

DIABETES:

- In 2016, an estimated 1.6 million deaths were directly caused In 2016, an estimated 1.6 million deaths were directly caused by diabetes. Another 2.2 million deaths were attributable to high blood glucose in 2012*. Almost half of all deaths attributable to high blood glucose occur before the age of 70 years. WHO estimates that diabetes was the seventh leading cause of death in 2016. Healthy diet, regular physical activity,maintaining a normal body weight and avoiding tobacco use are ways to prevent or delay the onset of type 2 diabetes.

- Diabetes can be freated and its consequences avoided or delayed with diet, physical activity, medication and regular screening and treatment for complications.



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HEART DISEASE:

- CVDs are the number 1 cause of death globally: more people
- CVDs are the number 1 cause of death globally: more people die annually from CVDs than from any other cause. An estimated 1.79 million people died from CVDs in 2016, representing 31% of all global deaths. Of these deaths, 85% are due to heart attack and stroke. Most cardiovascular disease can be prevented by addressing behavioural risk factors such as tobacco use, unhealthy diet and obesity, physical inactivity and harmful use of alcohol using romulation-wide catanaise population-wide strategies.





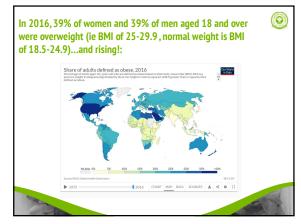
A glance at :

OBESITY

- Worldwide obesity has nearly tripled since 1975. In 2016, more than 1.9 billion adults, 18 years and older, were overweight. Of these over 650 million were obese. 39% of adults aged 18 years and over were overweight in 2016, and 13% were obese. Most of the world's population live in countries where overweight and obesity kills more people than underweight. 41 million children under the age of 5 were overweight or obese in 2016. . .
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- •
- Ver 340 million children and adolescents aged 5-19 were overweight or overweight or obese in 2016.
 Over 340 million children and adolescents aged 5-19 were overweight or obese in 2016.
 Obesity is preventable.



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What is causing obesity? Factors listed by Health Canada:

- consuming more food than your body actually needs .
- consuming more rood that
 not being active enough
 genetics
 your metabolism
 social factors
 economic factors

And I would add:

- Packaging, processed and refined foods Lack of education (there is no nutrition in schools!) .
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- . •
- Food marketers Chronic Stress Adrenal fatigue, hormone and blood sugar imbalances, insulin resistance Low serotonin levels in the brain (huge factor in binge eating!) .
- Exposure to endocrine disruptors Food addictions Prescription drugs .
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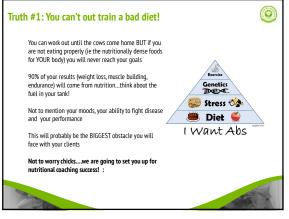










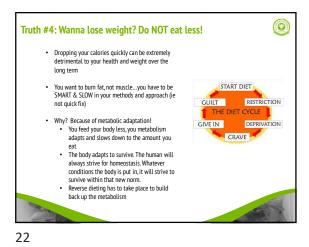






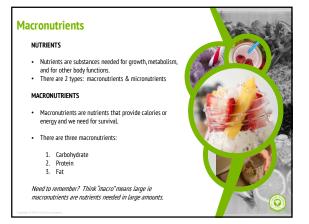








Nutrition Lingo ...let's start with the basics!



Micronutrients

Vitamins and minerals are the two types of micronutrients.

While only needed in small amounts, they play important roles in human development and well-being, including the regulation of metabolism, heart beat, cellular pH and bone density.

Vitamins

- 2 forms of vitamins: water soluble and fat soluble
 Water soluble: B,C (lost through bodily fluids must be
- replaced each day)
 Fat soluble: A, D, E, K (tend to accumulate in body so are
- not needed daily

Minerals

- two forms: macrominerals and microminerals.
 Macro: calcium, magnesium, sodium, etc
- Micro: Iron, copper, zinc, etc



Calories

the energy needed to raise the temperature of 1 gram of water by 1 °C (now usually defined as 4.1868 joules)

Carbohydrate provides 4 calories per gram. Protein provides 4 calories per gram. Fat provides 9 calories per gram.

Example: Look at Nutrition Facts label of a product and it said 12 grans of carbohydrate, 0 grams of fat, and 0 grams of protein per serving, you would know that this food has about 48 calories per serving (12 grams carbohydrate multiplied by 4 calories for each gram of carbohydrate = 48 calories).

Only other substance to provide calories is alcohol with 7 calories per gram. Alcohol is not a macronutrient as we do not need to survive.

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Carbohydrates

Made of carbon & water.

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- 4 calories / gram The body's main (and preferred) source of fuel and are easily • used by the body for energy.

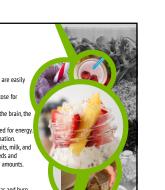
 All of the tissues and cells in our body can use glucose for
- .
- Needed by he central nervous system, the kidneys, the brain, the muscles (including the heart) to function properly.
- Can be stored in the muscles and liver and later used for energy. Are important in intestinal health and waste elimination. .
- Found in starchy foods (like grain and potatoes), fruits, milk, and yogurt. Other foods like vegetables, beans, nuts, seeds and cottage cheese contain carbohydrates, but in lesser amounts.

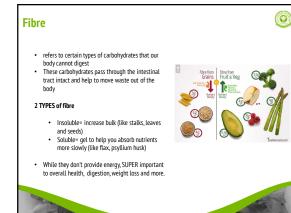
2 TYPES:

- Simple Carbs (these end in "ose" like glucose ie sugar and burn fast & first. Complex Carbs (these are starches and fibre and are slower to
- burn for energy)











Protein

- Protein is the building blocks of your body and made up of amino acids with 4 calories per gram
- We need protein for:
- Growth (sepecially important for children, teens, and pregnant w
 Tissue repair
 Immune function
 Making essential hormones and enzymes
- Making essential hormones and enzymes
 Energy when carbohydrate is not availabl
 Preserving lean muscle mass
- There are 22 amino acids
 - 8 "essential" amino acids .Essential means they cannot be made from body and we have to get from food.
- Protein that comes from animal sources contains all of the essential amino acids that we need.
- Plant sources of protein, on the other hand, do not contain all of the essential amino acids.

