

## Breast milk: A leading source of PCBs

Exposure to polychlorinated biphenyls (PCBs)—oily compounds that have been used as lubricants and insulating fluids—can diminish a child's ability to learn (SN: 11/11/95, p. 310). A new Dutch study now indicates that Rotterdam preschoolers who were breast-fed during infancy possess 3.6 times as much of these neurotoxic chemicals in their blood plasma as do children who had been fed infant formula only.

The study followed 173 children, slightly more than half of whom had been breast-fed as infants (usually for more than 3 months). By 42 months of age, all the children carried at least some PCBs in their blood. While prenatal exposures and childhood diet contributed some PCBs, breast milk proved the richest source, Svati Patandin of Sophia Children's Hospital in Rotterdam and her colleagues report in the October *AMERICAN JOURNAL OF PUBLIC HEALTH*. In fact, their data suggest that while the breast-fed infants were nursing, PCB concentrations in their blood "must have reached levels as high as their mothers'."

"To our knowledge," they observe, "no other study has measured plasma PCB levels in children—either formula-fed or breast-fed during infancy—in relation to environmental exposures to PCBs."

While many earlier studies attempted to quantify childhood exposure overall to the 209 PCBs, the Dutch researchers focused on just four representatives of this family of related chemicals. As such, notes Corine Koopman-Esseboom, a coauthor at Sophia Children's Hospital, it's hard to directly compare the Rotterdam exposures to those reported for U.S. populations. However, she says, the Dutch exposures "would appear comparable" to those linked with IQ deficits in Detroit youngsters last year (SN: 9/14/96, p. 165).

Koopman-Esseboom administered developmental tests to the Rotterdam infants at ages 3, 10, and 18 months. While the breast-fed babies had poorer muscle tone than the bottle-fed infants—something that she says was also seen in the PCB-exposed Detroit children—the Dutch youngsters exhibited no mental delays when compared to formula-fed peers. However, she notes that unpublished data from a follow-up looking for IQ deficits in the Dutch preschoolers "did find something."

The solution, she and her coauthors argue, is not to forgo breast-feeding but to lower PCB concentrations in the food chain so mothers accumulate less in their milk. —J.R.

## Penile birth defect on the rise

The U.S. incidence of hypospadias—a male birth defect characterized by a malplacement of the urinary outlet—nearly doubled between 1968 and 1993, a new study finds. This is the first report of such an increase outside Europe (SN: 1/22/94, p. 56).

Epidemiologists at the federal Centers for Disease Control and Prevention in Atlanta analyzed data from two registries of birth defects. The U.S. rate, now "approaching 1 percent of male births," is among the highest reported anywhere, observes Leonard J. Paulozzi, who led the study. In the November *PEDIATRICS*, his team notes that severe cases appear to account for most of the increase. Although the rising incidence shows up in all regions of the country, the rate of increase has been highest in the Southeast and in non-whites—previously, a relatively low-risk group.

Hypospadias, which is correctable through surgery, traces to some disruption in the development of the penile urethra—the urine-carrying organ—between weeks 9 and 12 of gestation. What triggers the deformity remains unknown, though Paulozzi notes it could stem from a mother's steroid use early in pregnancy, from dietary factors, or from exposure to any of dozens of pollutants that can mimic effects of estrogen and other steroid hormones. —J.R.

## NIH panel gives acupuncture the nod

In 1993, up to 12 million people in the United States relied on acupuncture to treat a variety of ailments. Now, a panel convened by the National Institutes of Health has endorsed the practice as a treatment for certain conditions.

NIH convened the 12-member panel to study the evidence on acupuncture, an ancient medical practice in which thin needles are inserted into the skin at key anatomical locations. The treatment is integral to the Chinese health care system. Practitioners believe that patterns of energy called Qi flow through the body and are essential to good health.

The U.S. panel sidestepped the question of Qi as it looked at studies intended to assess the efficacy of acupuncture. The group concluded that the technique is effective for treating people who experience nausea and vomiting following surgery or chemotherapy. Acupuncture also combats the nausea that may accompany pregnancy and the pain experienced after certain dental procedures, the group said.

Acupuncture treatment of other pain-related conditions, such as headache, menstrual cramps, low-back pain, and carpal tunnel syndrome, failed to win the panel's endorsement. Scientific evidence of acupuncture's benefits was less than convincing for these disorders, the group reported. Nonetheless, the panel acknowledged that the treatment may provide relief for individual patients suffering from these conditions.

Acupuncture seems to release naturally produced opioids in the body, a mechanism that may explain the technique's pain-relieving abilities. However, the panel noted, studies also suggest that acupuncture may alter the endocrine and immune systems. —K.F.

## Two HIV tests prove better than one

A combination of blood and urine tests for HIV detects more infections than either test alone, a new study shows.

Some HIV-positive individuals may produce antibodies to the AIDS virus in one bodily fluid but not another, occasionally enabling the virus to evade detection by a single procedure, researchers at Calypse Biomedical Corp. in Berkeley, Calif., report in the November *NATURE MEDICINE*. After testing blood and urine samples from 11,334 people, they found evidence that 1,181 were HIV-positive. Of this group, 25 had discrepant tests—10 showed positive only in urine and 15 only in blood.

Thus, dual testing of people at risk of infection may ferret out some hidden cases of HIV, says study coauthor Howard B. Urnovitz, a microbiologist at Calypse.

In the same issue of *NATURE MEDICINE*, researchers at the University of Milan in Italy examining heterosexual couples found several people who were exposed to HIV but who tested negative in blood screenings. Some of them produced HIV antibodies in urine and vaginal samples, however. This points to a "compartmentalized" immune response, in which HIV-specific antibodies in the vaginal mucus lining might prevent the virus from reaching cellular targets, the authors say. —N.S.

## Teen chlamydia infections widespread

A study of 10,118 sexually active teenagers in the Seattle area finds that 8.6 percent of girls and 5.4 percent of boys had chlamydia, the most common sexually transmitted bacterial disease in the United States. In the study, researchers at the University of Washington tested urine samples collected at clinics, detention centers, school clinics, and community-based youth organizations. The findings appear in the Nov. 1 *ANNALS OF INTERNAL MEDICINE*.

If untreated, chlamydia can cause pelvic inflammatory disease, infertility, and ectopic pregnancy—a condition in which the fertilized egg implants outside the uterus. Three-fourths of the infected girls and nearly all of the infected boys reported no symptoms. —N.S.