

**This  
information  
has been  
brought to you  
by  
Public Health  
325th Medical  
Group  
Tyndall AFB**

**Additional Resources:**

**Agency for Toxic Substances and  
Disease Registry:** 1-888-422-8737  
[www.atsdr.cdc.gov/toxfaq.html](http://www.atsdr.cdc.gov/toxfaq.html)

**Environmental Protection Agency:**  
<http://www.epa.gov/>

Information about  
**Polycyclic  
Aromatic  
Hydrocarbons  
(PAH)**

Common PAHs:  
Acenaphthene  
Acenaphthylene  
Anthracene  
Benzo(a)anthracene  
Benzo(a)pyrene  
Benzo(b)fluoranthene  
Benzo(g,h,i)perylene  
Benzo(k)fluoranthene  
Chrysene  
Dibenz(a,h)anthracene  
Fluoranthene  
Fluorene  
Indeno(1,2,3-  
cd)pyrene  
Naphthalene  
Phenanthrene  
Pyrene

### **What are (PAHs)?**

Polycyclic aromatic hydrocarbons (PAHs) are a group of over 100 different chemicals that are formed during the incomplete burning of coal, oil and gas, garbage, or other organic substances like tobacco or charbroiled meat.

PAHs are usually found as a mixture containing two or more of these compounds, such as soot.

Some PAHs are manufactured. These pure PAHs usually exist as colorless, white, or pale yellow-green solids.

PAHs are found in coal tar, crude oil, creosote, and roofing tar, but a few are used in medicines or to make dyes, plastics, and pesticides. In the past, PAH was used extensively in the manufacturing of clay pigeons.

### **Why are PAHs bad for you?**

PAHs are of concern because they:

1. Are persistent
2. Do not burn easily
3. Stay in the environment for a long period of time
4. Some have the ability to turn into a vapor in the air easily and bind with smoke particles

### **How can I be exposed?**

**Breathing:** Most people are exposed to PAHs when they breathe smoke, auto emissions or industrial exhausts.

**Drinking/Eating:** Charcoal-broiled foods, especially meats, are a source of some PAH exposure. Shellfish living in contaminated water may be another major source.

**Touching:** PAH can be absorbed through skin. Exposure can come from handling contaminated soil or bathing in contaminated water.

### **How can you reduce you and your child's exposure?**

1. Eating less smoked and charbroiled foods
2. Reducing the use of wood burning stoves and fireplaces
3. Decreasing the use of coal-tar-based cosmetics and shampoos
4. Using cedar shavings or aromatic herbs instead of mothballs, moth flakes and deodorant cakes
5. Avoid handling products that contain PAH
6. Washing hands before eating

### **What are the health effects of PAHs?**

The health effects that can be caused by exposure to PAHs depends on how much has entered your body, how long you have been exposed to PAHs, how your body responds to PAHs and what other chemicals are present.

Short-term health effects: It is not clear that PAHs cause short-term health effects. Other compounds commonly found with PAHs may be the cause of short-term symptoms such as eye irritation, nausea, vomiting, diarrhea, and confusion.

Long-term health effects: Long-term health effects of exposure to PAHs may include cataracts, kidney and liver damage, and jaundice. Repeated skin contact to the PAH naphthalene can result in redness and inflammation of the skin. Breathing or swallowing large amounts of naphthalene can cause the breakdown of red blood cells.

For further concerns regarding the health effects of PAHs, please contact your physician or one of the public health points of contact listed below.

### **Public Health points of contact:**

Tyndall AFB Public Health – 850-283-7138

Bay County Health Dept.  
597 W. 11th St., Panama City, FL 32401  
Inquiries – 850-872-4720