Nurture Guide
to Feeding your Child

From 4 to 12 years old

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Important: The information provided here is only meant as a general guide. Every child is different. Pay attention to your child's actions and they will let you know when they are ready to make changes.

Feeding Development

4-5 years old

- Children this age have the ability to self-regulate food intake, meaning they won't usually over- or under eat.
- There should be no "clean plate club" or using food as reward, or this ability will disappear.
- However, children are not able to regulate nutrient balance- only energy balance- so they need to be encouraged to develop healthy eating habits.
- Children 4-5 years old tend to look at what their parents and siblings are eating to decide what to eat.

6-12 years old

- At this age, food choices are still very much determined by the choices of parents and older siblings.
- Children are also beginning to be influenced by peers and the media (TV and radio commercials, billboards, etc.). Seeing others or the media portray foods positively or negatively may cause them to request a new food or refuse a previously eaten food.

Mealtime Responsibilities

Parents are responsible for:

- providing a positive mealtime environment
- what foods are available
- when the meal is served
- being role models

Children are responsible for:

- how much they eat
- which foods they choose to eat from those available

Creating a positive food environment:

- Sitting with your child at meal or snack time and eating the same foods provides encouragement and a positive experience.
- Avoid arguments and negative interactions during the meal.
  - Battles for control over what and how much your child is eating will disrupt the entire mealtime.
  - Mealtime should be viewed as a time to enjoy food and conversation as a family.
- Vary the way the food is served: family style, buffet style, and picnic style are three different ways.
- Try to give children ample time to eat: rushing them could result in under- or overeating.

Kids Can Help Plan and Make Meals!

Benefits

- Kids will be more likely to eat something if they helped to make it!
- It creates a good family-talk time.
- They learn responsibility, and this can help to boost self-esteem.
- It teaches them, in a hands-on approach, how to cook.
- You can talk about good nutrition while making food and start healthy habits early.

How to Get Started

- It is not always convenient to have a 'helper', so find a time when you're not in a rush and your child is not too tired or wound up.
- Safety first:
  - Talk about washing hands, foods, and work surfaces to avoid spreading germs.
  - Talk about the different appliances you will have them use, and which dishes are safe to use with each.
  - Talk to them about emergencies and how to handle them (i.e. running hand under cool water for a burn, applying pressure to a cut to stop bleeding, what to do or who to call if there is a fire).
- Understand that there will likely be extra mess to clean up. However, this is the perfect opportunity to teach that lesson, as well!
- Be sure your child isn't measuring ingredients over the bowl, as spills are inevitable. Try having them measure ingredients into small bowls, like they do on TV cooking shows, and then adding them together when finished.
- If a mistake is made, offer some guidance and let your child try again.
- Be sure to compliment your child on a job well done. He/she will love getting the first taste, too!

Choose activities from below that are appropriate for your child's abilities:

- Choose the entrée or vegetable.
- Plan meal (this would be a good time to teach them how to plan a balanced meal)
- Write a shopping list
- Gather items on the list at the store (or just read the list to you)
- Find the least expensive or healthiest version of your ingredient
- Pour, sift or stir ingredients (be sure to show them how to measure with spoons and cups) Crack eggs
- Wash, peel, and cut up fruits or vegetables
- "Decorate" with sprinkles of herbs, spices, or condiments (give only the amount you want on the food to avoid over-seasoning)
- Set the table
- Rinse, wash, or dry dishes
- Help put away leftovers
- Wipe the table
- Push in the chairs

A Word on Flavored Yogurts

Several of the recipes in this guide use flavored yogurts. Many yogurts (and other products) contain **high fructose corn syrup (HFCS)**, which is corn syrup that has been chemically modified.

HFCS-free yogurts:

- Breyer's Fruit on the Bottom (stir before use)
- Brown Cow
- Dannon All Natural Yogurt
- Horizon Organic Yogurt
- Nancy's Yogurt
- Stonyfield Farm Yogurt
- Wallaby Organic Yogurt

However, companies change their products all the time, so be sure to look at the ingredient list!

Recipe Makeovers for Favorite Foods

Pizza

Makes 2 servings, 3 wedges each

1 10-in ready-to-bake whole-wheat pizza crust
½ cup pizza sauce
1 cup shredded part-skim, low-moisture mozzarella cheese
17 slices turkey pepperoni
1 cup sliced mushrooms or other vegetables

Preheat oven to 400° F.

1. Spread pizza sauce on crust.
2. Spread cheese on top of the sauce.
3. Sprinkle sliced mushrooms and pepperoni on top of the cheese.
4. Bake approximately 15 minutes. Cut into 6 wedges.

Active Cooking Time: 25 minutes

Traditional Recipe:
2 slices medium pizza (typical delivery-style pizza with pepperoni and thin crust)

By using whole-wheat crust, part-skim cheese, turkey pepperoni, and mixed vegetables, this pizza offers kids more of the nutrients they need, with less fat and fewer calories.

Macaroni & Cheese

Makes 6 servings, 2/3 cup each

2 cup whole-wheat elbow macaroni
1½ cup 1% milk
1 cup evaporated skim milk
1 tablespoon cornstarch
1¾ cup low-fat shredded monterey jack cheese
1¾ cup low-fat shredded cheddar cheese
½ tsp salt

1. Cook pasta, according to package directions. Drain pasta and set aside.
2. In small bowl, take 2 tablespoons of the measured 1% milk and mix with cornstarch until dissolved.
3. Put remaining 1% milk and evaporated skim milk into empty pan. Mix in the cornstarch mixture and cook, stirring constantly, over medium heat until it bubbles and starts to thicken.
4. Continue cooking and stirring for 1-4 minutes until mixture is creamy. Remove from heat and gradually stir in salt and cheeses until cheese is melted and uniform.
5. Stir cooked macaroni into cheese mixture, making sure all noodles are coated.
6. Transfer macaroni and cheese into a 2-quart casserole dish that has been sprayed with nonstick cooking spray.
7. Bake at 350° F for 20- 30 minutes, until cheese sauce is bubbly.
8. Let the dish stand for 5-10 minutes before serving.

Active Cooking Time: 25 minutes

Traditional Recipe: 2 c. elbow macaroni, 2½ tbsp. butter, 3 tbsp. flour, 2½ c. milk, 3 c. shredded cheddar cheese, ½ tsp. salt

Peanut Butter and Jelly

Makes 1 serving

2 slices whole-grain bread (≥ 3 g of fiber per slice)
2 tablespoons no-sugar-added soy nut butter
1 tablespoon 100% fruit spread

1. Spread peanut butter on one slice bread.
2. Spread jelly on top of peanut butter.
3. Top with other slice of bread.

Active Cooking Time: 5 minutes

Traditional Recipe:
2 slices white bread, 2 tablespoons peanut butter, 1 tablespoon jelly

How to Raise an Adventurous Eater

Familiar foods may be comforting. Another issue at this age is that the children want to be in control of things, and they may act out by refusing to eat foods previously eaten or requesting new foods.

What can I do?

- If your child gets "stuck" on a certain food, change it a little bit- not drastically. You want to make the difference subtle, just enough that your child notices a difference.

- Try not to offer what was eaten yesterday again today.

- Change the color, shape, taste, and texture of your foods. Use beet juice, cookie cutters, spices, or cornstarch. Keep in mind that children in this age group typically do not like strong flavors, so be cautious.

- Try different methods of preparation- for example, baking instead of pan frying.

- Serve foods attractively and in child size portions.

- Have an eating schedule for meals/snacks, and avoid letting them eat/drink very much in between.

- <u>It can take 8-10 tries before a new food is accepted, so TRY AGAIN in a different way (different meal, different recipe, different preparation, etc.).</u>

Cavities

What can I do about these?

- Provide fewer carbohydrate foods, particularly the sticky ones like candy
- Have your child rinse with water or brush their teeth after eating or drinking
- Have your child use a fluoride supplement (usually found in toothpaste, rinses, lozenges, and pills) <u>if your water is not fluoridated</u>.
  - Be careful with fluoride supplements, because excess fluoride will stain your child's teeth

Constipation

What should I do?

- Give adequate dietary fiber, without giving too much.
  - Too much may lead to diarrhea or displacement of calories, iron, and calcium.
  - See the next slide for good sources of fiber and the suggested amount of fiber each day.
- It is important to get enough fluids to avoid constipation as well, especially if increasing fiber in the diet.
- Prunes can be cut up in small pieces and added to your recipes in place of other dried fruits to stimulate the bowels.
- Limit bananas if your child is having problems going to the bathroom.
- Massaging your child's abdomen can help relax the muscles and promote bowel activity.
- Avoid laxatives unless they were doctor-prescribed.
- Make sure your child spends enough time on the toilet- they may be trying to rush things, and just need to give it more time.

Best sources of Fiber

Food	Fiber Content (g)*
Beans (various types, 1 cup)	10.5-15
Peas (1 cup)	9
Raspberries (1 cup)	8
Whole wheat spaghetti (1 cup)	6.5
Barley (1 cup)	6
Pear (medium, with skin)	5
Broccoli (boiled, 1 cup)	5
Apple (medium, with skin)	4.5
Sweet corn (1 cup)	4.5
Brown rice (1 cup)	3.5
Almonds (22 nuts)	3.5
Whole grain bread (1 slice)	2

Total Fiber Needs *grams/day*	
Children 4-8 years	25
Males 9-13 years	31
Females 9-13 years	26

Vegetarian or Vegan Diet

The vegetarian and vegan diets are rich in fruits and vegetables and whole grains.

However, one may have to eat a LOT to get calories needed, because although the foods in this diet are nutrient dense, they are not usually very high in calories.

Vegans must watch their vitamin B_{12}, vitamin D, zinc, omega 3 fatty acids, and calcium intakes to be sure they are getting enough.

What can I do about this?

- Allow to eat several times daily
- Avoid serving bulky foods like bran, or too many raw fruits and vegetables
- Include some calorie dense foods, such as cheese and/or avocado
- Include enough fat & micronutrients
    - Your child may need fortified foods or supplements

Healthy Hydration

Fluid requirements increase with physical activity, fever, vomiting, diarrhea, and hot, dry, and humid environments.

Dehydration can be very dangerous, so be sure your child is drinking enough fluids!

What should I do?

- Limit or eliminate soft drinks
  - Give extra calories with no nutrients
  - Might replace healthier fluids in diet
  - Promote cavities
- Limit fruit juice to 4-6 fl oz. (1/2 - 3/4 cup)
  - Better to eat whole fruits for fruit servings
  - Fruit juices can be watered down (a gradual change to 3 parts water to 1 part juice)
- Provide milk (soy, almond, rice, cow, etc.)
- Offer water between meals and snacks

If your child is replacing meals with fluids, this is also not safe. They will not be able to get the nutrients they need.

What should I do?

- Go for less filling drinks, like skim milk instead of 2% or whole milk.
- Create rules about between-meal drinking
- Give your child a smaller cup to use

Overweight/Obesity

- Avoid using food as a reward
- Promote and model healthy eating habits
- Avoid ruining self-regulation by force-feeding
- Offer snacks that have nutrients in addition to the calories they provide
- Encourage behavior changes rather than weight changes
  - Choosing a vegetable over cookies is encouraged, instead of encouraging weight loss
- Limit TV time, and encourage physical activity

Food Allergies

What are the most common food allergies?

Dairy, eggs, wheat, peanuts, walnuts, soy, fish, shellfish

How can I substitute them in recipes?

Dairy

- For cooking and baking: coconut , rice, almond, soy, potato, or oat milks
- Dairy-free margarines: Fleischmann's Unsalted Margarine and Earth Balance Natural Buttery Spread
- Yogurt, ice cream, sour cream, cream cheese, frosting, and cheese can all be found dairy-free, but they usually contain soy

Eggs

- For baking: 2 teaspoons baking powder, 2 teaspoons canola oil, and 2 tablespoons water for each egg OR 1 teaspoon unflavored gelatin + 1 tablespoon warm water for each egg
- For making breading or in French toast: chickpea flour

Wheat

- Flours, pastas, and breads made with tapioca, rice, potato, sorghum, bean flours

Peanuts and tree nuts

- Instead of peanut butter: soy nut butter, sunflower butter

Soy

- Soy-free margarine: Earth Balance Natural Buttery Spread
- Soy-free cheese: Dairy cheese or vegan rice cheese
- Soy-free “soy sauce”:
  - 2 cups beef broth
    2 tsp cider vinegar
    1 tsp molassas
    1/8 tsp ground ginger
    dash of pepper/onoin powder/garlic powder
    Combine all in saucepan. Boil until reduced to 1/2 cup. Store in fridge.

Fish and shellfish

- Instead of fish or shellfish: use meat and poultry

Food Safety

Here are some important tips for keeping food safe for your child.

When preparing the food:

❖Have a separate cutting board to use only for raw meats and poultry to prevent cross contamination of your produce items.

❖Wash all of your food preparation materials (knives, cutting boards, food processor, storage containers, etc) in hot, soapy water or sanitize in the dishwasher.

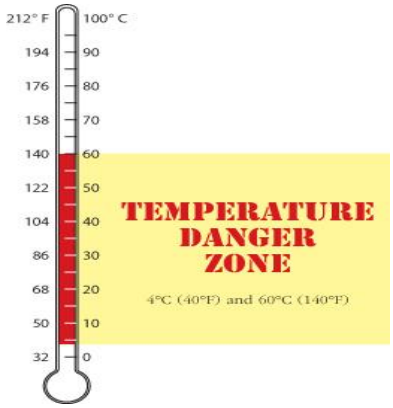
❖Clean your preparation surface with soap and water or antibacterial cleaner. Dry completely.

❖Wash your hands before handling any of the materials and after handling raw meats and poultry.

❖Rinse fruits and vegetables thoroughly with warm water before cutting into them.

❖Wash and sanitize knives/utensils used for raw meats before using them on vegetables.

Avoid keeping foods in the "**Danger Zone**," the temperature in which bacteria love to grow.



Cook all meats to the appropriate temperatures to kill most bacteria.

Type of Meat	Should be cooked to at least:
Beef, veal, & lamb	140°F
Pork	160°F
Ground beef, veal, & lamb	160°F
Chicken & Turkey	165°F

Food Safety

STORING FOOD

❖After making food, either serve or place immediately into containers and store.

❖Use tightly sealed, glass or plastic jars for refrigerator storage or freezer safe containers for freezer storage.

FREEZING FOOD

❖If your containers are freezer safe, they will have a snowflake picture on them.

❖If storing in the refrigerator, food may be stored safely for up to 3 days.

❖If storing in the freezer, food may be stored safely for up to 3 months.

❖Freeze foods as soon as possible to maintain quality.

THAWING FOOD

❖There are three ways to thaw your food safely

- Refrigerator
- Under cold running water
- Microwave

❖Never thaw your food at room temperature. Bacteria love to grow at room temperature and it will increase the risk of contaminating your food.

❖Foods thawed in the refrigerator may be refrozen; however, they will decrease in quality.

Vitamins & Minerals

What are Vitamins and Minerals?

Both vitamins and minerals are necessary for good growth and development for both you and your child.

Vitamins are made by plants or animals. There are two categories of vitamins, fat soluble and water soluble.

Fat soluble vitamins need fats to be absorbed and used by the body. These are **Vitamins A, D, E, & K**.

Water soluble vitamins need water to be absorbed and used by the body. These are the **B vitamins (Thiamin, Riboflavin, Niacin, B6, B12, and Folic Acid) and Vitamin C**.

Minerals are not made by plants or animals, but are in the soil or water. One of the most important minerals for nutrition is calcium. Others we need in smaller amounts and are called trace minerals such as **iron, zinc, sodium, phosphorus, potassium, and magnesium.**

Fat Soluble Vitamins

Nutrient	Why do we need it?	What foods have it?
Vitamin A	Important for vision, growth, and immunity	Carrots, sweet potatoes, squash, dark green leafy vegetables
Vitamin D	Important for absorption of calcium, bone development, immunity, & growth	Seafood, whole eggs, fortified dairy, fortified cereal
Vitamin E	Important for skin development and protection & immunity	Nuts, dark green leafy vegetables, olives
Vitamin K	Important for blood clotting & bone development	Asparagus, dark green leafy vegetables, broccoli

Water Soluble Vitamins

Nutrient	Why do we need it?	What foods have it?
Thiamin	Important for brain, muscle, & heart health	Sunflower seeds, beans, peas, lentils
Riboflavin	Important for overall health & growth	Mushrooms, dairy, beans, lean meats
Niacin	Important for heart health and lowering cholesterol	Lean meats, seafood, mushrooms, asparagus
Vitamin B6	Important for heart health and glucose control	Dark green leafy vegetables, bell pepper, banana, fish
Vitamin B12	Important for nerve development, growth, and glucose control	Lean meats, seafood, dairy, eggs
Vitamin C	Important for immunity, allergies, and heart health	Broccoli, bell pepper, citrus fruit, dark green leafy vegetables

Minerals

Nutrient	Why do we need it?	What foods have it?
Calcium	Important for bone development and growth	Dark green leafy vegetables, broccoli, canned fish, fortified dairy
Iron	Important for blood health and growth	Lean meats, seafood, beans, lentils, dark green leafy vegetables
Folate (Folic Acid)	Important for brain & nerve development, blood, skin, and bone health	Asparagus, beans & lentils, broccoli, dark green leafy vegetables
Zinc	Important for digestion, skin health, sexual development, and immunity	Lean meats, mushrooms, summer squash, asparagus
Sodium	Important for nerve and brain development, blood pressure, and hydration	Practically everything. The main concern is not giving too much sodium. Most processed foods are very high in sodium.
Potassium	Important for nerve and brain development, muscle health, and hydration	Apples, bananas, green beans, beans, peaches, potatoes, squash, whole grains
Phosphorus	Important for bone and tooth development	Lean meats, dairy, grains, beans, peas
Magnesium	Important for nerve, bone, and muscle development and heart health	Greens (swiss chard, mustard, collard, turnip), kale, spinach, beans, salmon

How much of each nutrient should my child be getting?

The recommended amounts of each nutrient are listed in the following tables. They are known as the **Dietary Reference Intakes or DRIs**.

	Carbohydrate *g/d*	**Total Fiber** *g/d*	**Fat** *g/d*	**Protein** *g/d*
Children				
4-8 years	**130**	25*	ND	10*
Males				
9-13 years	**130**	31*	ND	**34**
Females				
9-13 years	**130**	26*	ND	**34**

NOTE: These tables represent Recommended Dietary Allowances (RDAs) in bold type and Adequate Intakes (AIs) in ordinary type followed by and asterisk (*). RDAs and AIs may both be used as goals for individual intake. RDAs are set to meet the needs of almost all (97 to 98 percent) individuals in a group. The AI for other life stage and groups is believed to cover the needs of all individuals in the group, but lack of data or uncertainty in the data prevent being able to specify with confidence the percentage of individuals covered by this intake. ND, not determined; g/d, grams per day; mg/d, milligrams per day; mcg/d, micrograms per day.

DRIs for Minerals

	Calcium *mg/d*	**Iron** *mg/d*	**Magnesium** *mg/d*	**Phosphorus** *mg/d*	**Zinc** *mg/d*	**Potassium** *g/d*	**Sodium** *g/d*
Children							
4-8 years	800*	**10**	**130**	**500**	**5**	3.8*	1.2*
Males							
9-13 years	1300*	**8**	**240**	**1250**	**8**	4.5*	1.5*
Females							
9-13 years	1300*	**8**	**240**	**1250**	**8**	4.5*	1.5*

DRIs for Fat Soluble Vitamins

	Vitamin A *mcg/d*	**Vitamin D** *mcg/d*	**Vitamin E** *mg/d*	**Vitamin K** *mcg/d*
Children				
4-8 years	**400**	5*	**7**	55*
Males				
9-13 years	**600**	5*	**11**	60*
Females				
9-13 years	**600**	5*	**11**	60*

DRIs for Water Soluble Vitamins

	Thiamin *mg/d*	**Riboflavin** *mg/d*	**Niacin** *mg/d*	**Vitamin B6** *mg/d*	**Folic Acid** *mcg/d*	**Vitamin B12** *mcg/d*	**Vitamin C** *mg/d*
Children							
4-8 years	**0.6**	**0.6**	**8**	**0.6**	**200**	**1.2**	**25**
Males							
9-13 years	**0.9**	**0.9**	**12**	**1.0**	**300**	**1.8**	**45**
Females							
9-13 years	**0.9**	**0.9**	**12**	**1.0**	**300**	**1.8**	**45**