

9E: MODIFYING FOOD AND LIQUID ³⁴

Some children have difficulty managing certain food textures in their mouths or safely swallowing certain liquids. When a child has a problem eating and drinking, changing the food textures or liquid consistencies offered is one way to make mealtimes safer and easier.

Foods and liquids are either naturally a specific texture and consistency or they can be altered by caregivers to become a more well-suited texture or consistency that fits a child's needs. Foods and liquids can be altered by using tools such as utensils, blenders, other foods and liquids or artificial thickening agents.

HOW TO THICKEN FOOD AND LIQUID

- ① Thickening foods and liquids naturally using ordinary food or liquid thickening agents
- ② Thickening foods and liquids using artificial thickening agents

NATURAL THICKENING AGENTS

Foods and liquids that naturally create thickened consistencies when mixed in with other foods and liquids.

NATURAL THICKENERS	IMPORTANT PRECAUTIONS
Dry infant cereal (rice, barley, oatmeal, mixed) – ground or pulverized	<ul style="list-style-type: none"> ○ Not flaked ○ Not to be used with breast milk ○ For children younger than 12 months old
Gelatin, guar gum, arrowroot starch, potato starch, tapioca starch, cornstarch, psyllium husk, flour, carrageenan (Irish moss)	<ul style="list-style-type: none"> ○ For children older than 12 months and who are not at risk for allergies
Mix liquids (milk, water, juice) with pureed foods to create thickened liquid	<ul style="list-style-type: none"> ○ For children older than 12 months and who are not at risk for allergies

ARTIFICIAL THICKENING AGENTS

Artificial substances that can be used to create thickened consistencies when mixed in foods and liquids. These thickeners can be purchased at certain stores, pharmacies and online. Each thickener manufacturer provides specific directions for how to thicken foods and liquids using its product.



Do not use artificial thickeners unless a child is older than 12 months.

ARTIFICIAL THICKENERS

SimplyThick, Thick It, Thicken Up, Thick and Easy, Gelmix Thickener

IMPORTANT PRECAUTIONS

- For children older than 12 months

MILDLY THICK (NECTAR THICK) LIQUID THICKENING DIRECTIONS - USING A NATURAL THICKENING AGENT

- Mix 6.3 grams (1.5 tsp) dry infant cereal for every 30 ml (1 fl. oz.) of formula or liquid.

EXAMPLES:

- For a 90 ml (3 fl. oz.) bottle of formula: add 19 grams (4.5 tsp/1.5 tbsp) dry infant cereal
- For a 120 ml (4 fl. oz.) bottle of formula: add 25.2 grams (6 tsp/2 tbsp) dry infant cereal
- For a 180 ml (6 fl. oz.) bottle of formula: add 37.8 grams (9 tsp/3 tbsp) dry infant cereal
- Liquids should appear thicker (such as juice nectar) and flow off of a spoon slower than water.



MODERATELY THICK (HONEY THICK) LIQUID THICKENING DIRECTIONS- USING A NATURAL THICKENING AGENT

- Mix 2.5 tsp (10.5 grams) dry infant cereal for every 30 ml (1 fl. oz.) of formula or liquid.

EXAMPLES:

- For a 90 ml (3 fl. oz.) bottle of formula: add 31.5 grams (7.5 tsp/2.5 tbsp) dry infant cereal
- For a 120 ml (4 fl. oz.) bottle of formula: add 42 grams (10 tsp/3 tbsp + 1 tsp) dry infant cereal
- For a 180 ml (6 fl. oz.) bottle of formula: add 63 grams (15 tsp/5 tbsp) dry infant cereal
- Liquids should appear thicker (such as honey) and flow off of a spoon slower than mildly thick liquids.



Never give real honey to children younger than 12 months.

ADDITIONAL THICKENING DIRECTIONS FOR THE CHILD OLDER THAN 12 MONTHS

- Mix a small amount of water, broth or juice with blended baby food or blenderized food to create a natural thickened liquid. Stir well until smooth without clumps. *The more liquid added, the thinner the liquid consistency.
- Mix a small amount of water or milk to pudding or yogurt to create a natural thickened liquid. Stir well until smooth without clumps. *The more liquid added, the thinner the liquid consistency.
- Mix potato flakes, bread crumbs, flour or crushed crackers to pureed stews, soups and meats for added thickness. Stir well until smooth without clumps. *The more substance added, the thicker the food texture.



THICKENING TIPS

- ① Shake liquids in cups or bottles vigorously to thicken.
- ② Mix liquids in cups or bowls vigorously using a fork or whisk.
- ③ Allow all liquids several minutes to settle into the correct thickness.
- ④ The temperature of a liquid can change how well a liquid thickens. Watch carefully and adjust as necessary.
- ⑤ Slowly add thickeners to liquids to avoid excessive clumping.
- ⑥ Liquids may need to be shaken or mixed again over time. Always test a liquid's thickness before offering to a child.
- ⑦ If a liquid is too thin, add small amounts of thickener until it is the correct consistency.
- ⑧ If a liquid becomes too thick, add small amounts of thin liquid (water, broth, formula, milk, juice) until it is the correct consistency.
- ⑨ Do not mix dry infant cereal with breast milk. Breast milk breaks down cereal causing it to become a thin consistency.
- ⑩ Thicken liquids directly before offering them to a child.
- ⑪ If feeding thickened liquids using a bottle, always check the nipple during a feeding to ensure it is not clogged. Repeatedly clogged nipples may mean that a faster flowing nipple (higher level/larger size hole) is required.
- ⑫ Never cut holes in nipples to feed a child thickened liquids. Change the nipple to one that is an appropriate size.
- ⑬ Some food items melt and become thin liquids such as ice cream, popsicles, ice cubes and Jell-O. Do not offer these items to children who have difficulty swallowing thin liquids.

HOW TO MAKE PUREED FOOD³⁵

PUREED FOOD CHARACTERISTICS	DIRECTIONS TO MAKE PUREED FOODS
<ul style="list-style-type: none"> ○ Usually eaten with a utensil ○ Cannot drink from a cup or straw ○ Do not require chewing ○ Smooth, no lumps ○ Cannot pour ○ Falls off spoon in single spoonful and holds shape on plate/tray/table 	<ol style="list-style-type: none"> ① Cook vegetables and meat until well done but avoid overcooking. (Overcooked vegetables = soggy; Overcooked meat = stringy and tough). ② Place food in blender or food processor. ③ Add small amounts of liquid at a time. ④ Cover and blend until food is smooth. ⑤ Add more liquid as needed, especially if the puree is too thick.

PUREED FOOD TIPS

- ① For meats and entrees:
 - (a) Use different sauces and liquids to make new and appetizing flavors.
 - (b) Casserole dishes can typically be pureed easily.
 - (c) Avoid using tough, dried, stringy meats.
 - (d) Avoid using chicken or duck skin.
- ② For vegetables:
 - (a) Steam or boil vegetables until tender. Drain and save liquid for pureeing.
 - (b) Use butter, cream, warm milk, broth, cooking water or gravy for pureeing potatoes.
 - (c) Mix certain vegetables together to make delicious combinations such as broccoli and cauliflower; carrots and parsnips.
 - (d) Be cautious when pureeing vegetables with skins as some do not puree well.
 - (e) Avoid using raw vegetables or vegetables with tough skin or seeds.
- ③ For fruits:
 - (a) If using canned fruit, drain liquids and save for pureeing.
 - (b) Mix certain fruits with puddings, yogurt, ricotta or cottage cheese for enjoyable meals.
 - (c) Avoid raw fruit or fruit with tough skin or seeds.
- ④ For grains:
 - (a) Cook noodles and rice until very soft before pureeing.
 - (b) Puree cooked noodles/rice with meat and/or vegetables for a delicious meal.
 - (c) Puree cooked noodles/rice with sauces (cream, tomato), gravies, cheese, or broths for a tasty meal.
 - (d) Avoid all breads.
- ⑤ For soups and stews:
 - (a) Strain all meats, noodles/rice and vegetables for pureeing.
 - (b) Slowly add saved broth or stew base in small amounts to pureed foods.





To boost flavor: Try adding different sauces, herbs and spices to a puree.

To boost calories: Try adding butter, oils, high fat dairy products and dressings and creams to a puree.

HOW TO MAKE MINCED AND MOIST FOOD

MINCED AND MOIST FOOD CHARACTERISTICS	DIRECTIONS TO MAKE MINCED AND MOIST FOODS
<ul style="list-style-type: none"> ○ Can eat with utensil, chopsticks or sometimes hands ○ Can be shaped and scooped on plate/tray/table ○ Small lumps visible ○ Lumps are easy to squish with tongue ○ Moist and soft ○ Minimal chewing is required ○ Do not require biting 	<ol style="list-style-type: none"> ① Cook vegetables and meat until well done but avoid overcooking. (Overcooked vegetables = soggy; overcooked meat = stringy and tough). ② Place food in food processor, meat grinder or finely chop into same-sized pieces using a sharp knife. ③ Pieces of food should be no greater than 2 ml in size. ④ Add gravies and sauces to foods for extra moisture and ease for eating.



HOW TO MAKE SOFT AND BITE-SIZED FOOD

SOFT AND BITE-SIZED FOOD CHARACTERISTICS	DIRECTIONS TO MAKE SOFT AND BITE-SIZED FOODS
<ul style="list-style-type: none"> ○ Can eat with utensil, chopsticks or hands ○ Soft, tender and moist bite-sized pieces ○ Can be cut without a knife ○ Can be mashed or broken down with utensil ○ Chewing is required ○ Do not require biting 	<ol style="list-style-type: none"> ① Cook vegetables and meat until tender. ② Chop all foods into same-sized pieces using a sharp knife. ③ Pieces of food should be no greater than 8 ml in size. ④ When food pieces are pressed down by using a fork, the fingernail should turn a white color and the food should squash and not return to its prior shape. ⑤ Add gravies and sauces to foods for extra moisture and ease of eating.



