





## How can people be exposed?

We are all exposed to these chemicals, almost daily. They can often stay inside us and be found in our blood.

We are exposed to these chemicals via ingestion – whether that be in the food or water we consume or in the dust may be on our hands before touching our face or mouth. These chemicals don't easily absorb through our skin nor do we get exposed to from air when we breathe.

Unitywater is not an expert agency in PFAS impacts and management. This fact sheet has been prepared based on expert advice with more information available at www.pfas.gov.au.

## Can they affect health?

PFAS have been in use for more than 50 years. Their use in food packaging and other products around our homes means that most of us have been exposed. Governments have been taking actions to lower the amount of PFAS in our environment. Companies have also been changing how they make their products to reduce PFAS in our environment.

As with all chemicals, if exposed to a large enough amount, PFAS can cause health effects. The World Health Organisation and US Environmental Protection Agency have reported effects such as changes in liver function and impacts on the immune system or the endocrine system. As with any chemical, people need to be exposed to enough for such effects to occur.

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