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# PCB level in humans already high

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The U.S. Environmental Protection Agency says that half the American people are carrying around PCBs in fatty tissues in amounts exceeding levels which have caused miscarriages, stillbirths and skin disorders in test animals.

The level estimated by the EPA in half of the populace is between one and three parts per million (PPM), and the sources of these PCBs are so numerous that there are few points where PCB pollution can be traced.

PCBs have been manufactured in the U.S. solely by the Monsanto Industrial Chemical Company since 1929. A list of products where PCBs have been or may be currently used includes: filling agents or impregnants in transformers and power capacitors, hydraulic fluids, diffusion pump oil, heat transfer applications, plasticizers, adhesives, textile coatings, surface coatings, sealants, printing products, and fire retardant and flameproofing compositions.

These uses include everything from coatings on ironing board covers, waterproofing on canvas, paints and varnishes, caulking compounds, sealants in concrete and asphalt, and even Xerox toner.

Other products indentified as containing PCBs, as recently as 1975, include toilet soaps, glass sealant, tapping compounds, primer paints, hard and soft wood pulps, coloring compounds, degreasers, zinc alloys and waxes used in the tool and die casting industry.

PCBs can be found in nearly every municipal sewage treatment plant effluent in the country, and more evidence is beginning to accumulate on PCBs in animals.

As compounds similar to the pesticide DDT, PCBs are not only indestructable in the environment but are also "stored" in animal tissues where they are apparently never released.

Consider the following conclusions of the Lake Michigan Toxic Substances Committee:

- The effect level of PCBs in primate (monkeys) reproduction is documented as less than 2.5 PPM and is much lower than has been observed in standard test mammals (rats).
- The FDA has fixed 5 PPM residue maximum in fish intended for human consumption and is likely to review the 5 PPM maximum based on the recent primate toxicological evidence.
- Concentrations of PCBs in Lake Michigan fish are probably not decreasing and salmonids, particularly larger specimens, currently exceed the 5 PPM maximum allowable level.
- Reported efforts by the manufacturer to restrict distribution and efforts by agencies to restrict dischargers have not resulted in PCB reductions in Lake Michigan.
- It is probable that wastewater sources of PCBs to Lake Michigan are ubiquitous and at or below detectable levels.
- An economic loss has already resulted to the commercial fishery as a result of PCB contamination. A much larger economic loss to the commercial and sport fishing industry is imminent in light of current FDA food recommendations and enforcement actions.
- Non-wastewater PCBs are probably still reaching the environment from incineration, land disposal and careless dumping.
- The presence of PCBs in many processes and products continues to be widespread in spite of the Monsanto policy to restrict sale to closed systems.
- For many if not all uses, PCBs can be eliminated or replaced by alternative chemicals.

Industrial use in electrical products is deemed necessary since the compounds prevent fires in electrical components where high temperatures are encountered. Industry says that the saving of lives through elimination of fire hazards requires continued use of PCBs.

However, following a disaster with PCBs in Japan, the Japanese government has banned production and use of PCBs.

The Japanese experience found residents of a small town developing *Yusho* disease after eating rice oil contaminated with PCBs.

The Lake Michigan Toxic Substances Committee has recommended a national ban on all domestic and imported PCBs destined for use other than transformers and capacitors and that the critical or essential use of PCBs in transformers and capacitors be immediately and critically reviewed in light of current replacement products.

While fish appear to be most open to PCB contamination since they live where PCBs end up — in water — there is also evidence that birds, particularly waterfowl, are suffering from PCB contamination.

Test results from the EPA from Bloomington sewage effluent and discharge at the local Westinghouse plant should be available sometime in January. Initial testing has already identified PCBs in city sewage effluent discharged into Clear Creek.

The pending test results should tell area residents if there is cause to worry over PCBs entering the food chain locally.

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