



Many Factors Contribute to Childhood Obesity

Deana Hildebrand

Oklahoma State University Extension, Community Health Program leader

Childhood obesity is more complicated than eating too much candy or not getting enough exercise. It is a complex disease with many contributing factors, including genetics, eating patterns, sleep routines, physical activity and even location. Deana Hildebrand, Community Health Program leader for Oklahoma State University Extension, said one in five American children have obesity.

“The United States has the highest level of childhood obesity than any other country in the world,” Hildebrand said. “Children with obesity are at higher risk for health problems such as asthma, type 2 diabetes, sleep apnea, bone and joint issues, as well as risk factors for heart disease such as high blood pressure.”

Each day people make choices that impact their health. While these choices are often framed as personal responsibility, they’re more often influenced by local and unique community and social conditions or stressors outside of personal control. Hildebrand said stressors may include low access to affordable and healthy foods, few opportunities for physical activity and dwindling healthcare options.

“When community and social stressors go unaddressed, health disparities that often describe Oklahoma, create a spiral of detrimental health outcomes,” she said.

Oklahoma’s overall health ranking in 2019 was 46th in the United States. Nearly one in three children in Oklahoma live in households that can’t always afford to eat good, nutritious meals, and 19% of the state’s youngest population is food insecure. In addition, only 20% of children reside in households that agree a large selection of high-quality fresh fruits and vegetables are available in their neighborhood.

“Oftentimes, obesity isn’t necessarily about what you eat or don’t eat – but understanding that where these families live has an impact,” she said. “Many children live in areas without parks or playgrounds where they can burn energy and calories. Only about 25% of Oklahoma children live in neighborhoods with a recreation or community center. Just over 55% of children live in areas with sidewalks or walking paths. These factors impact childhood obesity.”

Kay County Extension Office

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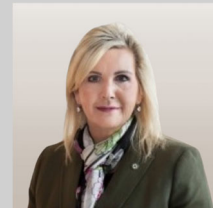
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OSU Extension has programming aimed at addressing childhood obesity. In the fall of 2023, OSU Extension launched the Community Health Program for which Hildebrand serves as state lead. “Health disparities are complex issues that need to be addressed at multiple levels within a community,” Hildebrand said. “Extension’s community health team will work with community organizations to address local issues impacting health.”

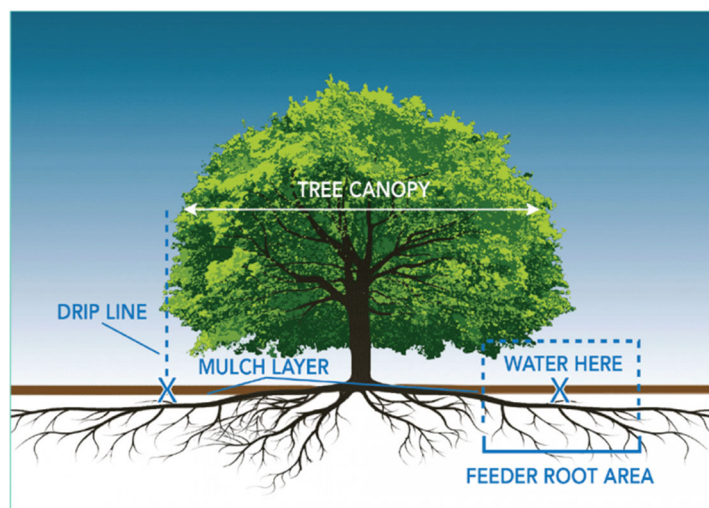
HOME GROWN: Tree Watering

*Laura Payne, Horticulture Educator
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If seeds from your spring garden have been stored in a cool, dry location or in the refrigerator or freezer, you can utilize them for your fall garden. Typically, seeds that are stored properly will remain viable for many years.

If you aren't sure if your seeds are viable, you can always do a viability test. Simply take 10 seeds from a seed packet and place them in a damp paper towel. Fold the paper towel to cover the seeds and place in a plastic baggie. Set the plastic bag out of direct sunlight, but in a warm location. Check on the seeds regularly and be sure the paper towel does not dry out. After about seven to ten days, check to see if the seeds have germinated. If seven out of the ten have germinated, you have a 70% germination rate, if only four germinated, you have a 40% germination rate, and so on. It is not recommended to spend your time on the seed packet if less than 70% percent are germinating, but that is ultimately your call. You could just sow more seeds than you normally would in an area to make use of your seeds.

Vegetable crops will benefit from supplemental irrigation. Installing an irrigation system can save you time and money in the long run. A simple home irrigation kit may be all you need, depending on the size of your garden. But don't assume just because you have an irrigation



system, and you turn it on so that it is working properly. You will still need to monitor your plants.

Soaking seeds overnight before planting will hasten germination and seedling emergence when soil drying is most critical to plant growth. Just don't soak beans or peas overnight.

Cover seeded rows with a shade cloth, burlap or straw to reduce soil temperature and keep the soil from drying out so fast.

Keep your garden weed free. Mulching can help with weed control, and hand weeding is very effective as well.

Insect pests may come into the fall garden and seriously damage plants in a short period of time. Frequently check your plants for insect activity and immediately start protective measures. For control to be effective, determine what specific pests are causing the damage. Use the proper control method for those pests and always read the pesticide label and follow the instructions.



Canning Pumpkin Butter and Mashed or Pureéd Squashes

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Home canning is not recommended for pumpkin butter or any mashed or pureed pumpkin or winter squash. In 1989, the USDA's Extension Service published the Complete Guide to Home Canning that remains the basis of Extension recommendations today, found in the September 1994 revision. The only directions for canning pumpkin and winter squash are for cubed pulp. In fact, the directions for preparing the product include the statement, "Caution: Do not mash or puree."

In accordance with the USDA recommendations, the University of Georgia Cooperative Extension Service does not have a recommendation for canning these products either. There is not sufficient data available to allow establishing safe processing times for any of these types of products. It is true that previous USDA recommendations had directions for canning mashed winter squash, but USDA withdrew those recommendations and any publications preceding the Complete Guide to Home Canning (September 1994) are considered out of date.

Some of the factors that are critical to the safety of canned pumpkin products are the viscosity (thickness), the acidity and the water activity. Studies conducted at the University of Minnesota in the 1970's indicated that there was too much variation in viscosity among different batches of prepared pumpkin purees to permit calculation of a single processing recommendation that would cover the potential variation among products (Zottola et. al, 1978). Pumpkin and winter squash are also low-acid foods (pH>4.6) capable of supporting the growth of *Clostridium botulinum* bacteria which can cause the very serious illness, botulism, under the

right storage conditions. If the bacteria are present and survive processing, and the product has a high enough water activity, they can thrive and produce toxin in the product.

More recent research with pumpkin butter has been done at the University of Missouri. Pumpkin butter is mashed or pureed pumpkin that has had large quantities of sugar added to it, but not always enough to inhibit pathogens. Sometimes an ingredient such as vinegar or lemon juice is added to the formulation to increase the acidity (decrease the pH). However, pumpkin butters produced by home canners and small commercial processors in Missouri have had pH values as high as 5.4. In fact, the pH values seemed to be extremely variable between batches made by the same formulation (Holt, 1995).

It is not possible to evaluate a recipe for pumpkin or mashed squash for canning potential by looking at it. At this point, research seems to indicate variability of the products is great, and in several ways that raise safety concerns. It is best to freeze pumpkin butters or mashed squash.

References Extension Service, USDA. 1994. Complete Guide to Home Canning. AIB No. 539. U.S. Department of Agriculture, Washington, DC. Holt, D. September 22, 1995. Re: Pumpkin butter. Email message to fnspec_mg@ecn.purdue.edu. Zottola, E. A., Wolf, I.D., Norsiden, K.L. and D.R. Thompson. 1978. Home canning of food: Evaluation of current recommended methods. *Jn. of Food Science* 43:1731.



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Upcoming Events

October

- 1- OHCE Dues due to County Treasurer
- 14-Colubus Day-Courthouse Closed
- 15-International Day of Rural Women
- 16-World Hunger Day
- 21-NE Dist. Planning Meeting, Noble County
- 24-Leader Lesson, 1 PM, Air Frying
- 28-County Association Meeting, OSU Extension

November

- 1-2025 Dues due to State Treasurer
- 3-Daylight savings Time ends
- 5-Election Day
- 11-Veteran's Day-Courthouse Closed
- 21-Leader Lesson
- 25-Orange the World-Domestic Violence
- 27-Decorate BancFirst tree-11am "Reimagined Christmas"
- 28-29 Thanksgiving Holiday-Courthouse Closed

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