CARBOHYDRATES

Carb- 1 gram = 4 calories

What Are They

- They are made from carbon, hydrogen and oxygen.
- There are 3 different types of carbs- Mono-saccharides, Di-saccharides and Poly-saccharides.
- Monosaccharides is a single unit of sugar and easily digested (Galactose, Glucose and Fructose).
- Disaccharides are linked with one other in different combinations of monos (Fructose +Glucose = Sucrose).
- Polysaccharides differ in complex chains of monosaccharides, which alters digestion rate. These are starches and resistance starches.
- Carbohydrates are the main source of energy in all living organisms.
- BUT carbs are not essential, however the brain and central nervous system use glucose as the primary source of fuel.
- The body can create glucose from other non-carb substrates; however, it is not an efficient process.

1. **Benefits of Carbs –** Resistance starches increase good bacteria (such as pre-biotic).
2. They are protein Sparing.
3. They help us sleep- While carbs are not high in tryptophan which is a precursor for the sleepy hormone (serotonin), when insulin increases, this decreases other aminos that would usually compete with tryptophan. Thus, helping the tryptophan transport through the blood-brain barrier.
4. Carbs helps maintain digestive health and optimal health due to resistance starch and dietary fibre.
5. Carbs adds satiety and palatability.

Carbohydrates Making you fat?
Certain parts of the body will store glycogen, and with every gram of glycogen that is stored, there are 3 grams of water that get stored with each 1 gram of carb.

HOW MUCH DO WE NEED?
Intake per KG of bodyweight
Stay alive = 0G (not essential)
Health = 1-4G
Muscle gain = 2-6G ^Exercise^CHO
Fat loss = 1-3G ^Exercise^CHO
Performance = 3-10G

*As exercise go up, an increase requirement for carbs goes up (muscle gain and fat loss) *
Having carbs pre and post exercise spares the use of proteins which can be used to build muscle, repair and growth of new cells and tissues.

ENJOY PIZZA AND COOKIES NOW AND THEN!!!