

## Studies reveal poor health consequences of diet soda

Q There is some folklore that diet pop is bad for you. I gave up sugar and most carbohydrates to help with weight and A1C control, but I continued to drink diet cola. What do actual studies — ones that are not from biased sources and are peer-reviewed — say about diet cola?

A You are correct that observational studies have linked the regular consumption of artificially sweetened beverages, including diet soda, to adverse health effects. These include weight gain, disruptions to gut health, cardiovascular problems and an increased craving for sweets. More recently, studies have linked the diet soda habit to an increased risk of stroke. News stories tend to focus on the health problems that were identified in the research. We think it's important to note that these ill effects are linked to the regular and long-term consumption of at least one, and often more than one, serving of diet soda per day.

The findings come from what are known as "observational studies." This is a type of study in which researchers gather and analyze information about the effects of a certain behavior, treatment, diagnostic test, environment or risk factor. They do not intervene in any way. The goal of an observational study is to uncover statistical patterns or trends. However, because human behavior is complex, it's not always possible to say for sure why certain patterns occur.

The data for observational studies is typically drawn from a variety of public health records and from large population studies. A famous example of the latter is the Nurses' Health Study series, which is still ongoing. Established in 1976, these studies have analyzed detailed health, environmental and behavioral data gathered from more than 100,000 female registered nurses between the ages of 30 and 55. This research uncovered early

### ASK THE DOCTORS



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links between tobacco use and heart disease, the role of diet in cancer risk and that being obese or sedentary can raise the risk of developing Type 2 diabetes. The credible studies that you asked about in regard to artificially sweetened beverages follow that model.

Specific research linking frequent diet soda consumption to adverse cardiovascular effects includes an analysis of seven large studies, with a total of 308,420 participants, conducted by scientists in Great Britain. A link to an increased risk of long-term weight gain was found when analyzing data from the San Antonio Heart Study, a 10-year study with 5,000 participants. A study that found evidence tying diet beverage consumption to an increased risk of stroke was conducted by researchers at Albert Einstein College of Medicine in New York. They used the health data of 81,714 women who had participated in the Women's Health Initiative Observational Study.

When it comes to diet soda, it's wise to err on the side of caution. Rather than consume it daily, save it for an occasional treat. Many people find they crave the bubbles as much as the taste. This makes the many types of fizzy water that are now available a viable option.

*Eve Glazier, M.D., MBA, and Elizabeth Ko, M.D., are internists and assistant professors of medicine at UCLA Health.*

## Egg safety: To refrigerate or not

Before buying expensive dietary supplements, elderberry syrup or other "cures" for long COVID, try eating citrus, berries and green leafy veggies daily for vitamin C along with lean meat, whole grains, brown rice and oatmeal for selenium and zinc. Get vaccinated and boosted, wear your mask and wash your hands frequently.



KATHY KOLASA

Q Why do I have to refrigerate eggs purchased at the grocery store but not those from the farmers market? BT, Greenville

A The American food supply is among the safest in the world. Even so, about 1 in 6 people in the U.S. get sick every year from food-borne disease, many are hospitalized and about 3,000 die. We have three government agencies (the USDA's Food Safety and Inspection Service, the FDA and the CDC) that serve important roles in ensuring food safety. Egg refrigeration can play a critical role in preventing illness from salmonella contamination. But as Kylie Nowicki, a fourth-year Brody medical student who has spent time with us in family medicine found out, it is not always necessary. Here is what she learned.

The egg carton you buy in the store is likely to say, "Keep refrigerated at or below 45 Fahrenheit," and will be stamped with a "best buy" date. While refrigerating eggs is common in the U.S., if you travel to Europe or Asia, you may find it is not. Regulations regarding refrigeration vary worldwide, but each aims to protect you from food-borne salmonella infection.

Eggs may become infected with salmonella either by bacteria passing from an infected hen to her eggs during their development or through bacterial contamination of the egg after it is laid. Since producers initially had no easy way of preventing salmonella transmission to eggs prior to being laid, washing the eggs seemed a logical solution.

In the 1970s, the U.S. Department of Agriculture (USDA) determined that the best way to

fight salmonella contamination was by sanitizing eggs before reaching the consumer. Typically, eggs are spray-washed with warm water, using a sanitizing rinse, and air-dried. This removes contaminants but also the natural coating, or cuticle, of the egg. The process makes the shell porous and prone to bacterial infection. To minimize bacterial contamination, prompt refrigeration is required and U.S. commercial egg farms are required by law to wash and immediately refrigerate eggs until they reach the grocery store. Specifically, the FDA requires egg producers to maintain storage temperatures of 45 Fahrenheit, beginning 36 hours after the eggs are laid.

Food safety officials also emphasize that once eggs are refrigerated, they must remain that way, as warmer environments cause chilled eggs to sweat, promoting the growth of bacteria that could enter the egg through the porous shell. Eggs should not be left unrefrigerated for more than two hours. Refrigeration also preserves egg quality and shelf life. Refrigerated eggs can last 45 days — even up to 15 weeks — and while the whites of older eggs might be runnier, they are safe. Meanwhile, the shelf life of non-refrigerated eggs is roughly three weeks.

Where eggs are not required to be washed and the protective coating on the shell remains in place, authorities feel it is safe for them to be sold at room temperature. In such countries, eggs may remain unrefrigerated for approximately 21 days. If stored at 68 Fahrenheit they are rarely invaded with Salmonella for up to three weeks.

In the U.S., farmers with fewer than 3,000 chickens are not required to wash and refrigerate their eggs and often sell them at local farmers markets and stands. A combination of

state laws and health codes may exist. North Carolina state law does not require farmers selling fewer than 30 dozen eggs per week to wash them but they must include their name and address on the carton. They also need to be labeled as "ungraded eggs" but can be sold legally just like graded eggs, including to retail grocers and restaurants.

Refrigerated or not, it is difficult to know if an eggshell is pathogen-free. The bacteria doesn't affect the taste, smell or appearance of food, so there is no way of knowing whether eggs contain salmonella. This prompts many people to refrigerate their eggs regardless of where they buy them. If you have diabetes, cancer, other chronic diseases or long COVID that weaken your immune system, or if you are pregnant, an older adult or very young, you would definitely want to cook your eggs until both the whites and yolks are firm. If you prefer eggs with a runny yolk or are preparing a recipe requiring raw eggs, use pasteurized eggs, which have been heated to a temperature that kills bacteria.

If you are buying raw shell eggs not treated for salmonella, the package should say: "SAFE HANDLING INSTRUCTIONS: To prevent illness from bacteria: Keep eggs refrigerated, cook eggs until yolks are firm, and cook foods containing eggs thoroughly." Eggs are a great source of protein and although the price has increased, they are still an affordable nutrient staple.

By the way, two Brody Medical students who were awarded Schweitzer Fellowships will be offering a four-part series on nutrition and cooking called "Food Is Medicine" at the Pitt County Council on Aging starting Aug. 8. Call 752-1717, Ext. 201 for more information by Aug. 1.

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## Tula's Fish and Chips adds a local twist to UK classic

BY CHRISTINA RUOTOLO  
Hot Dish

The first time I tried authentic fish and chips, I was in a pub in Dublin, Ireland, and it was a truly magical experience. I've never tasted anything like it before. The fish was crispy yet soft, salty yet buttery. The crust was billowy and inside the hot fish was moist and flaky. The "chips," which are fried potatoes, were crispy on the outside but pillowy soft and almost creamy on the inside. I must have eaten fish and chips five times on that trip, unable to stop talking about how amazing they were.

Fish and chips is considered a culinary symbol of the United Kingdom, kind of like its food mascot. The National Federation of Fish Fryers estimates that in the U.K. alone, there are more than 10,500 fish and chip shops, and British consumers eat upward of 382 million meals from those shops every year, which correlates to over a billion dollars annually. The hearty fried fish paired with crisp fries got its humble start during the Industrial Revolution when factory and mill workers were looking for healthy, hot meals that were easy to eat.



CHRISTINA RUOTOLO FOR HOT DISH

Fish and chips along with fried shrimp are a delight from Tula's Fish and Chips.

It's estimated that Americans eat fish and chips less than two times every year. This is hard to believe because we live near the coast where fresh fish is abundant and we all love it so much. However, in the last year, its popularity has increased over 25 percent. So maybe people are trying it like me

and falling in love with it.

Today, I'm excited to introduce you to a local food shop that is paying tribute to this dish: Tula's Fish and Chips food truck. Owner Tula Harris has been in business for over eight years. You can find her bright purple and gold truck on Tuesday, Wednesday

and Friday at the corner of Fifth Street and Memorial Drive in Greenville.

About 10 years ago, Tula visited London and she, too, fell in love with fish and chips. Fried fish also was a meal she cooked a lot with her grandmother, "Granny Poo," as a child. So cooking fish already held a special place in her heart and she wanted to share that feeling with others. She says every piece of fish from Tula's is "fried with love every time." The food truck is her own ministry where she can serve God with love and spread the message of faith and food with the community.

Tula's menu features fresh tilapia and whiting fillets, catfish nuggets, wings, pork chops and sides like fries (chips), fried combread, coleslaw, fried green beans, okra, sweet potato fries and assorted cake slices for dessert. Her fish dredge is made with a seasoned cornmeal base. The fish comes out with a crunchy yet light outer skin and when you break apart the fish the heat and moisture seeps out. Your first bite has crunch and the inner fish flesh, whether you are eating the whiting or tilapia, is clean and crisp with a meaty texture.

I love to dip my fish in all of the sauces then drizzle my crispy, fat fries with a twang of malt vinegar, which is how chips are eaten in the U.K. It adds a bright acid pop in your mouth when paired with the buttery fish. You will see for yourself the magic that happens when the fish and chip is combined. It is taste bud wizardry.

And make sure to ask for some "E" sauce, which is Tula's signature thick burgundy spiced sauce with crushed red pepper. It has both sweet and smoky notes and adds a nice flavor addition to the fish or shrimp dishes. Tula's also offers cocktail sauce, Tartar sauce or Texas Pete hot sauce.

Tula's menu expands with fresh fried shrimp dredged with a wet style batter that creates more of a puffed up crispy shell. The shrimp were super clean and succulent. Dipped in the spicy sauce, they are a wake-up call for your mouth. I paired my fish and shrimp with deep-fried corn, which is fried, slathered in butter and sprinkled with special seasoning and a pinch of sugar. The sugar caramelizes the corn on its edges when it hits the fryer.



To end my Tula's food tour, I tried the fresh fried blue crabs. Tula used to eat crabs at Griffin's beach when she was a kid; it's another one of her favorite memories. The gorgeous crab is lightly dredged and fried and almost too pretty to eat. But that did not stop me from cracking it open and pulling out all that buttery crab meat. I could eat my weight in crab meat and it was a delicious end to my tasting at Tula's.

So if you haven't tried the fish and chips experience, I encourage you to see for yourself. Tula's Fish and Chips also owns Cherry May Blossom Event Center off of Memorial Drive, which has space to accommodate up to 150 people for events, reunions, birthday parties and much more. For more information, follow them on Facebook, go see them at upcoming festivals like the Ayden Collard festival or call 717-5150 to book their food truck or event venue for your next special event.

*Frying To The Glory Is What We Do!*

# TULA'S FISH & CHIPS

Find Us Tuesday, Wednesday & Friday  
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