Cancer in Animals and Fish

It’s not only humans. The beluga whales in Canada’s St. Lawrence estuary are getting cancer, while those in the less-polluted Arctic waters are not. Fish in contaminated waters have tumors, but not those in clean water. Dogs that are exposed to herbicides from chemically treated lawns have more cancers than those that are not. In her book detailing the global reach of environmental pollution, Devra Davis reported that polar bears in the Arctic have major body burdens of carcinogens, and that 1 out of 100 of the Arctic’s largest land-based mammals is reported to be a hermaphrodite.

It can’t get much clearer.

The belugas have survived in the world’s northern waters for millions of years, eating octopus, crabs and fish. Now one in four of the St. Lawrence whales is dying from cancer, mostly intestinal. They are also having trouble reproducing. When scientists examined their bodies, the autopsies revealed high levels of polycyclic aromatic hydrocarbons (PAHs), which almost certainly came from an upstream aluminum smelter.

Cancer in Wildlife and Fish

In Washington DC, four blocks from the White House, the Registry of Tumors in Lower Animals has almost 4,000 specimens of cancer in fish, amphibians, reptiles and invertebrates collected by the Smithsonian and the National Cancer Institute. Epidemics of liver cancer have been found in 16 species of fish in 25 different polluted freshwater and saltwater locations, while in non-polluted waters, fish with cancer are almost non-existent. The same tumors have been found in bottom-feeding fish in industrialized and urbanized areas along the Atlantic and Pacific coasts of Canada.

Cancer in Sea Lions

During the 1960s and 1970s, persistent organic pollutants were dumped in California’s coastal waters, where they bio-accumulated through the food chain. Twenty years later, people started noticing dead and stranded California sea lions. When examined, 20% of the sea lions were found to have cancer of the urinary and genital tracts and toxic chemicals in their blubber that had accumulated through the anchovies, squid, salmon and mussels they ate.

Cancer in Dogs

A study of more than 8,000 dogs showed that canine bladder cancer was associated with their living in industrialized counties, mimicking the distribution of bladder cancer among humans.
downstream of toxic industries, or on the
tenceline adjacent to a petrochemical complex.
People on First Nations reserves, tribal Indian
lands and hardscrabble farms near highways and
industrial parks often pay a high price for expo-
sure to pollutants with poorer health and
shorter life expectancy.

Some communities have “cancer clusters.”
Sometimes this is a matter of perception: with
rates so high, it’s not hard to find other neigh-
bors with cancer. In other places, however, such
as Fallon, Nevada, there are definite problems.
There, 17 children were diagnosed with
leukemia, and three died. After many studies,
and frequent denial, Mark Witten, a University
of Arizona professor of pediatrics, showed that
exposure to tungsten and cobalt, from a local
heavy metals firm and military releases, is likely
to play a role in the development of these cancers.

Home, Toxic Home
Whether you live in the poorest city ‘hood or
the wealthiest country estate, your home proba-
bly shelters numerous cancer hazards. There’s no
discrimination here.

Entire books have been written about build-
ing healthy houses and “fixing” the toxic ones.
As a start, we recommend Homes That Heal (and
Those That Don’t) by Athena Thompson (New
Society Publishers, 2004). We also invite you to
take a virtual house tour to get a sense of the
perils that may lurk in your home. The
HealtheHouse Tour, created by the California
group, Healthy Child, Healthy World, includes
information on electromagnetic fields (EMF),
teflon-coated pans and safe alternatives to toxic
arts and crafts supplies, as well as more well-
known hazards.

We discuss building products in Solution 6
and household cleaning products in 7, but here’s
just a quick look at three common home purchases:

- Synthetic carpeting may off-gas up to 120
volatile chemicals, especially in the first few
months after installation, including the car-
cinogens formaldehyde, butadiene and
styrene. Dyes, binders and stain-resistant
treatments are also hazardous.

- Most mattresses contain more synthetic
chemicals than a barrel of crude oil,6 includ-
ing toluene, formaldehyde, benzene and
fire-retardants such as PBDEs, classified as a
possible human carcinogen, neurotoxin and
suspected hormone disrupter. Even bed
frames and other furniture made from wood
— generally thought to be “natural” and
therefore safe — may contain toxic glues,
and chemical stains and finishes.

- Many curtains, tablecloths and designer fab-
rics are finished with formaldehyde as a
perma-press agent, dyed with fixing com-
 pounds that include heavy metals, and
coated with brominated fire-retardants.

Your home sweet home may be a very dan-
gerous place, unless you swap all the toxic
products for healthier alternatives.