What Is It?
The Freshman Fifteen refers to an amount (somewhat set at fifteen pounds) of weight often gained during a student's first year at university. It is an average amount that students tend to gain during their first year of university. Some first year students may gain up to 15 pounds or even more. Sometimes also referred to as the First Year Fatties, Fresher Spread, or Fresher Five.

Causes
- lack of exercise
- new and unhealthy eating habits
- overeating
- alcohol consumption
- anxiety and stress
- homesickness

Effects
- heart disease
- type 2 diabetes
- obesity
- may increase your risk for developing certain cancers
- your energy lags and your concentration and memory suffer
- increased blood pressure
- high cholesterol
- breathlessness
- joint problems
- greater chance of becoming overweight as an adult

Prevention Techniques
- avoid eating when stressed, while studying, or while watching TV
- eat slowly
- eat at regular times and try not to skip meals
- keep between-meal and late-night snacking to a minimum
- choose a mix of nutritious foods
- pick lower-fat options when you can
- watch the size of your portions
- resist going back for additional servings
- steer clear of vending machines and fast food
- keep healthy snacks like fruit and vegetables on hand in your room
- replace empty-calorie soft drinks with water or skim milk
- improve sleeping habits
- exercise
- learn about nutrition
- watch your levels of alcohol consumption
- be aware of your attitude towards food

Ways To Reverse It
- make small adjustments to your diet
- exercise
- limit alcohol consumption
- be patient

Megan Bellinger & Andreia Martins
Food hypersensitivity refers to all types of negative reactions that an organism can have to a food protein. Food sensitivity includes food allergies and food intolerances.

An allergy is a response by the immune system to certain food proteins. If a person has a food allergy, it means that their body has created antibodies against a certain food protein that it believes is a foreign, dangerous substance in the body. A food intolerance is a reaction to food that does not involve the immune system. The reaction is caused by the lack of absorption or digestion of a specific food component.

**Food Allergies**

Milk, eggs, peanuts, tree nuts, shellfish, soy, fish, and wheat account for 90% of all allergies. A common intolerance is the inability to digest lactose.

**Are Food Allergies On the Rise?**

In the past couple of decades food allergies have drastically increased. From 1997-2007 the percentage of children with food allergies in the U.S. rose 18%. Hospital discharges for children with any kind of food allergy also raised from about 2500 to 9500 in those 10 years. It is evident that food allergies are rising, but why? As of now there is no sure answer, but theories include:

- People are not getting nutrients necessary for strong immune systems
- Food additives and preservatives may cause allergies
- People are not exposed to enough germs to educate our immune systems
- Infants given antibiotics are said to be at a higher risk for developing an allergy, as it kills digestive flora important to the immune system.

**Prevention & Treatment**

**Treatments**

For allergies:

1) **Dietary Avoidance** – avoid the food that your allergic too, wear a medical bracelet that tells others your allergy

2) **Treating an anaphylactic reaction** – should always carry a syringe of adrenaline (EpiPen)

3) **Treating other symptoms** – several medications are available

**For intolerance**

- Avoid the food that gives you symptoms
- Adults may be able to consume in small quantities
- Can be reintroduced

**Prevention:***

- Know and avoid what you are allergic too
- To date there is no solid treatment program to prevent having an allergy
Eating Disorders

The average model weighs up to 25% less than the typical women, and maintains a weight 20% lower than what is healthy for her age and height.

Today's Media

The average person sees about 5000 ads per day. One third of these adds involve appearance ideals. This is a major cause of negative self esteem, often causing eating disorders.

Eating disorders are now the third most common chronic illness in adolescent girls.

Eating Disorders are Dangerous!

27% of Ontario girls 12-18 years old were reported to be engaged in severely problematic food and weight behaviour.

Eating Disorders are Dangerous!
Artificial Sweeteners

**The Sweet**
- Not proven to cause cancer studies were done using rats and were later found irrelevant to humans.
- Helps control calories: artificial sweeteners (except aspartame) contain 0 calories (compared to 1.5kcal/1g of sugar).
- Helps maintain oral health: artificial sweeteners are not digested the same as sugar, therefore bacteria in the mouth are unable to produce acids which can cause cavities and a decaying enamel.

**Sucralose**
- Discovered in 1967 by Karl Claus and Harald Jensen by accidental tasting of the chemical.
- Invented in 1976 by Lyle and Tate, approved in 1998 by the FDA as a tabletop sweetener.
- Approved as a general purpose sweetener in 1999.
- Used in soft drinks, baking, products like yogurt and cereal (High temperature production environments).
- Daily intake of 5 mg/kg of body weight/day.

**Saccharin**
- Discovered in 1879, delisted as a food additive in the 1970s.
- Approved for personal culinary use.
- Long-lasting flavor.
- 300x sweeter than regular sugar.
- No calories.
- Bitter aftertaste.
- Interaction between stevia and drugs can be harmful.

**Stevia**
- Discovered in 1982 by Constantine Fahlberg, later to be tasted during his meal.
- Approved for personal culinary use.
- Long-term health effects still unknown.
- No strong evidence towards cancer or weight gain/loss.

**Diet Soda**
- Sweetened by aspartame, sacralose, stevia.
- Long lasting flavor.

**Aspartame**
- Discovered in 1965 by researchers working on ulcer drugs.
- Found in more than 6,000 foods.
- 160 to 220 times sweeter than sucrose.
- Acceptable daily intake is 50 mg/kg of body weight.
- Completely broken down in the body into aspartic acid, phenylalanine, and methanol.

**Acesulfame**
- Discovered in 1967 by Karl Claus and Harald Jensen by accidental tasting of the chemical.
- Approximately 200 times sweeter than sugar.
- Efficient substitute of sugar in baking/cooking.
- (FDA) acceptable daily intake: 15 mg/kg of body weight/day.

**The Sour**
- Weight gain.
- Pregnant women and children advised against use.
- Some people allergic may cause headaches, dizziness, fatigue, depression, lupus, nausea, insomnia, joint pain, anxiety, heart palpitations.
- Some have bitter aftertaste, taste artificial.
- Some absorbed slowly (diarrhea).
- Some shown to cause increase in hunger (weight gain).
Acrylamide
By Zoe and Michelle

What is Acrylamide?
A chemical naturally occurring in food, specifically high-carbohydrate and plant-based foods. It is also widely used in the manufacturing of adhesives, dyes and fabrics.

How it’s produced in food
Acrylamide is produced when the amino acid asparagine reacts with naturally occurring sugars found in many foods. This reaction starts when foods have been heated to at least 120 °C. The most common ways acrylamide is produced, are baking, grilling, frying, broiling, and roasting. The food industry is currently trying the develop methods of reducing acrylamide formation in food.

Is it safe?
Over 200 studies are currently underway to study the effects of acrylamide. Above average acrylamide intake in rodents has been proven to increase the risk of cancer, however it has not yet been proven to cause cancers in humans. The FDA currently lists acrylamide as “probably carcinogenic”. The World Health Organization regulates acrylamide content in products that come in contact with food but is not regulated in food itself.

Recent Studies
Many studies have been done to determine if a high intake of acrylamide increases the risks of certain cancers. A 2009 study by the Harvard School of Public Health followed 90,000 women and found that dietary acrylamide did not increase their risk of developing breast cancer. A similar study conducted by the Karolinska Institute came to the same conclusion. Currently studies are underway to determine if there is a correlation between acrylamide and other types of cancer.

Richard LoPachin a neurotoxicologist from the Albert Einstein College of Medicine believes there may be a link between acrylamide intake and Alzheimer’s. This is because patients with Alzheimer’s have an increased level of the chemical acrolein in their brain. This chemical is structurally similar to acrylamide. Laboratory studies also suggest that frequent intake of acrylamide may damage nerve cells and lead to neurodegenerative diseases. However, More research is needed to link acrylamide to these health concerns.

Sources of acrylamide
• Soups
• Nuts
• Coffee
• Dried fruit
• Cereal
• Crackers
• Fried potatoes
• Food packaging
• Cigarette smoke

<table>
<thead>
<tr>
<th>Food Items</th>
<th>Acrylamide Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>French Fries</td>
<td>16 to 30%</td>
</tr>
<tr>
<td>Potato Crisps (chips)</td>
<td>6 to 46%</td>
</tr>
<tr>
<td>Coffee</td>
<td>13 to 39%</td>
</tr>
<tr>
<td>Pastries and sweet biscuits</td>
<td>10 to 20%</td>
</tr>
<tr>
<td>Bread, bread rolls and toast</td>
<td>10 to 30%</td>
</tr>
<tr>
<td>Other food items</td>
<td>Less than 10%</td>
</tr>
</tbody>
</table>

Acrylamide content in common foods

Acrylamide in products
“With so many outside forces influencing the amount of free radicals in the body (exposure to sun, smoke pollution, harmful bacteria, cholesterol-laden foods) it is now more important than ever to make sure your body has the benefits of antioxidants it needs to fight disease.”

Antioxidants help reduce the risk of many diseases most commonly:
- Heart Disease
- Cancer
- Diabetes
- Glaucoma/Blindness

What Antioxidants Do To Your Body
- Strengthens Immune system
- Softer & Younger looking skin
- Relief from allergies
- Weight loss
- Increased energy
- Relief of asthma
- Improved circulation
- Reduced high blood pressure
- Improved digestion
- Relief from arthritis
- Controlling diabetes
- Better memory

Antioxidants are everywhere and not hard to find
Not only are they good for you- they taste GREAT

Antioxidants come in 4 main compounds:

<table>
<thead>
<tr>
<th>Antioxidant Compound</th>
<th>Foods containing high levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin E</td>
<td>Fresh fruits and vegetables</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>Vegetable Oil</td>
</tr>
<tr>
<td>Carotenoids</td>
<td>Red Wine, Chocolate, Coffee</td>
</tr>
<tr>
<td>Polyphenolic</td>
<td>Fruit, Vegetables and eggs</td>
</tr>
</tbody>
</table>

Berries- blueberries, blackberries, strawberries, cranberries, raspberries
Beans- red beans, kidney beans, black and pinto beans
Fruit- with peels
Vegetables- artichoke, spinach, potatoes, broccoli
Beverages- green tea, coffee, red wine
Nuts- Walnuts, pistachios, pecans, almonds
Herbs- cinnamon, ginger
Grains- oat based products
Dessert- dark chocolate

Oxidation of your cells occurs when harmful molecules called free radicals essentially attack your tissue. It’s an unavoidable natural process.

Antioxidants neutralize free radicals that are caused by oxidation.

Antioxidants work in 2 ways: chain breaking and preventive

Chain Breaking- when a free radical releases or steals and electron which creates a new radical which continues in a cycle until an antioxidant stops it

Preventive- slows down the rate of chain formation in oxidation.

Ingesting too much antioxidants can be harmful especially mixed with medication.