

## Codeine May Cause Death in Children after Tonsillectomy and/or Adenoidectomy

On August 15, 2012, the FDA issued a Drug Safety Communication informing the public that the FDA is reviewing reports of children who developed serious adverse effects or have actually died after taking codeine for pain relief after a tonsillectomy and/or adenoidectomy for obstructive sleep apnea syndrome. Recently, three pediatric deaths and one non-fatal but life-threatening case of respiratory depression were documented. These children (2-5 years old) had evidence of a genetic ability to convert codeine into fatal amounts of morphine in the body. All of these children had received usual doses of codeine that were within the normal dosing range.

When codeine is ingested, it is converted to morphine in the liver. Some people are "ultra-rapid metabolizers" and are more likely to have higher than normal amounts of morphine in their blood after taking codeine. High levels of morphine can result in breathing difficulty, which may be fatal. Taking codeine after tonsillectomy and/or adenoidectomy may also increase the risk for breathing problems and death in these children who are "ultra-rapid metabolizers." The estimated number of children who are "ultra-rapid metabolizers" is generally 1 to 7 per 100 people, but may be as high as 28 per 100 people in some ethnic groups. The FDA is currently conducting a safety review of codeine to determine if there are additional cases of inadvertent overdose or death in children taking codeine.

### References:

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