

Name of Child: \_\_\_\_\_ Date: \_\_\_\_\_

# Chylothorax

## What is chylothorax?

We have two systems that move fluids around the body: the system that moves blood (the **circulatory system**), and the **lymph system**.

When we digest fatty foods, they are absorbed by the intestines and changed into the a milky white fluid named **chyle**. Chyle carries fat, white blood cells (**lymphocytes**) and minerals (**electrolytes**) through the lymph system from the gut to the big veins by the heart.

The lungs are covered by several layers of lining called **pleura**. There is space between these layers, called **pleural space**. Fluids can collect in that space. When the lymph system leaks chyle, it can get into that pleural space, causing a **chylothorax**. The fluid pushes on the lung, and makes it hard to breathe.

## What causes chylothorax?

There are several possible causes of chylothorax:

- babies can be born with it
- the lymph system can be damaged during surgery
- an injury or tumor can cause lymph fluid to leak
- children with some genetic disorders may have lymph systems that are not formed normally.

## How do you know if a child has chylothorax?

A child with chylothorax breathes very fast or has trouble breathing.

An x-ray will show there is fluid in the pleural space of the lung. A doctor can take a sample of that fluid to see what is in it. If the fluid is chyle, it is chylothorax.

## How do you treat a chylothorax?

In almost half of the patients, the leak stops by itself.

If the child has trouble breathing and the leak needs to be treated there are several things the doctor can do.

- Remove the fluid from space around the lungs with a needle and syringe. This is called **thoracentesis**. But if the leak is still there, the fluid will come back.
- Drain the fluid from around the lungs with a chest tube. The chyle will drain from the tube. Your child's nurse will measure the amount of fluid. When the amount of chyle draining off has decreased or stopped, your child's chest tube will be taken out.

Remember that chyle carries fat, white blood cells (lymphocytes) and minerals (electrolytes). These are all needed by the body. If you take these out of the body, some of these may need to be put back in another way. This may be done by diet or by giving them by IV.

Draining white blood cells and proteins in chyle can make it harder for the child to fight off germs. This can be treated by giving the child a medicine called IVIG by IV.

- Help the body make less chyle
  - By a special low fat diet that lowers the amount of chyle the child's body makes.
  - By letting the gut rest by giving nutrition through an IV.
  - By giving a medicine that makes the lymph flow less to the area (octreotide).

If your child will be treated by diet, a registered dietitian will teach you how to do this.

- Some children need surgery to stop the chyle from leaking.

### **Call your doctor right away if:**

- Your child has difficulty breathing or has shortness of breath
- Fluid leaks from the site of the surgery or chest tube.
- Your child has a temperature over 101° F that lasts more than an hour and does not go away when your child is given acetaminophen (Tylenol).

### **Now that you've read this:**

- Tell you nurse or doctor what chylothorax is. (Check when done.)
- Tell you nurse or doctor how chylothorax is treated. (Check when done.)
- Tell you nurse or doctor when you would call the doctor. (Check when done.)



If you have any questions or concerns,  
 call your child's doctor or  call \_\_\_\_\_

If you want to know more about child health and illness,  
visit our library at The Emily Center at Phoenix Children's Hospital  
1919 East Thomas Road  
Phoenix, AZ 85016  
602-546-1400  
866-933-6459  
[www.phoenixchildrens.com](http://www.phoenixchildrens.com)

#### Disclaimer

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Thursday, August 18, 2011 • DRAFT to family review  
#1067 • Written by Jennifer Bryce, RN • Illustrated by Irene Takamizu



## The Emily Center

### Chylothorax

Diagnosis/Disease/Illness  
Si usted desea esta información en español,  
por favor pídasela a su enfermero o doctor.

Name of Health Care Provider: \_\_\_\_\_ Number: 1067

For office use: Date returned: \_\_\_\_\_  db  nb

## Family Review of Handout

**Health care providers:** Please teach families with this handout.

**Families:** Please let us know what you think of this handout.

Would you say this handout is hard to read?  Yes  No

easy to read?  Yes  No

Please circle the parts of the handout that were hard to understand.

Would you say this handout is interesting to read?  Yes  No

Why or why not?

Would you do anything differently after reading  
this handout?  Yes  No

If yes, what?

After reading this handout, do you have any  
questions about the subject?  Yes  No

If yes, what?

Is there anything you don't like about the drawings?

Yes  No

If yes, what?

What changes would you make in this handout to make it better or easier to understand?

Please return your review of this handout to your nurse or doctor or send it to the address below.

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**Thank you for helping us!**