

STEMBoost Newsletter



Brought to you by the STEMBoost Editorial Team

April Updates!

Joseph Lee, Chief Editor

On April 22, Kennedy Middle School prevailed at the Science Olympiad NorCal State Competition, winning 1st place overall and a spot to compete at Nationals!

The Kennedy Gold team had an exceptional performance, winning medals in 21 out of 23 events, including 14 first-place finishes. They ended up with a remarkable score of 45 points, surpassing their previous success at the regional level. The national competition is scheduled to be held at Wichita State University in Wichita, Kansas, on May 20th. We extend our best wishes to all participants as they diligently prepare for this upcoming event.

We would like to congratulate the following members of the team for their achievements. Kennedy won

- First Place (Gold) medals in:
 - Bio Process Lab: Rehan Babu, Owen Liu
 - Codebusters: Takuji Kubota, Elaina Pan, Rehan Babu
 - Crime Busters: Anish Vuppala, Nimal Kumar
 - Disease Detectives: Alicia Xie, Pragya Rama
 - Dynamic Planet: Pragya Rama, Harvey Lei
 - Experimental Design: Takuji Kubota, Elaina Pan, Anish Vuppala
 - Fast Facts: Shamali Rewari, Rehan Babu
 - Green Generation: Takuji Kubota, Nimal Kumar
 - Road Scholar: Harvey Lei, Sohum Uppamchandani
 - Rocks & Minerals: Pragya Rama, Harvey Lei
 - Solar System: Bryan Fu, Nimal Kumar
 - Sounds of Music: Takuji Kubota, Alicia Xie
 - Storm the Castle: Alicia Xie, Rachael Jin
 - Write It Do It: Alcia Xie, Elaina Pan
- Second Place (Silver) medals in:
 - Can't Judge a Powder: Anish Vuppala, Nimal Kumar
 - Flight: Joel Lee, Samarth Kashyap
 - Forestry: Joel Lee, Harvey Lei
 - Roller Coaster: Samarth Kashyap, Rachael Jin
- Third Place medals in:
 - Crave the Wave: Sohum Uppamchandani, Pragya Rama
 - Wheeled Vehicle: Rachael Jin, Samarth Kashyap
- Fourth Place medal in Anatomy & Physiology: Shamali Rewari, Owen Liu

Is Coffee Good or Bad for You?

Ashish Kashyap, Staff Editor

Starting high school was an exciting time of my life. Along with the journey came new friends, fun clubs, lots of homework and stressful tests. Even the most interesting subjects would sometimes turn into tedious and mundane piles of homework and study sessions. And with all of these came a new buddy – Coffee. I started out with the latte in tall stylish cups – a treat once a week. And moved on to the Starbucks bottled Mocha and Frappuccino which gave me a boost of energy and sugar at the same time. Following this trend that I noticed in several of my friends was the anxiety – Am I becoming addicted to coffee? Will I become a zombie if I don't get my coffee fix? Is coffee good or bad for you?

Coffee has been revered by connoisseurs for centuries. It has had an important part in global trade and is an essential part of life in a large number of world countries. While researched for a long time for potential harmful effects, it was found that coffee is actually very beneficial for a variety of maladies.

Coffee gets its kick from caffeine, a natural stimulant that makes you feel more energetic. Caffeine acts on your brain to improve memory, mood, reaction times and mental function. One study even says caffeine can improve endurance and performance during exercise. It also contains Vitamin B12(Riboflavin), Magnesium, and beneficial polyphenols.

Research shows that coffee has striking effects on physical activity levels, causing people to move more, taking, on average, 1,000 extra steps a day – a significant boost in activity that might help explain why coffee consumption has long been linked to better health.

In addition, moderate coffee intake is likely to reduce the risk of type 2 diabetes, heart disease, liver and endometrial cancers, Parkinson's disease, and depression. It even appears to reduce chances of an early death. Coffee is a potent source of antioxidants which fight various kinds of inflammation, including arterial damage. It can improve memory skills and reaction times, while preventing cognitive decline associated with age and dementia. Polyphenols have anti-carcinogenic properties and prevent multiple types of cancer.

Studies have suggested that both caffeinated and decaffeinated coffee was beneficial to the subjects. This suggests that it is not simply the caffeine but multiple components of coffee which could potentially explain any associated reduction in risk. Drinking two to three cups of coffee a day was linked to the largest reduction in early death.

While these are very promising results, more research is needed. We must also note that in spite of these benefits, coffee can have negative effects too. The American Academy of Pediatrics recommends no caffeinated products for children aged 12 or younger. Adolescents must keep their intake to one cup of coffee a day. In some people, coffee can cause irritability, nervousness or anxiety to the point of insomnia. In people with high blood pressure, coffee can cause elevated blood pressure, and reduced sleep.

As with most things, coffee seems like a promising tool for enhancing our life experiences as long as we consume it in moderation. Coffee affects different people differently, and as long as we consume it with caution, there is no reason we cannot enjoy it.

Works Cited:

Coffee lovers gain 1,000 steps a day, but get less sleep, study shows - A rigorous new study looked at the various effects coffee has on health, including exercise, sleep and heart palpitations

By Anahad O'Connor; March 22, 2023

<https://www.washingtonpost.com/wellness/2023/03/22/coffee-heart-palpitations-sleep-exercise/>

Coffee lowers risk of heart problems and early death, study says, especially ground and caffeinated

By Sandee LaMotte, September 29, 2022

<https://www.cnn.com/2022/09/29/health/coffee-live-longer-wellness/index.html>

Is coffee good or bad for your health?

Harvard T.H. Chan school of Public Health

<https://www.hsph.harvard.edu/news/hsph-in-the-news/is-coffee-good-or-bad-for-your-health/>

The Nutrition Source: Coffee

Harvard T.H. Chan school of Public Health

<https://www.hsph.harvard.edu/nutritionsource/food-features/coffee/>

The Surprising Health Benefits of Coffee - A moderate amount of coffee can lower your risk for several chronic diseases

<https://health.clevelandclinic.org/the-health-benefits-of-coffee/>