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Public Health Advisory Regarding Bisphenol A (BPA)

The Massachusetts Department of Public Health (DPH) is issuing a public health advisory for consumers concerning bisphenol A (BPA). BPA is present in baby products, including baby bottles and some infant formula. A number of studies in laboratory animals have raised concerns about potential health effects during fetal development and among nursing or formula-fed children who may be exposed to BPA. These effects include but are not limited to: changes in the infant's developing nervous system, such as thyroid function and brain growth; changes in behavioral development, such as hyperactivity; and changes in the normal development of the prostate gland.

DPH is specifically advising mothers of children up to two years old to avoid the use of products that contain BPA for making or storing infant formula and breast milk. Current research suggests that BPA levels in newborns may be much higher than in adults. While researchers caution that more research needs to be conducted, it seems prudent to reduce exposures for pregnant and breastfeeding women to the extent possible in order to reduce levels in their newborn children.

BPA is used as a liner in some food and beverage cans to prevent spoilage. It is used in a variety of other consumer products to enhance the structural integrity of plastic containers. Alternatives to plastic containers that have BPA as a component are available, and some are made by the same companies that produce products containing BPA.

Transparent (clear or colored) plastic containers or baby bottles with the recycling number 7 and the letters PC, which stand for “polycarbonate” plastic, should be avoided to the extent possible. Heat can increase the release of BPA from polycarbonate plastic. **Therefore, consumers should consider the following:**

- Avoid heating plastic containers with the recycling number 7 and the letters PC in microwave ovens, in water on the stovetop, or by adding boiling water into them, particularly when preparing infant formula.
- Wash the containers by hand with warm water and soap, instead of in dishwashers.
- Stainless steel and glass do not contain BPA.
- Replace worn or scratched polycarbonate plastic containers, preferably with glass or stainless steel containers.
- Pregnant or breastfeeding women can eat or cook with fresh or frozen products instead of canned foods—which may contain BPA—to reduce fetal or infant exposure to BPA.

Some studies have found BPA in containers of canned liquid infant formula. Powdered formula does not appear to contain detectable levels of BPA. If special formula is required because of a medical condition, parents should not make any changes to their baby’s diet without consulting with their health care provider first. It is likely that known medical risks from discontinuing the use of special formula may be far greater than those that may result from BPA exposure from this source. **The most effective means of reducing BPA exposure to infants is to breast feed.** For both baby and mother, breastfeeding has many well-documented health benefits:

- Breastfed babies have lower rates of some of the most serious chronic diseases: asthma, diabetes, and some childhood cancers.
- Breastfeeding reduces the risk and severity of infectious diseases: pneumonia, diarrhea, and ear infections.
- Women who breastfeed have lower levels of ovarian and breast cancer, and breastfed daughters also have lower rates of breast cancer when they grow up.

The federal Food and Drug Administration (FDA) is currently considering the scientific evidence related to health risks associated with BPA in foods and consumer products and is expected to determine the need for regulatory action in 2009. Current research on health effects associated with BPA exposure includes effects during fetal developmental and among infants, and children. Recent preliminary studies also suggest that BPA may interfere with the effectiveness of breast cancer chemotherapeutic drugs in cell culture, and may also be associated with diabetes and cardiovascular conditions in adults.

An educational brochure on this topic can be found at the DPH web site at:

www.mass.gov/dph/environmental_health.