



# CAMPUS HEALTH COMMUNIQUE

Department of Pharmacy

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## COKE: Does it pleasure you or kills you?

Suvam Ganguly

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**We**, the students generally have a fascination towards the fizzy soft drinks (or “Coke”) and even some people have made it a daily routine to drink it after most of their meals.

**But, this is what happens in our body when we drink a bottle of Coke:**

- 1. Within the first 10 minutes** - Around 10 teaspoons of sugar hit our system. This is more than 100 per cent of our recommended daily intake. But, we don't vomit off due to the excessive sweetness, as the phosphoric acid in coke cuts the flavour.
- 2. Within 20 minutes** - The blood sugar level of our body spikes up and our liver responds to the resulting rapid insulin burst in the blood stream by **converting massive amounts of sugar into fat, which is stored at various places in the body.**
- 3. Within 40 minutes** - The Caffeine absorption in the system is complete. Our pupils in eye dilate, our blood pressure rises at a high rate compared to normal and our liver throws more sugar into the blood stream.
- 4. Around 45 minutes** - Our body increases the production of a hormone **dopamine**, which **controls and stimulates the pleasure centres of our brain** - a physically identical response of this type is generally seen with **heroin** drug consumption.
- 5. After 60 minutes** - Our body will start to have a **sugar crash** - a fatigue which arises due to the consumption of a large quantity of carbohydrates, also known as **reactive hypoglycaemia**.

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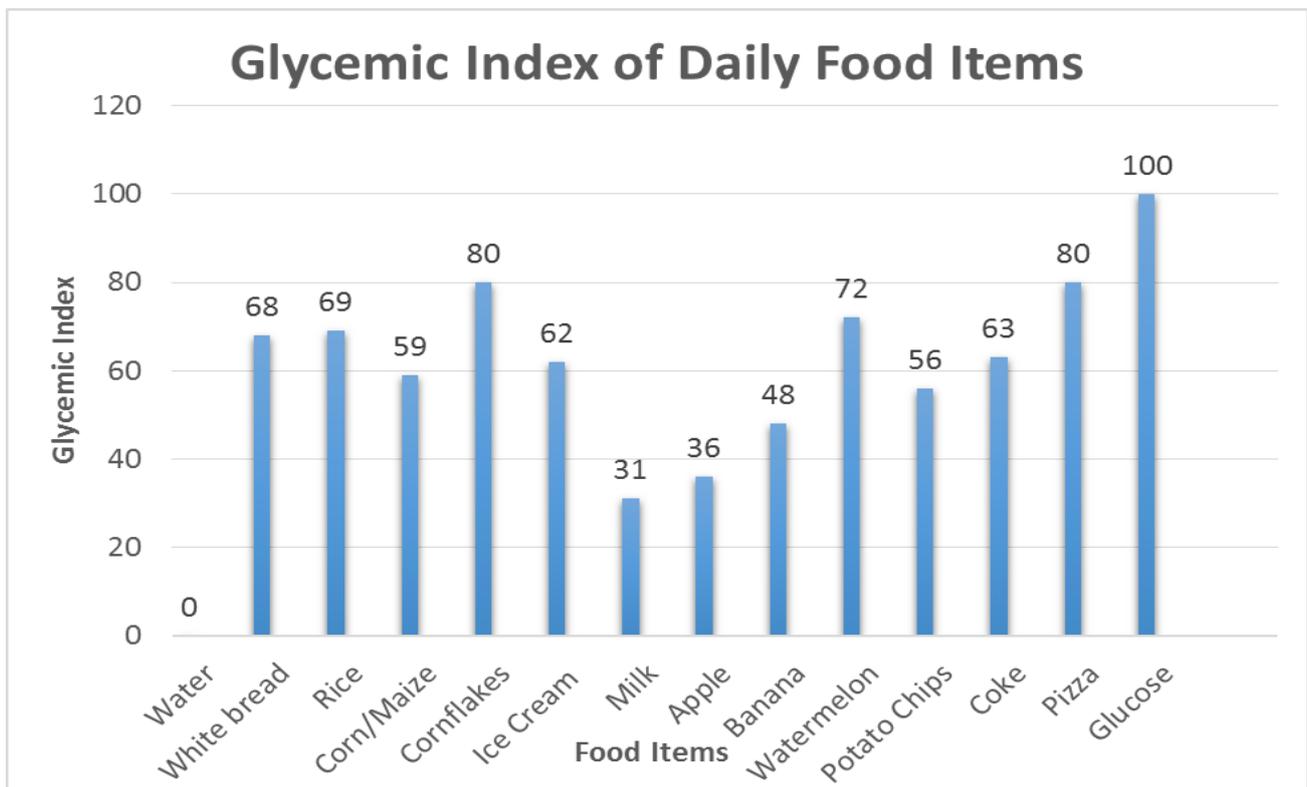
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## Glycemic Index

Siddharth Uppal

DiETING? Choosing what to eat and what not to? Well counting only, the **calories** is of little use. If straightforward calorie counting misses the mark, what should we do instead? The answer could be to focus on the glycemic Index (or GI), a figure that indicates how fast and how much a food raises blood sugar levels.

**Glycemic Index (GI)** is a scale that rates carbohydrates by how much they raise blood glucose levels compared to a reference food. It is marked on a scale from 0-100. Plain water will be labeled as 0 on the GI scale, and glucose will be considered as 100. **Foods with high GI are rapidly digested and ab-**



**sorbed**, and resultant rapid increase in Insulin and sugar levels. High GI foods are also responsible for increasing blood cholesterol, blood pressure, and fatty liver. **Low GI foods cause fewer fluctuations in blood sugar and insulin levels**, therefore have proven beneficial for our health. They have shown to control glucose as well as lipid levels in people with diabetes (both type 1 and 2).

**Sedentary lifestyle and high GI foods** are the major cause of **obesity** in the young population. Food with low GI help control appetite and delay hunger and thus are beneficial for weight control.

So, should high GI foods always be avoided? NO, there are times when a rapid increase in blood sugar is desirable. Like after a strenuous physical activity, glucose moves into the muscle cells and help in faster recovery and tissue repair.

Examples of low GI foods: apple, grapes, coconut, carrot, green peas, oat bran, mushrooms, tomato, chilly, cabbage, cauliflower, peanut, walnut, skimmed milk etc.

Examples of high GI foods: Cornflakes, watermelon, dates, white rice, potato, French fries, rice krispies etc.

## Herbal corner

Mahaveer Singh

**Clove:** Is the dried flower buds of the clove tree, named *Eugenia Caryophyllus* or *Syzygium aromaticum* belonging to family **Myrtaceae**.

- **Synonyms** : Cloves or 'laung' in Hindi, 'Kirambu' in Tamil, 'Lavangapattai' in Kannada, 'Labango' in Bengali.
- **Key constituents** : Volatile oil named Eugenol, methyl salicylate (active constituents of IODEX Balm), vanillin and tannins
- **Uses** : Antiseptic, carminative, analgesic, anti emetic, antispasmodic, antiparasitic, in acne and skin ulcers



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### Key preparations:

- Colic: Put 2 cloves in a cup of boiled water, cover the lid for 10 minutes and take three times a day.
- Toothache: Take two drops of clove oil on cotton and rub over affected area or keep one clove in mouth near affected area .

## Oral health

Arindam Kr. Bhattacharjee

Class at 8 am, you get up at 7:50, for you grabbing a slice of bread is more important than brushing your teeth. However later during the day you wonder where the foul smell is coming from. Did you know that your oral health offers clues about your overall health?

### Connection between oral health and overall health?

Like many areas of the body, your mouth is full of bacteria, most of which are harmless. Normally the body's natural defenses and habits, such as daily brushing and flossing, can keep these bacteria under control. In addition, certain medications, such as decongestants, antihistamines, painkillers and antidepressants can reduce saliva flow. Saliva washes away food and neutralizes acids produced by bacteria in the mouth, helping to protect you from microbial overgrowth that might lead to disease. What conditions may be linked to oral health?

- **Endocarditis:** Infection of the inner lining of your heart (endocardium). It usually occurs when bacteria or other germs from another part of your body, such as your mouth, spread through your bloodstream and attach to damaged areas in your heart.
- **Cardiovascular disease:** Research suggests that heart disease, clogged arteries and stroke might be linked to the inflammation and infections that oral bacteria can cause.

### How can I protect my oral health?

To protect your oral health, practice good oral hygiene every day.

- Brush your teeth at least twice a day with a good toothpaste.
- Eat a healthy diet and limit between meal snacks.
- Replace your toothbrush every three to four months or sooner if bristles are frayed.
- Avoid tobacco use.

Taking care of your oral health is an investment in your overall health.

## Body Mass Index & Basal Metabolic Rate

Puneet Pareek

**Body Mass Index (BMI)** is an assessment of body fat based on your weight and your height.

BMI value is computed by dividing Body Weight (in Kgs) by squared Height (in meters) or using BMI charts. Based on BMI value an individual is categorized into different categories i.e. underweight, normal weight, overweight, or obese. Unit of BMI is  $\text{kg/m}^2$ .

If you have 165cm/1.65 meters/2.72sq meters as height and weight 65 kg than your BMI is 23.87 which is in normal range.

BMI scale: Underweight: <18.5, normal: 18.5–24.9, overweight: 25-29 and obese: 30 or greater.

**Basal metabolic rate (BMR)** is the rate of energy consumed per unit time at rest. Muscles require more energy for maintenance. Therefore, those with more muscle mass tend to have high BMR than those having more fat.. Non-Exercise Activity Thermogenesis (NEAT) or Non-Exercise Physical Activity (NEPA) makes up your energy requirements for each day. NEAT or NEPA is a huge part of daily energy requirement.

$\text{BMR} + \text{thermic effect of food} + \text{NEAT/NEPA} = \text{daily energy requirement}$

BMR accounts for about 60% of your total daily energy requirements. The thermic effect of food (the amount of calories needed to digest food) accounts for about 10-15% of your energy requirements. The rest of your energy requirements are dependent on how active you are in both intentional exercise and NEAT/NEPA activities (normal life activities like cleaning, shopping, walking, etc.). NEAT/NEPA can account for as little as 15% of energy expenditure in the very sedentary and up to 50% in very active individuals. So, lower the metabolism rate more will be the deposition of the fats and carbohydrates in the body which leads to the obesity, which leads to many diseases like atherosclerosis, diabetes, and strokes.

## SCRUB TYPHUS

Nivya Sharma

It is an infectious disease caused by an intracellular parasite *Orientia tsutsugamushi*. The disease is transmitted to humans from the bite of mites infected with the parasite. Therefore, people who are constantly in contact with grass, agricultural fields and bushes are prone to this disease. This disease of mountainous region, is now spreading to plain areas including Delhi and Rajasthan.

### ◆ SYMPTOMS: -

A black spot or scar at the site of chigger biting, high fever, muscle pain, vomiting, difficulty in breathing and gastrointestinal symptoms. The disease affects lungs, kidney and liver. It causes extensive damage to the vital organs of the body resulting in their improper functioning and even death. Leukopenia (reduction in the number of white blood cells) and abnormal liver function are commonly seen in the early phase of the illness.

◆ **PREVENTIVE MEASURES:** -

- a) Wearing proper foot wears while going out in grassy areas.
- b) Get the blood test done if there is undiagnosed fever for over a week.
- c) Pets should be cleaned properly to avoid inhabitation of intracellular parasites on them.
- d) Ensure that there are no rodents in or around the house.

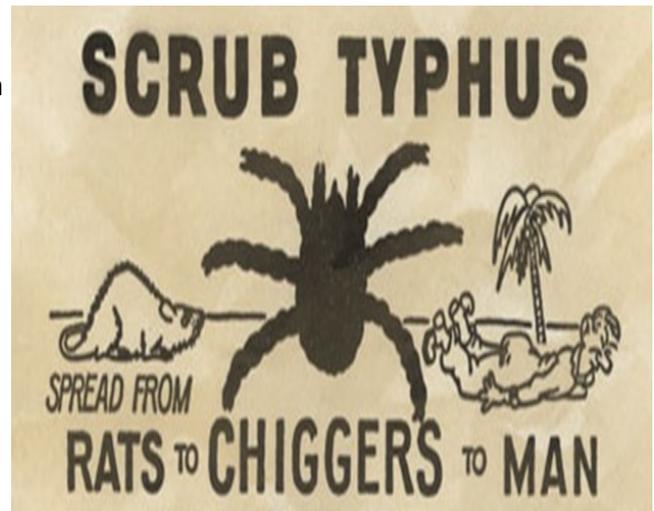


Image Reference: [www.encyclopedia.com](http://www.encyclopedia.com)

◆ **TREATMENT:** -

Without treatment, the disease is often fatal. Since the use of antibiotics, case fatalities have decreased from 4%–40% to less than 2%. The drug most commonly used are **doxycycline** and **chloramphenicol**. **Rifampin** and **azithromycin** are alternatives. **Azithromycin** is used for children and pregnant women.

## DRY SKIN:

Paridhi Gupta

*“You wake up and your skin feels dry. But that doesn’t mean you have to cry.”*

Winter not only brings pink blush to our cheeks but also dryness. It is because of the lack of sufficient amount of water on the top layer of skin. It mostly affects skin of hands, lower legs and arms.

Dry skin may last for a few days to weeks but may also become a serious skin problem. The situation becomes worse in winters when the air is cold and dry. Water quickly evaporates from the skin and removes fatty oils which protect the skin from dehydration.

The common symptoms of dry skin are **itching**, **skin tightness** and **rough texture**. Skin becomes more susceptible to **rashes**, **allergic reactions**, **bacterial infections** and **skin discoloration**.

Don’t worry if your skin is dry. Rather, give this magic spell a try.

- Drink more water.
- Use oil based moisturizer which has high glycerin content so that it can hold moisture.
- Use homemade mixture of honey and sugar for dry lips.
- Apply body lotion on hands, legs and arms immediately after shower to lock in moisture.
- Instead of using hand sanitizer which generally contains a high concentration of alcohol, use moisturizing liquid hand soap.
- Incorporate walnuts, flaxseeds, soybeans or omega-3-fortified foods (like orange juice) into everyday diet. As it is said skin care is like dieting. You have to invest time and effort. There is no instant miracle cure.

## BOTULINIUM TOXIN: A TRIUMPHANT AID

Shakti Nagpal

The growing cosmetic world in which we dwell in, wrinkles have always been an important issue to worry about. This thing has satiated our worries. With the increase in entry of these so-called baby boomers in the middle age and increasing demand for anti-aging therapies, advancements are booming. Thus, also people are banking over newer regimens of therapies like ways **Botulinum Toxin**. BTX (exotoxin) is obtained from a gram positive anaerobic bacteria *Clostridium botulinum*.

BTX, now a popular household name, was virtually unheard one and a half decade ago. The only limiting factor seems to be the cost of the treatment but still it has gained enough popularity due to increase in cosmetic awareness amongst people.

### APPLICATION AS COSMETIC AID:

BTX injections are significant in prevention and amelioration of dynamic wrinkles (such as CROW'S FEET, WRINKLES ON NOSE, PLEBBY CHIN, TURKEY NECK).

GENERAL SECONDARY complications observed with BTX injections are clinical resistance, inadequacy of results, fixed drug eruptions. However, it must be remembered BTX works as a preventive maintenance therapy rather to use something like "erase" the wrinkles or such.



Image Reference: [www.lipolondon.com](http://www.lipolondon.com)

## Reading Labels: Not a cakewalk

Zerovey

One can proudly say, "I always read the safety labels before buying any product". Sure, it is important, but is that enough? Definitely not.

Reading labels is an art and every customer must know how to read between the lines of the label. In today's world where ethics and discipline in manufacturing have been left to the wind, manufacturers easily fool their customers, and hence, it is very important to know how to read labels and judge whether the product is hale or not. It is up to us to watch out for our safety, and make a mockery of the company's attempts to sell products by making false claims.

How does one decide which beauty product is healthy? Luckily, there are a few easy steps which one can follow while buying any product, to avoid falling prey to such ill practices.

**Front Labels : A lie?** Many customers just get attracted by the front labels carrying lucrative promises, and buy the product straightaway. The front labels many-a-time carry false claims and information.

It's always better to not fall prey to the front label, and check the other details, as well.

### **Closely study the ingredients list**

Watch out for the ingredients list. Usually, the ingredient used the most will be printed first in the ingredient list. So by watching the ingredients list, one comes to know the core ingredient of the concoction and can judge the safety value of the product. Look out for the first few ingredients, so that you can make a firm decision whether to buy the product or not.

Everyone knows about the 'Dirty Dozen' list which comprises of parfum, parabens, DEA related materials and many more. If any of these are on the ingredients list, it is a clear sign that you should not buy that product. Apart from the Dirty Dozen, watch out for other ingredients and chemicals which are carcinogenic and harmful.

### **Beware of Commonly used traps**

How many of you have bought a product just because it was 'all natural' and 'nourishing'? You have most likely been duped. Many customers believe in the myth that 'natural=safe'. I can name natural fickle friends like chamomile and lavender, which people think of as safe, but both are very harmful allergens. The word 'natural' is used by almost all beauty product manufacturers to deceive people into buying it. Natural, many-a-time also means that the concoction was natural at some point in time, and later it was processed to obtain the final lotion.

## **Why knowing your cosmetics matters to you?**

**Zerovey**

We live in a world where it is believed that cosmetics are the shortcut to looking beautiful. It's true to some extent. But it turns out that we are damaging our skin day by day.

A cosmetic is a preparation applied to the body, to improve its appearance. So basically it could be anything- shampoos, shaving creams, lipsticks etc. All of these contain chemicals and they have a tendency to harm skin cells.

### ***So how do we protect ourselves?***

The only way to do so is by knowing about yourself. You must know about the allergies you are prone to. Cosmetics that have a strong fragrance may cause more allergies than others. Checking the ingredients table is a precaution.

Imidazolidinyl Urea, Methenamine, release formaldehyde and this is a cancer causing agent.

Benzoyl peroxide (used in acne products) not only causes cancer but also causes respiratory irritations.

Phthalaldehydes may harm fertility. They are also known to harm the kidney. Unfortunately, they are generally not mentioned on labels.

### ***Is there a solution?***

It is true that most health commissions or teams do not exercise their authority of rejecting products that contain harmful chemicals. Cosmetic companies have started valuing profits more than health. It is all the more tough to predict the effect of these ingredients as a combination. The best thing you can do is to understand your skin type and avoid even the minimum allergies and rashes.

## Zerovey :

Reach at- [www.zerovey.com](http://www.zerovey.com)

**Zerovey** is a social discovery platform that enables users to make informed decisions on the basis of the health concerns and effectiveness of the beauty products and services available in the market. Zerovey is a comprehensive and reliable source of information for consumers to help them find better products that are healthy, effective and suit their requirements.

We are a company started by BITSian alumni. We also provide free consultation to all users, where they can ask questions to the beauty experts. You can exchange your thoughts, experiences, ideas, trends and opinions about all kinds of beauty products and services available in the world.

*The genesis of the idea was born out of our own pain points:*

### What should I buy?

The information about products, categories and brands available online is growing exponentially. People are seeking information from more “reliable sources” other than advertising. We wanted people to find out, what others are buying/using instead of what the stores are advertising.

### Where should I go?

Which salons and spas are present in a certain locality? Which provides good services? What about the quality of products used? The beauty and personal wellness industry is largely offline recommendation based, where people do not get the answers to the above questions. Zerovey is developing website, Android and iOS mobile applications based on the following four pillars:

- **Go - Look good**  
Find salons and spas, and share your experience
- **Discover – Get inspired**  
Learn about the trending styles and products
- **Discuss – Express yourself**  
Explore your style with our vibrant user community
- **Buy - Own what should be yours**  
The essence of social shopping

**Founder** Yasha Bhardwaj, Product and Operations - Graduated from BITS Pilani in 2014, with a degree in M.Sc. Biological Sciences. She joined a CSR & sustainability consulting company, upon graduating, and worked in the corporate sustainability space before starting out on her own with Zerovey. She is heading product and operations at **Zerovey**.

### Zerovey Internship Program :

Zerovey being in its initial stage of establishment is looking forward for enthusiastic interns . It will be a great learning opportunity.

Internship Opportunities in the following fields:

1. Android developers
2. UI/ UX designers
3. Backend Developers (Mean Stack)
4. Content Writers

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