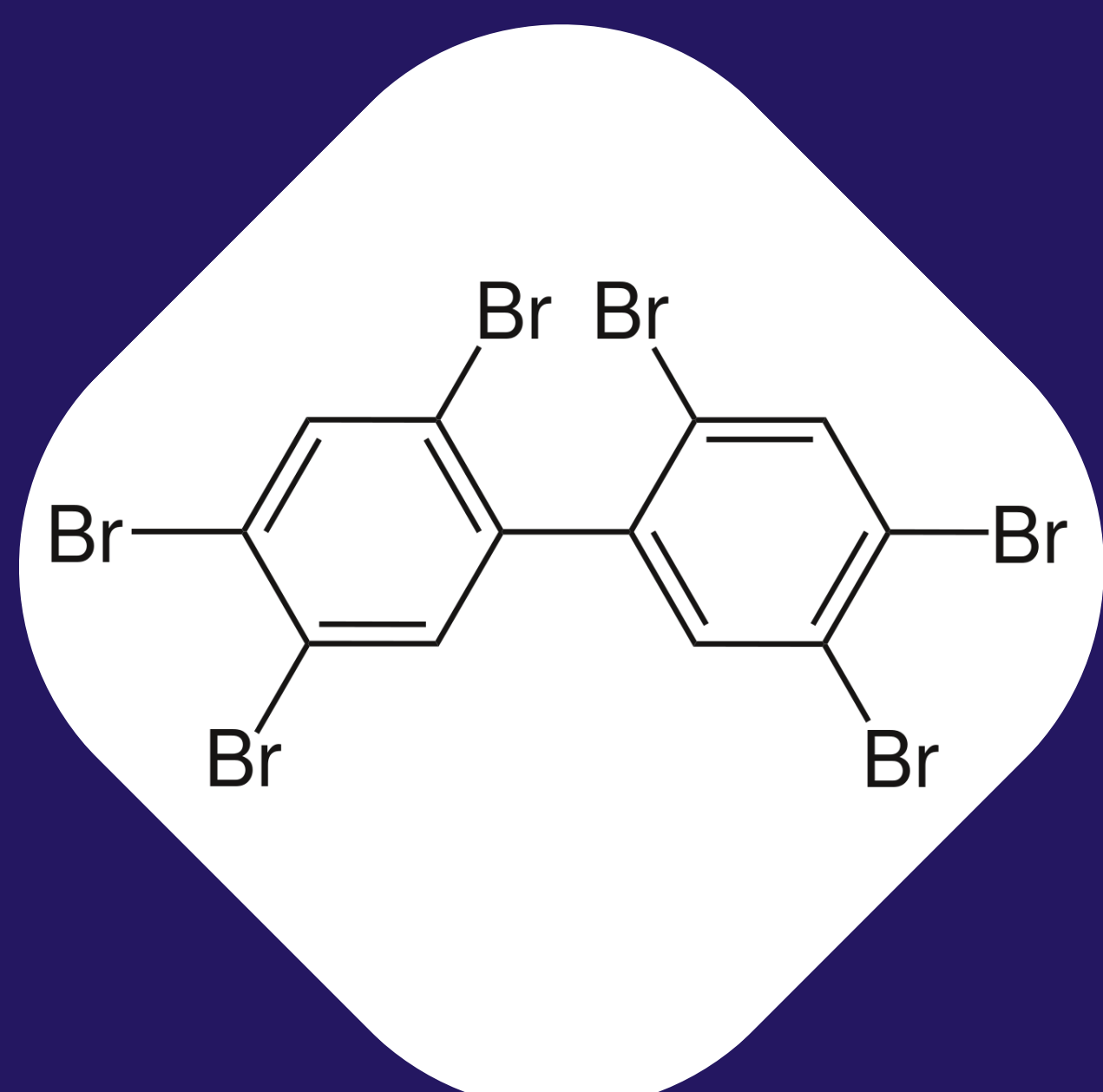


# PBB Facts

## for Michigan Healthcare Providers

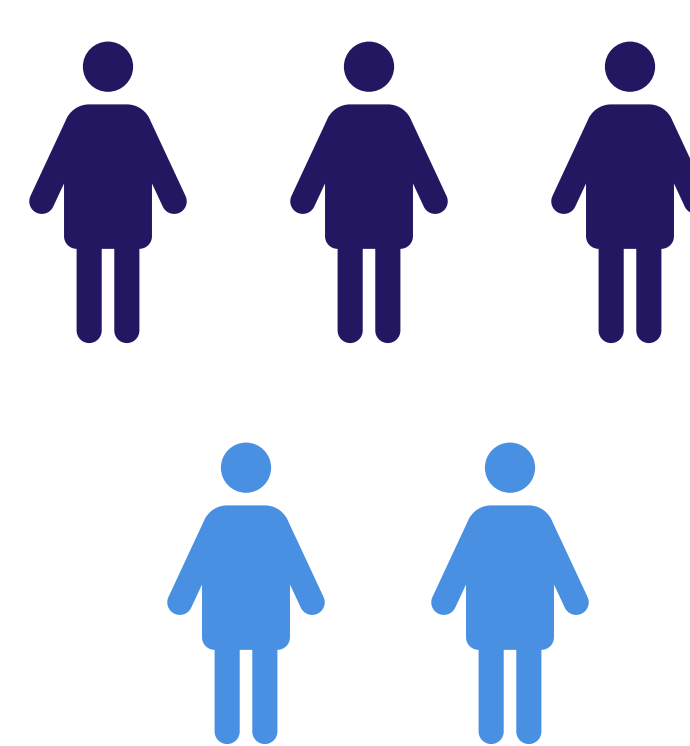


Polybrominated biphenyls (PBB) contaminated the Michigan food supply in the 1970's.

### Here's a breakdown of why it matters today:

#### 1 PBB high in 3 out of 5 Michiganders tested

Polybrominated biphenyls (PBB) mimic estrogen and is stored in fat. It takes years to be eliminated from the body.



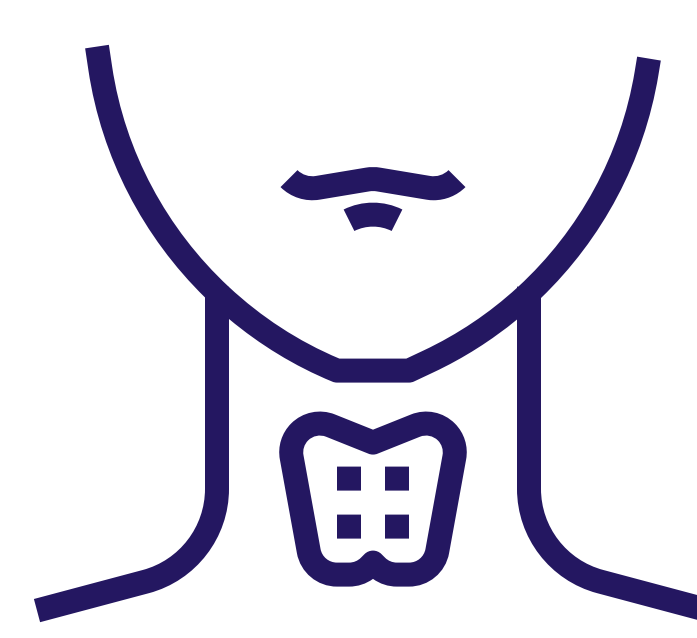
#### PBB classified as probable human carcinogen 2



Higher risks of breast cancer, lymphoma and gastrointestinal cancers were associated with PBB exposure.

#### 3 PBB increases the risks of thyroid conditions

More thyroid problems were found among those exposed to higher levels of PBB and differences in thyroid hormones were associated with PBB exposure in childhood.



#### 4 Offspring exposed in utero and through breastmilk



Daughters exposed to high levels of PBB in utero:

- 1) had earlier menarche if also breastfed
- 2) were two to four times more likely to experience miscarriages as adults.

Sons exposed to high levels of PBB in utero:

- 1) were twice as likely to report a genitourinary condition

#### 5 PBB associated with epigenetic markers

- Many of the DNA regions are associated with estrogen.
- Some of the genes were related to immune function and inflammation.
- PBB blood concentrations were associated with a small amount of accelerated biological aging.



### Learn More!

#### Continuing Education for Healthcare Providers

Interactive & engaging courses focused endocrine-disrupting chemicals that use PBB as a case study.

All scientific citations can be found at [pbbregistry.emory.edu](http://pbbregistry.emory.edu) under "Publications" on the PBB Studies and Resources page



CME for Physicians



CE for Nurses



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