



Pre-Reading Activities

A: Discussion

Discuss these questions in small groups.

1. Are there any health problems that are common in your family over two or three generations? That is, are there any diseases (e.g. certain types of cancer, heart disease, etc.) that have passed on from generation to generation in your family?
2. What health problems are common in your country? Can any of these be linked to lifestyle? For example, lung cancer, skin cancer, liver cancer, heart attacks, diabetes, obesity.

B: Vocabulary

Match the following words from today's article with their meanings.

Words	Meanings
1. irrespective	a. ancestry, family origin
2. descent	b. how often something happens
3. abstract (n.)	c. the state of not having enough of something important
4. incidence	d. bringing (blame, punishment or danger) on yourself
5. incurring	e. likely to suffer from something
6. deficiencies	f. without being influenced by something else
7. prone	g. a summary

Reading Activities

A: Predicting

Read the headline of today's article and try to predict what the article will be about. Share your ideas with another student.

Study: First 20 Years in Life Key to Cancer Risk

B: True or False

Read the following statements and then read the article to see if they are **true** or **false**.

1. The way you live before you are twenty has a major effect on your risk of cancer.
2. Where your parents grow up makes little difference to your risk of cancer.
3. Moving to another country when you are over twenty doesn't change your risk of cancer.
4. Where you live makes no difference to your risk of cancer.
5. The two Swedish studies compared the same groups of people.
6. It is recommended that possible means of cancer prevention be targeted for the first 20 years of people's lives.



Study: First 20 Years in Life Key to Cancer Risk

STOCKHOLM, Sweden, Monday April 22 (Reuters) - Lifestyle during the first 20 years of life is a more important factor than one's origin when defining the risk of cancer, two Swedish studies on **first- and second-generation immigrants** show.

"Birth in Sweden sets the Swedish pattern for cancer development irrespective of the nationality of descent," said the abstract of one of the studies due to be published on May 10 in the International Journal of Cancer.

The survey of some 600,000 immigrants, who came to Sweden in their 20s and became parents in this country, showed that their cancer risks did not differ **significantly** from the cancer risks of the populations in their native countries.

But second-generation immigrants born in Sweden had a

different risk profile than their parents and had a similar cancer incidence to native Swedes, another study of some 600,000 immigrants, mainly from Europe and North America, showed.

"Internationally, there are clear differences between cancer risks. But these differences disappear within one generation, so environment must clearly be a significant cancer factor," Professor Kari Hemminki of the Karolinska Institute university hospital told Reuters Monday.

As the first 20 years of a person's life were so important in defining the risk of incurring cancer, possible preventive means should be aimed during that period, he said. (Continued/...)

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Glossary: *first generation immigrants* - the people who immigrate to a new country *second generation immigrants* - the children of the people who immigrated **significantly** - in a way that is large enough to have an effect on something or be noticed

C: Cause and Effect

Read the second part of the article and complete the following table. What are the causes of the changes in the incidence of these diseases? Write them in the table.

Causes	Effects on Second Generation Immigrants
	Less lung cancer
	Less stomach cancer
	More skin cancer

(.../Continued) In some types of cancer it was clear why the risks were different between the generation who spent their first 20 years outside Sweden and their children born in Sweden.

For example, the risk of lung cancer decreased among second-generation immigrants because Swedes tended to smoke less than people in many other countries.

The higher risk of stomach cancer among first-generation immigrants compared with their children and native Swedes could be linked to eating habits, vitamin deficiencies and use of

salt -- all factors linked to this type of cancer, Hemminki said.

Darker skinned second-generation immigrants were as prone to **contract** skin cancer as blond Swedes, and much more so than their own parents, due to a similar sun bathing style among youths regardless of origin.

The studies were made using the Swedish Family Cancer Database which has information on all people born in Sweden after 1931 and their parents.

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Glossary: *contract* - to get an illness

D: Language

Taking information from **Activity C**, use **therefore** and **as a result** to link ideas across sentences to show cause and effect. Look at the following examples.

He had too much fatty food. He developed heart disease.

He had too much fatty food. **Therefore** he developed heart disease.

He had too much fatty food. **As a result**, he developed heart disease.

1. _____
2. _____
3. _____

E: Scanning

Read the following questions and quickly find the answers in the article.

1. How many people were studied in the two surveys?
2. What was the name of the journal which published the survey results?
3. Where does Professor Hemminki work?
4. What does he think must be a significant cancer factor?
5. Where did the information about Swedish families come from?
6. For how long has Sweden been keeping detailed health information on people born in the country?

F: Summarizing

Complete this sentence with suitable words to sum up the main idea of the article.

The risk of _____ is different for the children of _____ to Sweden compared to _____ because their _____ is different during the first _____ years of life.

Post-Reading Activities

You may do one or more of these.

A: Discussion

Discuss the following questions in small groups.

Professor Hemminki talked about how "the first twenty years of life were so important in defining the risk of incurring cancer." Do you think young people in your country have a healthy or unhealthy lifestyle? In what ways would their lifestyle be considered unhealthy? How about you? What are your healthy and unhealthy lifestyle habits?

B: Writing

Imagine that you are Professor Hemminki and Sweden's Health Minister has asked you to produce a pamphlet (a piece of folded paper containing information) to encourage young people to follow a healthy lifestyle to reduce their risk of getting cancer. Work with a partner to produce your pamphlet.

C: Debate

You are going to prepare to debate the following topic:

Everyone is the product of his or her environment.

- Divide into teams.
- Work together to prepare your arguments and discuss what your different roles are.
- Debate the topic with an opposing team.

TEACHERS' NOTES AND ANSWER KEY

Pre-Reading Activities

A: Discussion - Notes

2. The diseases listed could be linked with the following lifestyle problems: lung cancer - smoking; skin cancer - excessive exposure to the sun; liver cancer - excessive alcohol intake; heart attacks - a diet with too much fat and a lack of exercise; diabetes - poor diet with a lack of fiber and complex carbohydrates, and a lack of exercise; obesity - overeating, a diet high in fat and sugar, and a lack of exercise.

B: Vocabulary - Answers

1. f; 2. a; 3. g; 4. b; 5. d; 6. c; 7. e.

Reading Activities

A: Predicting - Answers

Answers may vary but students should generally be able to guess that the article will discuss the link between a person's first 20 years of life and their chances of getting cancer.

B: True or False - Answers

- True** (The first 20 years of a person's life were very important in defining the risk of incurring cancer.)
- True** ("But these differences disappear within a generation.")
- True** (A survey of immigrants who came to Sweden in their 20s showed that their cancer risks did not differ significantly from the cancer risks of the populations in their own countries.)
- False** ("Internationally there are clear differences between cancer risks.")
- False** (The first study compared immigrants to people from their own countries, while the second compared immigrants to their children.)
- True** ("...Possible preventative means should be aimed during that period (the first 20 years of a person's life)," Professor Hamming said.)

C: Cause and Effect - Answers

Causes	Effects on Second Generation Immigrants
Swedes tended to smoke less than people in many other countries.	Less lung cancer
Children of first-generation immigrants and native Swedes had better eating habits, fewer vitamin deficiencies and used less salt than first-generation immigrants.	Less stomach cancer
Swedes spent more time sun bathing than first generation immigrants.	More skin cancer

D: Language - Notes

The full stop can be replaced by a semicolon as the adverbs join two independent clauses.

D: Language - Sample Answers

- Swedes had better eating habits. Therefore, second generation migrants developed less stomach cancer.
- Swedes spent more time sun bathing. As a result, second generation migrants developed more skin cancer.

E: Scanning - Answers

- 1,200,000
- International Journal of Cancer
- Karolinska Institute university hospital
- environment
- the Swedish Family Cancer Database
- since 1931

F: Summarizing - Answers

The risk of **cancer** is different for the children of **immigrants** to Sweden compared to **their parents** because their **lifestyle** is different during the first **20** years of life.

Post-Reading Activities

B: Writing - Notes

Encourage students to consider the visual aspect of their pamphlet and include appropriate drawings or pictures. They should avoid trying to include too much detail. Ideally, provide the students with some examples, particularly pamphlets with a health message.

C: Debate - Notes

The purpose of this debate is to expand on the argument of genetics vs environment to include not only health, but other things such as intelligence, athletic ability and musical ability.