

# Text description of infographics on our <u>"PFAS (forever chemicals)</u> in our water courses and drinking water" page

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# Infographic – Acceptable levels of PFAS

The image is a comparative infographic showing acceptable levels of PFAS (Per- and Polyfluoroalkyl Substances) in water across different regions (the UK, EU, and US). The image uses test tubes to represent the limits, with different sections or colours indicating the various risk levels or the nature of the limits.

## **Description:**

#### United Kingdom (UK) - Current PFAS Levels:

- o The test tube is divided into three sections:
  - Green (Low Risk): At the bottom, indicating 10 ng/L (nanograms per litre).
  - Orange (Medium Risk): In the middle, for levels above 10 ng/L up to 100 ng/L.
  - Red (High Risk): At the top, showing levels at 100 ng/L, considered high risk.
- Text beside the test tube: "100 ng/L" at the top, and "10 ng/L" near the bottom.

#### United Kingdom (UK) - RSC-Proposed PFAS Levels:

- o The test tube has two main sections:
  - Green (Single): At the bottom, representing 10 ng/L for single substances.
  - Blue (Collective): Filling most of the tube, indicating a collective limit of 100 ng/L.
- Text beside the test tube: "100 ng/L" at the top, and "10 ng/L" near the bottom.

#### European Union (EU) - Limit for 20 Specific PFAS:

- The test tube is mostly filled with **Blue (Collective)**, indicating a collective limit of 100 ng/L for 20 specific PFAS.
- $\circ$  Text beside the test tube: "100 ng/L" at the top.

## United States (US) - Limits for PFOS and PFOA:

- The test tube shows a **Green (Single)** section at the bottom, representing a limit of 4 ng/L for single substances (specifically PFOS and PFOA).
- o Text beside the test tube: "4 ng/L" at the bottom.

## Summary:

The infographic contrasts how different regions set limits for PFAS in water, with the UK currently having tiered risk levels up to 100 ng/L, while the RSC proposes more stringent single and collective limits. The EU and US have their limits set at 100 ng/L for a group of PFAS and 4 ng/L for specific substances, respectively.

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# Infographic - Effects of PFAS on human health

The image is an infographic illustrating the potential health effects of PFAS (Per- and Polyfluoroalkyl Substances) on humans. It features two human figures (a female and a male) with various organs highlighted, alongside labelled health effects. The key at the top of the image differentiates between "High certainty" and "Lower certainty" regarding these effects.

## Description

#### Developmental effects affecting the unborn child:

- 1. Delayed Mammary Gland Development:
  - o Labelled with a **solid line** (high certainty).
- 2. Reduced Response to Vaccines:
  - Labelled with a solid line (high certainty).
- 3. Lower Birth Weight:
  - o Labelled with a **solid line** (high certainty).
- 4. Obesity:
  - o Labelled with a dashed line (lower certainty).
- 5. Early Puberty Onset:
  - Labelled with a dashed line (lower certainty).
- 6. Increased Miscarriage Risk (i.e., Pregnancy Loss):
  - Labelled with a dashed line (lower certainty).

#### Female Figure:

- 1. Thyroid Disease:
  - o Labelled with a **solid line** (high certainty).
- 2. Breast Cancer:
  - o Labelled with a dashed line (lower certainty).
- 3. High Cholesterol:
  - Labelled with a solid line (high certainty).
- 4. Liver Damage:
  - Labelled with a solid line (high certainty).
- 5. Kidney Cancer:
  - Labelled with a solid line (high certainty).

#### 6. The Development of Unborn Children:

o Labelled with a **solid line** (high certainty).

#### 7. Inflammatory Bowel Disease (Ulcerative Colitis):

o Labelled with a dashed line (lower certainty).

#### 8. Increased Time to Pregnancy:

Labelled with a dashed line (lower certainty).

#### 9. Pregnancy-Induced Hypertension/Pre-eclampsia (Increased Blood Pressure):

o Labelled with a **dashed line** (lower certainty).

### Male Figure:

#### 1. Thyroid Disease:

Labelled with a solid line (high certainty).

#### 2. High Cholesterol:

Labelled with a solid line (high certainty).

#### 3. Liver Damage:

o Labelled with a **solid line** (high certainty).

#### 4. Kidney Cancer:

o Labelled with a **solid line** (high certainty).

## 5. Inflammatory Bowel Disease (Ulcerative Colitis):

o Labelled with a dashed line (lower certainty).

#### 6. Risk of Testicular Cancer:

o Labelled with a **solid line** (high certainty).

#### 7. Low Sperm Count and Mobility:

o Labelled with a dashed line (lower certainty).

#### Summary:

The image uses solid and dashed lines to differentiate between health effects with high and lower certainty of being linked to PFAS exposure. Effects like thyroid disease, high cholesterol, and kidney cancer are represented with high certainty, while others, such as breast cancer and obesity, have lower certainty.

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