

## Mercury Use in Health Care

*An occupational and public health hazard.*

**M**ercury is a toxic chemical pollutant commonly used in health care that can adversely affect the nervous system and kidneys. In light of this fact, the 1997 ANA House of Delegates adopted a resolution calling for the ANA to collaborate with other state and federal organizations to create mercury-free health care facilities. The ANA continues to be committed to eliminating mercury in health care.

### **How are health care and mercury pollution connected?**

The health care industry is a significant contributor to mercury pollution. There are nearly 100 devices, instruments, and chemicals used in health care settings that may contain mercury. Mercury enters the environment when these products are broken or disposed of (incinerated or dumped into landfills).

### **What happens to mercury once it enters the environment?**

Most mercury will eventually be deposited into bodies of water. Small aquatic organisms ingest the mercury when feeding and convert it into a particularly potent form known as methylmercury. Small fish and shellfish take in the methylmercury when they eat these organisms. In turn, larger fish absorb the methylmercury from the smaller fish. Therefore, larger predatory fish such as tuna and swordfish accumulate large amounts of methylmercury because it increases in concentration as it moves up the food chain.

*Rebecca Clouse is the environmental health liaison with the State Government Affairs office at the ANA.*

### **Why is mercury a health and safety issue for nurses?**

Nurses work with or near mercury-containing products daily. Nurses and their patients are in danger of breathing in its toxic vapors when one of these products breaks.

Ingestion of mercury-contaminated fish is the most likely source of exposure outside of the occupational setting. Many nurses are parents, pregnant, or of childbearing age. Developing nervous systems in fetuses and children are particularly susceptible to mercury's harmful effects.

### **What could happen if mercury vapors are inhaled?**

Symptoms of vapor exposure may include tremors, emotional changes (such as irritability, nervousness), insomnia, neuromuscular changes (such as weakness, atrophy, twitching), headaches, disturbances in sensations (such as "pins and needles" in hands or feet), changes in nerve responses, and cognitive function deficits. At higher exposures, there may be kidney damage, respiratory failure, and death. If an exposed woman is pregnant, the fetus is also at risk.

### **What are the possible effects of exposure through eating fish?**

For children, the major effect is impaired neurologic function. Symptoms include impacts on cognitive thinking, memory, attention, language, and fine motor skills. As many as 600,000 children are born each year with mercury levels above those associated with diminished IQ. The effects can last a lifetime.

Adults who have consumed large amounts of contaminated fish can exhibit signs of

methylmercury poisoning. These symptoms may include peripheral vision impairment, sensation disturbances, speech and hearing impairment, decreased coordination, and weakness.

### **What is the ANA doing about mercury?**

The ANA is a member of Health Care Without Harm, an international coalition of 443 organizations in 52 countries working to transform the health care industry so it's no longer a source of harm to people and the environment.

The ANA is a founding partner of Hospitals for a Healthy Environment (H2E), a voluntary program designed to help health care facilities enhance workplace safety and become better environmental stewards.

The ANA is promoting a nationwide state legislative agenda to eliminate mercury in health care, one of H2E's founding goals. The ANA has recently released guidelines to assist state nurses associations in their efforts to accomplish this goal and will continue to provide assistance and support to state nurses associations.

### **What can nurses do to help protect themselves, their patients, and their families?**

Support your state nurses association in enacting legislation that will eliminate mercury. Act within your workplace to make it a mercury-free facility. Educate fellow nurses on the dangers of mercury in the workplace and contaminated fish. Educate patients on eliminating mercury fever thermometers and safe fish consumption. ▼