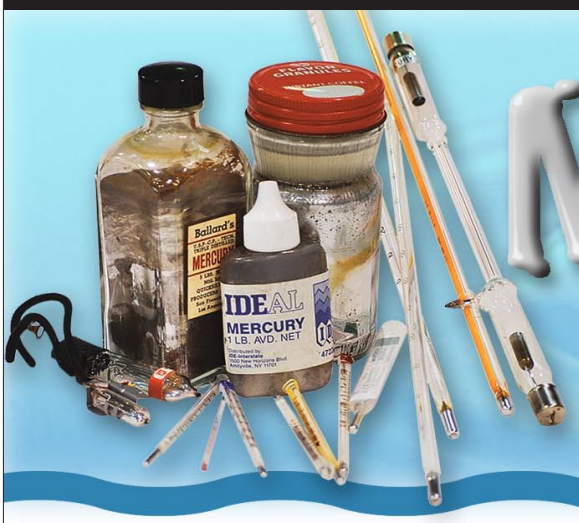

MERCURY:

Bad for the Environment Bad for You

If this was a drop of mercury, you'd be exposed right now to one of the most toxic substances known.

That one drop could poison more than a million gallons of water. If you drank eight bottles of water every day for the next 2,740 years, that's how much water we're talking about. Poisoned. By one drop of mercury.

But you wouldn't have to drink it to be poisoned by it. Mercury, like most liquids, evaporates when exposed to the air. It turns into an odorless, colorless vapor. You could be poisoned by that drop just by breathing right now.

But wait, there's more. If you rushed to get rid of that poisonous drop by rinsing it down the drain, it would flow through the sewers to the wastewater treatment plant. But the treatment process is designed to remove biological wastes, not toxic metals. Some of that mercury would remain in the cleaned and disinfected wastewater that flows to the Bay.

That tiny amount of mercury, which is heavy, would sink into the sediment. Bacteria and other natural processes would transform the mercury into methylmercury, which is easily absorbed by tiny plants and animals (plankton) in the water. From there, mercury begins its assent through the food chain. Minnows and other small fish eat the contaminated plankton, becoming contaminated themselves. Larger fish eat many of the smaller fish, receiving an exponentially larger amount of methylmercury poison. Birds, animals and people that eat too many mercury-contaminated fish become contaminated too. So you could ultimately be consuming toxic mercury just by catching and eating striped bass or other predatory fish from San Francisco Bay.

Mercury does not break down. Once it enters the environment from any source, it remains there and continues to do damage to the ecosystem. Forever.

If it was just that one tiny drop, there wouldn't be enough mercury contamination in the huge Bay to cause these problems. Unfortunately, billions of "tiny drops" of mercury find their way into the Bay every year.

Mercury is released into the environment from many sources. Emissions from coal-fired power plants are the primary culprit. But refineries, manufacturing plants, hospitals, dental offices, schools and even homes can release mercury into the environment. Each year in the United States, several tons of mercury-containing items—such as old-fashioned fever thermometers, thermostats, fluorescent bulbs and batteries—are discarded in

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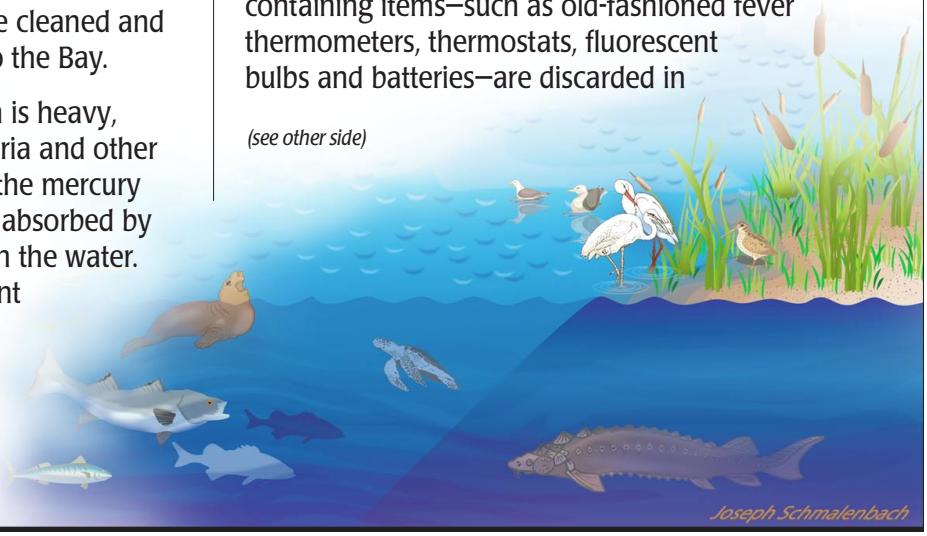

the trash and end up at landfills. When those items break, either accidentally or by being thrown away, the mercury is released and can evaporate into the air or be washed by rainwater into our local creeks, rivers and the Bay.

Mercury released into the air comes back down with the rain and snow and contaminates the ground and water where it lands.

Mercury does not break down. Once it enters the environment from any source, it remains there and continues to do damage to the ecosystem. Forever.

As if today's mercury pollution sources weren't bad enough, all those drops are joining the "legacy" mercury already in the water. Several hundred pounds of mercury were washed into the Bay every year during the 19th century Gold Rush days. Hydraulic mining practices (banned long ago) used mercury to recover gold from the soil. The water used in the process became contaminated with mercury before flowing into local waterways. The heavy use of mercury during the Gold Rush years is the primary reason why San Francisco Bay has been declared by the EPA as "impaired for mercury."

It's enough to make you sick.

Exposure to high levels of mercury, whether consumed or inhaled, can permanently damage the brain and kidneys. The symptoms of mercury poisoning include lung damage, nausea, vomiting, diarrhea, increases in blood pressure or heart rate, skin rashes, irritability, tremors, vision or hearing problems, and memory problems.

So what can you do? Help to prevent more mercury pollution in these two ways:

1. Don't buy mercury-containing products unless absolutely necessary. While mercury sealed within items such as thermostat switches is not dangerous, liquid mercury that is spilled or exposed to the air when an item is broken or improperly disposed of can pose a hazard. (Visit http://www.epa.gov/hg/spills/ for safe mercury clean-up procedures.)

INSTEAD OF...	USE...
Mercury (silver liquid) thermometers	Digital or spirit-filled (red liquid) thermometers
Thermostats with mercury	Programmable electronic thermostats
Standard fluorescent lamps	Low-mercury fluorescent lamps, compact fluorescent lights (CFLs), LEDs

2. Keep mercury out of sewers and landfills.

- Never allow liquid mercury to go down a drain.
- Never put mercury-containing items in the trash.
- Take all unwanted mercury and mercury-containing items such as fluorescent lights, mercury thermometers and thermostats to the Household Hazardous Waste Collection Facility (1-800-646-1431) for safe recycling or disposal.

You can make a difference. Every tiny drop of mercury kept out of the environment is a victory.

For more information about mercury pollution prevention, visit www.centralsan.org.

Central Contra Costa Sanitary District

Protecting Public Health and the Environment