Thank you for considering our study!



The study is sponsored by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) of the Department of Health and Human Services.



Who is Participating?

University of Alabama at Birmingham • Brown University • Case
Western Reserve University • University of Cincinnati • Duke
University • Emory University • University of Iowa • University of
New Mexico • University of Pennsylvania • Research Institute at
Nationwide Children's Hospital • University of Rochester, New York
• University at Buffalo, New York • Stanford University • University of
Texas – Southwestern • University of Texas – Houston • Children's
Mercy Hospital-Kansas City

University of Utah & Primary Children's Hospital

Call our research coordinators for more information: Children's Mercy Hospital 816-234-3596

For more information on the NICHD Neonatal Research Network, visit: http://neonatal.rti.org.



NICHD Neonatal Research Network

Milrinone in Congenital Diaphragmatic Hernia



Principal Investigator

Satyan Lakshminrusimha, MD

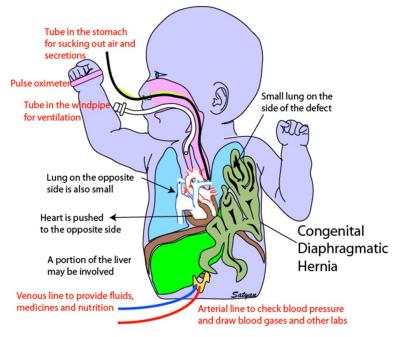
University of Buffalo

Children's Mercy Principal Investigator
John Daniel, MD

What is Congenital Diaphragmatic Hernia?

Congenital Diaphragmatic Hernia (CDH) is a birth defect where there is a hole in the muscle that helps you breathe, called the diaphragm. The hole can be on either the left or the right side, but more commonly (85%) is on the left.

The contents of the belly, including the stomach, spleen, liver, and intestines go up into the chest through the hole in the muscle. This compresses the lungs and interferes with proper growth and development of the lung and its blood vessels.



What is the purpose of this study?

Congenital diaphragmatic hernia results in a smaller lung size which may lead to high blood pressure in the lungs and low blood flow to the lungs. Infants with CDH usually require a breathing machine with high levels of oxygen. The purpose of this study is to find out whether a drug called **Milrinone** will improve blood oxygen levels when given to a baby with CDH by relaxing the blood vessels in the lung. Milrinone may help the heart and lungs work better and improve oxygen levels in the blood as well as delivery to the organs. If your baby's oxygen level cannot be maintained by the breathing machine, he/she may need to be placed on heart-lung bypass also known as extracorporeal membrane oxygenation (ECMO).

What treatment will my baby receive if they participate in this study?

Your baby will receive an intravenous (IV) infusion of Milrinone or placebo (sugar solution). A placebo is a pill, liquid or powder that has no active medicine in it. If you decided to allow your baby take part in this study, he/she will be randomly assigned (like a flip of the coin) to receive either Milrinone, or placebo. Neither the treating neonatologist or the study coordinators will be aware of whether your baby will be receiving Milrinone or the placebo.

How is Congenital Diaphragmatic Hernia typically treated?

CDH can be treated in a number of ways. Initially, babies are supported on a breathing machine with oxygen. Surgery is needed to repair the hole in the diaphragm and to move the organs into their proper places. This surgery is typically performed when the baby is relatively stable with adequate blood flow to the lungs. It is not an emergency and is usually delayed, most often between 2-7 days of life.

Will the study help my baby?

There may be no direct benefit to your baby from participating in this study. We think that administration of milrinone may improve oxygen levels and be a benefit to babies with CDH. It is our hope that information gained from this study will help in the future in treating babies born with CDH.

Are there any risks to being in the study?

Infants with CDH represent a high-risk population with death occurring in 30 to 40%. Possible risks from the use of IV Milrinone include a drop in blood pressure, heart rhythm problems (reported in adults, but not yet in neonates) and bleeding problems. One small study of critically ill newborns without CDH had evidence for bleeding in the brain. We have not seen this risk, except among babies treated on ECMO.

What treatment will my baby receive if I do not consent to this study?

If you chose not to participate in the study, your baby will receive the usual treatments we provide for CDH in our hospital. It is possible your baby may receive Milrinone as part of his/her care, depending on his/her doctor.

What is expected once my baby is discharged?

As part of this study, you will be asked to participate in phone surveys when your baby is 4, 8, and 12 months old. We will contact you to complete the follow-up questionnaires about your baby's health.

Does my baby have to take part in this study?

No, your baby does not. You may tell the researcher "no" if you do not want your baby to be in the study. Your baby's care will not be otherwise affected if you choose to not participate in this study.