In With The New!

Read About The First Human Head Transplant

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Learn All About America's Geriatric Population

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Who We Are

We are members of the Duquesne University Student Nurses Association. All views expressed are our own and do not represent the views of Duquesne University or Duquesne University School of Nursing.

We are members of the BSN Programs at Duquesne University. We love health! We love patients! We love to write!

The Scope is the proud recipient of the 2013, 2014 and 2016 Student Nurses Association of Pennsylvania Excellent Newsletter Award.

We would love to hear your thoughts on our newsletter! Please email all letters to the editors to Emily Churchill and Morgan Gruender, at churchille@duq.edu. All letters to the editor must include name and contact information.
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The True Relationship Between Cancer and Sugar

Dana Bernard, Senior

Throughout many years, we have seen stories arise about sugar and how it may cause cancer. Some are false, but some are, in fact, very true. So, let’s bust the myths and let’s study the truths. First, the basics of sugar are that in the simplest form they are the “ose” words that we look for on the back of nutrition labels. Examples are glucose or fructose. Glucose is needed by our bodies to start the process that turns nutrients into energy. Every cell in our body needs energy, and the more sugar—or glucose—we consume, the more fuel our cells have to survive.

As all cells need glucose and nutrients to survive, so do cancer cells. The problem lies within the misconception that cutting glucose completely out of your diet can get eradicate cancer cells by depriving the cells of energy. This is not true because the cancer cells can use other means of energy such as amino acids, for example. So cutting out glucose will not get rid of cancer, it will only deprive ALL of your cells of some much-needed energy.

What is true about cancer and sugar is its relationship with your weight. One big risk factor for cancer is being overweight or obese. What is one way that we can become overweight? By eating too much sugar. This is where research has proven the positive relationship between cancer and sugar. The reason that obesity can present as a risk for cancer is because having excess body fat promotes inflammation, which leads to DNA damage, which leads to cancer.

The daily intake of sugar that women are supposed to consume is 100 calories (6 teaspoons), and for men 150 calories (9 teaspoons). Now if you are like any average American, you consume more than this maximum amount in a day. Sweet cravings seem hard to manage sometimes, but here are some tips on how to reign in your sugar rush. The easiest way to cut down on consuming unhealthy sugars is to remove “fizzy”, sugary drinks from your diet. These drinks usually pass the amount of recommended daily intake in only one serving! Try naturally flavored water like lemon water, or sparkling water instead of soda. Also, obvious sugary foods such as cake, cookies, or candy can easily be avoided by filling your sugar craving with natural sugary foods like fruits.

We can confirm that sugar and cancer do have an indirect relationship through obesity. As Americans, we need to watch our sugar intake and make sure that we are exercising and maintaining a healthy weight.
Cigna Stops Covering Most OxyContin Prescriptions
Adelaide Lipschutz, Sophomore

Within this past month Cigna, a health insurance company, declared that they would cease covering prescriptions for OxyContin. OxyContin is a narcotic that is used to treat a patient’s severe pain. Cigna stopped covering most OxyContin to prevent the potential abuse of this drug as a result of the brain adapting to the levels of production of dopamine caused by the drug. As the patient continues to take OxyContin, they require more of the drug, because they built up a tolerance, so that they can produce the same effect that was produced the first time they received the drug. Cigna’s Chief Pharmacy Officer, Jon Maesner, released a statement that said, “Our focus is on helping customers get the most value from their medications—this means obtaining effective pain relief while also guarding against opioid misuse.” Cigna has created a goal to reduce its customers’ opioid use by 25% within the next three years; so far, they have started their goal by ceasing covering OxyContin prescriptions and they also created a contract with Collegium Pharmaceutical so that they help to reduce opioid use. Their contract promotes the use of Xtampza ER because it has many abuse-deterrent properties that allow it to maintain its extended release properties without being manipulated. This allows these pills to maintain their extended release properties even when they are cut, crushed, chewed, or otherwise manipulated. Even though it is harder to manipulate this drug, it is still possible for patients to become addicted to these pills and can still have overdoses. Also, Cigna is limiting the tools doctors can use to treat patients that are in severe pain.

Back in 2015, Italian surgeon Dr. Sergio Canavero shocked the world when he announced that he will be performing the first human head transplant in 2017. Many people were and still are very skeptical in this procedure and are saying how it is very unethical. Canavero insists that this procedure will surely work because of his extensive research and experiments.

It has taken years for Canavero to try and convince people that he will be able to complete this procedure successfully. He has tested many animals like dogs, rats, mice and monkeys. In the 1970’s, the first head transplant was successful on a monkey that lived for 4 days. Since then, a team led by Chinese surgeon Xiaoping Ren was successful as well in the head transplant of a monkey. The team connected the blood supply so the animal could survive without brain injury. The team did not however attempt to connect the spinal cord. The experiment worked but the monkey could only move its head and not the rest of its body due to the severed spinal cord. The monkey only lived for 20 hours because of ethical reasons.

Another successful experiment was focused on mice and rats in May of 2017. Another team led by Xiaoping Ren, attached a head of a mouse on the body of a rat. This experiment was repeated many times and the 2-headed animal lived an average of 36 hours. These procedures were not aimed to keep the animals alive but to prove that this complete procedure could work on humans in the future.
Set for Early 2018
Emma LaRocque, Freshman

The real question is how does a human transplant work? Canavero has proposed a plan that he is very confident will work on a human. First, both the head and donor body are cooled down to around 12-15 degrees Celsius. This is to make sure that the cells last longer than a few minutes without oxygen. Next, the tissue around the neck is cut and major blood vessels from the head and donor body are linked together with tiny tubes. Then the spinal cord is severed on each body simultaneously and the head is removed. The hardest part of the whole operation is the attachment of the 2 spinal cords. Canavero plans on using polyethylene glycol, or PEG, to fuse the spinal cords together. The chemical PEG is shown to promote growth of the spinal cord nerves in animals. Researchers are still exploring if PEG can be used to fuse nerve cells together in patients with spinal cord injury. Canavero will use electrical stimulation to speed up the process of fusing the nerve cells together. Once the connection of the head and body is complete, the patient is kept in a coma for around a month to limit the movement of the neck and to promote proper healing. Canavero also claims that the patient will immediately be able to move, feel their face and speak with their same voice.

Other scientists and doctors have many stipulations about this surgery. Many say it is impossible and will never work. They also argue that it is very unethical in practice. But Canavero is very confident in his research and experiments and doesn’t listen to the criticism.

The procedure was set for December of 2017 on a Russian volunteer named Valery Spiridonov. Unfortunately, Spiridonov dropped out last minute so the procedure is hoped to be performed in early 2018. Canavero is now teaming up with Xiaoping Ren to help perform the surgery. They are still looking for volunteers and will be performing the surgery in China.
Aging in America

Liz Tarbet, Freshman

In America, due to the consistent outstanding breakthroughs in medicine and an overall better quality of life, it is no surprise that people are living longer. What is surprising however, is the ratio of elderly people that make up this country’s population. The baby boomer generation (1946-1964), is the biggest generation in America today. This generation began turning sixty five in 2011 meaning that very soon many people in this country will be on the more senior end of the spectrum. To put this in perspective, by 2030, one in five Americans will be over the age of sixty five. This nearly doubles the twelve percent of the population senior citizens upheld in the year 2000 (2). This large shift in the country’s demographics is mostly due to the largest generation growing old, timed perfectly with modern vaccines and slight lifestyle changes in society.

There is an evident societal shift from a Leave It to Beaver family dynamic to various nontraditional families. More women are going to college and completing their education, leaving the traditional homemaker role far behind. Women are opting to get married later in life, and choosing to have fewer children in order to fulfill many other obligations. Further adding to this trend is that the cost of living and education are on a positive linear slope. Families in the United States are more hesitant to have four or more children, and tend to stick to a safer and more affordable one or two. All of this contributes to the dramatic age shift in the country’s demographic.

How will this change the American healthcare system? An aging population will place a tremendous burden on our current system and its funding (3). Many people underestimate how much money will be needed after retirement. Just decades ago, a person could retire at the age of sixty five and have enough money to live for another ten years. Today some people retire at the young age of sixty five and live for another thirty years, requiring long-term care, and eventually run out of money. Policies on funding for geriatric healthcare will have to be implemented within the next couple of years before the country finds itself in a further major crisis.
Another roadblock the healthcare system will have to work through is not just at what age seniors are dying, but how they are dying. In 1900, infectious diseases like influenza, pneumonia and tuberculosis, to name a few, were the leading causes of death. With the incredible vaccines we have today, those diseases are now nowhere close to being a leading cause of death, forcing our bodies to find other ways to expire. Today, chronic conditions like heart disease, cancer, and Alzheimer's are in the top spots (2). Although progress has been made to treat these diseases, they are still dramatically worse than the acute conditions our ancestors faced decades ago. The reason for this is that right now there are only medicines to treat symptoms. Unlike a fast and furious disease like Influenza, a person could suffer for years with these diseases before they reach the end of life. This is primarily why seventy percent of those over the age of sixty five will need some sort of long term care in their lives. In 2010, only twelve million Americans needed long-term care. Flash-forward to 2050 and about twenty seven million Americans will require some sort of long-term care (1). The healthcare system will have to develop more long-term care programs, while simultaneously looking to find cures for the newly developed chronic diseases.

While we don’t yet know what diseases will top the leaderboard for causes of death in 2050, what we do know is that there will be a tremendous shortage of Geriatricians and geriatric nurses and nurse practitioners. Although geriatrics is not one of the higher paying specialties, it is by far one of the most rewarding, as it ranks very highly in career satisfaction (2). Therefore, if you are a student searching for a job in the next few months or maybe even years, remember to look in the gray areas for what could be a very gratifying and secure career.
NSNA Mid-Year Convention

Shannon Lawler, Junior

This year the NSNA Midyear Convention was in San Diego, California. The four day convention took place at the Town and Country which was located right next to the convention center with multiple ballrooms to have concurrent panels of different interests for the students to sit in on. Some of the panels that were at the convention including Navy Nursing, Holistic Nursing, Genetics Nurses, Informatics Nurse, Clinical Nurse Specialist, Ambulatory Care Nursing, Nephrology Nursing, Infusion/Intravenous Nurse, Newborn Nursing, Radiology and Imaging Nursing, Critical Care Nursing, Operating Room and Perioperative Nursing, Psychiatric-Mental Health Nursing, Pediatric Nurse Practitioner, and Wound Care Nurse (NSNA Midyear). The panels were extremely interesting to listen to. Some of my favorite panels were with the Holistic Nurse, Genetics Nurse and the Clinical Nurse Specialist. These three nurses were amazing at explaining exactly what these positions hold in the nursing world.

The Clinical Nurse Specialist spoke about the discipline she works in with taking care of a specific population in her area, and what the area of chief complaints of the clients were. Clinical Nurse Specialists have advanced training and education to take care of their clients. The next panel that was super interesting was the Genetics Nurse. This gentleman was an active man in the service, specifically the Army. I had an incredible time listening to him explain what he does in his practice of how genetics effect every human being and that genetics can be analyzed to determine the health risk to a specific population or the entire world. A Genetics Nurse can also do research on people with a specific genetic makeup and provide education to that person. The final panel that caught my interest was the Holistic Nurse one. The Holistic Nurse gave a completely different perspective on the role that the nurse can play in a client’s life. She spoke about alternate approaches of medicine that can help a patient heal including the use of mind, body, and spirit.

Overall, the weekend spent in San Diego was incredible. The weather was beautiful and I could not have been happier with the grounds the convention took place on. The convention opened my eyes up to so many different specialties of nursing that I had never thought about including Genetic Nursing, Informatics nursing, and the Clinical Nurse Specialist role. Finally, it was so marvelous to meet fellow nursing students from all across the country and learn about the different curriculum that students learn, but in the end we all arrive at the same destination, being nurses.
Teens Turning to E-Cigs Now Instead of Cigarettes
Adelaide Lipschutz, Sophomore

Recently the new smoking sensation has been vaping. You can see someone vaping everywhere you go; even on campus, there is at least one person vaping outside of the classroom in between classes. However, this new craze is not just popular with college students, there have been new cases of teenagers in eighth grade smoking e-cigs in place of real cigarettes. Recently 9.5% of eight graders, 14% of tenth graders, and 16.2% of twelfth graders were found to be using e-cigs. This is mainly because of the many advertisements that e-cigs are healthier than original cigarettes. There are also the numerous advertisements that these teenagers are exposed to daily. 52.8% of middle school students and 56.3% of high school students are exposed to these retail ads. There is also the high instance of these teenagers being exposed to e-cigs in television shows, movies, and magazines. They believe that instead of inhaling many of the known carcinogenic compounds they are inhaling “vapor”. The fact is, teenagers that are vaping do not even know what they are smoking. 66% believe that it is just flavoring, 13.7% are unaware of what it is, and 5.8% believe marijuana is within the liquid that they are smoking. Almost 80% of these teenagers are unaware of what they are putting inside their body. The truth is, people who smoke e-cigs are still inhaling an unhealthy dose of nicotine and other chemicals that can be found in normal cigarettes. Additionally, the main reason that people begin to use e-cigs is so that they do not use cigarettes, but it was discovered that 30.7% of e-cig users started smoking within six months.
Nursing Specialties: Wound, Ostomy, and Continence

Shannon Lawler, Junior

Wound care nurses care for a very specific population of people. This special group of nurses help to care for patients with complex wounds, incontinence issues, and poorly healing wounds. There are not any specific requirements like a certification to be a wound care nurse. The only requirements to be a wound care nurse is to have a Registered Nurse License and have a Bachelor of Science in Nursing, and complete an average of 50 continuing education contact hours (Ameritech College of Healthcare). One specific population that wound care nurses have as clients include those with diabetes. These nurses are not only care givers, but they are also educators for the patient to understand what is occurring with their body along with what interventions need to be made to allow for the best possible life with the greatest outcomes. Wound care nurses also teach the care givers how to help with wound dressing changes along with signs of possible issues with the wound.

Ostomy nurses care for patients with various disorders of the digestive and urinary systems. An ostomy is an opening of internal organs to the outside surface of body. This specialty of nurses have to be extremely conscious of signs of healing and the possibility of infection of the body. For patients with ostomies it is usually a life changing event in their life, so ostomy nurses have to be there to comfort and support the patients and help educate the patient on what the next step is. Ostomy nurses also help with any needed counseling that the patient and family may require in the near and distant future. Some other responsibilities that wound, ostomy and incontinence nurses do on a daily basis include checking the patient’s skin for signs of tears, stress, ulcerations or infection, communicating wound care plans, and helping to provide prevention of skin ulceration and bed sores for immobile patients (One Stop Source for Nursing School Information). Wound care nurses are vital in our growing population because they are not just nurses, they are patient advocates. They help to support each and every patient because no two people are alike.

**News & Announcements**

**D U S N A**
- You can still register for DUSNA. Turn in your applications to Jessica Chan by January 29th.
- Look out for upcoming social and service events.

**School of Nursing**
- Take advantage of the NAP tutors this semester.
- Make an appointment with your advisor if you need help.

**NCLEX Nook**
*Question is www.nurse.plus
Answer on Page 15*

During an assessment of a patient experiencing acute hemorrhage, the healthcare provider would most likely expect to find?

A: Nause
B: Jaundice
C: Hypotension
D: Tachycardia

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**Peanut Butter Energy Bites**
blessthismessplease.com

**Ingredients**
- 1 cup (dry) oatmeal (I like old fashioned)
- ¾ cup toasted unsweetened coconut flakes
- ½ cup peanut butter
- ½ cup ground flax-seed
- ½ cup honey
- 1/2 cup mini chocolate chips
- 1 teaspoon vanilla extract

**Directions**
1. Add everything to a medium bowl and mix to combine well. Stick the bowl in the fridge and let it chill for about half an hour. This resting time helps to ensure that the balls will stick together when rolled.

2. After the chilling time, take a tablespoon of the mixture in your hand and roll into a ball. Repeat with remaining oat mixture. If your balls aren’t sticking together after the resting period, you can add a little more honey or peanut butter, stir well, and try rolling again. Sometimes it just needs a little more of the wet ingredients to hold together well. And the moisture in the peanut butter will depend on the brand/type that you use.

3. Store in an airtight container in the fridge for up to 2 weeks or in the freezer much longer.
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Interested in writing for The SCOPE? We are always looking for new writers. Contact Emily Churchill or Morgan Gruender at churchille@duq.edu for Details!

NCLEX ANSWER: A

The answer is: D

The heart rate will increase in an attempt to deliver more oxygen to the brain and body. Tachycardia is a pulse rate > 100bpm.

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The Face Trafficked

The ninth annual McGinley-Rice Symposium on Social Justice for Vulnerable Populations.

A national forum focusing on critical issues in health care practice and policy through the lens of social justice, the McGinley-Rice Symposium looks into the female face of the person who has been trafficked and shares the world through her or her eyes.

October 25-26, 2018

2018 CAROL CARFANG NURSING & HEALTHCARE ETHICS CONFERENCE

Advancing Ethical Practice: Exploring the Gray Areas

February 28 – March 2, 2018, Hilton Clearwater Beach, Clearwater, FL