Physical activity is an important part of maintaining a healthy lifestyle. The United States Department of Agriculture (USDA) recommends 60 minutes of physical activity for children each day and 150 minutes of aerobic exercise each week for adults along with a well-balanced diet to maintain a healthy lifestyle.

Getting good cardiovascular exercise should be part of a healthy lifestyle which means the heart is pumping and breathing is heavy. It is important that adults include two days each week of weight bearing exercise like pushups or weightlifting in addition to the 150 minutes of cardiovascular exercise recommended. Activity should be at least ten minutes in length; it may include several ten-minute activity times for one day to reach needed movement goals.

Maintaining physical activity goals can be difficult depending on location and resources. Gardening can play an important role in creating physical activity opportunities and supporting emotional well-being.

Growing your own food offers low intensity to moderate intensity exercise depending on the task. As with any activity, a person’s age and fitness level will determine the intensity level experienced and gardening is no different. Digging, lifting, raking, and planting all produce movement, for both the upper and lower body (Park, et al., 2014). As an example, the arms are being strengthened with lifting which means the biceps, triceps, shoulders and back are all being moved. Gardening increases flexibility and strengthens joints. Bending and stretching to dig and rake gives the body movement that is needed to support strong joints and flexible muscles. Leg muscles and back muscles are involved in the efforts of gardening too. Other health benefits of gardening include lowering of cholesterol, blood pressure, and mortality, better hand function, higher bone density, and better psychological well-being according to Armstrong and Park et al. Growing food in a home or community garden fosters a healthy body and healthy mind making garden to table beneficial for mind, body, and soul.

As with all physical activities, it is important to remember to be safe. Begin gardening by moving around a little before trying to lift heavy objects or bend suddenly. Ease into the activity so that unfamiliar movement doesn’t cause injury. Begin with light movement like laying plants out in the garden or arranging lighter gardening equipment where it will be needed so that muscles... continued on page 7
Nutrition within families is critical, because laying the foundation for healthy eating at an early age can set a child up for a healthy life in adulthood. Produce intake is a part of this, and one way to support eating fruits and vegetables is gardening. School gardening programs promote healthy eating and teach children at a young age the importance of a colorful, varied diet. Two examples of successful school gardening projects include Texas’s Grow Eat Go program and the Los Angeles Sprouts program. These program students involve students in a 12- to 14-week course, and measure fruit and vegetable intake before and after the program to assess its impacts.

The Texas Eat! Grow! Go! program lasted 5 years between 2011-2016 and studied the long-term effects of the program across 28 limited-resource schools. All participating schools were classified as Title One schools, meaning at least 85% of the students were eligible for the free and reduced school lunch program. CATCH (Coordinated Approach to Child Health) was already in use by the schools to promote healthy eating, physical activity, and prevention of tobacco use through classroom education. For this study, schools were randomly placed in one of four groups, and each received a different intervention:

1. One set of schools participated in the old state health promotion program (CATCH)
2. CATCH plus a walking program
3. CATCH plus a gardening program
4. CATCH plus a gardening program with a walking program

The results of the gardening groups in comparison to the control group were positive. While the results were mild, it indicated increases in vegetable exposure, vegetable preference, and gardening at home in the gardening groups. Vegetable exposure is important in expanding children’s palettes. In trying new vegetables at a younger age, it can improve their likelihood of trying new foods. Increased preference of vegetables indicates that learning about gardening and trying new vegetables gave children an increased taste for produce in their diet. Also, in teaching children about gardening, it also increased the likelihood of gardening at home as a result.

The Los Angeles Sprouts program was a one-time 12-week program for elementary schoolers of Latinx ethnicity. The children participated in 90-minute sessions at a community garden to learn about and take-home vegetables. Participants completed surveys before and after participating in the program. The study reported an increased preference for vegetables in students who participated in the program. In overweight children (those with a Body Mass Index – or BMI -- over 25), there was an even higher increase in preference to vegetable than the group overall, which translated to a 16% growth. This data indicates that gardening after school had a positive effect in these children and their perception of vegetables, which can lead to healthier habits over their lifetime.
Pets are a part of many families and like any other family members, we want them to be as safe and healthy as possible. Household pets including cats and dogs can carry and transmit bacteria like Salmonella and pathogenic E. coli. There is also a growing awareness that pet foods can transmit pathogenic bacteria directly to pet owners. Over 150 illnesses across 34 states were linked to pig ear treats contaminated with Salmonella in an outbreak in 2019. Two separate outbreaks linked to dry pet foods in 2012 and 2006-2007 led to 49 and 70 confirmed illnesses respectively. On January 4, 2011 President Obama signed the Food Safety Modernization Act (FSMA) into law. FSMA gave the FDA new authorities to regulate many foods, including pet foods which should help to reduce these outbreaks in the future.

While dry pet foods have caused several outbreaks, the prevalence of pathogens in “raw” or wet pet foods appears to be much higher. This risk is compounded by an increased interest in feeding pets a “raw food” diet, including raw ground poultry or beef. Several outbreaks and recalls have been connected to raw pet foods recently. An outbreak linked to raw ground turkey pet food caused illnesses in two young children in Minnesota in October 2017. There was also a large recall of raw chicken and turkey meals for dogs manufactured in Washington State linked to illness in at least five household pets in February 2018. In June of 2020 there was a small outbreak of E. coli O157:H7 in four people in Canada linked to raw beef and poultry dog foods.

Signs of infection in dogs and cats include fever, diarrhea, vomiting, lethargy, and loss of appetite, but in some cases, pets will show no signs at all. If your pet displays these signs and they do not resolve within 24 hours you should contact your veterinarian. If you believe that your pet has gotten sick from pet food, you can also report this via the FDA Safety Reporting Portal https://www.safetyreporting.hhs.gov.

If your pet is sick, be sure to clean up any vomit and diarrhea carefully, either wearing disposable gloves and/or practicing good handwashing (20 seconds with soap and water) and/or use of hand sanitizer.

If you choose to feed your pet raw foods, remember to take extra care when handling raw pet foods, just as you would handle any other type of raw meat and follow the tips below.

**How Should Pet Foods Be Handled?**
- Wash hands for 20 seconds with soap and water after handling any pet foods, especially raw pet foods
- Clean any surfaces that the pet food may have contacted
- Keep raw pet food frozen until ready to use and defrost in a refrigerator or microwave
- Keep raw pet foods separate from other foods and do not rinse in the sink before serving
- Pay attention to pet food recalls and discard or return any food that has been recalled

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**School Gardening & Its Impact on Nutrition**

importance of school gardens in teaching children to eat healthy. Likewise, FCHS educators throughout New Jersey use Grow Healthy, our FCHS school wellness initiative to help schools incorporate gardens, produce taste-testings, and nutrition into the everyday curriculum. Learn more at:
- **Jersey Fresh Farm to School**: [www.farmtoschool.nj.gov/agriculture/farmtoschool/](http://www.farmtoschool.nj.gov/agriculture/farmtoschool/)
- **Grow Healthy**: [http://growhealthy.rutgers.edu/](http://growhealthy.rutgers.edu/)

Overall, school gardens seem to have a positive impact on fruit and vegetable preference and intake. This can be critical to set the groundwork for healthier habits in adulthood. In the final analysis, more research needs to be done in this area, particularly follow-up studies on their long-term impact on eating habits. Regardless, these studies have shown that this area of education lies promise in aiding future generations to live longer, and healthier lives.

References:
Alzheimer’s disease is an age-related, progressive mental deterioration that results in memory loss, impaired thinking, disorientation, and changes in mood and personality caused by the degeneration of brain neurons. Many simple functions become difficult with this disease, such as memory, reasoning, making judgments/decisions, and basic tasks like bathing. It’s not completely understood why Alzheimer’s develops in certain people, but researchers believe it is a mix of genetic, environmental, and lifestyle factors that affect the brain over time. Alzheimer’s is the sixth leading cause of death in the country. Alzheimer’s is a progressive disease, and symptoms gradually worsen over time. The Alzheimer’s Association reports that, “On average, a person with Alzheimer’s lives four to eight years after diagnosis, but can live as long as 20 years, depending on other factors.”

The prevention and cure of Alzheimer’s disease is a topic of much interest in the medical and research communities. There is significant need for large-scale studies if we are to find a way to prevent and cure Alzheimer’s disease. While there are no clear answers yet, there is significant research in progress that addresses three broad topics: finding a treatment for Alzheimer’s, delaying its onset, and preventing it from developing in the first place.

While there is no known way to eliminate the development or progression of Alzheimer’s disease, and research on this topic is not yet conclusive, there are strategies you can use to maintain brain health and lower your Alzheimer’s risk. Research suggests that the same lifestyle choices recommended to decrease the risk of developing other chronic diseases like heart disease, hypertension and diabetes, may also support brain health and reduce risk for developing Alzheimer’s disease. This makes sense. Several conditions known to increase the risk of cardiovascular disease — such as high blood pressure, diabetes, and high cholesterol — also increase the risk of developing Alzheimer’s. With so many benefits, it’s smart to make lifestyle changes to improve your overall health, including reducing your risk of developing Alzheimer’s. Here are some suggestions.

- **Exercise Regularly:** Being physically active is an important part of an overall healthy lifestyle. Regular physical exercise may also be a beneficial strategy to lower the risk of Alzheimer’s, as well. Exercise may directly benefit brain cells by increasing blood and oxygen flow in the brain.

- **Eat a Heart-Healthy Diet:** Research suggests that providing your body with essential nutrients that support cardiovascular health can also support brain health. No one diet is best. Two diets that have been studied and may be beneficial in reducing Alzheimer’s risk are the DASH (Dietary Approaches to Stop Hypertension) diet and the Mediterranean diet.
  - The DASH diet emphasizes vegetables, fruits, and fat-free or low-fat dairy products; includes whole grains, fish, poultry, beans, seeds, nuts, and vegetable oils; and limits sodium, sweets, sugary beverages, and red meats.
  - The Mediterranean diet includes relatively little red meat and emphasizes whole grains, fruits and vegetables, fish and shellfish, beans, nuts, and olive oil and other healthy fats. The Mediterranean diet also promotes lifestyle changes that include sharing meals with family and friends and being physically active, which are consistent with non-dietary recommendations to reduce Alzheimer’s risk.

- **Keep a Mentally and Socially Involved Lifestyle:** It’s just as important to exercise the brain as it is to exercise the body. Social interaction is key to stimulating the brain. Studies show that keeping the brain engaged in regular activity and interaction sharpens the mind and reduces risk of cognitive decline and a number of mental health conditions, including depression and Alzheimer’s.

- **Protect Your Head:** An apparent link between serious head trauma and future risk for developing Alzheimer’s, especially when the trauma involves loss of consciousness. To reduce this risk, experts recommend wearing seatbelts when driving, using helmets with sports and when riding, and fall-proofing houses.

Although there is currently no conclusive research yet, it appears promising that some lifestyle choices may help support brain health and prevent Alzheimer’s. And, many of these lifestyle changes have been shown to lower the risk of other diseases, like heart disease, diabetes, and depression – all of which have been linked to Alzheimer’s. Although research on Alzheimer’s prevention is still in its infancy, there appear to be fewer disadvantages than benefits to applying these lifestyle recommendations. They can improve overall health and possibly prevent or slow the onset of Alzheimer’s.
Nutritional Tips To-Go: Embracing Convenience without Sacrificing Nutrition

Sigrid Solis, FCHS Program Coordinator, RCE of Somerset County

As frequent diners have had to shift to curb side pick-up meals, or increasingly rely on meals being delivered to their homes, the question remains—is it possible to stick to a healthy way of eating while enjoying take out? You’d be surprised that it’s actually quite easy!

Consider the following the next time you open up a food delivery application or call a restaurant for take away:

Tip 1: Use ChooseMyPlate.gov as a guide to order a more balanced meal. This means making half of your plate full of fruits and vegetables, a quarter of your plate is dedicated to grains, and the last quarter with lean proteins (animal or plant based). Fortified dairy and plant based milks can help supplement Vitamin D and Calcium intakes so they’re important to include in your meal as well. Along with that, choose the appropriate serving size for your nutritional need and avoid portions that are too large.

Tip 2: Ask for dressing or sauces on the side. In the case of a smoothie or other beverages, request no added sugar. It’s always best when you can control the amount of added fat, sugar, and sodium. This will help you avoid additional calories from saturated or trans fats and sugars.

Tip 3: Become savvy with culinary lingo and when you don’t know what a menu item means, ask! Anything that includes the word braised, demi-glace, confit, crispy, blackened, au gratin, sautéed will mean additional oil/ fats in your meal. Ask anytime you have doubts about whether food contains added sugars, fats, or sodium and ask about the method of preparation. Most restaurants are happy to answer these questions and might even be able to steer you towards a healthier option or make healthier changes to a meal. It doesn’t hurt to ask.

Tip 4: Treat dishes that contain the word buttery, creamy, rich, and glazed with caution. Dishes that are roasted, grilled, steamed, boiled, and broiled are generally preparation methods that reduce the use of fats in your meal, but always ask before to be certain. Bonus—look out for words like local, Jersey grown, Jersey fresh when it comes to fruits and vegetables. This will generally mean that the produce used is in season, local and might be a more inexpensive choice!

Tip 5: Just as folks recommend to not go grocery shopping when hungry, the same can be said about ordering food. While it may sound absurd—the reason you’re ordering food is because you’re hungry, it’s helpful to not let yourself go too hungry before ordering your meal. Having a light snack of fruits, popcorn (which is a whole grain!) and even making sure you’re sufficiently hydrated by drinking water will help quell the sensation of extreme hunger. Doing this can help you make a decision with a clearer mind. You’ll find this especially useful when you’re scrolling through reviews and seeing pictures of menu items.

Tip 6: Plan ahead. Easier said than done for those who aren’t big planners! If you’re in a situation where you’re attempting to cook more at home and depend less on take out or delivery, planning before you order your food can help with this goal. Planning ahead means setting the day and meal time that you’d like your food delivered, choosing the meal to meet your nutrition needs (again My Plate can be a helpful tool), and making sure your food will hold well in the fridge if you think you’ll have leftovers. When choosing your food, it’s also good to consider what other meals you can create from potential leftovers.

Tip 7: Split a meat dish over two meals. Especially in the case where your meal might not include a side of veggies consider splitting a meat heavy dish over two meals. For example, you can eat half of the meal today and the other half another day. Try adding roasted or steamed veggies or a salad packed with a variety of colorful vegetables to your meal! Not only does this help you achieve the recommended daily amount of fruits and vegetables, but it’s a great way to stretch your food budget since meat dishes tend to be pricier! Keep in mind that you’ll want to order a meal that is easy to store in food containers and will hold well in the fridge. For tips, check out some of the Rutgers Cooperative Extension fact sheets related to food storage.

Tip 8: This last tip isn’t a nutrition tip, but one you’ll want to keep in mind if you’re eco-conscious and trying to be mindful of waste. Ask to not include plastic forks, knives, spoons or napkins—especially if you have a supply of reusable utensils at your disposal. While some restaurants have started to ask before including these items automatically, most restaurants will include them as standard practice.

For more information:

- USDA ChooseMyPlate https://www.choosemyplate.gov/
- Home Storage of Food: Shelf Storage https://njaes.rutgers.edu/fs274/
Adequate nutrition is essential to health, longevity and quality of life. As individuals age, the body as well as its physiological needs change, including alterations in bone health. Every year after the age of forty, individuals lose about 0.5% of bone mass. Although this may seem insufficient, chronic bone loss leads to low bone mineral density (BMD) and deterioration of bone tissue – known as osteoporosis. In the United States, approximately 54 million individuals – 80% of which are women – aged fifty years and older suffer from osteoporosis or low BMD. Unfortunately, these numbers are only expected to increase. In the next decade, the number of individuals affected is expected to reach 64.4 million. The side effects related to osteoporosis and decreased BMD may put an individual at an increased risk for associated adverse health outcomes such as increased risk of fracture and serious injuries due to falls. For this reason, it is imperative that individuals receive adequate nutrition in order to preserve bone status and ensure proper musculoskeletal function.

What is the Mediterranean Diet?
The Mediterranean Diet began in the 1960's as a plant-based diet that includes moderate consumption of animal products, placing special emphasis on seafood. There is a strong focus on fruits, vegetables, beans, whole grains, nuts, seeds and healthy fats. The Mediterranean diet is simply a healthier way to eat delicious foods with remarkable health benefits. Of these health benefits, improved bone health is at the forefront.

Nutrition Related Care of Osteoporosis
In order to prevent the onset of osteoporosis, the National Osteoporosis Foundation recommends consuming adequate amounts of calcium and vitamin D, maintaining a healthy weight and participating in regular physical activity. In addition to calcium and vitamin D, other nutrients that play a prominent role in bone maintenance include protein, omega-3 fatty acids, antioxidants, phosphorus and vitamins B6 and B12. Furthermore, the Dietary Guidelines for Americans suggests that individuals practice healthy dietary behaviors by encouraging individuals to consume a diet rich in fruits, vegetables, whole grains, lean protein, low-fat and fat-free dairy products and vegetable oils. Many of these recommendations are cohesive with the guidelines of the Mediterranean Diet – outlining its potential role in bone health. For this reason, an increasing amount of research has been done to examine the role of the Mediterranean Diet in bone maintenance and the prevention of osteoporosis.

Mediterranean Diet and Bone Health
The health effects of the Mediterranean Diet are vast, with results signifying an association between increased adherence to the Mediterranean Diet and improved bone health status. Studies show that increased adherence to the Mediterranean Diet results in a 7% decrease in the risk of hip fracture and improved bone mineral density in both men and women – emphasizing its role in bone health and maintenance. Although the exact means by which the Mediterranean Diet has an effect are not well-known, the role of this dietary pattern in bone health can be attributed to its nutrient rich properties. As a largely plant-based diet, the Mediterranean Diet offers a wide variety of nutrients essential for bone maintenance (such as those previously mentioned) that work to reduce inflammation and oxidative stress – factors that contribute to decreased bone health. One study examined different components of the Mediterranean Diet and found individuals who consumed more whole grains, fruits and nuts and lower amounts of red and processed meats demonstrated better bone mineral density outcomes than their counterparts.

Nutrition plays an important role in bone health status and is increasingly important as individuals age. The Mediterranean Diet is a beneficial dietary pattern to abide by in order to ensure bone maintenance. This nutrient-dense diet, is easy to follow and will provide your body with the nutrition it needs to stay healthy and keep your bones strong.

References:
Keeping your body and food safe during the summer is critical for staying well. Take a look at our updated Family and Community Health Sciences (FCHS) publications to make sure you and your family stay safe when you are out in the sun. Prevent heat stress and dehydration by getting enough fluids along with making sure you keep your body covered during those hot, sunny days.

The following updated fact sheets are now available on NJAES Publications:


