How and Why to Thicken Liquids

Some children have trouble swallowing. This is called dysphagia (dis-FAY-geh-ah). Children with dysphagia need to have their food and drink changed so they can safely eat and drink.

If your child has dysphagia, you may need to thicken the liquids they drink. Thickened liquids move more slowly than thin liquids. This gives your child extra time to control the liquid while swallowing and keep it out of the lungs. This helps protect the airway.

How to thicken liquids

If your child is under the age of 12 months, it is recommended that you use infant cereal to thicken liquids. Do not use infant cereal in breast milk. Breast milk breaks down the cereal and it does not stay thickened. If you have questions, talk to your child’s health care provider.

Use measuring spoons to figure out infant cereal amounts. Do not use regular kitchen spoons.

New guides have been put in place by the International Dysphagia Diet Standardisation Initiative (IDDSI) to help with your child’s diet. Below are the instructions for thickening with infant cereal if your child is under 12 months corrected age for the following levels:

1. Level 1 IDDSI Slightly thick
2. Level 2 IDDSI Mildly thick/nectar
3. Level 3 IDDSI Moderately thick/honey
<table>
<thead>
<tr>
<th>Formula</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Similac®</em></td>
<td>1-2 tsp cereal/oz formula</td>
<td>1 ½ -2 ½ tsp cereal/oz formula</td>
<td>2-3 tsp cereal/oz formula</td>
</tr>
<tr>
<td><em>Gerber®</em></td>
<td>Level 1 1 ½ -2 ¼ tsp cereal/oz formula</td>
<td>Level 2 2-2 ¾ tsp cereal/oz formula</td>
<td>Level 3 2 ½ -3 ¾ tsp cereal/oz formula</td>
</tr>
<tr>
<td><em>Elecare®</em></td>
<td>Level 1 1 ¾ -2 ¼ tsp cereal/oz formula</td>
<td>Level 2 2-2 ¾ tsp cereal/oz formula</td>
<td>Level 3 2 ½ -3 ¾ tsp cereal/oz formula</td>
</tr>
<tr>
<td><em>Enfamil® (excludes Enfamil AR)</em></td>
<td>Level 1 1 ¼ -2 tsp cereal/oz formula</td>
<td>Level 2 1 ¾ -2 ½ tsp cereal/oz formula</td>
<td>Level 3 2 ½ -3 tsp cereal/oz formula</td>
</tr>
<tr>
<td><em>Neocate®</em></td>
<td>Level 1 2-2 ½ tsp cereal/oz formula</td>
<td>Level 2 2 ½ -2 ¾ tsp cereal/oz formula</td>
<td>Level 3 3-3 ¼ tsp cereal/oz formula</td>
</tr>
<tr>
<td><em>Enfamil AR™ 20</em></td>
<td>Level 1 ¾ -1 tsp cereal/oz formula</td>
<td>Level 2 1 ½ -2 tsp cereal/oz formula</td>
<td>Level 3 2-2 ½ tsp cereal/oz formula</td>
</tr>
<tr>
<td><em>Bright Beginnings® Soy</em></td>
<td>Level 1 1 ¼ -1 ¾ tsp infant cereal</td>
<td>Level 2 1 ¼ -2 ¼ tsp infant cereal</td>
<td>Level 3 2 ½ -2 ¾ tsp cereal/oz formula</td>
</tr>
<tr>
<td><em>Boost®Kids Essential</em></td>
<td>Level 1 1 ¼ -1 ½ tsp cereal/oz formula</td>
<td>Level 2 1 ¾ -2 tsp cereal/oz formula</td>
<td>Level 3 2 ¼ -2 ¾ tsp cereal/oz formula</td>
</tr>
<tr>
<td><em>Pediasure®</em></td>
<td>Level 1 1-1 ¾ tsp cereal/oz formula</td>
<td>Level 2 1 ½ -2 ¼ tsp cereal/oz formula</td>
<td>Level 3 2 ¼ -3 tsp cereal/oz formula</td>
</tr>
<tr>
<td><em>Other formulas</em></td>
<td>Level 1 ¾ -2 ¼ tsp cereal/oz formula</td>
<td>Level 2 1 ½ -2 ¾ tsp cereal/oz formula</td>
<td>Level 3 2-3 ¼ tsp cereal/oz formula</td>
</tr>
</tbody>
</table>

We advise that any liquid thickened with infant cereal be flow-tested before feeding to make sure it is the right consistency. To make sure products are thickened correctly, the simple test shown below can be used (Picture 1).

**Use a BD 10mL slip tip syringe (syringe box reference number - 303134)**

![IDDSI Flow Test](Picture 1)
Level 3 liquids also need to be tested using the fork drip test as pictured above.

**Picture 2** Thicken liquids with infant cereal. Check for proper thickness level.

Images Source: (c) The International Dysphagia Diet Standardisation Initiative 2016 @https://iddsi.org/framework/.

**Tips for thickening**

- When you prepare the drink with infant cereal for the flow test, mix only 1 ounce of drink or formula. Once you reach the correct level, mix the rest of the drink or formula that you need using the same amount of cereal for each additional ounce (Picture 2).

- When using infant cereal, if your flow test is too thin, increase the amount of infant cereal by ¼ teaspoon. If it is too thick: decrease infant cereal by ¼ teaspoon.

- We recommend the use of “pulverized” infant cereal, such as Beechnut®, for thickening if your child is under 12 months of age corrected.

- If you use infant cereal “flakes,” such as Gerber®, run a can or a rolling pin over the plastic bag to crush the cereal or use a blender to pulverize the cereal more.

- Mix in cereal immediately before serving. If using cold formula, mix cereal in after the formula has been warmed. Shake or stir it well. Offer thickened formula right away. Shake it hard to mix the cereal and liquid well.

- Thicken the contents of each bottle just before feeding. The formula will keep getting thicker as it sits.

- Check the nipple during the feeding to make sure it is not clogged with cereal. You may need to roll the nipple with your fingers or clean out the clog.
Other important notes

- Talk with your child’s health care provider or pharmacist about how to thicken liquid medicines.
- Speak with your child’s doctor or registered dietitian if you have questions about how these changes may affect the amount of liquid and how many calories your child is getting.
- Your child may need a different bottle nipple to allow the thickened liquids to get through. Talk with your child’s doctor, speech language pathologist or occupational therapist before you make any changes.
- Let your child’s health care provider know as soon as possible if the child is:
  - eating less than normal
  - more irritable
  - having problems with constipation
  - not gaining weight as expected
  - having problems with coughing or choking during feeds
  - having decreased number of wet diapers

Artificial thickeners

Do not use artificial (fake) thickeners unless your child is over 12 months of age corrected. If you have questions about corrected age, ask your child’s health care provider.

Follow the manufacturer’s thickening instructions on the can or packet of thickener.

Where to buy artificial thickeners

Many name-brand thickeners can be found on the market. You can get artificial thickeners at your local pharmacy. You can also order the thickener online or by phone. Always follow the manufacturer’s packaging instructions for thickening.

Simply Thick®

www.simplythick.com
1-800-205-7115

This product can also be used with breastmilk if your child is over 12 months of age corrected. This product should not be used for any child under the age of 12 years with a history of necrotizing enterocolitis (NEC).
1. **Level 1 IDDSI slightly thick** - use nectar (Level 2 Mildly Thick) packet and mix with 6 ounces of liquid

2. **Level 2 IDDSI mildly thick/nectar** - mix one packet of mildly thick/nectar with 4 ounces of liquid

3. **Level 3 IDDSI moderately thick/honey** - mix one packet of moderately thick/honey with 4 ounces of liquid

**Purathick™**


1-866-950-7278

This product can be used if your child is over 12 months of age, corrected. This product should not be used if your child has galactosemia or allergy to galactomannans.

1. **Level 1 IDDSI slightly thick** - mix one packet with 7-8 ounces of liquid

2. **Level 2 mildly thick/nectar** - mix one packet with 5-6 ounces of fluid

3. **Level 3 moderately thick/honey** - mix one packet with 3-4 ounces of fluid

There are other products on the market to thicken liquids. We recommend that you discuss any other product not listed above with your health care provider to determine if the product is a good choice for your child.