



*This information has been gathered by The Cleft Lip & Palate Foundation of Smiles. We are responding to the fact that a number of our members have questions concerning the safety of medications that they had taken during pregnancy, or may take during a future pregnancy. These medications may be the cause of craniofacial differences. Our goal is to ensure that our families have resources and facts about the medications that may be taken during pregnancy, so you can have informed discussions with the treating doctors.*

Online at [www.cleftsmile.org](http://www.cleftsmile.org)

Contact us by email at [rachel@cleftsmile.org](mailto:rachel@cleftsmile.org)

The Cleft Lip & Palate Foundation of Smiles provides research on craniofacial causes (genetics, environmental, prescription drugs), treatments (cleft palate teams, medical devices, therapies), and available support for families.

*This PDF is about Hydrocodone birth defect risks for women who get pregnant while taking this type of pain medication.*



## RESEARCH AND RECENT STUDIES

# HYDROCODONE

### Hydrocodone derivatives— pain meds (Codeine, Oxycontin)

According to the Centers for Disease Control and Prevention, consuming opioid pain relievers such as codeine, oxycodone or hydrocodone just before pregnancy or early in pregnancy increases the risk of certain birth defects, especially congenital heart defects.

### What are hydrocodone drugs?

Hydrocodone is in a class of medications called opiate or narcotic analgesics and in a class of medications called antitussives. Hydrocodone is available only in combination with other ingredients; different combination products are prescribed for different uses. Some hydrocodone products are used to relieve moderate to severe pain. Other hydrocodone products are used to relieve cough.

### What are hydrocodone precautions?

Tell your doctor if you are pregnant, plan to become pregnant, or are breast-feeding. If you become pregnant while taking hydrocodone derivative drugs, call your doctor.

### How serious is the risk?

The ongoing CDC-sponsored largest study of birth defects covered pregnant women in ten states. The study, [National Birth Defects Prevention Study](#), reported that opioid painkillers doubled the risk of having a baby with hypoplastic left heart syndrome.

According to the study, these drugs increased the risk for other heart problems as well as spina bifida, water on the brain, congenital glaucoma, and gastroschisis.

### What is hypoplastic left heart syndrome or HLHS?

Hypoplastic left heart syndrome is a rare congenital heart defect in which the left side of the heart is severely underdeveloped. When the chamber is small and poorly developed, it will function poorly causing lack of blood flow to meet the body's needs. [A baby with HLHS](#) will not live long without surgical intervention.



### Is there any treatment for HLHS?

There is a 3-prong surgery that if done competently, the baby may have improved survival rates to the point of living a normal life with some restrictions, if looked after, and ongoing follow-ups from a cardiologist. According to the Seattle Children's Hospital, a heart transplant may be required. There are no cookie cutter solutions; every case will be individualized.

### What is spina bifida?

Spina bifida is a common neural tube defect or NTD. According to the National Institute of Neurological Disorders and Stroke (NINDS), [spina bifida affects](#) about 1,500 to 2,000 babies born in the United States each year.

### How is spina bifida treated?

There is no cure for spina bifida. The nerve tissue that is damaged or lost cannot be repaired or replaced. Treatment depends on the severity of the disorder. Early surgery on the spinal cord may allow the child to regain a normal functioning level and prevent further neurological damage. Surgeries will be ongoing.

Usually, spina bifida requires assistive devices such as braces, crutches, or wheelchairs.

### What is water on the brain?

Water on the brain or hydrocephaly is an abnormal buildup of cerebrospinal fluid (CSF) in the ventricles of the brain. The buildup of CSF causes the brain to swell, and for pressure to increase inside the skull, resulting in nerve damage. Frequently, spina bifida and water on the brain occur at the same time.

### How is water on the brain treated?

A shunt or plastic tube is inserted into the ventricular system of the brain to divert the flow of CSF to another part of the body so that the fluid can be safely absorbed into the bloodstream.

Like most shunt surgeries, devices have problems. Shunts will need to be replaced and surgeries will always have risks.

### What is congenital glaucoma?

Glaucoma is blocked eye fluid that increases pressure. Normally, an adult disorder, glaucoma also affects newborns or babies within a few months of being born.

### What is the treatment for congenital glaucoma?

For adults, eye drops may help. For babies, immediate surgery is required to save vision from further damage.





### What is gastroschisis?

Gastroschisis is an opening in the abdominal wall that allows the stomach and small and large intestines to extend outside the body.

### What is the treatment for gastroschisis?

Possibly one surgery can fix the problem if the baby has a small amount of bowel outside of his body. If it's a larger amount of bowel, several surgeries may be needed over a period of 3 to 10 days.

### What drugs put mothers-to-be at risk?

Prescription painkillers such as Vicodin, Oxy-Contin and Tylenol-3, plus a variety of generic versions of the drugs

### What are some hydrocodone brands?

There are [hundreds of brands](#). Here are a few:

B-Tuss, Histinex D, Hydro-Tuss, Liquicet, Lortab, No-Tuss, Panacet, Tussafed-HC, Vicodin, Vicodin Tuss, Vortex, Zydone

In conclusion, according to the Centers for Disease Control, women who are pregnant, or thinking about becoming pregnant, should know there are risks associated with using prescription painkillers. Taking these types of analgesics just prior to pregnancy or in the early stages of pregnancy was linked to a modest risk of congenital heart defects in an ongoing population study.

### Do you have more questions?

#### Do you need resources?

For questions and resources about cleft lip and cleft palate, please contact: [The Cleft Lip and Palate Foundation of Smiles](#). Cleft lip or palate is one of the most common birth defects, currently affecting one in 600 children in the United States. The Foundation was formed by a young mother of twins both born with cleft lip and palate. The Foundation offers positive support to parents of children with craniofacial differences by offering news, information on cleft palate teams, [state by state resources](#), [birth registry listings](#), and a [support group](#) where you can meet other families in your local area who are going through the same or similar concerns and where you can share and express useful information.

Do you want more information about hydrocodone painkillers and congenital birth defects? Do you have questions that the painkillers you were prescribed could be related to your child's congenital birth defects? Please contact [Rachel Mancuso](#) for assistance.





## References

[http://www.ajog.org/article/S0002-9378\(10\)02524-X/abstract](http://www.ajog.org/article/S0002-9378(10)02524-X/abstract)

Broussard CS, Rasmussen SA, Reefhuis J, et al. Maternal treatment with opioid analgesics and risk for birth defects. *Am J Obstet Gynecol* 2011; 204:314.e1-11

Seattle Children's Hospital—[When your child needs a heart transplant](#)

National Institute of Neurological Disorders and Stroke—Spina Bifida fact sheet

Medicine Net—Definition of Hydrocephaly

Formula Medical Group—[glaucoma, congenital](#)

Centers for Disease Control & Prevention—[facts about Gastroschisis](#)

Centers for Disease Control & Prevention [press release](#), March 2, 2011—Opioid Pain Killers Linked to Increased Risk of Some Birth Defects

---

## Other Research from The Cleft Lip & Palate Foundation of Smiles

Research and Recent Studies:

[Causes of Cleft Lip and Palate: Birth Defects](#)

[Causes of Cleft Lip and Palate: Clomid](#)

[Causes of Cleft Lip and Palate: Health Insurance](#)

[Causes of Cleft Lip and Palate: Special Education](#)

[Causes of Cleft Lip and Palate: SSRIs](#)

[Causes of Cleft Lip and Palate: Topamax](#)