

Ch. 18 Nutrition and Healthy Eating

What is Nutrition

- body needs more than 50 nutrients a day.
- 50 nutrients belong to six general categories: carbohydrates, proteins, fats, minerals, vitamins and water.
- 6 categories divide into 2 groups: macronutrients, micronutrients
- macronutrients: carbohydrates, proteins, fats, water
- micronutrients: minerals, vitamins
- 2 types of carbohydrates: simple carbohydrate (sugar, pop)
Complex Carbohydrate (spaghetti)
- Fibre is a complex carbohydrate that body cannot digest and not a source of calories. Helps you stay healthy, regular and takes out cancer causing agents.
- Proteins: complex nutrients made up of smaller sub units called amino acids: 20 different amino acids, we can naturally produce 11 of them but need the other 9 through the food we eat.
- Fats are a concentrated source of energy. The last thing to burn.
- Vitamins: chemicals body needs to build and maintain its cells and to release energy from macronutrients.
- Minerals: help make bones, proteins and blood. They too help body get energy from macronutrients.
- Calorie: how much energy we get from the 3 energy nutrients. It is a measure of heat, it is the amount of energy needed to raise the temperature of 1 gram of pure water by 1 degree celsius.
- Energy Balance Equation:
 - neutral energy*= we burn the exact amount of calories that we ingest, so weight stays same
 - Positive Energy balance*=we eat more calories than what we burn so we gain weight.
 - Negative Energy Balance*=we burn more calories than what we ate so we lose weight.
- Resting Metabolic Rate: RMR used is a widely established way to help estimate the amount of energy your body uses when at rest.
- Harris Benedict Formula is a more accurate way to calculate RMR.

Vegetarian Eating Styles that emphasize veggies, grains, fruits, nuts and seeds.

| <i>Type</i> | <i>Foods Avoided</i> |
|----------------------|---|
| Semi Vegetarian | Red Meat |
| Lacto-Ovo Vegetarian | Meat, fish, poultry, shellfish |
| Ovo Vegetarian | Meat, fish, poultry, shellfish, milk, milk products |
| Lacto-vegetarian | Meat, fish, poultry, shellfish, eggs |
| Vegan | Milk, milk products, meat, fish, poultry, shellfish, eggs |

- Dietary Supplements are products taken by mouth, intended to add to or supplement the foods that you eat.
- Common Dietary Supplements: daily protein; guarana/ginseng; creatine, testosterone; ephedrine/fat burners.
- Energy Drinks VS Sports drinks: energy drinks have high sugar/caffeine contents, usually give quick burst and then crash. Can actually dehydrate the body quicker
Sports drinks still have sugar however much smaller amounts but also contain electrolytes (potassium, sodium) and are designed to rehydrate the body.
- Canada's Food Guide to Healthy Eating: grain products, Fruit and Vegetables, Milk Products, Meats and Alternatives, Others
- combination foods: many foods contain combination of ingredients that come from several different food groups.
- Canada's Physical Activity Guide to Healthy Active Living: sets out guidelines about how much activity we should strive for everyday.
 - we should all increase by 30 minutes per day and decrease the time spent on sedentary activities by 30 minutes.

- Fats: necessary for cell building immune system response, hormone production and absorption of vitamins A,D,E,K.
- Cholesterol is a waxy substance naturally manufactured in our bodies.
 - LDL is bad cholesterol; HDL is good Cholesterol.
 - LDL builds up on the artery walls and HDL take the LDL out.
 - 4 types of dietary fat:
 - 1-Monounsaturated =Lowers LDL and raises HDL
 - 2-Polyunsaturated=lowers LDL
 - 3-Saturated = usually raises LDL
 - 4-Trans Fat = raises LDL