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Culinary Nutrition News: Building Better Menus for Kids

Provided through a partnership between ACEF Chef & Child Foundation and Clemson University, and sponsored by French's Foodservice.

Although it seems that people may not agree with what does or does not count as a serving of vegetables (i.e. the tomato paste on a slice of pizza), we can all agree that kids need to eat more vegetables, as well as a vast array of other health-promoting foods. Because children are constantly growing, consuming a nutrient-rich diet is essential. Whether you are cooking for kids at home or at work, it is vital to supply them with a menu that offers an assortment of needed nutrients, from carbohydrates and proteins to fats, vitamins and minerals.



Sweet potato fries offer a healthy alternative to traditional French fries.

Carbohydrates

As the body's main source of energy and fuel, carbohydrates are found in a variety of foods such as grains, vegetables, fruits, beans and dairy. There are two major types of carbohydrates in foods: simple and complex.

Simple carbohydrates are also called simple sugars and are found in refined sugars such as plain granulated sugar. Furthermore, simple carbohydrates can be found in foods where sugar is added, such as candy, or in foods where sugar is naturally found, such as fruit and milk. A rule of thumb is to focus on foods that have natural sugars because they usually contain vitamins, fiber and other important nutrients such as calcium.

Complex carbohydrates are also called starches and include grain products such as bread, crackers, pasta and rice. As with simple sugars, some complex carbohydrate foods are better than others. Refined grains such as white flour and white rice have been processed, which strips away nutrients. Whole grains, on the other hand, still contain valuable vitamins, minerals and fiber. On average, most school-age children need 6 to 8 ounces of grains a day; active teens may need as many as 9 or 10 ounces. Children and adults should aim for at least half of their daily servings to come from whole-grain sources. Good whole-grain sources include whole-grain cereals, brown rice, whole-grain breads and whole-wheat pastas.

WHAT IS EQUAL TO 1 OUNCE OF GRAINS?

1 ounce whole grains	1 ounce refined grains
1 slice whole-wheat bread	1 slice white bread
1 small corn or whole-wheat tortilla	1 small flour tortilla
½ cup cooked oatmeal, brown rice, wild rice or whole-wheat pasta	½ cup white rice, pasta or grits 1 packaged instant flavored oatmeal
½ whole-wheat bun, roll or mini bagel	1 bun, roll, small low-fat muffin or mini bagel
½ whole-wheat English muffin or pita	½ English muffin or pita
1 cup whole-grain breakfast cereal	1 cup breakfast cereal
5 whole-wheat crackers	5 low-fat crackers
3 cups fat-free or air-popped popcorn	15 pretzels

Whole grains also are rich in fiber, which helps the digestive system work properly. While kids may not crave a fiber-rich meal, fiber is filling. Consuming fiber helps avert overeating and, when combined with drinking plenty of water, helps prevent constipation. Fiber can come from a variety of foods such as fruits, vegetables, nuts and grains. A high-fiber food has 5 grams or more of fiber per serving and a "good" source of fiber is one that provides 2.5 to 4.9 grams per serving. Some good sources include 1 cup cooked black beans (15 grams), 1 cup cooked broccoli (5.1 grams), 1 ounce raw almonds (3.5 grams), 1 cup cooked oatmeal (4 grams) and 1 cup of raspberries (8 grams).

Proteins

Essential for building and maintaining the body, protein is found in meats, seafood, beans, nuts and dairy foods. Protein is the most satiating nutrient—it makes you feel full and content longer—so it is good to incorporate a little protein into each meal.

Each day, kids need to eat about 0.5 grams of protein for every pound they weigh. That's 1 gram for every 2 pounds a child weighs. For instance, a 70-pound child should have about 35 grams of protein every day. Their protein needs increase as they get bigger, but level off once they reach adult size. Adults need about 60 grams per day.



Instead of potato chips as a side, try serving hummus with carrot sticks, celery sticks or a whole-wheat pita.

WHAT IS EQUAL TO 1 OUNCE OF MEAT?	
1 ounce animal protein	1 ounce vegetable protein
1 ounce cooked fish or shellfish	¼ cup cooked beans
¼ cup canned fish, drained	2 tablespoons hummus
1 ounce cooked skinless chicken or turkey	1 tablespoon peanut butter or nut butter
1 ounce cooked lean ground meat or poultry	¼ cup cooked tofu
1 ounce cooked lean, trimmed cuts of beef, pork, ham or lamb	½ ounce nuts and seeds (approximately 12 almonds or 7 walnut halves)
1 egg	

Fats

Vital for keeping skin, hair and nails healthy and for absorbing vitamins, fat is naturally found in some foods and may also be added to food during cooking or manufacturing. Children need fat for their bodies to grow and develop properly. Fat is especially important for children under the age of 2 who need a certain amount of it in their diets to help in the development of the brain and nervous system. That's why toddlers should drink whole milk, which has more fat, and older kids should drink low-fat or skim milk. Additionally, children ages 2 to 3 should eat a varied diet with about 30 to 35 percent of calories coming from fat. For those 4 to 18 years old, calorie recommendations from fat decrease to 25 to 35 percent. Another way to think of fat is in terms of oil, since oil is composed mostly of fat. With this in mind, children need approximately 4 to 5 teaspoons, while adults need around 5 to 7 teaspoons.

Although eating adequate amounts of fat is essential to a healthy diet, many kids today are eating too much of it, leading to weight gain and increased incidences of obesity. Not only are children eating more fat, but they are also consuming more of the bad kinds of fat. Different fats have different effects on the body—some good and some bad. Healthy fats are unsaturated fats found in most vegetable oils, nuts, avocados and fatty fish such as salmon. These fats protect our hearts and should be selected more often. Saturated fats are unhealthy fats found in animal products such as meat or whole milk and trans fats found predominantly in snack foods, baked goods and fried foods. The major sources of saturated fat in children's diets are full-fat milk and cheese and fatty meats. This is why it is extremely important to offer low-fat dairy and lean cuts of meat in appropriate portion sizes, along with fruits, vegetables and whole grains, which are all naturally low in fat.



WHAT IS EQUAL TO 1 TEASPOON OF OIL?
1 teaspoon plant-based cooking oil (canola, olive, corn, peanut, soybean, etc.)
8 olives
¼ of an avocado
1 tablespoon oil-based salad dressing
2 tablespoons reduced-fat oil based salad dressing
4 to 5 tree nuts (almonds, walnuts and pecans)
2 tablespoons reduced-fat mayonnaise
1 tablespoon margarine

Vitamins

Vitamins are substances that are found in the foods we eat, and the body needs them to grow, develop and work properly. Though some kids take a daily vitamin, most children don't need one if they are eating a variety of healthy foods. In other words, the body should be able to get the vitamins it needs from the foods consumed because different foods contain different vitamins.

Perhaps the most notable suppliers of vital vitamins are fruits and vegetables. Fruits and vegetables are full of fiber, vitamins and minerals and are low in calories, fat, sodium and cholesterol. Each type offers its own unique assortment of nutrients, which makes consuming and serving a variety of produce all the more important. Kids should eat approximately 1 to 1½ cups of fruits and approximately 1½ to 2½ cups of vegetables per day.

Grains and protein	→	B vitamins	→	Help the body make protein and energy
Fortified dairy products	→	Vitamin D	→	Helps maintain good bone health
Vegetables and fruits	→	Vitamin A	→	Helps vision
Vegetable and fruits	→	Vitamin C	→	Helps immunity
Plant oils and nuts	→	Vitamin E	→	Helps protect tissues and cells from damage

WHAT IS EQUAL TO ONE CUP OF FRUITS OR VEGETABLES?

1 cup of fruit	1 cup of vegetables
1 small apple (2.5-inch diameter)	12 baby carrots
1 large banana (8 to 9 inches long)	1 large ear of corn (8 to 9 inches long)
1 medium pear (2.5 per pound)	1 large baked sweet potato (2¼-inch diameter)
3 medium plums	2 large stalks of celery
8 large strawberries	1 cup cooked green beans
32 seedless grapes	10 broccoli florets
1 small wedge (1-inch thick) watermelon	1 large tomato (3 inches)
½ cup dried fruit (raisins, prunes, apricots)	1 large green pepper (3-inch diameter, 3¾ inches long)



Minerals

As with vitamins, minerals help the body grow, develop and stay healthy. The body uses minerals to perform many different functions, from building strong bones and transmitting nerve impulses to making hormones and maintaining a normal heartbeat. Two important minerals for growing kids are iron and calcium.

Children need calcium to build strong bones—a process that continues through teen years. Calcium is found in dairy products such as milk, cheese and yogurt, as well as canned salmon and sardines with bones, leafy green vegetables such as broccoli and calcium-fortified foods like orange juice and cereals. Getting enough calcium at a young age is important to prevent osteoporosis later on, but more than 85 percent of girls and 60 percent of boys ages 9 to 18 fail to get the recommended

1,300 milligrams of calcium per day. Children should consume around 2 to 3 cups of low-fat or non-fat milk or dairy products every day.

The body needs iron to transport oxygen from the lungs to the rest of the body through the blood. Without an adequate amount of iron, the body can't make enough red blood cells, and tissues and organs fail to get the oxygen they need. Therefore, it is important for kids and teens to get enough iron in their daily diets. Iron can be found in the following foods:

- Beans
- Baked potato with skin
- Dried fruits
- Eggs
- Leafy green vegetables
- Meat, especially red meat
- Tuna and salmon
- Whole- and enriched-grains

WHAT IS EQUAL TO ONE CUP OF MILK OR DAIRY PRODUCT?

1 cup (8 ounces) milk
1 cup or 1 (8-ounce) carton of plain yogurt
2 cups cottage cheese
⅓ cup shredded cheese
1 cheese stick
1½ ounces hard cheese (Parmesan, cheddar, Swiss, etc.)
1 cup pudding made with fat-free milk
1 cup pudding or low-fat frozen yogurt





Menu making

Making a more nutritious kid's menu is easier said than done. But you have to start somewhere, and somewhere is the normal kid's menu fare. For example, take a look at the differing nutrition profiles of French fries compared with baked sweet potato fries. Note the dramatic decrease in calorie and fat content, as well as the quadrupled percentage in vitamin content. Providing a healthier kid's menu can be as easy as making small, simple exchanges.

	Restaurant-style French fries	Baked sweet potato fries
Calories	390	140
Fat (grams)	18	1.5
Sodium (milligrams)	710	350
Fiber (grams)	5	4
Protein (grams)	5	3
Vitamin A	--	450%
Vitamin C	--	40%
Calcium	2%	8%
Iron	6%	4%

**Based on one children's portion size, approximately 137 grams*

TRADITIONAL	MODIFIED
Chicken tenders and fries	Oven-fried chicken tenders in a seasoned almond and whole-wheat flour crust with a side of sweet potato fries
Pasta	Fettuccine alfredo made with whole-wheat fettuccine and matchstick slices of zucchini, as well as a sprinkling of sweet peas
Pepperoni pizza	Whole-wheat pizza dough coated in a flavorful tomato sauce with pumpkin purée and low-fat turkey pepperoni and cheese
Chicken quesadilla	Chicken, corn and black bean quesadilla with pepper jack cheese
Club sandwich with potato chips	Turkey, tomato and basil panini served with carrot sticks and a side of hummus.
Grilled cheese	Grilled peanut butter and banana sandwich
Ice cream	Fruit parfait with low-fat yogurt, granola and a mix of berries

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About the American Culinary Federation and the Chef & Child Foundation



The American Culinary Federation, Inc., established in 1929, is the premier professional organization for culinarians in North America. With more than 20,000 members in 225 chapters nationwide, ACF is the culinary leader in offering educational resources, training, apprenticeship and accreditation. In addition, ACF operates the most comprehensive certification program for chefs in the United States. ACF is home to ACF Culinary Team USA, the official representative for the United States in major international culinary competitions, and to the Chef & Child Foundation, founded in 1989 to promote proper nutrition in children and to combat childhood obesity. For more information, visit www.acfchefs.org.

About Clemson University



CU CHEFS® (Clemson University's Cooking and Healthy Eating Food Specialists) instructional program, led by Dr. Margaret Condrasky, associate professor in Food Science and Human Nutrition, is a registered trademark of Clemson University designed to promote changes in menu planning, food purchasing, food preparation and food consumption behaviors with a goal of fostering good health through healthy nutrition. "Culinary nutrition" is the application of nutrition principles combined with food science knowledge

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About French's Foodservice



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