

FIVE REASONS TO EAT HEALTHY FOODS YOU MAY NOT KNOW ABOUT

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YOUNG REVIEWERS:



AYDEN

AGE: 12



KRISTIAN

AGE: 13



ZOE

AGE: 8

Eating healthy foods to look after your body's overall health is important, but as a young person you often have other things on your mind, like climate change and mental health. Interestingly, the food we eat affects our planet's health, our mental health, and our sleep! In this article, we talk about five reasons, other than your body's health, to eat healthy foods according to some of the latest scientific evidence. We also provide a challenge at the end of the article to try with your family or school!

HEALTHY EATING FOR OUR PHYSICAL AND LONG-TERM HEALTH

We know eating healthy foods during our teenage years is vital to help us grow and develop and keep our bodies and minds strong. For example, we need to eat different kinds of nutritious foods from each of the five food groups to get enough macronutrients and

micronutrients for good health and to help us lower our risk of long-term health problems like heart disease, diabetes, and some cancers [1]. Public health messages like “Go for 2&5” in Australia, remind us to eat our two servings of fruit and five servings of vegetables daily to improve our overall health. All these reasons to eat healthy foods are important, but when adulthood seems so far away, it can be hard to picture your long-term health! So, we have reviewed the latest science about the impact of our food choices on other parts of our lives. Below we describe the science behind five other reasons to eat healthy foods (Figure 1). We also suggest five challenges you can try with your family or your school!

ACT ON CLIMATE CHANGE

Climate change is a hot topic and for good reasons! The science is clear. Climate change is occurring. Our diet—that is the kinds of foods that we usually eat—can impact our environment and affect our planet’s health. We do need global and governmental action on climate change, but that does not mean you cannot do your part by choosing foods that improve the health of our planet and also

Figure 1

Five other reasons to eat healthy foods according to the latest science. We selected three environmental and sustainability issues because we know from research that young people have high levels of environmental awareness and can understand complex environmental issues. Mental health and good sleep are also really important issues for young people. We dive into the latest science to understand if eating healthy foods can help improve these five areas!



Figure 1

improve your health (bonus!). We know that if we eat a diet of mostly plant-based foods and fewer animal foods, we can improve our health and our planet's health.

A recent scientific study looked at the impact of different kinds of foods on both human health and the environment's health [2]. To do this study, the scientists used statistics (calculations) to investigate the links between 15 different kinds of foods and five diet-related health conditions and five environmental impacts of producing these foods. For example, the scientists looked at if eating vegetables will prevent us from getting heart disease and how much greenhouse gases come from growing vegetables. They used big data sets from other studies, which they combined using a statistical method called a **metanalysis**. The scientists found that foods that were good for our health, like vegetables, fruits, whole grains, nuts, and legumes, were also good for the health of our planet. That is, these foods had a low environmental impact on things like greenhouse gas emissions, land use, water use, and two types of nutrient pollution. Foods that are not good for our health in large amounts, like red meat, have the biggest impact on our environment. For example, a chocolate bar that has come from a deforested rainforest can emit more greenhouse gas emissions than a handful of nuts. The scientists concluded that if we eat more foods that are good for our health and less of the ones that are not good for our health, we can improve both our own health and our planet's health!

METANALYSIS

The study of data that come from many individual studies of the same topic to have a better understanding of the overall topic.

LIMIT PLASTIC POLLUTION

Each year we buy more than 2 million tons of single-use plastic sugary drink bottles and only 7% are made from recycled plastic. That means that big companies that make sugary drinks, like sodas, sports, and energy drinks, are not using recycled plastic when they make new drink bottles. This contributes to plastic pollution and the millions of plastic bottles that end up in our oceans each year. We also know that we do not need sugary drinks in our diets because one 600 ml bottle of cola has 16 teaspoons of sugar with no other good nutrients, and they increase our risk of health problems. A recent **cross-sectional study** in Australia found that one in six teenagers consume at least 5.2 kg of sugar each year from sugary drinks alone! [3]. Teenagers also drink more sugary drinks than adults. So, a way to help reduce plastic pollution is to encourage your family to buy and drink less sugary drinks.

CROSS-SECTIONAL STUDY

A group of people who researchers study at one point in time to understand how an exposure is related to an outcome.

FIGHT FOOD WASTE

Did you know humans waste nearly 33% of all the food we produce each year? That is 1.3 billion tons of food. Crazy, right? There are millions of children and adolescents in our world who do not have enough food. Wasted food uses valuable natural resources from our planet and is a major contributor to climate change. A new study from

the United States asked teachers to teach sixth-grade students about sustainable food systems, addressing the environmental impacts of food choices and food waste [4]. The sixth-grade students then had to share their new food systems knowledge with their peers in seventh and eighth grade through a cafeteria promotional campaign to reduce food waste. The researchers then compared the sixth graders to the seventh and eighth graders. They found that the sixth graders ate more fruit and vegetables and wasted less food at the end of the study compared to the seventh and eighth graders. This study showed that educating young people about food systems may be a cool and fun way to reduce food waste and a way to get more young people to eat more fruit and vegetables!

CHRONIC INFLAMMATION

Inflammation is our body's immune response when we are sick, hurt, or when we have harmful intruders like bacteria! Chronic inflammation is when our body's response lasts longer than usual.

COHORT STUDY

A group of people who researchers study over time, like once every year for 10 years, to understand how an exposure, like eating vegetables, is related to an outcome, like heart disease.

WESTERN DIETARY PATTERNS

A way of eating in many Western countries, such as the United States of America, the United Kingdom, Canada, and Australia that is high in fat and processed foods.

STATISTICAL ANALYSIS

The science of collecting, exploring, and presenting data to discover underlying patterns and trends.

FEED YOUR BRAIN

Mental health is such an important issue for all people, but especially for young people. Around the world, we estimate that 10–20% of all children and adolescents experience a mental health illness, including depression and anxiety. We know that 50% of mental health illnesses begin before a young person turns 14 years old and 75% by the time they are in their mid-20s. Scientists have been researching how our diet is linked to mental health illnesses, like depression. New scientific findings suggest that **chronic inflammation** may be the link between diet and depression.

A recent **cohort study** in Australia found that **Western dietary patterns** and higher body fat were linked to more inflammation and mental health illnesses in adolescents at 17 years old [5]. To understand this relationship, the scientists analyzed data from 843 adolescents when they were 14 years old and again at 17 years old. They used a **statistical analysis** technique to understand how diet, depression and inflammation are related to each other. Their results showed that eating more red meat, take away foods, processed foods, and sweets are linked to an increased chance of mental health problems, including depressive symptoms. They found this link is likely caused by eating too many foods that increase our body fat and cause more inflammation. They also found that eating a healthy diet, with more wholegrains, fruits, vegetables, and fish, can potentially protect us from mental health problems. Scientists are also just beginning to understand how the foods we eat affect our gut microbiome (the gut bugs that live in our intestines) and our mental health. Yep, our gut can talk to our brain! This is a new and exciting field of research, so keep an eye out for future research!

GET MORE ZZZ'S

Did you know giraffes sleep only about 2 h a day and hairy armadillos can sleep for 20 h a day! As a young person, we know that getting

8–10 h of sleep a day can help you to feel well, happy, and focused. But have you ever thought about if your diet is linked to getting a good night's sleep? If you have not thought about it, do not worry! A team of Japanese scientists have recently investigated this question.

The scientists conducted a cross-sectional study using a survey on sleep and dietary behaviors in 85,931 Japanese adolescents [6]. They found that adolescents with less healthy dietary behaviors, like eating more junk food, had poorer sleep. It is important to remember that cross-sectional studies tell us if different things are related to each other, but they cannot tell us what causes the relationship. In this study, scientists think that if we are not getting enough sleep, it may affect our hunger hormones. That is, we have more of the ones that make our tummy's grumble, like ghrelin, and less of the ones that make us feel full, like leptin! But more scientific studies are needed understand the exact causes.

SUMMARY

In summary, there are exciting findings from the latest science about what we eat, and the effect it has on our planet, mental health, and

Figure 2

The Challenge! We set three challenges based on the latest science and we challenge you to try one, or all three, with your family or school.

1 Act on climate change Choose snack foods that help our planet and feed your brain. If you buy a chocolate bar 2 times per week, that's 80 kg of green house gas emissions each year! Whereas eating nuts, like raw almonds, 2 times per week contributes only 1.1 kg of greenhouse gas emissions. The science tells us there is a strong link between what we eat and how we feel and our sleep patterns! Challenge your classmates as well. Keep a tally of the greenhouse gas emissions you can save!

2 Limit plastic pollution Challenge your family to give up or reduce the amount of sugary soft drinks you buy. Add up how many sugary soft drinks bottles your family buys each week. If you buy two bottles now, aim to buy one - that's 52 fewer bottles per year in the land fill or our oceans or a whopping 520 fewer bottles over ten years!

3 Flight food waste Be the food waste warrior in your family! Look at what foods you already have in your fridge or pantry. Be creative and see if you can cook a delicious meal for your family with the foods you find. At the dinner table, chat with your family about other ways you can reduce food waste, like planning your family meals for the week and only buying what you need!

Figure 2

sleep (Figure 2). Often, health programs to change young people's eating behaviors focus on your body's long-term health, which often is not very motivating. New health programs for young people could focus on the five other reasons to eat healthy foods.

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YOUNG REVIEWERS



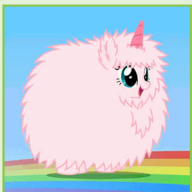
AYDEN, AGE: 12

My name is Ayden, and I go to school in New York City. My favorite subjects are History and English because we learn fascinating facts and read interesting books. I ran for my school's track team and came in fourth place out of 20 schools. I also enjoy spending time with friends and playing video games. I like playing golf and enjoy watching professionals play almost every weekend.



KRISTIAN, AGE: 13

Kristian enjoys multiple sports as well as exploring different aspects of science. He has been playing badminton competitively for almost 2 years.



ZOE, AGE: 8

My name is Zoe, and I will be in the second grade. My favorite hobby is dancing and I have danced at the Joyce Theater in New York City. I love traveling and camping with my family. My favorite part about camping is roasting marshmallows! After a long day of school, I love hanging out with my 5 years old Welsh Terrier named Duke.

AUTHORS



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Stephanie is an Accredited Practicing Dietitian and public health researcher. She is passionate about helping all young people lead healthy lives and prevent chronic diseases. She is leading research into the use of digital technologies to improve lifestyle behaviors, including eating, physical activity, and mental health behaviors in young people. By working with young people, she is hoping to improve the quality of health promotion services on offer to young people and to create leadership opportunities for young people. *stephanie.partridge@sydney.edu.au



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Rebecca is a population health researcher. She works on a variety of clinical trials to help improve the health of people with chronic diseases, through changes in lifestyle behaviors. She assists in all aspects from trial design, set-up, and day-to-day management. She is passionate about reducing the burden of chronic disease within the population and looking at innovative ways to achieve this.



ANNA SINGLETON

Anna is a psychology and public health researcher. Her undergraduate and master's degrees focused on how our brains make our arms move and how moving our arms in certain ways, like shooting a basketball 100 times, can change how our brains work. Anna is currently leading research that aims to support women's health after breast cancer treatments, using a text message program. Co-designed with breast cancer survivors and experts, this program aims to improve women's confidence in managing their health and to help them improve in exercise, diet, and happiness. If it works, the program can be expanded to help more people.

**JULIE REDFERN**

Julie is a Professor of Public Health, and a practicing Physiotherapist at the University of Sydney. She has expertise in multidisciplinary and translational research and is an advocate for effective secondary prevention of cardiovascular disease. Her research interests are focused on improving clinical practice and ultimately reducing risk factors in people with a range of chronic diseases.