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CHOATE PUBLIC HEALTH

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CONTENTS

CPH BOARD

HAND SANITIZERS: TOO GOOD TO BE TRUE

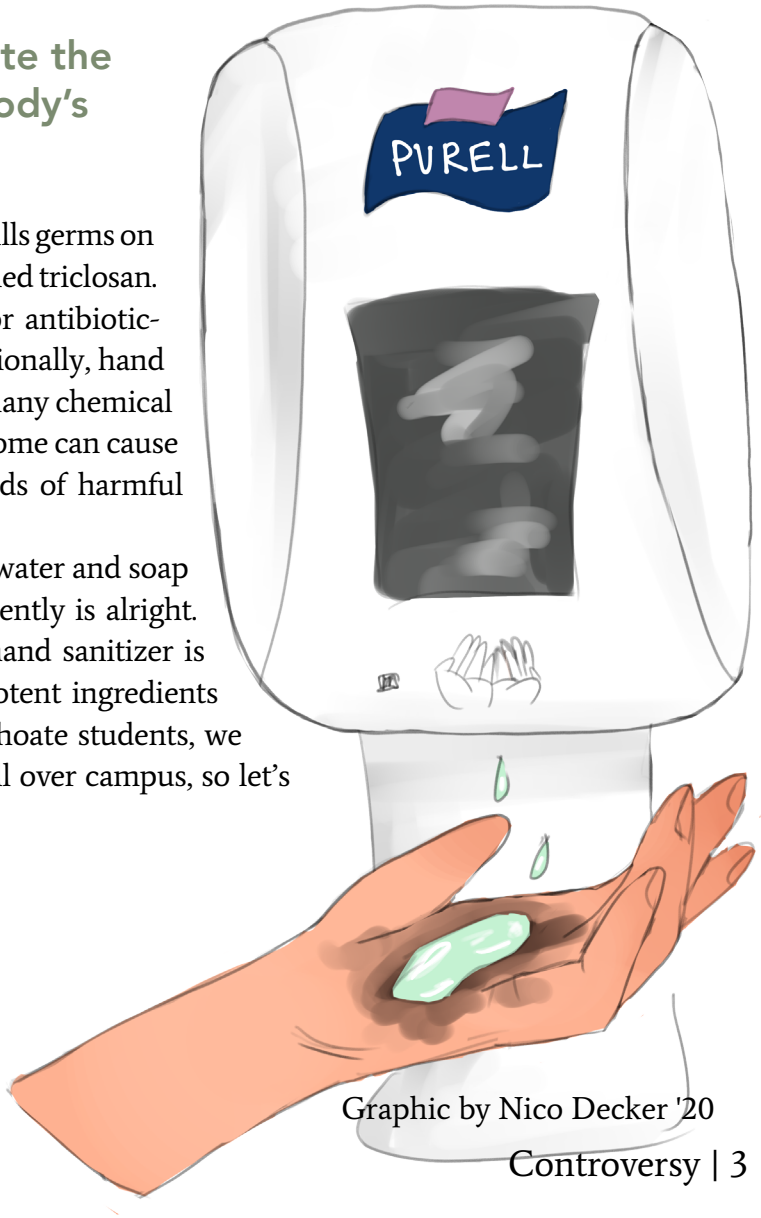
By Tigo Ponce de Leon '22

There are Purell sanitizing stations all over the Choate campus. A single squirt of this magic liquid, and 99.99% of germs on your hands will be eradicated. Hocus pocus! The use of hand sanitizers is widespread due to their convenience and availability. After shaking a person's hand, touching a shopping cart, or using a porta potty, a squirt of hand sanitizer always does the trick — or so we thought.

Such large amounts of alcohol irritate the skin and strip away some of the body's essential oils.

Hand sanitizers contain at least 60% alcohol which kills germs on contact. Many sanitizers also contain an antibacterial called triclosan. This chemical has been linked to certain superbugs, or antibiotic-resistant bacteria, causing 23,000 deaths in 2013.[1] Additionally, hand sanitizer ingredients are largely unregulated; there are many chemical fragrances that give sanitizers their pleasant smell, but some can cause hormone damage.[2] People may be consuming hundreds of harmful chemicals without even knowing it!

Although hand sanitizers are quick and easy, using water and soap is always the safest bet. Using hand sanitizer intermittently is alright. However, completely replacing water and soap with hand sanitizer is not a good idea. Sanitizers are filled with extremely potent ingredients that can cause damage to our bodies and minds. As Choate students, we are all lucky enough to have running water and soap all over campus, so let's make better use of it!



Graphic by Nico Decker '20

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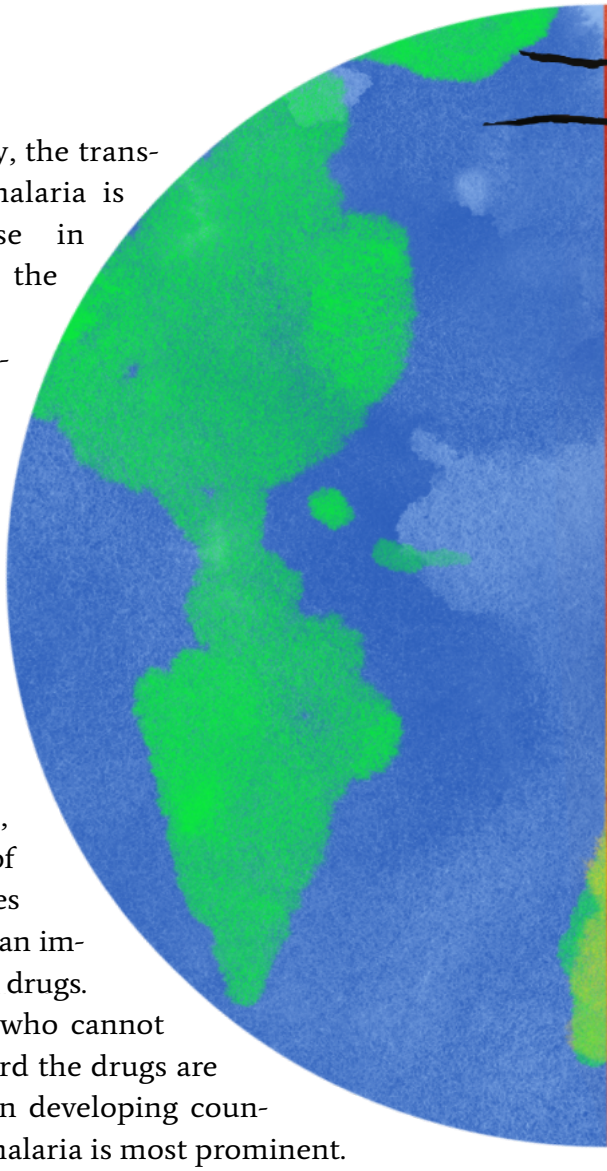
SICK FROM
HOW CLIMATE CHAN

By Emily



When most people think of climate change, they picture ice melting in the Arctic, polar bears having a harder time finding food, and summers becoming warmer while winters get colder. What most people do not realize, however, is the fatal connection between climate change and the spread of diseases such as malaria.

The World Health Organization (WHO) and the World Meteorological Organization (WMO) classify malaria as one of the most temperature- and weather-sensitive diseases. Malaria is a disease of the blood that is transmitted by the female Anopheles mosquito, which thrives in a humid and warm climate. This is the only mosquito that has the capability to carry the Plasmodium parasite that causes malaria. The female Anopheles bites people in order to gain blood to nurture its eggs.[1] Symptoms of malaria include fever, chills, and a headache, later progressing to severe illness, sepsis, encephalitis and sometimes death. In 2017, 219 million cases of malaria were identified, with an estimated 435,000 deaths.

The Anopheles mosquito, like the majority of other mosquitos, breed in warm and humid locations and lay eggs in stagnant water. Mosquitoes cannot survive in places that have temperatures under 68 degrees fahrenheit. This is why malaria is almost nonexistent in colder areas such as Greenland and the arctic, while it is very common in warm areas such as sub-Saharan Africa and India. Generally, the transmission of malaria is more intense in areas around the equator.

Antimalarial drugs are not easily affordable or accessible to those who live in isolated areas. Furthermore, in many malaria-dense areas, the majority of the mosquitoes have built up an immunity to the drugs. Most people who cannot access or afford the drugs are those living in developing countries, where malaria is most prominent. People living in countries in sub-Saharan Africa are at the highest risk; in 2017 alone, 92% of the world's malaria cases were reported from sub-Saharan Africa. A World Bank report states that some regions, including places in South America and

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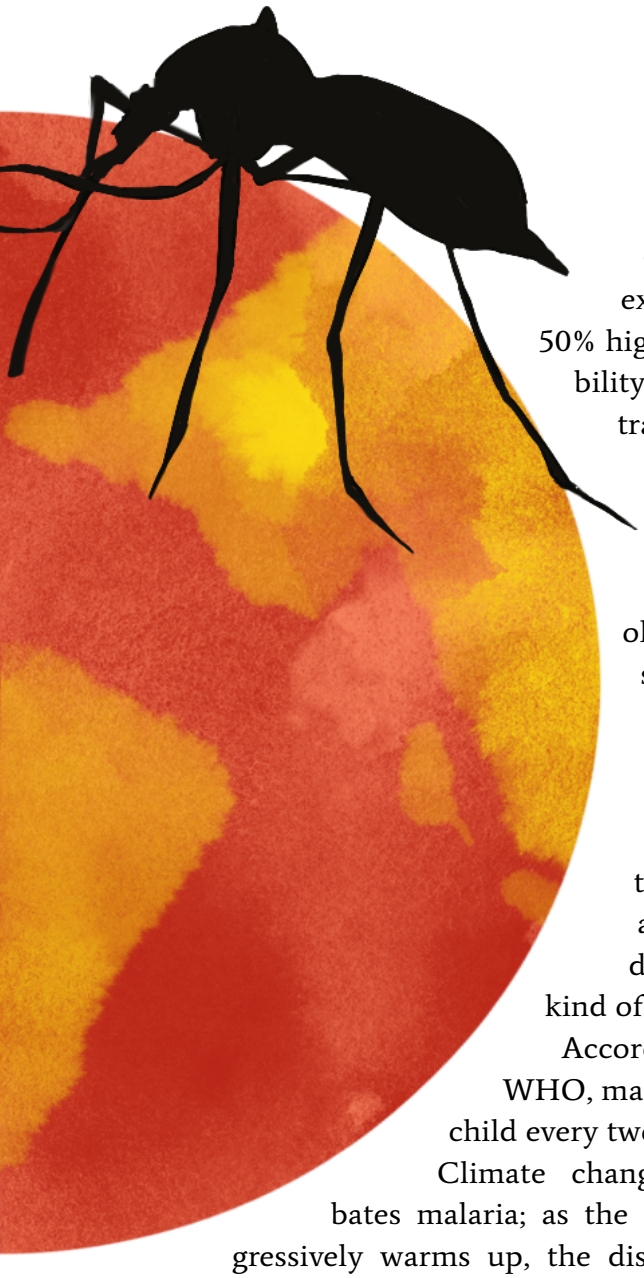

China, will experience a 50% higher probability of malaria transmission by 2050.[2] Children under five years old are most susceptible to malaria, since they are too young to have had a chance to develop any kind of immunity. According to the WHO, malaria kills a child every two minutes.[3] Climate change exacerbates malaria; as the Earth progressively warms up, the distance that the Anopheles mosquito is able to travel increases. Places the mosquito may not have been able to access previously are slowly being introduced to more and more instances of malaria. People who live in areas that have been previously exposed to malaria may have developed a natural immunity against it, but those living in other areas possess no such defense. If not treated immediately, malaria can kill a person within 24 hours of transmission. The Plasmodium parasite also reproduces faster in its host mosquito in a warmer climate. If an increasing number of countries begin to develop warmer climates, malaria could become far more widespread.[4]

A temperature increase of three degrees celsius, despite sounding insignificant, could be quite literally life changing for some. A change of three degrees Celsius would increase the number of people susceptible to malaria by five percent. If climate change continues to progress, the world will have to face a previously unprecedented scale of malaria that will not be easy to suppress. To prevent this increase in malaria, it is is necessary to take action to reduce climate change.

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Graphic by Elaine Zhang '21

THE REALITY OF FAST FOOD

By Charlotte Myers-Elkins'22

For many Choate students, fast food has become a rather normal aspect of life, from ordering a Chipotle burrito bowl after a particularly hard test to going out to McDonald's with friends on a Friday night. It should come as no surprise, though, that these items may contain many ingredients that have negative impacts on our health. How bad is fast food really? The answer lies in the nutrition facts.

First, the amount of sodium in many items on the menus of fast food restaurants is particularly concerning. The recommended amount of sodium consumption is 1,500 to 2,300 milligrams per day. For many fast food restaurants, though, just one single burger can reach this range and a meal may even surpass it. For example, a Burger King double whopper with cheese alone already contains 1,544 milligrams of sodium.[1] Consuming too much sodium can lead to an increased risk of high blood pressure, stroke, heart attack, heart failure, stomach cancer, and more in the long term.[2]

Graphic by Kate Bailey '21

Another reason fast food can be detrimental to one's health is because of the amount of sugar in the beverages served at fast food restaurants. Although the recommended amount of daily sugar intake is six to nine grams, a large number of fast food restaurants serve drinks that greatly exceed this amount.[1] For example, a medium sweet tea from Chick-fil-A contains 32 grams of sugar.[3] Consuming too much sugar can lead to obesity, type 2 diabetes, heart disease, and other health risks.[4] So next time, think twice before getting that celebratory milkshake from Burger King after a big test. Your body will thank you later.

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AIMOVIG: THE FUTURE OF MIGRAINE TREATMEAT

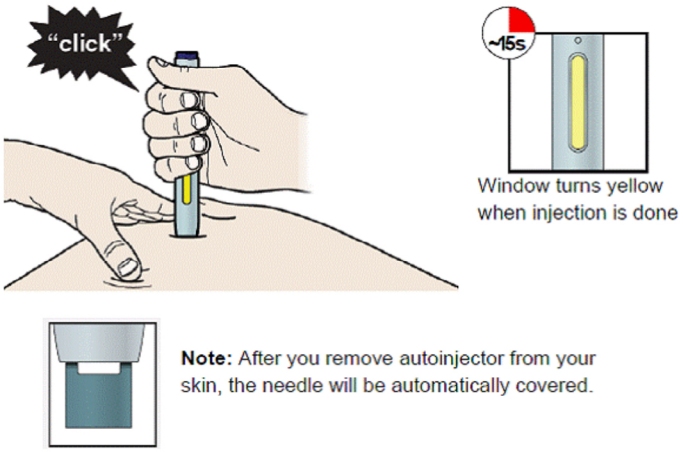
By Medha Illindala '21

Migraines start off with small signs such as food cravings, unexplainable mood swings, or trouble with fluid retention, often followed by seeing flashing or moving lights. The main symptoms of a migraine include a severe headache, increased light and color sensitivity, and nausea. Even after they fade, many migraines leave people weak and confused. Around 12% of Americans experience all or a combination of these symptoms. Until now, treatment was focused mainly on relieving symptoms through methods such as drinking fluids and taking pain relievers.[1]

The American pharmaceutical company Amgen has recently released the first and only FDA-approved drug for migraine prevention. This new drug, Aimovig, can be self-administered by Amgen's SureClick® autoinjector in monthly doses of 70 mg though some patients may find that a 140 mg monthly dose produces better results. Aimovig is the only approved drug that prevents migraines by blocking the calcitonin gene-related peptide receptor, or CGRP-R. This receptor is believed to play a significant role in causing migraines.

Aimovig has been through various tests and studies to validate its effectiveness. In Phase II and III studies for chronic and episodic migraines, Aimovig has been shown to significantly reduce the number of migraines the subject experienced in a month. This was sustained for up to 15 months in an ongoing extension study. Patients who received doses of 140 mg were even more likely to experience fewer migraines as compared to a placebo group.[2]

Aimovig is available in the U.S. at $575 for monthly 70/140 mg single use autoinjectors or $6,900 a year and will be available for patient use in the near future.



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STEM CELLS EXPLAINED:

CELL FUNCTION AND USAGE

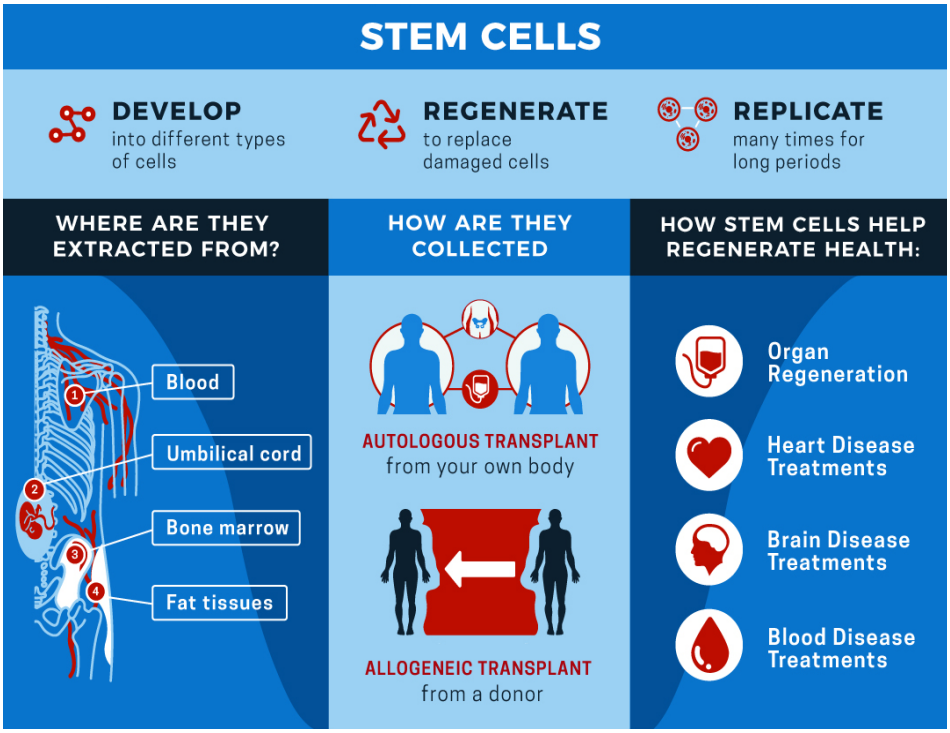
By Sabahat Rahman '21

Cells are the basic building blocks of all living things, giving structure to and performing all the functions of an organism. Stem cells are characterized by two properties. Firstly, they are capable of self-renewal. Secondly, they have the ability to differentiate into specialized cells; this means that under certain conditions, stem cells can be induced into cell types that have more specific functions within organs or tissues.[1] Different types of stem cells include embryonic, adult, and induced pluripotent stem cells. Embryonic stem cells originate in an embryo that is three to five days old and have the potential to produce every cell type in the body![2] Adult stem cells are created by these embryonic stem cells and can also divide to form certain cell types. New breakthroughs in research have allowed for the creation of induced pluripotent stem cells, which are adult stem cells that have been genetically programmed to return to their original embryonic stem cell phase.[3]

Most prominently, stem cells can be used to treat countless degenerative diseases, which cause tissue or organ function and structure deterioration over time.

Stem cell research has skyrocketed in the past few years and flooded through the news as scientists and doctors realize stem cells' incredible potential. Most prominently, stem cells can be used to treat countless degenerative diseases, which cause tissue or organ function and structure deterioration over time. These include widespread diseases like osteoarthritis, Alzheimer's disease, and degenerative disk disease.[4] Scientists can also study stem cells in order to understand how diseases develop, and they can even induce them to repair tissue in the body. New drugs can also be tested in stem cells for effectiveness and safety.[2]

Further research has also revealed stem cells' ability to replace the need for organ donations by using the cells to grow organs. In order to replace weakened or destroyed tissues and organs, people must rely on donated organs. These are limited in supply and hard to access.[2] Instead, stem cells can be implanted into



the body where needed in order to generate new and healthy tissues or organs.[1] The most widely used form of this treatment is the implantation of blood-forming stem cells in bone marrow, which has helped numerous people suffering from leukemia. Other applications of stem cells include using them to make insulin-producing cells for transplant into type 1 diabetes patients, and heart muscle cells for transplant into patients with chronic heart disease. Stem cells are also being used to research human development: by studying how stem cells grow and multiply, scientists can learn how cancers and birth defects are born.[1]

Stem cell treatment is still a very new field in the world of regenerative medicine and there are many obstacles that need to be tackled. For example, it can be challenging for scientists to find stem cells in adult tissues, as there are thousands of other kinds of cells.[5] Additionally, unintended side effects need to be closely studied. These include immunorejection, which is when the body senses that stem cells are entering it and triggers an immune response, rejecting the foreign cells.[6] In terms of the use of stem cell therapy, adult stem cells are now often used in typical medical practice. By 2012, over one million people were successfully treated with adult stem cells.[7] Use of embryonic stem cells is very limited, as research is still needed to ensure their safety and reliability. On top of this, there is controversy over whether or not embryonic stem cell use is even ethical or justified. However, it is doubtless that stem cells have revolutionized medical treatment, having already saved many lives and having the potential to save many more.

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THE WAR O

By Lillie Lan

Toxic chemicals are becoming increasingly prevalent in skin care products across the United States. Several studies have shown that these products contain toxins that result in countless deaths as well as numerous health complications including cancer and endometriosis. Despite this, toxins have been ignored by the Food and Drug Administration (FDA) and beauty care companies across the U.S. The glam and glow of skin care products capture the hearts of over 98 million people each year, who are then afflicted by diseases and disorders caused by the toxins.[1] The lack of attention that beauty products get from the FDA allows for the excessive use of toxins in skin care products, leading people to be more prone to developing diseases.

The use of harmful chemicals in skincare products remains widely unaddressed. This is shown through the government's continued protection of companies that fail to meet FDA requirements. For example, in 2016, Johnson & Johnson was ordered to pay $72 million in medical bills for the death of a young woman with ovarian cancer caused by the chemicals in their baby powder. Although the family won the lawsuit, there has been little change to Johnson & Johnson products because the case was kept out of the public eye.[2] Unfortunately, Johnson & Johnson products are not alone; the majority of beauty companies across the world use toxins that leave consumers at risk of developing disease.

Many harmful chemicals were introduced to beauty care companies in order to give consumers unrealistic results: instantly removing wrinkles, perfectly tanning skin, and infinitely extending eyelashes. As the beauty industry expanded, so did the use of toxins such as parabens, triclosan, preservatives releasing formaldehyde, and many others.[3] Over the years, the European Union has banned over 1,300 chemicals and Canada has banned over 600 chemicals found in skin care products. The United States has only banned eight.[5] Unfortunately, this means that anything advertised as a health and beauty product can be sold in a drug store despite being full of harmful toxins.

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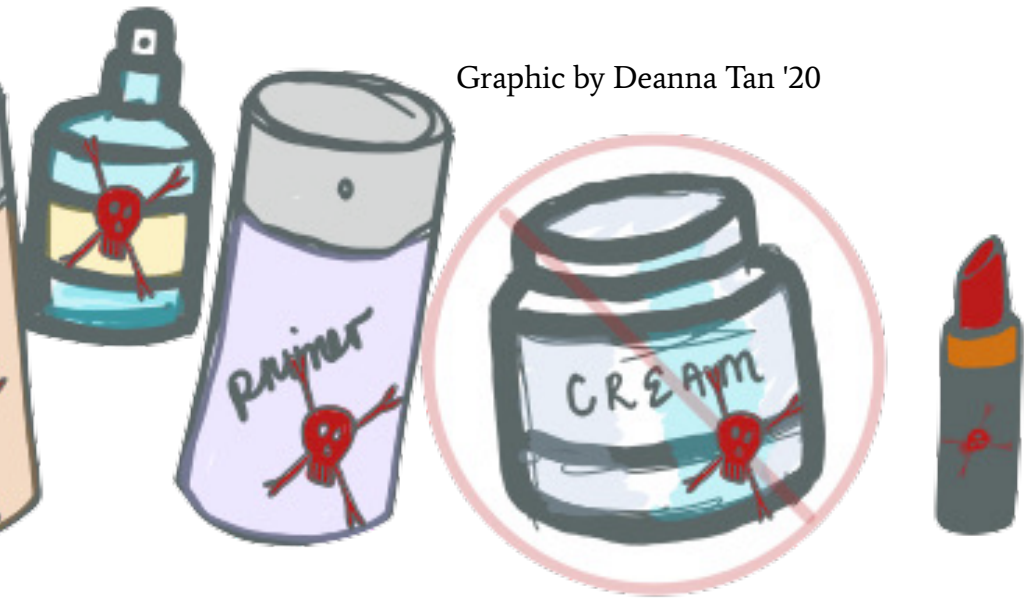
It must be noted that there is a plethora of conflicting scientific claims and studies on the topic of possible toxins in beauty products having harmful health side effects. For example, most sunscreens include the chemical oxybenzone, known to help protect the skin from sun damage. Some studies found that oxybenzone, a hormone disruptor, can cause or worsen endometriosis. Other studies, however, concluded that there is no correlation between the two.[5,6] Furthermore, some popular teen health websites claim that aluminum products used in deodorants contribute to the development of breast cancer. However, other websites and scientific sources claim that there is no correlation whatsoever between deodorant use and cancer development. One study that claimed a relationship between the two had a remarkably tiny sample size of 54 women with breast cancer and 50 women without. However, this is simply too small of a sample to draw any conclusions. Other studies were retrospective, relying on the memories of women, and could have been heavily skewed by recall bias.[6] It is important to distinguish these fake claims that ultimately result in fear-mongering and the spread of misinformation from real issues that need to be addressed by the FDA and the rest of the beauty industry.

Despite controversial or unsubstantiated claims, however, it is indisputable that more regulation on products containing harmful toxins is necessary. Consumers of beauty products in the United States are at a continued risk of developing diseases due to the lack of regulation of deleterious toxins. The FDA must take action against the use of toxins and create a safer market.



Graphic by Deanna Tan '20

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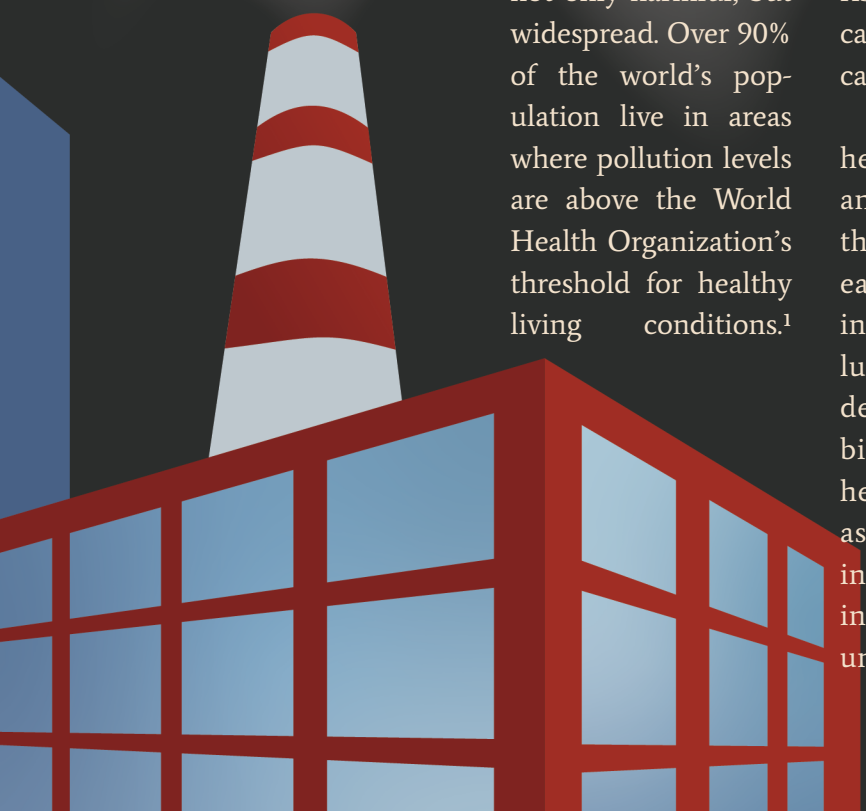
AIR POL
A GLOBAL PUBLIC H

By Faris A

Air pollution is a harsh reality that our post-industrial generation needs to confront. This growing issue, if not affecting us now, will soon take over our lives if we do not take steps to combat it on a societal level. Toxic air emitted by factories, power plants, and daily transport has caused more deaths than many of the world's deadliest diseases. In fact, toxic air is responsible for 7 million deaths each year, which is more than the number of deaths caused by malaria, HIV, and tuberculosis combined. While some believe that air pollution is merely the residue of a rapidly industrializing society, others argue that toxic air has become a global public health emergency. Recent studies indicate that nine out of ten people breathe polluted air. Air pollution is not only harmful, but widespread. Over 90% of the world's population live in areas where pollution levels are above the World Health Organization's threshold for healthy living conditions.[1] With death tolls rising and greenhouse gas emissions soaring, the air pollution crisis needs to be addressed quickly and effectively.



Graphic by Kate Bailey '21

Air pollution can impact human health in many different ways. The most harmful element of toxic air — tiny particles — is small enough to bypass the lungs, travel into the bloodstream, and enter certain vital organs including the brain. Composed of black carbon, nitrates, sulfates, ammonia, and mineral dust, tiny particles are the products of burning fossil fuels.[2] Other forms of air pollution include toxic gases like nitrogen and sulfur dioxide which are emitted by ships, airplanes, and vehicles that use diesel. Additionally, many people still cook using dangerous fuels such as wood, dung, and charcoal, which are known to increase the risk of lung cancer by 40% when inhaled. Air pollution can take many different forms which is why toxic air can be extremely dangerous to humans.

Researchers have linked air pollution to various health issues including lung disease, heart attack, and stroke. Other scientists even blame toxic air for the increase in cases of diabetes, Alzheimer's disease, and skin diseases.[1] However, the most shocking health repercussion caused by global air pollution is experienced by children.[2] A recent study demonstrated that toxic air increases the risk of low birth weight, a condition that can lead to lifelong health problems. As children grow, higher risks of asthma and lung growth failure are caused by inhaling these toxic particles. Air pollution begins affecting children before they are born and plagues adults until their last breath; this issue affects people of all

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ages. To solve this public health emergency, governments around the world must find ways to reduce air pollution.

Because air pollution continues to increase, many people are scrambling for ways to protect themselves from these harmful particles. Certain governments are designing innovative filtration techniques to clean dirty air. For example, the United Kingdom plans to equip towers, streetside benches, and public buses with filters in heavily polluted areas. The Chinese government developed pollution monitoring applications that allow people to check the pollution in their area, similarly to how they check the daily weather before heading outside. These apps are aimed to help people avoid the worst concentrations of harmful chemicals. However, these solutions are not as feasible as they seem. One of the biggest obstacles in combating air pollution is politics. Government officials are not keen on implementing solutions and using government funds to solve this public health emergency. Additionally, some politicians favor industry and find environmental solutions unprofitable, and thus undesirable.[1] Ultimately, the only solution to stop this toxic air is to cut it off at the source. As individuals, we can do our part, but for there to be any widespread change, the biggest polluters must take responsibility for their actions, stop using coal, and develop healthy energy and urbanization alternatives.

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INFLUENZA: THE COLD-LIKE MUTATING VIRUS

By Claire Yuan '21

Although perhaps not as frightening as diseases such as Ebola and cancer, the influenza virus, commonly known as the flu, remains a serious health concern for people across the globe. This common viral infection, which attacks the respiratory system, is usually caused by one of two types of influenza: influenza A or influenza B. Influenza (different from the stomach "flu," which triggers vomiting and diarrhea) may cause symptoms such as a runny nose, sneezing, and a sore throat, which resemble symptoms of the common cold. However, while a common cold typically takes a couple days to slowly develop, the onset of the flu is rapid and often leads to further symptoms such as fever, sore muscles, chills and sweats, fatigue, and headaches.

The flu typically resolves on its own in the absence of professional medical intervention, but there have been cases in which serious complications have occured. Certain high-risk groups, including young children below the age of five, elderly people above the age of 65, and people with weakened immune systems are particularly threatened by these potentially fatal complications. Some conditions that may develop along with influenza include bronchitis, pneumonia, heart problems, and asthma flare-ups.[2]

In addition to being in one of those aforementioned high-risk groups, there are other risk factors that may increase a person's chances of contracting the flu. For example, pregnant, obese, and/or chronically ill people, living in crowded areas are more likely to become infected.[1] In order for a person to be protected from a virus, their immune system must "remember" the virus and create specific anti-virus antibodies (blood proteins used by the immune system to counter against toxins or other foreign substances) that may effectively neutralize the virus upon its entrance into the body.[2]

Unfortunately, the influenza virus is constantly mutating and can change in two different ways. The first way, known as antigenic drift, involves small changes that occur within the DNA of the virus during replication. For the most part, antigenic drift causes the resulting mutated DNA to be quite similar to the original virus's DNA; in most of these cases, the

body's immune system will recognize the new virus and respond. However, if these small changes accumulate over time, they may cause a new, more antigenically different virus that the immune system does not recognize. The second type of influenza mutation is called antigenic shift. In this situation, the DNA of the original virus undergoes quick and major change. Antigenic shift results in a new virus so different that the immune system offers little, if any, protection against it. This is what happened in the spring of 2009, causing an influenza pandemic.[3]

Throughout the last century there have been several influenza pandemics, including the Spanish Influenza in 1918 to 1919 — which claimed 40 million lives — the Asian Influenza in 1957 to 58, the Hong Kong Flu in 1968 to 1969, the Avian Flu Threat from 1997 to present day, and the Novel H1N1 in 2009.[2]

Due to the bird flu outbreaks of the late 1990s, the World Health Organization developed new pandemic guidelines in 2005. This change prompted a nationwide improvement of pandemic preparedness plans. In studies investigating the 2009 flu outbreak, many have pointed out the need for faster development and distribution of flu vaccines. For example, U.S. companies may adopt a technique used in the European Union and Canada that allows smaller amounts of antigen to be used in each dose to achieve the same result. In addition, companies may consider trying new ways of cultivating antigens in order to avoid the slow process of vaccine production in eggs.[3]

Even though the medical field is making considerable progress on a wide variety of deadly diseases plaguing the human race, there is still a threat of an influenza pandemic. If a pandemic were to spread now in the absence of intervention, an estimated two million Americans would die and ten million would be hospitalized.[3] Therefore, although the flu shot is not 100% effective, it is still vital that people get vaccinated and protect themselves from the dangers of influenza.

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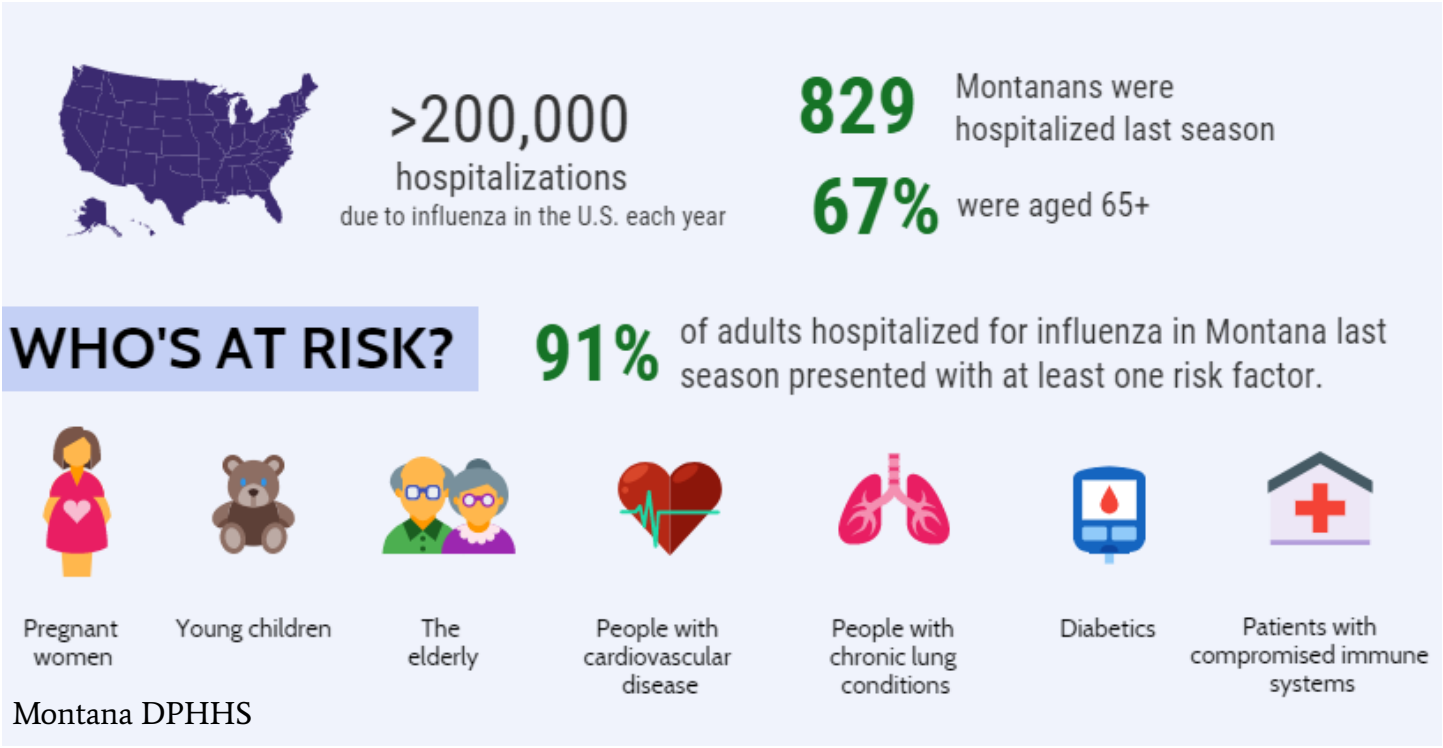

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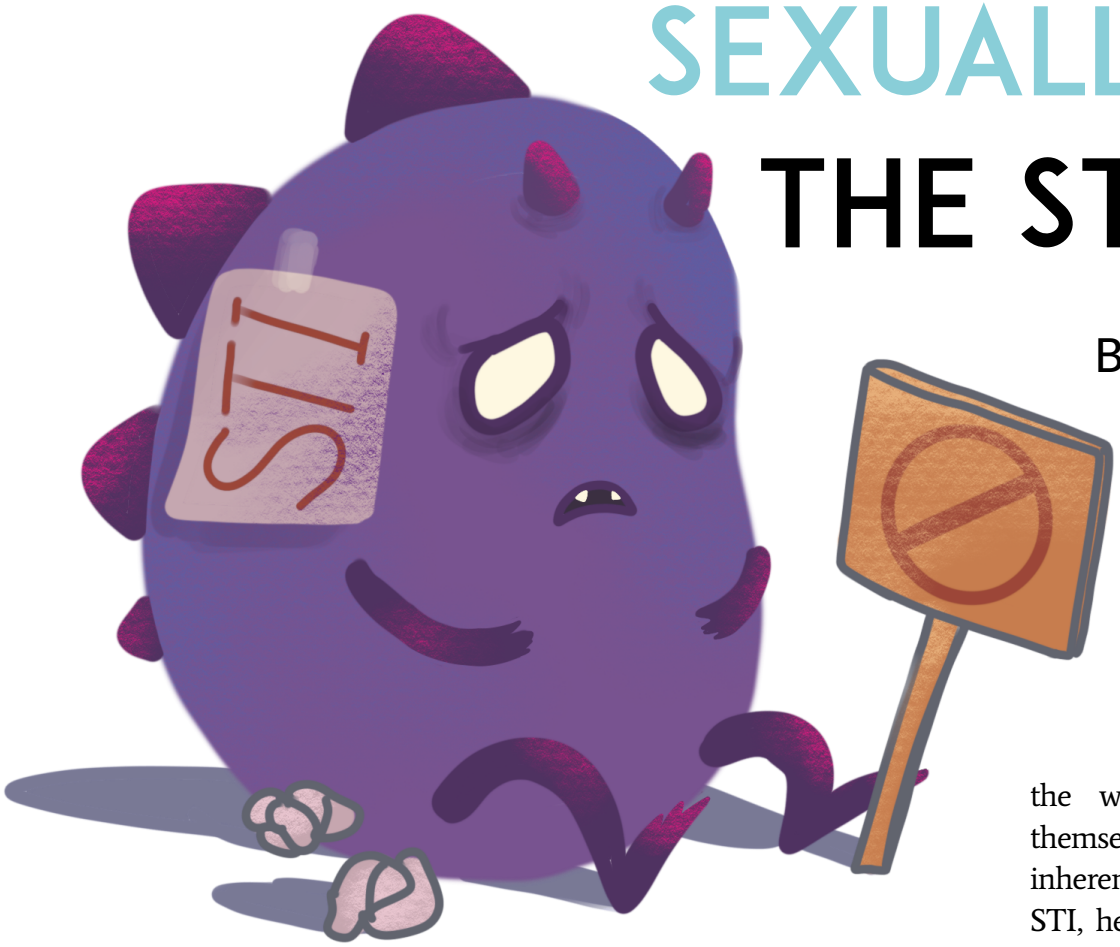
By Vidhya Pathy '20



Recently, sexually transmitted infections (STIs) have been on the rise, with the number of reported cases of chlamydia, gonorrhea, and syphilis reaching 2.3 million in 2017 in the United States alone.[1] Even more startling is the fact that people aged 15 to 24 make up 50% of those cases.[2] Unfortunately, a study focused on the societal impacts of HIV found that a staggering 50% of people said they had discriminatory attitudes towards people who were suffering from the STI.[3] Thus, it is no surprise that another study conducted by John Ellen from the Division of Pediatrics and Adolescent Medicine at Johns Hopkins University found that the stigma related to STIs discouraged patients from seeking the help they needed in a timely fashion.[4] How can a society possibly mitigate the spread of diseases if people are scared to seek treatment? The number of cases will continue to grow exponentially until the root cause of the stigma against people living with STIs is addressed.

Sexually transmitted infections are any infections spread through intercourse. STIs initially attack the genitals, reproductive tract, urinary tract, oral cavity, anus, or rectum. Next, they will spread to other organs, causing symptoms in other parts of the body. These symptoms can range from pain to — in extreme cases — cancer.[5]

The stigmatization of STIs goes back to ancient times, so it is unsurprising that the consequences are still commonplace today. Even the words that describe STIs themselves were appropriated with inherent bias. The name of one STI, herpes, was coined from the word "herpein," meaning "to creep or crawl." "Swine love" is a literal translation of the word syphilis. References in the Bible to STIs served as reminders not to engage in extramarital sex. Beginning in the medieval era, syphilis was dubbed "the Italian disease" by the French and "the French disease" by the Italians — two nations engaging in a xenophobic blame game. After an outbreak in 1495 that killed 5 million people in Europe, people began attributing the disease to the enemy.[6]

By the 18th century, another modern facet of STI stigmatization was introduced. The pernicious myth that sexually transmitted infections were limited to the poor and were product of poverty was made clear in the story of

SMITTED INFECTIONS:

HIND THE STI-GMA

Flora Price. When Price reported her symptoms to parishioners in 1728, she was sent to a work camp instead of receiving medical treatment. Her mistreatment at the hands of the public health system goes to show how much the system favored the wealthy. Although STIs do not discriminate between socioeconomic echelons, the wealthy have the privilege of private treatment while the poor must rely solely on the public health systems. This only reinforces the idea that STIs are an issue for the poor, not anyone else.[7]

What can we do to reduce the stigmatization of STIs and encourage people to seek out treatment? The first step is to relinquish our judgment: we must recognize that sufferers are as human as everyone else in order to bring about positive change and inspire people to speak up. In 1991, a basketball player known as Magic Johnson announced to the world that he was HIV positive. About ten years later, in 2002, Sesame Street's South African counterpart welcomed its first HIV positive character. Most recently, in 2013, a high-grossing and critically acclaimed movie called The Dallas Buyers Club tackled the mental, physical, and financial struggles of having acquired immunodeficiency syndrome (AIDS).[6] Though there are many other sexually transmitted infections that have yet to even enter the realm of society's conversation, the progress so far is encouraging.

If you are concerned about yourself or a friend having contracted an STI, reach out to the Health Center or Planned Parenthood. And most importantly, practice safe sex!

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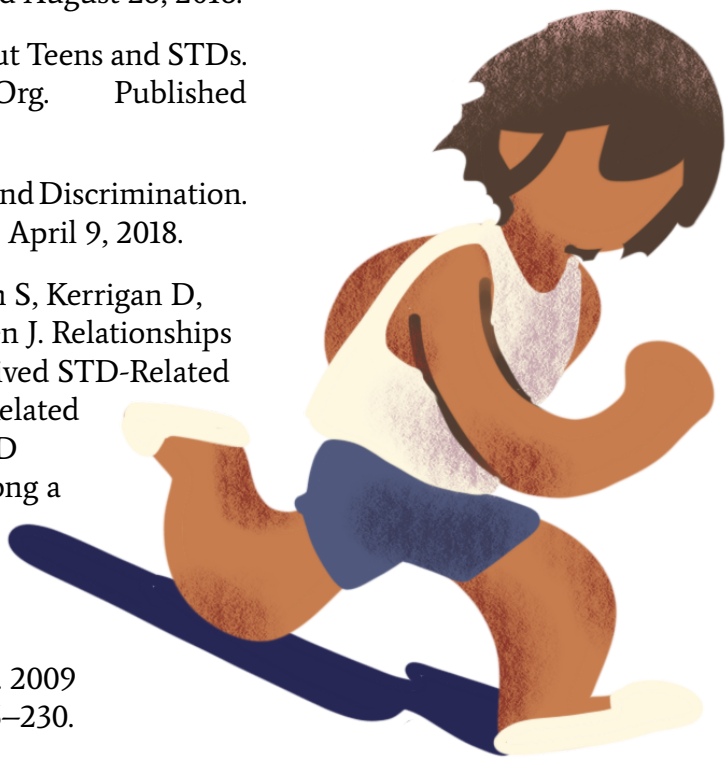
Graphic by Jacqueline Zou '20



JUICE CLEANSE:

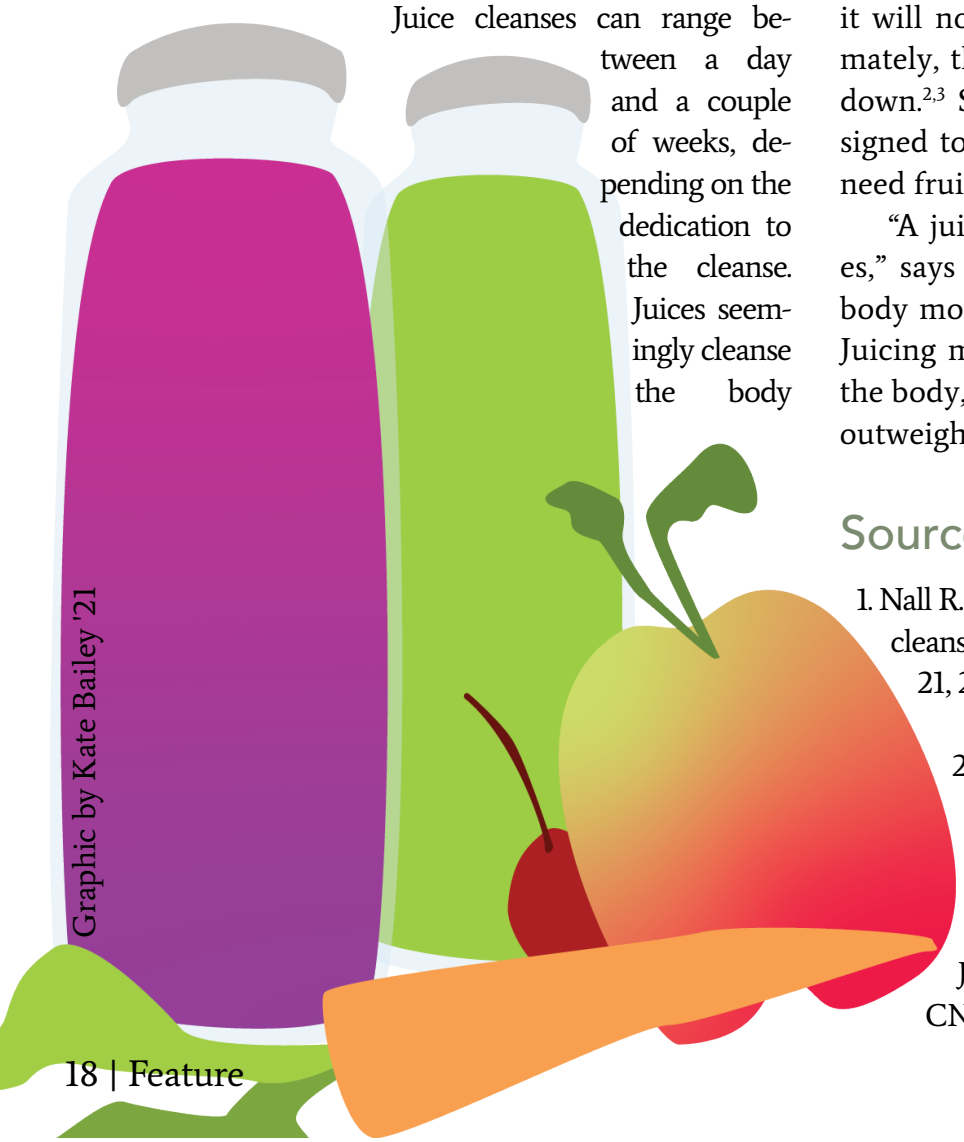
THE DETRIMENTAL DETOX?

By Renee Jiang '22

The juice cleanse diet is the trend currently consuming the internet. Celebrities are trying it, and the general public is following in their footsteps. This diet involves only ingesting the juices from vegetables and fruits in order to detoxify the body, reboot the metabolism, and aid with weight loss.[1] While there are potential benefits, many controversies still surround the science and effectiveness of this diet.

Juice cleanses can range between a day and a couple of weeks, depending on the dedication to the cleanse. Juices seemingly cleanse the body through the ingestion of healthy enzymes that improve digestion, anti-inflammatory compounds that boost the immune system, and vitamins and minerals that boost overall health.[1] While whole fruits and vegetables are great sources for fiber, all the fiber is removed during the juicing process. Moreover, as the body stops consuming solid food regularly, it will go into conservation mode because it will not recognize when the next meal is. Ultimately, this causes the body's metabolism to slow down.[2,3] Scientists also argue that the body is designed to remove toxins on its own, and does not need fruits or vegetables to flush toxins out.

"A juice cleanse is a quick fix that overpromises," says dietitian Joy Dubost.[2] Instead of fat, the body mostly loses muscle mass and water weight. Juicing may seem like an effective diet to cleanse the body, but its potential health consequences can outweigh its temporary benefits.



Graphic by Kate Bailey '21

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A NOTE FROM THE WELLNESS COMMITTEE

The Wellness Committee is composed of students and faculty advisors fundamentally devoted to improving wellness at Choate in all aspects — physically, mentally, socially, and emotionally — in order to achieve a better community-wide understanding and appreciation for individual and collective wellness. The committee is planning numerous initiatives, including hosting school events to promote wellness and the committee's outreach, working with the counseling team to form progressive connections with students, and proposing different methods of refining the Health Center's scheduling system. The Wellness Committee prioritizes wellness at Choate for the benefit of all valued members of the Choate community.

If you have any questions, concerns, or suggestions, please to reach out to any of our committee members:

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Will Robertson ’20
Max Gingher ’19
Alex Hakim ’19
Wilson Wang ’19
Di’Anna Bonomolo ’20
Noah Trudeau ’20
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