PFAS (per- and polyfluoroalkyl substances) are a group of synthetic chemicals that pose significant health risks due to their widespread use and persistence in the environment. Here are the primary health risks associated with PFAS exposure:

1. **Cancer**: Exposure to certain PFAS, particularly PFOA (perfluorooctanoic acid), has been linked to several types of cancer, including liver, pancreatic, testicular, and kidney cancers. The International Agency for Research on Cancer (IARC) has classified PFOA as possibly carcinogenic to humans.
2. **Reproductive and Developmental Effects**: PFAS exposure can affect fetal development, leading to low birth weight, developmental delays, and other issues in infants and children. There is evidence suggesting that PFAS can interfere with natural hormone levels, impacting reproductive health and development.
3. **Liver and Kidney Damage**: PFAS can accumulate in the liver and kidneys, leading to potential damage and dysfunction. Studies have indicated that these chemicals can lead to liver damage, altered liver function tests, and possibly contribute to conditions like non-alcoholic fatty liver disease (NAFLD).
4. **Immune System Effects**: PFAS exposure has been linked to immune system impairment, including reduced antibody responses to vaccines and increased susceptibility to infectious diseases. These chemicals can affect the function of immune cells and the production of antibodies, compromising the body's ability to fight infections.
5. **Endocrine Disruption**: PFAS can interfere with hormone function, leading to thyroid disease and other endocrine disorders. These chemicals have been shown to affect the thyroid gland, potentially leading to hypothyroidism or other thyroid dysfunctions.
6. **Metabolic Effects**: There is evidence that PFAS exposure can lead to metabolic issues such as high cholesterol levels and changes in glucose metabolism, which may increase the risk of conditions like diabetes and cardiovascular diseases.
7. **Cardiovascular Effects**: PFAS exposure is associated with an increased risk of hypertension and other cardiovascular conditions. The chemicals can affect the cardiovascular system, potentially leading to higher blood pressure and related health issues.
8. **Developmental Effects in Infants**: Infants exposed to PFAS through contaminated breast milk or formula may experience adverse developmental effects. These can

include impacts on growth, learning, and behavior, underscoring the importance of monitoring and managing exposure in vulnerable populations.

Given these significant health risks, there are ongoing efforts by regulatory agencies like the EPA to monitor, restrict, and remediate PFAS contamination to protect public health.