

In Touch with Extension

Nutrition and Learning: What's the connection?

By Jean Day, Nutrition Program Associate

Nutritionally fit children are more likely to have energy, stamina and self-esteem, all of which improve their ability to learn.

Poorly nourished children are:

- Less physically active
- Less curious
- Less attentive
- Less independent
- Less social
- More uneasy or nervous

Hunger affects learning. Good nutrition is essential for learning to occur. Many different nutrients are needed to keep the brain working.

Hungry children are often irritable or grouchy; not interested in learning; nervous, timid, or passive; and unable to concentrate.

Good nutrition and learning go hand in hand! The body needs quality food to power mental ability. Good nutrition is key to a healthy lifestyle. Children who make healthy food choices tend to make healthier food choices as adults.

Start the day with breakfast! Children who eat breakfast do better in school. Skipping breakfast leaves the brain without fuel.

Try these nutrient-packed breakfast ideas:

- Whole-grain cereal topped with fruit and low-fat milk
- Low-fat yogurt topped with granola and fruit
- Breakfast smoothie made with low-fat milk and your favorite fruit
- Leftovers from last night's dinner

Refuel with lunch midday. School meals can meet about one-third of a child's nutrition needs. Packing a lunch to bring to school? Healthy lunch bag choices include sandwiches, string cheese, fruit, fresh vegetables, whole-grain crackers, and low-fat yogurt of pudding. Remember to use an ice or cold pack to keep cold foods safe.

Get an after-school boost!

Healthy after-school snacks supply needed nutrients. Stock up with ready-to-eat fruits and vegetables, whole-grain crackers and low-fat cheese, popcorn, whole grain cereal, and low-fat milk and yogurt.

Visit your Extension office for more about healthy lifestyle choices or find us on-line:

<https://extension.missouri.edu/>



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Holiday Hot Sauce

Submitted By Rachel Buenemann MS, RD, LD, *Nutrition and Health Specialist*

Push past gift cards this holiday season. Consider a spicy hot sauce for the young adult on your shopping list. Hot sauce is typically canned using boiling water or the steam canning method. Boiling water bath products must have a high acid content to prevent bacterial growth. For this reason, hot sauce procedures need to be followed closely. Maintain the recommended proportions of hot peppers, onions and garlic, tomatoes, and vinegar. The measurements ensure the product has a pH at or below 4.6, allowing it to be processed at lower temperatures than pressure canning.

When preparing hot sauce be cautious of capsaicin present in hot peppers. Capsaicin is an active component produced by peppers to ward off animals who would eat them in the wild. It will cause stinging and burning if it touches eyes or other sensitive membranes in humans. Wear plastic or rubber gloves and do not touch your face while handling or cutting hot peppers.

You can mediate the spiciness of the hot sauce by selecting different pepper varieties. For a mild heat try ancho, banana, or long wax. For a medium heat try pepperoncini. For a hot flavor try a cayenne, habanero, jalapeno, serrano, Tabasco, or Thai. For a very hot flavor try a scotch bonnet or habanero.

Hot peppers are an excellent source of vitamin C and vitamin A. The active compound of capsaicin has been associated with anti-inflammatory benefits and reduced incidence of cardiovascular illness. When preparing any home preservation item as a gift, remember to list ingredients, procedure, processing date, and storage/ handling instructions on the label.

Cayenne Pepper Sauce

Ingredients:

- 3 pounds hot peppers (for example, Anaheim, Hungarian, Jalapeños)
- 1/3 cup minced garlic
- 4 cups sliced onion (about 2 medium as bought)
- 1/3 cup stemmed, chopped cilantro
- 3 cans (28 ounces each) diced tomatoes
- 3 cups cider vinegar (5%)
- 2½ cups water



Yield: About 5 pint jars

1. Wash, trim and slice peppers and onions into rings, using a mandolin slicer or a food processor. In a 10-quart stockpot, mix together all ingredients. Bring to a boil and boil 1 hour. Reduce heat slightly and simmer 1 additional hour. Turn heat off, and cool mixture slightly.
2. Puree vegetables in a blender about 2 minutes per blender batch. Return pureed mixture to stockpot and bring carefully just to a boil. Turn off heat.
3. Fill hot sauce into hot, clean pint jars, leaving ½-inch headspace. Process in a boiling water canner for 10 minutes below 1,000 ft. of altitude.

Andress, E. (2003, September). *Cayenne Pepper Sauce*. National Center for Home Food Preservation. https://nchfp.uga.edu/how/can_03/cayenne_peppersauce.html

'Hunger can happen to anyone': Missouri 4-H event spotlights food insecurity

Missouri 4-H'ers and friends packed 450 boxes of food for distribution to veterans and their families. The food packing effort at the 2021 Missouri State Fair in Sedalia was just one way 4-H'ers are expanding their efforts to address food insecurity in the state.

4-H'ers invited their families and fair visitors to help pack boxes, which were delivered to the Food Bank for Central & Northeast Missouri. They also provided educational resources to help people understand the causes, scope and impact of hunger in Missouri.

The daylong activity in the 4-H Building at the state fair was held in partnership with Missouri Farmers Care's [Drive to Feed Kids campaign](#)(opens in new window) and [Feeding Missouri](#)(opens in new window), a statewide network of food banks.

Rebecca Mott, University of Missouri assistant teaching professor of agriculture education and leadership, said the activity "was designed to raise awareness and dispel some of the myths around hunger, such as only people who don't work and only people who've made really bad choices end up hungry. Food insecurity and hunger can happen to anyone. Most of us are a job loss away from having to make hard decisions about what we can afford."

Participants were invited to explore the [Missouri Hunger Atlas](#)(opens in new window) and add hunger facts they learned about their own counties. They were also asked to complete "[commitment cards](#)" that offered suggestions for how to fight hunger and educate others in their communities about food insecurity.

"Through the food insecurity map and activity, youth were able to see that food insecurity impacts all parts of our state, and the packing event gave them an opportunity to contribute to the community in a tangible way," said Maria Calvert, agriculture and natural resources educator with MU Extension's [4-H Center for Youth Development](#).

"Ending hunger in our state will require the help of the next generation of Missouri's leaders," said Scott Baker, state director of Feeding Missouri. "The efforts of 4-H not only help get food to those who need it but also shine the light on this persistent problem."

The state fair event was built on Mott's research on how hunger affects youths. During her years as a K-12 teacher in rural Missouri, she learned how pervasive food insecurity was. "The reality is that we have 4-H and FFA members involved in these hunger efforts who don't have enough to eat," Mott said.

In "[Out of Place Around Other People': Experiences of Young People Who Live With Food Insecurity](#)(opens in new window)," a 2018 paper Mott co-authored, rural middle school students offered insights into how local support networks and programs can help youths experiencing food insecurity feel accepted and supported by their communities.

"Circumstances happen beyond our control," she said. "Your car breaks down and you don't have a running car to get to a job. You are laid off during the recession and don't live in an area where there are other jobs, and you can't afford to move. Someone in your family has a health crisis. It might be your neighbor who needs extra help today and might be you tomorrow."

Writer: Katherine Foran



Fall in the Missouri Woods

Written by Sarah Havens

This time of year is a great time to spend in the Missouri woods. The ticks are mostly gone and there is lots to explore! You do need to be careful this time of year when exploring Conservation Areas because hunting seasons have started. If you are hiking in one of these areas, you will want to wear something bright orange. Ticks are also still active on warmer days so you will also want to make sure you check for them after your time in the woods!

Things to find in the woods

Bird watching is popular in the fall. Many migratory birds are coming through Missouri on their way south and with the foliage becoming sparse, you are able to see and identify birds easier. The best time to spot birds is in the morning or late afternoon. Other wildlife such as deer are also active at this time of day so you might catch them out! You can check out Cornell's Lab of Ornithology at <https://allaboutbirds.org> to find some great resources for bird identification. They have pictures, descriptions and bird calls.

Fall mushrooms are another great thing to find in the woods! Hen of the woods, chicken of the woods, and lion's mane are some of the edible mushrooms you can find in the woods this time of year! If temperatures stay mostly above freezing, these mushrooms will continue to fruit. You can check out Missouri Department of Conservation's "Guide Missouri's Edible and Poisonous Mushrooms" to learn to identify these mushrooms. <https://nature.mdc.mo.gov/sites/default/files/downloads/page/MushroomGuide.pdf>

If you are exploring your own woods, fall is a great time to find and treat invasive plant species. Honeysuckle, autumn olive, and multiflora rose often keep their leaves longer than our native species. This makes it easy to spot their green leaves when walking through the woods. It also makes it easier to treat them because you can treat the leaves with herbicide without harming native plant species.



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