

### Health Impacts and Risks of PFAS

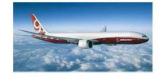
Environmental Health Epidemiology Bureau
Center for Health Protection
Public Health Division
New Mexico department of Health

### Where is PFAS used?

















#### • Used in:

- Non-stick surfaces
- Water-proof membrane on clothes and food wrappers
- Fire fighting foams
- Aerospace and automotives
- Personal care products
- Paints
- carpets

# What are per- and polyfluoroalkyl substances (PFAS)?









Group of over 4,500 man-made chemicals

Durable and resistant to heat, water, grease, and stains

Used in many consumer and commercial products since the 1950s

### Why worry about PFAS?

- PFAS builds up in living things
- Remains in the environment
  - Known as the forever chemicals
  - Do not biodegrade under normal environmental conditions
- They enter the human body and do not leave for long time



- Health effects still being studied, not everything is known
- Known effects:
  - Increases in cholesterol levels
  - Changes in liver enzymes
  - Small decreases in birth weight
  - Makes some vaccines less effective
  - Thyroid disease
  - Kidney and Testicular cancer
  - Pregnancy-induced hypertension and preeclampsia



## How can one be exposed to PFAS?

- Drinking and eating
  - Drinking water contaminated with PFAS
  - Eating fish caught from water contaminated by PFAS
  - Accidentally swallowing or breathing contaminated soil or dust

- Eating food (e.g., meat, dairy, and vegetables) produced near places where PFAS were used or made
- Eating food packaged in material that contains PFAS



### Special exposure considerations

- Children:
  - Drinking formula mixed with PFAS-contaminated water
  - Drinking breastmilk from persons exposed to PFAS
- Workers:
  - making or processing of PFAS and PFAS-containing materials

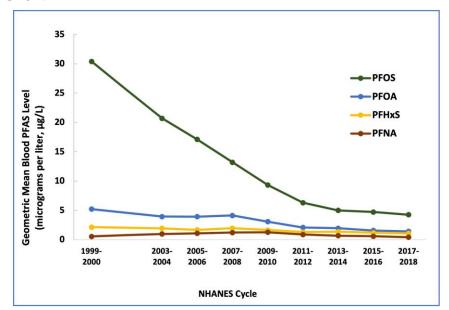


### PFAS and Breastfeeding

- Do PFAS enter breast milk?
- Should you have breast milk tested for PFAS?
- Should I continue to breastfeed?
  - With numerous protective health benefits, breast milk continues to be the ideal nutrition for infants



 Nearly everyone in the United States has some amount of PFAS in their blood.





- Can exposure to PFAS cause health problems?
- Should my family and I get a blood test for PFAS?
- Should my family and I be tested for any of the health conditions possibly linked to PFAS exposure?
- How will exposure to PFAS in drinking water affect my pregnancy?

#### Data Source

Centers for Disease Control and Prevention. National Report on Human Exposure to Environmental Chemicals, Biomonitoring Data Tables for Environmental Chemicals. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.



#### What can you do?

- Reduce your exposure!
- Use only filtered potable water for drinking and cooking
- Avoid using contaminated water for home garden
- Use HEPA air filters for reducing dust exposure

- Avoid using non-stick cookware
- Avoid eating fish from known contaminated water bodies



- Centers for Disease Control and Prevention (CDC)
- Agency for Toxic Substances and Disease Registry (ATSDR)
- United States Environmental Protection Agency
- National Institute for Occupational Safety and Health



- Investigating PFAS in the environment
- Conducted exposure assessments in communities
- Conduct Health Studies
  - El Paso County, CO
  - Parchment/Cooper Township, MI, and Belmont/Rockford area, MI
  - Montgomery and Bucks Counties, PA
  - Gloucester County, NJ
  - Hyannis, MA, and Ayer, MA
  - Hoosick Falls, NY, and Newburgh, NY
  - UC Irvine Medical Center, CA



#### **Contact Info**

Questions related to PFAS:

Call NMHealth Helpline and ask for call back from an epidemiologist on call 1-833-796-8773

#### Srikanth Paladugu, MBBS, MPH, MBA

Bureau Chief and Principal Investigator for NM APPLETREE Program

NM Environmental Health capacity Program

NM Environmental Public Health Tracking Program

Srikanth.Paladugu@doh.nm.gov