How to Do Chest Physical Therapy (CPT)

Babies and Toddlers
How to Do
Chest Physical Therapy
(CPT)

Your child needs a treatment called Chest Physical Therapy or CPT. Another name for CPT is Percussion and Postural Drainage (P & PD). Read this booklet to learn what CPT is and how to use it to help your baby.

What is CPT?

Chest Physical Therapy (CPT) is something you can do to help your baby breathe better. Sometimes there is too much mucus, or it is too thick. It blocks the air from moving in and out of your baby’s lungs. Mucus makes it hard for your baby to breathe. Mucus that sits too long in the lungs can also grow germs that can make your baby sick. CPT helps to loosen your baby’s mucus, so your baby can cough it up.

Think about how you would take Jell-O out of a mold. You tilt the mold over, then shake it and tap it to loosen the Jell-O. Mucus is like that Jell-O, and CPT helps to get it out.

Words to Learn

Airways Air moves through these and into your lungs. The airways of the nose and throat lead to the big airways in the chest. The big airways branch off into smaller airways in the lungs. The big airways are like a trunk of a tree, and the small airways, like branches.

Chest Physical Therapy (CPT) is something you can do to loosen your baby’s mucus. The three parts to CPT are: (1) postural drainage, (2) percussion and (3) deep breathing and coughing.
Percussion is clapping the chest. Percuss means to tap sharply. A drum is a percussion instrument. Percussion in CPT can be done with either a cupped hand or a percussor (see picture). Percussors can also be electric. The clapping shakes the inside the chest and loosens mucus, so it is easier to cough out.

Postural Drainage moves the mucus by changing the baby’s position. Mucus, like water, moves from high places to low places. Tilting the baby helps move the mucus from the small airways at the bottom of the lungs to the large airways in the middle. The most mucus moves into the large airways when you do both percussion and postural drainage together.

Deep breathing and coughing helps to move the loosened mucus.

Lobe is a section of the lung. The left lung has two lobes, and the right lung has three lobes.
Before Doing CPT:

• It is best to do CPT before meals or at least one to two hours after eating. This will make it less likely that the baby will feel sick to the stomach or throw up.

• The best times for CPT are early morning and at bed time. Early morning CPT helps remove the mucus that built up over night. Bed time CPT takes out the mucus of the day, and helps the baby cough less at night. Your doctor may want you to do CPT more often.

• Your doctor may prescribe medicine to open the airways. This may come as an SVN (small volume nebulizer) or as an MDI (metered dose inhaler). This medicine should be taken before CPT. The medicine, positioning, and percussion all work together to clear the mucus from the lungs.

• The person doing the CPT should take off all rings and jewelry on the hands or wrists.

• If the baby’s clothing is tight or has thick seams, remove it.

• If the baby is wearing clothes with buttons, remove it.

• Have the baby wear a t-shirt or put a soft cloth over the spot that will be percussed.

You Need:

• A place to do CPT. For babies, a chair, crib or pillow is good. For older children, you will need a bed, couch, floor or a special table (slant board).

• Your hand or a percussor.

• A clock or a timer, to know how long to percuss.
What to do:

- Always percuss over the ribs. Never percuss below the ribs, on the stomach. The lungs are in the chest, protected by the ribs. Never percuss on the backbone, breast bone, nipples or on any IV tubes or feeding tubes.

- Do CPT in each spot for 2 or 3 minutes, or however long your doctor says. One session of CPT should take 20 to 30 minutes.

- Usually, CPT is done in all the positions and percussion in all the spots. Your doctor may have you do more in some areas, where the chest x-ray shows more mucus.

- If your baby’s mucus has bright red blood in it, stop the CPT and call your doctor.

It is best to do CPT before meals or at least one to two hours after eating.
Positions

☐ yes  ☐ no  Top Upper Lobes

• Sit the baby up. Tilt the baby half way between sitting up and laying flat.
• Percuss between the nipple and collarbone on the left side of the chest for 2 or 3 minutes.
• Percuss between the nipple and collarbone on the right side of the chest for 2 or 3 minutes.
☐ yes  ☐ no  Back Upper Lobes

- Sit the baby up. Tilt the baby half way between sitting up and laying flat.
- Percuss over the shoulder blade on the left side of the back for 2 or 3 minutes.
- Percuss over the shoulder blade on the right side of the back for 2 or 3 minutes.
☐ yes  ☐ no  Front Right Middle Lobe

• Lie baby on his or her stomach, feet higher than head.
• Turn the baby to his or her left, half way between back and side.
• Percuss between the baby’s right nipple and underarm for 2 to 3 minutes.
☐ yes  ☐ no  Side of Right Lung

• Lie baby down on his or her left side, feet higher than head.
• Percuss below the right arm but above the bottom edge of the ribs for 2 to 3 minutes.
☐ yes  ☐ no  Front Left Middle Lobe

- Lie baby on his or her back, feet higher than head.
- Turn the baby to his or her right, half way between back and side.
- Percuss between the baby’s left nipple and underarm for 2 to 3 minutes.
☐ yes  ☐ no  **Side of Left Lung**

- Lie baby down on his or her right side, feet higher than head.
- Percuss below the left arm, but above the bottom edge of the ribs, for 2 to 3 minutes.
☐ yes  ☐ no  Back Left and Right Middle and Lower Lobes

- Lie baby on his or her stomach, head lower than feet.
- Percuss over the lower half of the left ribs, above the bottom edge of the ribs, for 2 to 3 minutes.
- Percuss over the lower half of the right ribs, above the bottom edge of the ribs, for 2 to 3 minutes.
After the treatment:

• Your baby may cough more during or after CPT. Coughing helps your baby get rid of the loosened mucus.

• Your baby may cough up to one or two hours after CPT. Even if no mucus comes up, the CPT is working.

• Infants and small children usually swallow their mucus. You may use a bulb syringe to remove mucus from the back of baby’s throat.

☐ yes ☐ no  See the handout, Using a Bulb Syringe, #48

• After swallowing a lot of mucus, your baby may feel sick to the stomach or throw up. As soon as your child is old enough to learn to spit, teach him or her how to spit the mucus into a tissue.

• If your baby does not stop throwing up, call your doctor.

How Your Baby Reacts to CPT

At first, your baby may cry when you do CPT. In a short time, most babies find CPT relaxing. They may even fall asleep during it.

Toddlers like to explore. That can make CPT with two to four year olds harder than it is with babies. Before you start CPT, let the toddler percuss you or a doll. Let the toddler watch TV or play with a musical toy while you do CPT.
Your baby may cough up to one or two hours after CPT.

☐ yes  ☐ no

If CPT will always be a part of your child’s daily routine:

As your child gets older, teach him or her why you do CPT. Use your CPT time to talk with your child. Talk about things that are important to him or her, like school or friends. This will help your child look forward to this time alone with you. This will be better, over time, than if your child does CPT because of bribes or threats.

As your child gets older, he or she may ask questions about CPT or his or her illness. Answer questions honestly, in simple ways your child can understand. If your child asks a tough question, ask your child why this topic came up. Sometimes the child only has a simple question that needs answering.

Now that you’ve read this:

☐ Show your nurse, respiratory therapist, or doctor how you do CPT on your child. (Check when done).

☐ Do the CPT crossword puzzle. (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
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This booklet was written with the help of many respiratory therapists, doctors and nurses at Phoenix Children’s Hospital. It was produced by the Patient/Family Education Program of The Emily Center.

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CPT Crossword Puzzle

Across
1  Call this person if you have any questions.
5  Give medicine _____ doing CPT.
6  If old enough, give your child a tissue to _____ in during CPT.
7  When doing CPT use a clock or _____.
8  Another word for Postural Drainage.

Down
2  CPT stands for _____ Physical Therapy.
3  Percuss over your child’s ______.
4  Mucus that sits in the lungs too long can grow these.
7  _____ with your child during CPT.
Answer to the
CPT Crossword Puzzle

If you have a question about CPT or this puzzle, 
ask your respiratory therapist, nurse or doctor.