

# 2017 CSCGP High School Teen Essay Contest

## Cancer: Genetics, Lifestyle and Mood

By Sarah Liu

The definition of cancer in the dictionary is “the disease caused by an uncontrolled division of abnormal cells in a part of the body”. To most people, their impression on cancer stops at words such as “incurable”, “frightening”, and “desperate”. From my personal experience with my family members and people around me diagnosed with cancer, I have found that cancer share an interesting relationship with genetics, lifestyle, and state of mood.

The genetic element of cancer can pass down to the family members regardless of other variable factors like their location, date of birth, or any physical characteristics. In my mother’s family tree, every family member possesses the genetics of liver cancer, which is what eventually ended their life. My mom’s youngest aunt lived in the southern side of China, where the climate and food are completely different from the northern side, found out she had liver cancer 2 years before her death, at the age of 69. My mom’s uncle, who lived in a different city as my grandpa, had been suffering from Hepatitis B since he was in his 20s, and passed away at the age of 40 after having liver cancer for merely 4 months. My grandfather, which is my mother’s father, recently passed away with liver cancer at the age of 93. He lived in a northern city of China. These three family members share<sup>1</sup> identical genetics, but live more than half of their lives in different cities and different families. Based on the fact that they all died of the same disease--liver

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<sup>1</sup> Cancer: Genetics, Lifestyles and Mood

cancer, it is clear that cancer is part of family genetics and goes along with every family member even if they no longer live under the same roof anymore.

<sup>2</sup>While congenital factor as genetics matters significantly in the field of cancer, acquired factors like lifestyles and moods are also fundamental. Basically, cancer in genetics prophesy that all the family members will eventually die from the same kind of cancer, while lifestyles and moods determine how long life lasts. Take the previous examples of my family members back into consideration. My grandpa, who practically had no concerns or worries in his life, walked for 3 miles every day, never smoked or drank, and ate vegetables and fruits frequently. He lived a fairly healthy lifestyle and died of liver cancer at the age of 93. Although it was liver cancer that caused him death, cancer didn't cast any negative influence on his life length. My mother's youngest aunt maintained a healthy diet, but is affected by severe depression. She was under anxiety coming from her family and herself. Therefore, she was so depressed that it fastened the growth of the cancer cells and she died at the age of 69, almost 30 years ahead of my grandpa. My mom's uncle is the combination of all negative habits. He was addicted to alcohol, he consumed a large amount of fast food, he smoked on a daily basis, he had a bad temper and constantly yelled. His large consume of alcohol harmed his liver and caused him death in his forties, 30 years ahead of his sister (my mom's aunt) and only half the age of my grandpa. From the examples of my family members, difference in lifestyles and moods resulted in age dissimilarity.

Even without the natural genetics for cancer, a major shift in life that causes an emotional distress may lead to the occurrence of cancer. There was a mayor in the city

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<sup>2</sup> Cancer: Genetics, Lifestyles and Mood

that I lived in China who got arrested for bribery. He was sentenced for life-long jail time, with all his financial belongings locked and his family members arrested as well.

<sup>3</sup>Although he was provided with a TV and a relatively nice room in jail, he lost all his privileges that he once enjoyed. After about half a year, he caught cancer and died during his sentence. From a powerful mayor to a prisoner was definitely a dramatic shift in position, which was too stressful for him to undertake, not to mention the future sentence waiting for him. Another example is Jack, a friend of my grandparents. Several years ago his pregnant daughter and his son-in-law went on a trip, the son-in-law drove too fast and hit into a giant van. The daughter, the son-in-law, and the potential baby all lost their lives in the car accident. With the sadness of seeing his only daughter die before him and the emptiness of being all alone, Jack got cancer 2 years after the incident and then followed up on his daughter's death. Neither the mayor or Jack have been involved in a family genetic line with a specific type of cancer. However, the sadness and unjustness from a big shift has promoted cancer development in their bodies.

From the cases mentioned above, I think both genetic factors and acquired factors are important for cancer development. If you have cancer-prone genetic background, you are very likely to get caught by cancer sometime in your life. However, different lifestyle and mood might determine when you get hit by cancer. Good daily habits may not prevent you from cancer, but it might at least delay the cancer development. Therefore, it is important to exercise regularly and eat balanced meals. Keeping a good mood and smiling is also the key to balance the body function.

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<sup>3</sup> Cancer: Genetics, Lifestyles and Mood