Design an outdoor space for families

Introducing kids to gardening

Kids and play

Try our recipes!

Beverages and your health

Does having a pet keep you healthy?

FREE Activities for Kids

www.ndsu.edu/eatsmart
Welcome

Back in 2005, I approached the former Bison athletic director with a wild idea about involving Bison athletes in nutrition and fitness outreach. Fortunately, he liked the idea, and “Eat Smart. Play Hard. Together” was launched with a popular poster and later, billboards, contests, videos and visits from athletes to local schools.

Through these many years, “Eat Smart. Play Hard. Together” became the slogan for our statewide educational program offered by NDSU Extension offices for children and parents/caregivers. In the process, we have reached tens of thousands of children and families every year with nutrition and fitness education. You may have heard a North Dakota child talking about participating in an “On the Move to Better Health” program or a cooking school, camp or after-school program. Maybe you have seen a bright yellow drawstring backpack with our sponsors’ names.

This is our sixth issue of a magazine that wouldn’t be possible without a lot of help from many sources. I thank my colleagues at NDSU for sharing their expertise about a wide range of topics. In this issue, you will learn about designing outdoor living spaces, gardening, balancing sports with free play and providing healthful foods for a family. We also have many tasty recipes to try.

We thank our sponsors for providing ongoing support, and we hope you enjoy this issue!

Julie Garden-Robinson, Ph.D., R.D., L.R.D., F.A.N.D.
Professor and Food and Nutrition Specialist, NDSU Extension

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Go lean with protein.

- Choose low-fat or lean meats and poultry
- Bake it, broil it or grill it
- Vary your choices — with more fish, beans, peas, nuts and seeds

ChooseMyPlate.gov

Vary your veggies.

- Eat more dark green veggies
- Eat more orange veggies
- Eat more dry beans and peas

ChooseMyPlate.gov

Make at least half your grains whole.

- Eat at least 3 ounces of whole-grain bread, cereal, crackers, rice or pasta every day
- Look for "whole" before the grain name on the list of ingredients

ChooseMyPlate.gov

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Designing Outdoor Gathering Spaces

Ann Marie Ragan, M.S., ASID, IDEC, NCIDQ Cert. No. 023436
Senior Lecturer, Department of Apparel, Design and Hospitality Management, NDSU
The winter months can be bitterly cold in the Midwest, and we look forward to spending more time outdoors during the summer months. Designing a beautiful and functional outdoor gathering space for your family can make the outdoors even more enjoyable.

Outdoor gathering spaces include porches, decks, patios, gazebos, outdoor fireplaces surrounded by seating, or a beautiful, quiet area in your garden. Outdoor rooms are exterior areas that are open but more protected from the harsh elements of the outdoors.

A common outdoor room is a porch. A porch often has one solid wall it shares with the attached home, a roof and railings or half walls with openings (or screened openings) to the outdoors. The primary intent behind an outdoor room is to bring the indoors out.

Outdoor rooms provide a wonderful transition between the outdoors and indoors. Large, retractable glass doors protect your home from the weather while providing extensive views of the exterior. French doors and retractable doors provide users with the ability to open an entire wall to the outdoors, making both spaces feel larger.

Outdoor gathering spaces of any type can be enhanced by incorporating comfortable and durable furniture and finishes, carefully selecting plants and flowers, and introducing lighting and focal points. Laying out the furniture to encourage conversation and provide ample space for movement is key to any well-designed gathering space.
Measure Your Space

Begin by measuring the space carefully prior to purchasing any furniture, flower pots or other decorative items. This will help you purchase furniture that is appropriately sized for the space.

When measuring your space for furniture, remember to plan for circulation space between pieces of furniture: for example, to provide at least 18 inches between a seating piece and a coffee table. If you are including swings or rockers of any type, you will need to consider the size of the item and the amount of clearance needed around the furniture piece.

Accommodating the movement of furniture can be tricky, but often manufacturers provide recommendations for placement to avoid interference with other furniture pieces or walls.

Selecting Furniture

Providing a variety of furniture creates an inclusive space capable of accommodating a variety of users. Include seating that is sturdy, has a seat height of 17 to 20 inches, and has a full back and arms to assist individuals who may have difficulty rising from a seated position.

Flexible seating can be helpful when the number or size of people using the space varies. Providing benches with one continuous cushion allows for people to sit anywhere on the bench without the discomfort often associated with sitting where two cushions meet.

Lounge furniture can take up a large amount of space, but it provides the most comfortable reclining positions and often is equipped with cushions. The depth of a seat can affect comfort. If a chair is too deep, properly sized back pillows with firmer filler can improve comfort.

How protected your space is from the weather will determine what types of furniture, materials and fabrics are best to use. Consider water/hail resistance when selecting furniture. Metal furniture is durable and less likely to be damaged, tip over or blow away during a strong storm.

Carefully consider the color of the paint used on the metal because this can determine how warm the material will get on a hot, sunny day. Lighter colors reflect more of the light from the sun, which helps keep the metal cooler to the touch.

Because wood is a natural material, wood furniture blends seamlessly into the natural elements of an outdoor environment. Some wood furniture may need to be stained and sealed properly to protect the wood and reduce fading or discoloration from exposure to the sun and weather.

A variety of plastics, including recycled plastic furniture, is available. One of the biggest challenges with plastic outdoor furniture is connected to weight. A piece of furniture that is too light has the potential to tip over or blow away during a storm. Plastic furniture reinforced with a metal frame can be a great choice for safe, durable and affordable outdoor furniture.

Finishing Touches

Colorful outdoor rugs and fabric can bring texture and comfort to the space. Textile products with bright or rich colors have the potential to fade when exposed to the sun and will show wear when exposed to the elements. Fabrics and rugs designed for exterior use will repel, rather than absorb, dirt and water, and will resist fading if exposed to the sun for longer periods of time. Patterns also help hide dirt and stains while creating layers of texture.

Carefully placed citronella candles can provide ambient lighting and repel insects. Light fixtures can be used to draw attention to focal points and improve safety by lighting paths, stairs and walkways. Any light fixtures used outdoors must be UL listed and appropriate for the type of exterior space where it will be installed.

Focal points such as outdoor fireplaces provide beauty and warmth, while water features create tranquil sounds and provide movement. An assortment of materials can be used to create fire and water features in your outdoor gathering space. Personalize the space and make it your own. If you enjoy flea markets, outdoor gathering spaces are the perfect place to showcase your treasures.

Plants and flowers in decorative pots and planters bring color and nature into the space. Many plants naturally repel insects, which can be beneficial when designing an outdoor space for relaxing. Basil repels house flies and mosquitos. Lavender repels flies, fleas, moths and mosquitos. Lemongrass, lemon thyme, rosemary and mint will repel mosquitoes. Plant an herb garden and enjoy eating the fresh herbs in your insect-free outdoor space.

Outdoor gathering spaces bring together the best of interior and exterior spaces. Smart selections and clever uses of materials can create a lasting and unique space for your family to come together and enjoy the outdoors.
Introduce Your Kids to Gardening

Tom Kalb, Ph.D., Horticulturist, NDSU Extension

Adults like gardening, but what about kids?
Most kids like video games and Legos. I’ve never heard of a kid asking Santa Claus for a new gardening trowel.

Don’t give up. Here are a few tips on how to get kids excited about gardening:

- **Select easy-to-grow crops** – I grew beans in my family’s garden when I was a kid. It was foolproof. I was amazed to see the seedlings pop out of the ground; it was like magic. I’ll never forget the joy my mother expressed when I harvested a pot full of beans for our family’s dinner. Priceless!

  My brother grew carrots, a crop that can be difficult to grow. Sowing the tiny seeds was frustrating. The plants were hard to weed around, and the rabbits ate the harvest. He hated gardening as a kid, and he still hates gardening today.

  Sunflowers, marigolds, zinnias, corn and cherry tomatoes are other easy-to-grow plants. Let your children grow their own pumpkin. They can watch it get bigger and bigger all summer.

- **Make gardening an adventure** – Keep your eyes open. Your garden is an outdoor classroom that keeps changing all summer. It always has something new to find. Explore for bugs and worms. Who can find the biggest weed? When harvesting potatoes, pretend you are a potato pirate digging for buried treasure.

- **Give them ownership** – When you are at the seed rack at the store, let your kids choose a packet of seed. When you are selecting flowers at the garden center, let your kids select the flower they want to grow. Give your children their own portion of the garden to take care of, or give them their own container garden or raised bed.

- **Make gardening delicious** – Kids like raspberries and cherry tomatoes, not Brussels sprouts. Don’t make a kid grow Brussels sprouts. It’s cruel!

- **Explore herbs** – Give your kids a chocolate mint plant. Introduce them to lemon basil. Let them stick the leaves of herbs right up to their noses. Watch their eyes pop open in amazement. They’ll love it.

- **Give them kid-sized tools** – Make gardening comfortable for kids. Avoid cheap, plastic tools that are more suited for sandboxes. Give your child a real, kid-sized metal shovel.

- **Pick a theme** – Pizza gardens are a popular theme garden for kids today. Tomatoes, basil and onions are easy to grow, and then make a pizza with them. Butterfly gardens and sunflower teepees are other ideas.

- **Consider raised beds** – Raised-bed gardens have a lot of advantages. Once established, they require less physical work and bending. They warm up faster and drain better than normal gardens. For kids, raised beds bring the plants closer to their eyes. Kids are less likely to stomp on the crops. Kids like running around the beds.

- **Get wet** – Kids love to get wet. They love watering plants. Give them a watering can or let them use the gardening hose. We always irrigate the garden at the end of my youth gardening classes.

- **Give them a treat after gardening** – Work in the garden for 30 minutes and then snack on fresh fruit. Soon the kids will want to come to the garden instead of looking for the chance to escape from it.

- **Share the garden produce** – My experience with youth gardens is that once kids become teenagers, being seen in a garden is not “cool.” But if you grow the vegetables for needy families in your community, it suddenly becomes a cool thing.

- **Be patient** – Don’t force gardening on kids. Invite them to the garden and show them how much you love it. Sow the idea of “garden love” in their hearts. Maybe their love for gardening will germinate right away; maybe it will take 30 years. The opportunity will come, and so will the joys and the memories.
Winter Happens!
Try These Indoor Gardening Ideas for Kids and Families

Todd Weinmann, M.S., Extension Horticulture Agent, Cass County

The winter months can give you a strong desire to grow something.
If you are wanting a project for your kids this winter, why not indoor gardening? You will need these supplies: a container, water, fertilizer, light and seeds.

**How much space do I need?**
With the lack of space to plant an entire garden, try using two or three pots or containers. The containers should be about the size of a gallon or larger and have holes in the bottom for good drainage and to pull any salts out of the soil.

**When should I water it and why?**
Approximately once a week, water the container so that water comes out of the bottom and into a catch basin of some sort. This water in the basin should be discarded. The reason to water this way is to remove salts that can build up in your container.

**Do I have to make my own soil (growth media)?**
The growth media in which you are planting can be purchased, in almost all cases, locally at several different locations. Try a mix of soil and soilless media that has been pasteurized. This will kill the majority of bad flora and fauna (living organisms) and leave the majority of the good flora and fauna.
When should I fertilize?
Wait to fertilize until the plants come out of the soil and have at least two to four “true” leaves. Then apply the fertilizer at half the rate you would for outside gardening. Usually this is once a month; however, you can apply a slow-release fertilizer and be done with applying for the length of time the directions recommend. Look for something that has three numbers on it, such as 10-10-10 N-P-K or 20-20-20 N-P-K (N stands for nitrogen, P is phosphorus and K is potassium).

What can I grow?
Grow something you enjoy looking at or eating. Herbs are easy when working with kids. How about chocolate mint, pineapple sage or other fun herbs? Plant your seeds according to package directions.

What about lighting?
Natural sunlight is the best but not always possible. Full-spectrum florescent lights won’t take the place of natural sunlight, but they will get the job done for you. LED lights also are an option that has the advantage of producing very little heat. Have the lights 3 inches above the plants, with the ability to increase the distance between the plants and the lights as the plants grow taller.
If you are struggling to get your child to eat healthfully, you are not alone. The majority of American households do not meet the Healthy Eating Index Guidelines provided by the U.S. Department of Agriculture. These dietary guidelines are updated every year to meet the current nutrition recommendations.

So where do you start on the journey toward a more nutritious diet for your child? Research suggests that lots of exposure to a variety of healthful food is the way to go.

Mother and Baby

For those who are expecting or planning to conceive soon, the answer is to start now. Research shows that children’s healthful eating habits start in the womb. Because the fetus develops taste buds as early as 15 weeks, the flavors from the foods mom eats during pregnancy reach the child in utero. Flavors of many of the foods mothers eat are present in the amniotic fluid, so babies are exposed to these flavors before they are born.

This process does not stop there. After birth, if mom is breastfeeding, the flavors from her diet still are reaching the child and can influence the child’s food and taste preferences through breastmilk. In exposing your child to a variety of flavors during pregnancy and after birth, you are familiarizing the child with these flavors and giving the child exposure to those foods before the child can eat.

Should I offer rewards for trying new foods?

Research has shown that offering your child incentives can help increase the acceptance of food. This is because the child will associate the food with a positive outcome. However, offering a reward is only helpful if it is not a food item. Offer a sticker instead of a cookie or ice cream. Constantly rewarding eating broccoli with a cookie could lead to more robust thinking that broccoli is “bad” and cookies are “good.”
Serve Healthful Foods: Try, Try, Try Again!

Children cannot eat healthfully if they are not exposed to and given healthful foods. Even if your child has rejected the food previously, you can keep reintroducing it.

However, do not continually try to introduce a food your child has rejected during the same feeding in which the food was rejected. Wait until the next feeding or a meal a day or two later. Through time, and with repeated exposures, children will learn to like the foods they rejected at first (with some exceptions).

Do not give up. Evidence indicates that the repeated exposure to food eventually will lead to acceptance of the food. Getting children to finally eat the food may take anywhere from 10 to 20 sessions of offering the food.

Please note: Do not force continued eating if the food is rejected at first taste. Doing so may delay acceptance of any solid food. Try again at another time separate from this feeding/meal time. For more tips on introducing solid foods, see the NDSU Extension publication “Safe Food for Babies and Children: Introducing Solid Foods to Your Baby.”

To Eat or Not?

A widespread practice in trying to make your child eat more healthfully is pressuring your child to eat. Encouraging your child to try the food is very different than demanding your child finish the whole portion. The stronger that parents demand their children finish the whole serving of the rejected food, the less willing children are to try new foods.

The practice of having children sit and eat everything on their plate could lead to them being afraid to eat in front of their parents. This is because they fear their parents will be upset with them.

Set an Example: “Do as I say, not as I do” is outdated

You cannot expect your child to eat something you are unwilling to try. In addition to serving healthful foods, you also must be willing to eat, or at least try, the food. Always eat the food you are trying to get your child to eat in front of your child.

Studies suggest that children follow their parents’ dietary habits and leads. So, if you constantly are talking about disliking a food and unwilling to try new foods, your child will follow your lead.

Avoid “Clean Your Plate”

If children constantly are told how much to eat, even past the point of being full, they will begin ignoring their natural cues. If parents constantly are regulating food consumption, children will stop regulating intake on their own.

Food Neophobia vs. Picky Eating vs. Finicky Eating

Food neophobia – It is related to the fear of new things and situations. It is defined as the avoidance or unwillingness to eat new foods.

Picky eating – It occurs when a child is not eating an adequate variety of foods and rejects familiar and unfamiliar foods.

Finicky eating – This involves a child being specific about the preparation as well as other aspects of the food (for example, wanting food cut in squares)
Are your kids equipped with enough nutrition information to make these kinds of healthful food choices?
By the time children reach middle school, can stay home alone after school or are even tall enough to reach the cupboard handles, they are making choices about the foods they eat. When the options are all nutritious, making great choices is much easier. If the options are calorie-laden sweets, sodas and salty snacks, nutrition is hard to find.

Parents are responsible for supplying healthful food choices and information about how to choose the best foods for a balanced diet. If you have questions about how to choose the healthful option, consult www.ag.ndsu.edu/food/ and www.choosemyplate.gov together with your family members.

Have your kids had practice, with your guidance, in selecting healthful foods?

Do your kids know the nutritional differences between a baby carrot and a cheese puff? After all, eating a “rainbow” of colors from a box of colorful cereal may not be healthful.

Does your home have a well-stocked fruit or candy bowl? Fruit is naturally sweet and provides many nutrients. Are your children surrounded by foods that are good for their growth and health or just meant to get them to the next event hurriedly?

Are high-calorie sweets and salty chips served only occasionally or are they readily available?

Are healthful afterschool snacks easy to find, prepare and eat? Assess your fridge, countertops and snack cupboards with your children to determine healthful choices. Post a grocery list so everyone can add items. Talk about the list as a family before you go shopping.

Nutritious after-school snacks should be just filling enough to tide everyone over until dinner. If after-school snacks are healthful choices, they become the first course of your evening meal. Try cut-up fruits, vegetables, cheese, wheat crackers, cottage cheese, yogurt or a cup of hot soup as the after-school “appetizer.”

For more information, join us at The Family Table:
www.ag.ndsu.edu/familytable
Are Your Kids Ready to Make Healthful Lunch Line Choices?

Kim Bushaw, M.S., Extension Family Science Specialist, Department of Human Development and Family Science, NDSU
Thirsty?
Rethink Your Drink

Julie Garden-Robinson, Ph.D., R.D., L.R.D., F.A.N.D.,
Professor and Food and Nutrition Specialist,
NDSU Extension
“Mom, could I have some _________?”

If your child is thirsty, the blank might be filled in with the name of your child’s favorite pop, sports drink or fruit-flavored beverage. However, what are the long-term health effects of sweetened beverages?

Soft drink consumption has increased five times since the late 1960s. Kids are having sweetened soft drinks at younger ages and the portion sizes of fountain drinks have increased drastically.

Liquid Calories

Watch out for “liquid calories” that provide few, if any, nutrients. Fruit-flavored beverages (punch, lemonade, fruit-flavored drinks), sweet tea, sports drinks and regular (not diet) soda contain added sweeteners and calories without nutrients.

Scientists have named sweetened beverages one of the issues linked with higher obesity rates, which can increase our risk for chronic diseases, including diabetes, heart disease and cancer. Sweetened beverages can promote dental decay. In fact, while diet soft drinks do not have calories, the acid they contain is tough on teeth.

Did you know? One 12-ounce can of cola has about 10 teaspoons of sugar (as high-fructose corn syrup) and 150 calories. Cutting out one can of sweetened soda daily (and not consuming the calories in another way) could result in a 15-pound weight loss in a year.

Try Flavor-infused Water

If plain water is kind of boring, try infusing water with fruit and/or herbs. Be creative and invent some new flavor sensations.

+ Start with clean hands, containers, cutting boards and knives. Rinse fruit and herbs thoroughly.
+ Try one of these flavor add-ins:
  + **Citrus water**: ½ cup sliced oranges, lemons or grapefruit + 2 quarts water
  + **Strawberry kiwi water**: 3 sliced strawberries + 1 peeled, sliced kiwi + 2 quarts water
  + **Watermelon rosemary water**: 2 cups seedless watermelon (cut in chunks or balls) + 1 sprig rosemary + 2 quarts water
  + **Raspberry lime water**: 20 crushed raspberries + 2 sliced limes (without rind) + 2 quarts water
+ Refrigerate overnight.
+ Don’t mix batches. Use up the batch, clean the container and make a new batch.

Consider these tips to help your family make more healthful choices. You might save money in the process, too.

+ Quench your thirst with water. Most kids do not need sports drinks to quench their thirst.
+ Make water, low-fat or fat-free milk or 100 percent juice options in your home. However, encourage family members to eat whole fruit more often than fruit juice for the fiber advantage.
+ Take water on the go in a reusable water bottle. Reusable water bottles are easy on the environment, convenient and cost-effective. Be sure to wash them thoroughly between uses.
+ Save money at restaurants by ordering water when dining out and drinking water from the tap at home.
+ Enjoy an occasional sweetened beverage, but have a smaller portion. Split a can of soda pop or try the smaller cans.
+ Read and compare Nutrition Facts labels to learn more about sugar, fat, calories and nutrients in your favorite beverages.
Celebrations such as birthdays or holidays are exciting and memorable times filled with family, friends and food. Nourish your body every time you eat, even when you are celebrating a special day. Here are three tips:

Incorporate three or more food groups into celebration foods.

Five food groups (grains, vegetables, fruits, protein and dairy) are included in the current MyPlate nutrition guidelines from the U.S. Department of Agriculture. When deciding on the menu, think about how you can incorporate at least three of these food groups.

• When including dairy, choose nonfat or low-fat options.
• Select lean proteins.
• Include fruits and vegetables to add color, flavor, texture and nutrients to any meal, snack or celebration menu.
• Choose whole grains for half of the grain foods on the menu.

Have fun with food activities.

Get creative! Kids are more likely to eat healthful foods when they are involved in the preparation. Provide healthful foods for kids to use in creating an edible picture or work of art. Have them guess what their friends made, then enjoy! Here are some examples:

Swap ingredients to boost nutrition.

Trim calories and/or add fiber, vitamins and minerals with these more healthful swaps:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Healthier Swap</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cup sour cream</td>
<td>1 cup nonfat yogurt</td>
</tr>
<tr>
<td>1 cup mayonnaise</td>
<td>1 cup nonfat yogurt</td>
</tr>
<tr>
<td>1 cup all-purpose flour</td>
<td>½ cup flour plus ½ cup whole-wheat flour</td>
</tr>
<tr>
<td>½ cup oil</td>
<td>¼ cup oil plus ¼ cup applesauce</td>
</tr>
</tbody>
</table>

See http://tinyurl.com/RecipeMakeovers-FN1447 for more information.

Tracey Dillon, Dietetic Intern, NDSU Extension • Julie Garden-Robinson, Ph.D., R.D., L.R.D., F.A.N.D., Professor and Food and Nutrition Specialist, NDSU Extension

Time with a child is time well spent.

For more information about parenting and 4-H, visit www.ag.ndsu.edu/family and www.ndsu.edu/4h

Source: National 4-H Council
Wash Your Hands!
Protect Your Family From Germs!

Wash your hands for at least 20 seconds before you begin preparing food and after any activity that could contaminate your hands.

Safe Cooking Temperatures
as measured with a food thermometer

<table>
<thead>
<tr>
<th>Visual clue</th>
<th>Portion size</th>
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<tbody>
<tr>
<td>½ baseball</td>
<td>½ cup of mashed potatoes</td>
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<tr>
<td>large egg OR golf ball</td>
<td>¼ cup of dried cranberries</td>
</tr>
<tr>
<td>pingpong ball</td>
<td>2 tablespoons of peanut butter</td>
</tr>
<tr>
<td>checkbook</td>
<td>3 ounces of fish</td>
</tr>
<tr>
<td>card deck</td>
<td>3 ounces of meat or poultry</td>
</tr>
<tr>
<td>4 dice</td>
<td>1½ ounces of natural cheese (cheddar, Swiss)</td>
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<tr>
<td>thumb tip</td>
<td>1 teaspoon of margarine or butter</td>
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<tr>
<td>Beef, veal, lamb, pork</td>
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<td>Chicken, turkey</td>
<td>165 F</td>
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<th>Internal Temperature</th>
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<tbody>
<tr>
<td>- medium-rare</td>
<td>145 F*</td>
</tr>
<tr>
<td>- medium</td>
<td>160 F</td>
</tr>
<tr>
<td>- well-done</td>
<td>170 F</td>
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<tr>
<td>- medium</td>
<td>160 F</td>
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<td>- well-done</td>
<td>170 F</td>
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<td>Precooked (to reheat)</td>
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<th>Poultry</th>
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<th>Eggs and Egg Dishes</th>
<th>Cook until yolk and white are firm</th>
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<tr>
<td>Shrimp, lobster and crabs</td>
<td>145 F or flesh is opaque and separates easily with fork</td>
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<tr>
<td>Clams, oysters and mussels</td>
<td>Flesh pearly and opaque</td>
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<td>Scallops</td>
<td>Shells open during cooking</td>
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<td>Milky white or opaque and firm</td>
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<th>Leftovers and casseroles</th>
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*Allow three-minute rest time

Source: U.S. Department of Agriculture
These recipes were selected because they feature several vegetables, grains and other foods that we can grow/raise in North Dakota. For more information, see the NDSU Extension publications “Now Serving: Meals With Help from Kids!” and “Now Serving: Meals With Help From Teens!” available at www.ag.ndsu.edu/familytable.

They also are easy to make and provide an opportunity to introduce some new flavors to children as they join you in the kitchen.

‘I want to help!’

How can preschoolers help in the kitchen?

Kids vary in their development, but these are some typical ways that young children can help in the kitchen.

- **Age 2:** Wipe tables, hand items to an adult to put away after grocery shopping, place things in the trash, tear lettuce or greens, turn pages in a cookbook, make “faces” out of pieces of fruits and vegetables, rinse vegetables or fruits, snap green beans
- **Age 3:** Add ingredients, talk about cooking, scoop or mash potatoes, squeeze citrus fruits, stir pancake batter, knead and shape dough, name and count foods, help assemble a pizza
- **Age 4:** Peel eggs and some fruit (oranges, bananas), set the table, crack eggs, help measure dry ingredients, help make sandwiches and tossed salads
- **Age 5:** Measure liquids, cut soft fruits with a dull knife, use an egg beater

**Key to abbreviations**

- c. = cup
- Tbsp. = tablespoon
- tsp. = teaspoon
- oz. = ounce
- lb. = pounds
- g = grams
- mg = milligrams

Recipes were analyzed using Food Processor SQL software.

Join us at The Family Table

www.ag.ndsu.edu/familytable
**Refreshing Fruit Dip**

16 oz. frozen peaches, thawed  
10 oz. frozen strawberries, thawed  
½ c. honey nonfat Greek yogurt  
1 Tbsp. lemon juice  
¼ tsp. almond extract

1. Combine all ingredients in a food processor.  
2. Blend until smooth.  
3. Serve with fresh fruit, such as apple slices or strawberries.

Makes 20 servings. Each (¼ cup) serving has 20 calories, 0 g fat, 0 g protein, 4 g carbohydrate, 0 g fiber and 0 mg sodium.

**Blueberry and Oatmeal Power Muffins**

2 c. all-purpose flour  
1 c. oats, quick or regular  
½ c. sugar  
1 tsp. baking powder  
1 tsp. baking soda  
½ tsp. salt  
1½ c. honey nonfat Greek yogurt  
2 large eggs, lightly beaten  
4 Tbsp. unsalted butter, melted and slightly cooled  
1 tsp. vanilla extract  
1 c. fresh blueberries

1. Heat oven to 350 F.  
2. Coat muffin tin with cooking spray or liners.  
3. Combine flour, oats, sugar, baking powder, baking soda and salt in a bowl.  
4. Combine yogurt, eggs, butter and vanilla in a second bowl.  
5. Fold yogurt mixture into dry mixture; stir to combine completely.  
6. Gently fold in blueberries.  
7. Spoon into muffin tins.  
8. Bake until top is golden and a toothpick inserted in center comes out clean, approximately 20 to 25 minutes.

Makes 16 servings. Each serving has 170 calories, 4.5 g fat, 4 g protein, 29 g carbohydrate, 1 g fiber and 210 mg sodium.

**Slow Cooker Honey Granola**

4 c. old-fashioned oats, uncooked  
6 Tbsp. honey  
½ c. flax  
1 c. bran cereal  
1 c. raisins  
¼ c. canola oil

1. Pour all ingredients into a 6-quart slow cooker and mix well.  
2. Put the cover on a little bit askew and cook on low for about three hours, stirring occasionally.  
3. Let cool on parchment paper and store in an airtight container for one to two weeks.

Makes 24 servings. Each (¼ cup) serving has 130 calories, 4 g fat, 3 g protein, 23 g carbohydrate, 2 g fiber and 10 mg sodium.
**Bacon and Avocado Hash Brown Egg Cups**

2½ c. hash browns, thawed  
3 Tbsp. olive oil  
Salt and pepper, to taste  
6 eggs  
½ avocado, diced  
½ c. shredded cheddar cheese  
2 slices bacon, chopped  
½ bell pepper, diced

1. Preheat oven to 425 F. Spray a muffin tin with cooking spray and set aside.  
2. Pour hash browns into a large bowl. Add olive oil 1 tablespoon at a time, stirring in between, until the hash browns are just coated, not oily. Season with salt and pepper to taste.  
3. Line each muffin cup with seasoned hash browns, pressing down to fit the bottom and sides of each cup, creating a crust.  
4. Place muffin tin in preheated oven and cook for about 20 minutes, or until the hash browns are golden brown.  
5. Lower oven temperature to 325 F. Whisk eggs in a mixing bowl. Fold in avocado, cheese, bacon and pepper.  
6. Scoop egg mixture into each hash brown crust and place back in oven. Bake for 15 to 20 minutes, or until eggs are set.  
7. Let cool for a few minutes and serve.

Makes eight servings. Each serving has 160 calories, 12 g fat, 8 g protein, 6 g carbohydrate, 1 g fiber and 150 mg sodium.

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**Cheeseburger Quesadillas**

1 lb. lean ground beef  
1 tsp. Worcestershire sauce  
½ tsp. seasoning salt  
8 10-inch flour tortillas  
2 c. shredded sharp cheddar cheese

1. In a large pan, combine the ground beef, Worcestershire sauce and seasoned salt. Cook until brown and drain. Set aside.  
2. Carefully wipe out the pan and spray with cooking spray. Place one tortilla on the pan, top with one-fourth of the meat and one-fourth of the cheese and then top with another tortilla. Cook for a few minutes on medium-high heat until one side is browned and then flip, cooking until that side is browned and the cheese is melted.  
3. Repeat the same process three more times. Cut each quesadilla into wedges with a pizza cutter and serve with your favorite burger toppings.

Makes eight servings. Each (½ quesadilla) serving has 380 calories, 15 g fat, 25 g protein, 33 g carbohydrate, 0 g fiber and 340 mg sodium.
Edamame and Avocado Hummus

1½ c. frozen shelled edamame,* thawed
1 medium ripe avocado
2 cloves garlic
Zest and juice of 1 large lemon
1 tsp. kosher salt
½ tsp. black pepper
½ tsp. onion powder
3 Tbsp. finely chopped fresh cilantro
¼ c. olive oil
Up to ½ c. water added for consistency

*Did you know? Edamame is another name for immature soybeans. You can find them in the frozen food section of many grocery stores.

1. In a food processor, blend the edamame, avocado, garlic, lemon zest, lemon juice, kosher salt, black pepper, onion powder and cilantro until evenly blended.
2. With the food processor running, drizzle in the olive oil and continue blending just until combined, about five additional seconds. Depending on preference, add up to ½ cup of water for consistency.
3. Serve with pita chips, multigrain crackers or veggies as desired.

Makes 18 servings. Each (2 Tbsp.) serving has 60 calories, 5 g fat, 2 g protein, 3 g carbohydrate, 1 g fiber and 110 mg sodium.

Bean Enchiladas

1 Tbsp. olive oil
1 onion, diced
1 15-oz. can black beans, drained and rinsed
1 15-oz. can refried beans
1 c. sour cream, fat-free
¼ c. chopped fresh cilantro
1 jalapeno, seeded and minced
1 c. shredded cheddar cheese, divided
1 tsp. cumin
Salt and pepper, to taste
1 c. enchilada sauce
4 10-inch flour tortillas

1. Preheat oven to 350 F.
2. Heat olive oil in a large skillet over medium heat.
3. Add onions to skillet and sauté until tender and translucent, about two minutes. Set aside.
4. In a large mixing bowl, add beans, sour cream, cilantro, jalapeno, cumin, cooled onions, ½ c. shredded cheddar cheese, and salt and pepper to taste. Stir to combine.
5. Stuff each tortilla with bean filling and roll.
6. Place each enchilada in a baking dish.
7. Pour enchilada sauce on top of enchiladas.
8. Bake in oven for about 20 minutes, until cheese is melted and enchiladas are heated through.
9. Garnish with cilantro.

Makes eight servings. Each (½ enchilada) serving has 260 calories, 11 g fat, 30 g carbohydrate, 3 g fiber and 270 mg sodium.
Cinnamon and Sugar Apple Chips

2 apples, cored and sliced ¼ inch thick
2 tsp ground cinnamon
1½ Tbsp. sugar

1. Preheat oven to 200 F.
2. Add the sliced apples to a large bowl; then coat the apples with the cinnamon and/or sugar.
3. Either spray a baking sheet with cooking spray or line with parchment paper and line the apple slices flat on the pan. You may need to use two pans so that they are not overlapping.
4. Bake two to three hours until the chips are dry, yet still soft. Allow to cool completely before placing them in an airtight container.

Makes four servings. Each serving has 80 calories, 0 g fat, 0 g protein, 21 g carbohydrate, 3 g fiber and 0 mg sodium.

Lentil and Veggie Cheddar Bake

1 c. red lentils
2 c. water
¾ c. cheddar cheese
½ red bell pepper, finely chopped
½ green bell pepper, finely chopped
1 small onion, finely chopped
2 cloves of garlic, crushed
Black pepper and salt to season
4 eggs

1. Preheat oven to 350 F.
2. Bring red lentils and water to a boil in a saucepan. Reduce heat to simmer. Cover and cook until water is almost absorbed, turn off heat, add lid and leave for 10 minutes to soak up any remaining liquid.
3. In the meantime, spray a frying pan with spray oil and cook the onion, peppers and garlic for approximately four minutes.
4. Once lentils are ready, add them to a bowl.
5. Add the onion, red pepper, green pepper and garlic, then season with salt and pepper.
6. Add the cheddar and eggs and mix thoroughly.
7. Spray an 8-inch round pan with cooking spray, add the mixture and bake in the oven until it is golden and set, about 30 to 40 minutes.

Makes eight servings. Each (¼ slice) serving has 150 calories, 3.5 g fat, 13 g protein, 17 g carbohydrate, 4 g fiber and 135 mg sodium.
Peanut Butter Yogurt-dipped Grapes

2 Tbsp. peanut butter  
1 tsp. honey  
1 c. nonfat Greek yogurt  
2 lb. seedless grapes (about 80)

1. In a small bowl, mix together peanut butter, honey and Greek yogurt.
2. Line a baking sheet with wax or parchment paper.
3. Drop grapes into the peanut butter-yogurt mixture, using a spoon, then stir them around until they are evenly coated.
4. Transfer grapes, one at a time, onto the wax paper. Repeat until all grapes are coated.
5. Place the grapes in the freezer for one hour or until set.
6. Put the frozen grapes into a freezer bag and keep in the freezer.

Makes eight servings. Each serving (10 grapes) has 110 calories, 2 g fat, 5 g protein, 22 g carbohydrate, 2 g fiber and 30 mg sodium.

One-pot Whole-wheat Spaghetti and Meatballs

24-oz. jar spaghetti sauce  
14.5-oz. can diced tomatoes  
1 tsp. Italian seasoning  
1 tsp. garlic powder  
1 tsp. onion powder  
16-oz. whole-wheat spaghetti noodles  
2 c. water  
15 frozen meatballs  
¼ c. Parmesan cheese (optional)

1. Combine all ingredients in a large pot. Bring to a boil, stirring frequently.
2. Reduce heat to medium-low, cover and cook until pasta is al dente, stirring occasionally (about 15 to 20 minutes).
3. Garnish with Parmesan cheese if desired.

Makes eight servings. Each serving has 220 calories, 8 g fat, 9 g protein, 29 g carbohydrate, 1 g fiber and 220 mg sodium.

Join us at The Family Table  
www.ag.ndsu.edu/familytable
Pets Might Improve Your Health

Gerald Stokka, D.V.M.,
Department of Animal Sciences, NDSU

The domestication of animals raised for draft purposes, food, protection and companionship resulted in societies living in close contact with animals. However, in today’s culture, with the vast majority of our population living in large city and metropolitan areas, the close relationship with livestock and draft animals has decreased dramatically. In contrast, the companion animal population has increased, and disposable income spent on pet food and pet well-being has increased dramatically.

In spite of these demographic shifts, evidence suggests that human-to-animal responsibilities and companionship result in more healthful living and reduced risk of certain diseases. For example:

- Studies have shown less depression among elderly people who had a strong attachment to a pet. Equine-assisted therapies have shown improved outcomes regarding depression. In some circumstances, our fast-paced lifestyles produce anxiety and stress. Using animal-assisted therapy demonstrated an improvement in exercise, rest, food intake, motivation and self-esteem while lowering anxiety.
- Other studies have shown improved cardiovascular risk parameters such as blood pressure, heart rate and physical activity with companion animal ownership. In addition, the presence of companion animals tends to lower stress following cardiovascular disease.
- Research related to Alzheimer’s disease and dementia and the human-animal bond demonstrate that therapy associated with companion animals improves social interactions and decreases agitated behaviors.
- People of all ages, healthy and ill, may benefit from living with a pet. Studies have demonstrated that college-age women living with pets were less lonely than if they lived alone, and elderly women living with only a pet had better mental health than those who lived alone.

In my experience, men and women who have spent their lives caring for livestock stay healthier longer when responsibilities still include feeding and caring for livestock and companion animals. Perhaps this indicates that many of us have a determined purpose to care for living things beyond ourselves and in doing so, bring health and joy into our lives and the lives of others.
Three Strategies for Healthy Living With Your Kids

Sean Brotherson, Ph.D., Extension Family Science Specialist and Professor
Department of Human Development and Family Science, NDSU

For parents raising children today, a common concern is how to help children avoid the health risks associated with too much screen time and not enough physical activity.

Fortunately, healthy living is something that you can model and encourage as you try to get in some daily parent time with your kids. Here are three strategies that you can use to encourage wellness with your children:

- **Enjoy active play or physical activity with your child every day.** Just like the idea that “an apple a day” is good for you, an even better prescription is taking 30 minutes to connect with your children in some daily “dad time.” Seek to make dad time an activity time so that you play a game outside, do hide and seek inside or visit a family fitness center.

- **Eat at least one meal a day with your child and provide healthful eating options.** Much research shows that eating at least one meal together daily promotes family connection and conversation, encourages healthful eating and helps increase child well-being. Focus on at least one dinner time daily where you slow down, connect and create a healthy climate in your home.

- **Schedule one “date” a week with your children to do something they like that will involve physical activity.** Children enjoy planning something fun when a parent will come along. Require that it be something active, and you may find yourself building a snowman, playing tag, learning yoga, going swimming or doing a nature hike. This weekly date time with your child can introduce a variety of healthful activity options into your time together.

Life is busy, but see if this simple recipe of dad time, dinner time and date time with your children can give a new boost to your efforts in healthy living with your kids.
I tend to be a little short on funds before I get my paycheck, so grocery shopping is a little challenging during those times. Do you have any tips?

When money is tight, watching how you spend every penny is important. Grocery shopping on a limited budget can seem like an overwhelming task and cause stress. Making some small changes can make a big difference:

- **Take an inventory** – Check your pantry, refrigerator and freezer. You may have enough food in your house to make a few meals, food items you can make into other meals or items that only need a few more ingredients to make a meal.

- **Plan meals** – After you know what you have, you can make a plan. Check local ads to plan meals around items on sale. The protein of a meal is typically the most expensive, so checking those prices can help save money, or make a meatless meal.

- **Make a list** – Write out everything you need before heading to the store. Stick to your list, but be flexible. You may decide to purchase a generic brand of an item that is on your list to save a little more money. Make sure to get everything on your list; the fewer trips you make to the store, the better because you won’t be tempted to make impulse purchases.

- **Head to a dollar store** – Dollar stores stock many food items at much lower prices than grocery or discount stores. You probably won’t be able to buy everything on your list, but you may be able to get some items.

- **Plan snack foods** – Grabbing a few extras because you didn’t plan for snacks can add up fast. Buy items to make your own grab-and-go snacks. For example, buy a box of crackers and jar of peanut butter to make your own sandwich cracker packs.

- **Use coupons** – Every little bit helps. But don’t buy something just because you have a coupon. If you don’t end up using what you buy, you’re wasting money.

- **Sign up for loyalty rewards** – Some stores may offer discounts or money back on purchases. You may not receive the benefits immediately, but you may be able to stretch your dollars in the future.

- **Check for rebates** – Again, you may not get immediate benefits, but rebates are a great way to get a little extra money for the future. As with coupons, only buy items if you will use them.

*Carrie Johnson*, Ph.D., Assistant Professor and Extension Personal and Family Finance Specialist, NDSU Extension
We are expecting our first baby and I have been encouraged to breastfeed my baby. 
Does breastfeeding have long-term benefits?

Breastfeeding has many benefits, and not just for the baby. Breastfeeding benefits mom, too!
Many people are aware of some of the shorter-term benefit of breastfeeding, such as bonding, quicker recovery for mom, protecting baby from getting sick as often, and decreasing the risk of sudden infant death syndrome (SIDS). However, the benefits of breastfeeding can extend beyond the first year of life.

Breastfed babies:
- Get fewer ear and respiratory infections, and diarrhea for three to seven years
- Are less likely to develop Type 1 or 2 diabetes as adults
- Are less likely to become overweight or obese later in life
- Are less likely to develop leukemia and Hodgkin’s disease
- Have fewer allergies

Moms who breastfeed:
- Increase their spacing between children
- Are less likely to get breast and ovarian cancer
- Have a lower risk for osteoporosis and hip fracture

If you would like more information on breastfeeding, many resources are available:
- La Leche League International (breastfeeding support and links to local groups): [www.llli.org](http://www.llli.org)
- Local hospitals (lactation consultants): Check with your local facility or health-care provider
- Women, Infants, and Children Program (lactation consultants and peer counselors for program participants): [www.ndhealth.gov/DoH/contact.htm#Community_Health](http://www.ndhealth.gov/DoH/contact.htm#Community_Health)

I think my daughter might have lactose intolerance. What are the symptoms? What can she have as a calcium source?

Lactose intolerance is caused by a lack of lactase, an enzyme that digests lactose (the sugar in milk) in our body’s digestive system. If your daughter has lactose intolerance, she might experience bloating, gas, cramps or diarrhea after consuming more than a cup of milk (12 grams of lactose).

Dairy products are good sources of calcium, which is an important nutrient for bone health. Your daughter would tolerate small servings of dairy products (up to ½ cup of milk) with a meal, aged cheese or yogurt without experiencing bloating, gas, cramps or diarrhea. Additionally, she can tolerate Lactaid milk (lactase-added milk) or she can add lactase tablets to dairy products before consuming them.

The following are alternate sources of calcium:
- Lactose-free milk
- Calcium-fortified soymilk, rice milk, almond milk, and juices
- Calcium-fortified breakfast cereals and breads
- Dark green vegetables such as collard greens, turnips, mustard greens, broccoli, spinach, kale
- Canned fish such as sardines or salmon with bones
- Clams
- Oysters
- Tofu (prepared with calcium sulfate)
- Legumes
- Dried fruits.

Yeong Rhee, Ph.D., R.D., Department Head and Professor, Department of Health, Nutrition and Exercise Sciences, NDSU

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Yeong Rhee, Ph.D., R.D., Department Head and Professor, Department of Health, Nutrition and Exercise Sciences, NDSU
My son and daughter are in sports every season, and they always are looking for snacks. What would be some good snack ideas for growing kids who are in sports?

Growing children need adequate fuel to power through important after-school and weekend practices.

Children also may need food sources during multiple activities, such as long tournament days and entire weekends.

Concession stands offer some snacks and meals and even may play the role of partial sponsorship of your child’s team. Snack stands and vending machines often have limited nutritionally dense foods, and sometimes are just not open during the hours they’re needed. Your best option is to get organized and plan nutrient-dense snacks to pack for competitions, especially for those long weekends.

Convenience foods offer a quick option to fill in for days you don’t have time to throw together a protein/whole grain sandwich or other nutritious snack. However, with some planning, you can make sure the optimal choices are part of your child’s balanced diet with a well-stocked pantry and refrigerator, and teaming up with a support system.

Here are some tips:

- Don’t wait until they ask; just offer and make sure a snack is available.
- Team up with other parents and each take a turn offering snacks for the entire team.
- Make sure kids eat during meal times; five to six feedings a day are optimal for growing, busy kids.
- For off-days (days with no practice), make your home an ideal snacking environment, such as making sure fruit is sitting out in the kitchen and kids can reach it easily.
- Always keep food safety in mind. When sharing snacks, have a spoon handy for portioning or individually package snacks in mini zip-top bags.
- Try to make each pre-practice snack contain at least two food groups, such as fruit and protein (for example, peanut butter and apples).
- Don’t forget water before and after practice to ensure hydration.

Here are some family favorites:

- Peanut butter and jelly on whole-wheat bread (kids like the soft kind)
- Carrot sticks, celery sticks, stick pretzels and something to dip them in, such as peanut butter, hummus or bean dip; mix it up and try jicama sticks
- Bananas, apples, grapes, oranges (think Cuties); be sure fresh fruit is washed
- Your own trail mix of peanuts, tree-produced nuts, soy nuts, dried chickpeas, dried fruits and oat square cereal (Making your own really adds nutrition, such as improved protein with nuts, improved fiber with more dried fruit and less processed grains, especially when compared with “store bought” trail/cereal blend mixes.)
- Tortilla chips and salsa
- Convenience foods: granola bars, squeezable apple sauce, peanut butter cracker packets
- Greek yogurt, string cheese and mini cheeses if you have a little cooler for storing them

Sherri Stasny, Ph.D., R.D., CSSD, I.R.D., Professor, Department of Health, Nutrition and Exercise Sciences, NDSU
What’s the difference between physical activity and exercise? How much do kids need?

Physical activity is defined as any bodily movement produced by skeletal muscles that requires energy expenditure. This is different from exercise, which is planned, structured and repetitive, and has an objective of improving or maintaining physical fitness.

The basic difference is that physical activity is any movement, while exercise is structured. Physical activity is going for a brisk walk, but exercise could incorporate resistance training and stretching in addition to your walk.

In general, children should participate in at least 60 minutes of physical activity per day. The American Heart Association, Centers for Disease Control and Prevention, Department of Health and Human Services, and 2008 Physical Activity Guidelines for Americans all say the same thing in regard to elementary-age children. None of these groups note a difference between boys and girls; both should complete 60 minutes per day.

If children don’t have a full 60 minutes at one time, physical activity can be broken into two 30-minute periods or four 15-minute periods during the day. The physical activity should be moderate (brisk walking) or vigorous (running). Suggestions for moderate and vigorous activity include:

- **Moderate** – riding a bike, brisk walking and games that require catching and throwing
- **Vigorous** – running; sports such as soccer, ice or field hockey, basketball, swimming or tennis; and active games requiring running and chasing, such as tag or flag football

Children also should participate in muscle- and bone-strengthening activities at least three days per week. Muscle-strengthening activities are games such as tug-of-war; resistance exercises using bands, body weight or hand-held weights; climbing a rope, tree or wall; and doing sit-ups. Bone-strengthening activities are games that involve hopping, skipping or jumping and running.

These activities can be incorporated into the 60 minutes of activity recommended for children. Parents can encourage their children to meet this 60-minute goal in several ways:

- Set an example by leading an active lifestyle: go for a walk daily and encourage your children to accompany you.
- Take your children to places where they can be active: public parks, baseball fields or basketball courts.
- Make the physical activity fun and something your child enjoys. Activities can include team or individual sports and recreational activities such as walking, running, skating, bicycling, swimming, playground activities or free-time play.

Encouraging your children to be physically active at least one hour per day can help them set the foundation for a lifetime of good health.

Donna Terbizan, Ph.D., Professor, Department of Health, Nutrition and Exercise Sciences, NDSU

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**I have noticed that lots of foods have cartoon characters on them. Do cartoon characters encourage kids to eat less healthfully?**

Advertisers sometimes use “cartoon spokes-characters” to attract kids’ attention. Because this is advertising, parents really need to pay attention to which foods are being sold by this method.

Cartoon spokes-characters have appeared on a number of very healthful products, such as fresh baby carrots and even frozen veggies. Nevertheless, some foods advertised this way are less nutritious and more processed, with added sugars and salt. Cartoon spokes-characters can increase intake if the child relates to that character.

Research NDSU researchers conducted shows that in a school lunch situation, more kids will take and eat more canned green beans if a spokes-character is promoting the canned beans. A sign was placed above the green beans with the cartoon spokes-character saying, “Got Beans?”

The bottom line: Parents are the gatekeepers, so they should encourage healthful choices. If cartoon spokes-characters promote these healthful choices, so much the better. Kids will identify with the character and may consume more, which is really what a parent wants, right?

Ardith Brunt, Ph.D., R.D., Professor, Department of Health, Nutrition and Exercise Sciences, NDSU

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- Take your children to places where they can be active: public parks, baseball fields or basketball courts.
- Make the physical activity fun and something your child enjoys. Activities can include team or individual sports and recreational activities such as walking, running, skating, bicycling, swimming, playground activities or free-time play.

Encouraging your children to be physically active at least one hour per day can help them set the foundation for a lifetime of good health.

Donna Terbizan, Ph.D., Professor, Department of Health, Nutrition and Exercise Sciences, NDSU
Be Sun Savvy

- Limit sun exposure between 10 a.m. and 4 p.m.
- Wear hats, shirts and other protective clothing.
- Apply sunscreen before going outside. Reapply every two hours.

Get your calcium-rich foods.

- Go low-fat or fat-free
- If you don’t or can’t consume milk, choose lactose-free products or other calcium sources

Focus on fruits.

- Eat a variety of fruit
- Choose fresh, frozen, canned or dried fruit
- Go easy on fruit juices
Fitness Trackers: Do They Make a Difference?

Linda Manikowske, Ph.D., Associate Professor, Department of Apparel, Design and Hospitality Management, NDSU

Fitness trackers have been a popular purchase for adults looking to get in shape. They are a useful tool for monitoring and measuring physical activity. The biggest benefit of this technology is that it helps you set simple activity goals and makes following your progress easy to do.

Today, these devices range from simple to sophisticated, with a variety of prices. Before you buy, you will want to consider the information available to help you find the right tracker to fit your budget, fitness, lifestyle and fashion sense.

As trackers have evolved, they have become trendy pieces of technology. Some look like a wrist watch, some have screens, and most are available in a variety of colors and styles.

Do they make a difference? Many studies have been done on the usability, validation and benefits of these devices to the user. One study published in Health Psychology and Behavioral Medicine found that women wearing the technology doubled the number of steps they took and the time they spent exercising per day. Social networking using the devices also increased the effectiveness of physical activity programs for women.

All-day trackers measure steps taken, stairs climbed, duration of exercise and sleep time. Training trackers also measure heart rate, breathing patterns, speed and altitude. Many useful reviews that compare brands and models of devices are available online. See www.bestreviews.com/best-fitness-trackers to learn more. Consumer Reports also has helpful reviews of the many products on the market.

What about kids? With concern for childhood obesity today, an increasing number of trackers are being marketed to get the younger generation moving as well. Remember, motivation is the major benefit of using a fitness tracker. By setting goals, getting feedback and being rewarded, kids could be encouraged to move more.

For younger children, trackers make a game of fitness. For older children and high school athletes, being able to track activity and share their stats on social media can prove helpful.

However, fitness trackers are not appropriate for every child. Children who already are highly motivated and active don’t need one. A tracker could add extra stress, making children feel they need to achieve even more.

If children need more motivation to exercise, giving them a fitness tracker alone is not enough. Forcing them to monitor their progress might be discouraging. Support of family and friends as role models is very important.

Keep in mind that a fitness tracker, like a gym membership or a piece of exercise equipment, is only beneficial if you use it.
Grocery Store Bingo

Bring this page (or a copy of it) and a pen when you go grocery shopping. Name the foods. When you see these foods at the grocery store, mark an X through the box. How many bingos did you get?

<table>
<thead>
<tr>
<th>FRUITS</th>
<th>VEGGIES</th>
<th>DAIRY</th>
<th>PROTEIN</th>
<th>GRAINS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>Corn</td>
<td>Cheese</td>
<td>Meat</td>
<td>Bread</td>
</tr>
<tr>
<td>Grape</td>
<td>Tomato</td>
<td>Yogurt</td>
<td>Egg</td>
<td>Cereal</td>
</tr>
<tr>
<td>Banana</td>
<td>Lettuce</td>
<td>Milk</td>
<td>Chicken</td>
<td>Pasta</td>
</tr>
<tr>
<td>Cherry</td>
<td>Broccoli</td>
<td></td>
<td>Peanut</td>
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</table>

KIDS PAGES
(but grown-ups might like this section, too!)
Baking is a science, and in science, accuracy counts.

Take time to learn how to measure correctly.

### How to Halve a Recipe

<table>
<thead>
<tr>
<th>Recipe Calls For:</th>
<th>To Halve:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 c.</td>
<td>_____ c.</td>
</tr>
<tr>
<td>¾ c.</td>
<td>6 Tbsp.</td>
</tr>
<tr>
<td>⅓ c.</td>
<td>⅓ c.</td>
</tr>
<tr>
<td>½ c.</td>
<td>_____ c.</td>
</tr>
<tr>
<td>¼ c.</td>
<td>2 Tbsp.</td>
</tr>
<tr>
<td>⅓ c.</td>
<td>2 Tbsp. + 2 tsp.</td>
</tr>
<tr>
<td>¼ c.</td>
<td>2 Tbsp.</td>
</tr>
<tr>
<td>1 Tbsp.</td>
<td>1½ tsp.</td>
</tr>
<tr>
<td>1 tsp.</td>
<td>_____ tsp.</td>
</tr>
<tr>
<td>½ tsp.</td>
<td>¼ tsp.</td>
</tr>
</tbody>
</table>

Answers: Half of 1 c. = ½ c.; half of 1 tsp. = ½ tsp.
Cookoff Craze

How to play: Cover half of the page so that the story is hidden. Read the list below and fill in a word for each one. Match the numbered words from your word list with the numbered blanks in the story. When you've finished, read your funny story out loud. You also can play with friends by writing down their choices for the word list, adding their words to the story and then reading their special story to them.

Word List:

4. Verb ending in “ing” _______________ 10. Orange/red vegetable _______________ 16. Fruit _______________
5. Verb ending in “ing” _______________ 11. Grain food _______________ 17. Verb ending in “ing” _______________
6. Green vegetable _______________ 12. Lean protein food _______________ 18. Verb (past tense) _______________

It was the end of summer, and fall was just around the corner. It was almost time for the annual 1) _______________ Country School End-of-Winter Cookoff! 2) _______________ and 3) _______________ entered themselves in the cookoff. They knew they had a good chance of winning if they used fresh veggies from Grandma and Grandpa’s garden — the secret to their recipe! They were ready to start 4) _______________!

Once they got the pot of water 5) _______________ , they began adding the ingredients. While 2) _______________ chopped up the 6) _______________ , 3) _______________ washed the 7) _______________ , 8) _______________ and 9) _______________ cabbage. After adding those ingredients, they threw in some grated 10) _______________ , going crazy with all of their yummy, fresh veggies! Making sure they didn’t forget some grains, they added some whole-wheat 11) _______________ , and for protein power, chopped 12) _______________. For a finishing touch, they sprinkled some low-fat 13) _______________ on top. Voila! Tasty Garden Soup!

The day of the cookoff finally arrived, and they were ready. The event was a huge success! At the end of the day, it came time for the group of 14) _______________ to announce the winners. After the runner-up went to a 15) _______________ 16) _______________ frozen yogurt, 2) _______________ and 3) _______________ were 17) _______________ their breath. “And first place, with the highest score, goes to 2) _______________ and 3) _______________’s Tasty Garden Soup!” They were so happy that they 18) _______________ all day long!
MEASURING CUPS

Color the measuring cup up to the indicated amount.

1/2 CUP

2 OZ.

3/4 CUP

Write down the measurement of each measuring cup in cups and liquid ounces.

Using the measuring cups above convert the following:

3/4 CUP = ___________ OZ.  
8 OZ. = ___________ CUP

1 CUP = ___________ OZ.  
2 OZ. = ___________ CUP

1/4 CUP = ___________ OZ.  
4 OZ. = ___________ CUP

Answer on page 42
Create Your Own MyPlate Menu!
List your menu items using the tips below.

Food:

__________________________
__________________________
__________________________
__________________________
__________________________
__________________________

Food Group:

__________________________
__________________________
__________________________
__________________________
__________________________
__________________________

Tips for Your Menu
• Try to include all five MyPlate food groups: fruits, vegetables, grains, protein and dairy.
• Make half your plate fruits and vegetables.
• Include low-fat or fat-free milk or yogurt.
• Limit added sugar.
Fun With Handwashing

Help the hands find the bubbles so they can get nice and clean!

The Happy Fingers, Happy Hands Song
(sing to the tune of Twinkle, Twinkle Little Star)

Happy fingers, happy hands,
Making bubbles is my plan.
Just add water, soap, then rub.
Make it fun, sing while you scrub.
If you want the germs away,
You must wash your hands this way.

Parent tip:
Parents, help your kids learn proper handwashing.
To wash away bacteria, kids must wash their hands for 20 seconds with warm water and soap. Have your kids sing the song (above) twice while they wash. Use a timer.
Farm vs. Factory

Fruit and vegetables come directly from a farm, while other kinds of food are produced in a factory. Label the pictures below as “farm” or “factory” foods.

1. __________
   Jelly beans

2. __________
   Soda

3. __________
   Tomato

4. __________
   Corn

5. __________
   Jam

6. __________
   Lettuce

Color the measuring cup:

1/2 CUP
1/4 cup / 8 oz.
1/2 cup / 4 oz.
1 cup / 8 oz.
1 cup / 16 oz.

Measuring conversions:

¾ cup = 6 oz.
1 cup = 8 oz.
¼ cup = 4 oz.
½ cup = 8 oz.
8 oz. = 1 cup
2 oz. = ¼ cup
4 oz. = ½ cup

Handwashing Maze

Start
End

Color the measuring cup:

1/2 CUP
1/4 cup / 8 oz.
1/2 cup / 4 oz.
1 cup / 8 oz.
1 cup / 16 oz.

Measurement in cups and liquid ounces:

1/4 cup / 6 oz.
1 cup / 8 oz.
1/2 cup / 4 oz.

Answers: 1. factory; 2. factory; 3. farm; 4. farm; jam - 5. factory; 6. farm
Why shouldn’t you tell a secret on a farm? Because the potatoes have eyes and the corn has ears!

Why did the pig become an actor? Because he was a ham!

Who tells chicken jokes? Comedi-kuench!

How do chickens bake a cake? From scratch!

Why was the cucumber mad? Because it was in a pickle!

What do you call a horse that lives next door? A neigh-bor

What do you get when you cross an elephant with a garden? Squash

Why did the farmer find his lost cow? He tractor down!

What is a sheep’s favorite game? Bas-chimation

What do you give a sick horse? Cough stirrup!

What is a scarecrow’s favorite fruit? Straw-berries!

What do you call a cow that plays a musical instrument? A moo-sician

Why do cows wear bells? Their horns don’t work.

What do you call a cow that plays a musical instrument? A moo-sician

Why do cows wear bells? Their horns don’t work.

How do chickens bake a cake? From scratch!

What do you get when a hen lays an egg on top of a barn? Eggrolls!

Why should’t you tell a secret on a farm? Because the potatoes have eyes and the corn has ears!
Choose MyPlate.gov