

Pediatric Anesthesiology: Consensus Statement Following December 2016 FDA Warning

Anesthesia and Brain Development in Your Child

Facts About General Anesthesia and Sedative Medications

- Children sometimes need surgery or other procedures that would not be possible without the use of sedatives and anesthesia medications that induce sleep and treat pain.
- Usually, these medications either are injected into a vein, or inhaled through a mask or a breathing tube.
- Medications for sedation and anesthesia are given to millions of children every year to ensure their health, safety and comfort during surgery and other procedures for diagnosis or treatment.

Information for Parents and Caregivers

- Some research suggests that repeated or prolonged use of general anesthetics or sedative medications in young animals and children may affect the developing brain. These effects are subtle, and may include learning, memory or behavior problems.
- The [U.S. Food and Drug Administration](#) (FDA) is warning that repeated or lengthy use of general anesthetics and sedation drugs during surgeries or procedures in children younger than 3 years may affect childhood development.
- Recent studies indicate that a single brief exposure to general anesthesia or sedation is unlikely to have negative effects on behavior or learning, even in children less than 3 years of age.
- No specific anesthetic or sedative medication has been shown to be safer than any other.
- Anesthetic and sedative medications are necessary for infants and children who require surgery or other painful or stressful procedures. The experience of pain, when it is not treated, may be harmful to children and their developing nervous systems.
- Parents and caregivers should ask for information about the planned surgery or procedure, including the likely duration and the possible need for any repeated procedures.
- Parents should discuss with their healthcare providers the potential adverse effects of anesthesia on brain development, and the appropriate timing of any procedure that could be delayed without jeopardizing their child's health.

- If you have any questions regarding anesthesia for your child, please talk with the anesthesiologist the morning of your child's surgery or procedure. Additionally, you may also e-mail us at UCLAPedsAnes@mednet.ucla.edu. We will make every effort to respond as soon as possible.

Additional Resources

- The [SmartTots](#) Collaborative, an organization working to make anesthesia safer for infants and children
- [Pediatric Anesthesiology](#), UCLA Mattel Children's Hospital
- [U.S. Food & Drug Administration](#)