



# Nutrition Basics

## MACROS

## MICROS

### Proteins

Essential Amino Acids :  
Valine, Leucine, Isoleucine,  
Tryptophan, Methionine, Lysine,  
Phenylalanine, Histidine, Threonine

### Vitamins

A,C,D,E,K & B-COMPLEX

### Carbohydrates

Sugars (mono & disaccharides)  
Starches (Natural, Modified, Waxy)  
Fibre (Soluble & Insoluble)

### Core Building Blocks

### Minerals

Iron, Calcium, Zinc, Sodium, Copper, Magnesium  
Iodine, Chromium, Fluoride Manganese, Chlorid  
Potassium,  
Molybdenum, Phosphorus, Selenium

### Fats

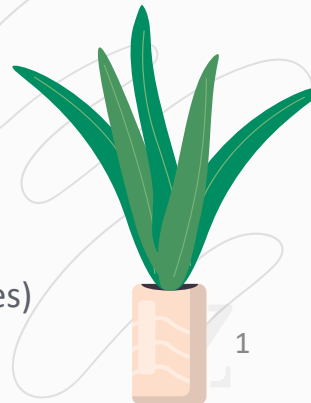
Essential Fatty Acids  
Omega - 3 (ALA, DHA, EPA)  
Omega - 6 (LA, GLA, ARA)  
Omega - 9 (Oleic Acid)  
Saturated, Trans fats.

### Water

Optimum hydration

### Phytonutrients

Polyphenols (flavonoids)  
Terpenoids (carotenoids),  
Alkaloids (caffeine)  
Sulfur-Containing Compounds (Indoles)





# Macro Nutrients

## PROTEINS



## CARBOHYDRATES



## FATS



## WATER



‘Complete’ protein foods:

Meat, Poultry, Fish, Eggs, Dairy

High Biological Value Vegan:

Soy, quinoa, buckwheat, hemp, chia, spirulina.

‘Incomplete’ protein foods:

Nuts, seeds, wholegrain, veg

**\* Complete proteins do not have to be consumed in every meal\***

Simple CHO (Sugars)  
Mono-Glucose/Fructose/Galactose  
Di- Sucrose/Lactose/Maltose

Complex CHO:  
Oligo and Polysaccharides

Starches  
Potatoes, Grains, Chickpeas..

Fibre  
Soluble (Oats, apples...)  
Insoluble (Wholegrains, Legumes)

Essential Fatty Acids : Omega-3s & 6’s

Omega - 6 now plentiful in Western Diet

Omega 3’s : ALA, EPA, DHA.

Difficult to acquire EPA/DHA for vegans  
ALA is the Omega 3 in plants.  
Supplements (Ethyl esters V TG form)

Oily fish - salmon, mackerel, tuna  
Nuts and seeds - chia, flax, walnuts

**\*\*Limit Saturated, Avoid Trans Fats \*\***

Human body is up to 70% water

Guideline : 6-8 glasses/ day  
Up to 1.5L - 3L/ day for active

**Optimum Hydration**  
Regulates body temperature  
Maintains healthy digestion  
Protect joints and tissues

Not only water:  
Herbal teas , Coconut water  
Fruits / Veg/ Soups /Smoothies



# Micro Nutrients

## VIT A

(Retinol)  
Fight Infection  
Eyes & Vision  
Heart, lung & kidney  
Skin, bones & teeth

## VIT E

(Tocopherol)  
Anti-oxidant  
Anti-oxidant  
Protects cells - toxins  
Muscle Function

## Iron

Immune function  
Brain function  
Carries O2  
Metabolism

## Iodine

Thyroid hormones  
Metabolism  
Growth & repair cells

## B Complex

Brain function & memory  
Energy release  
Lowers LDL cholesterol  
Blood cells & nerves

## VIT D

Ergo (D2) Cholecalciferol (D3)  
Immune Cell function  
Nervous system  
Regulation Ca & P  
Bone Health

## Sodium

Nerve function  
Muscle contraction  
Electrolyte balance

## Calcium

Muscle function  
Blood pressure  
Hormone secretion  
Bones & teeth

Chromium

Copper

Fluoride

Magnesium

Manganese

Molybdenum

Phosphorus

Selenium

Potassium

Chloride

## VIT C

(Ascorbic Acid)  
Anti-oxidant  
Fight Infection  
Skin & tissue health  
Bones & teeth

## VIT K

(Phytonadione)  
Anti-oxidant  
Blood clotting  
Wound healing  
Bone health  
Prevent heart disease

## Zinc

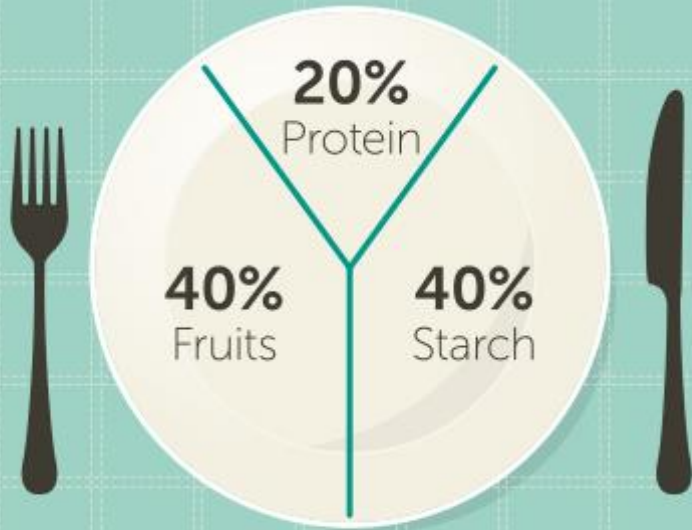
Immune function  
Brain function - memory  
Disease prevention



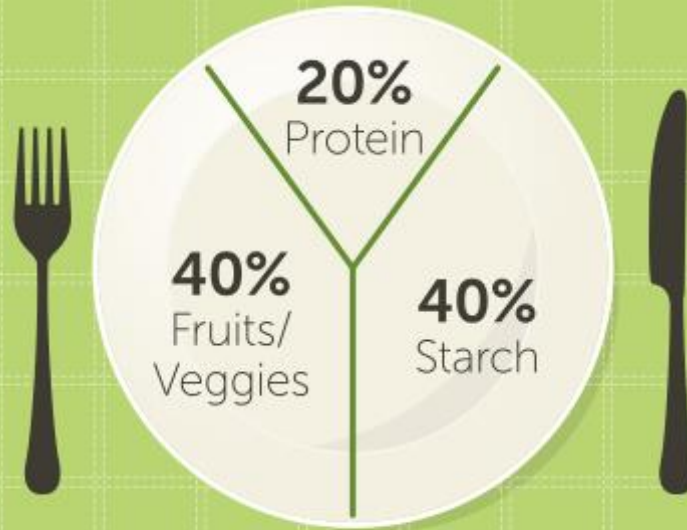


# Macro-Ratio

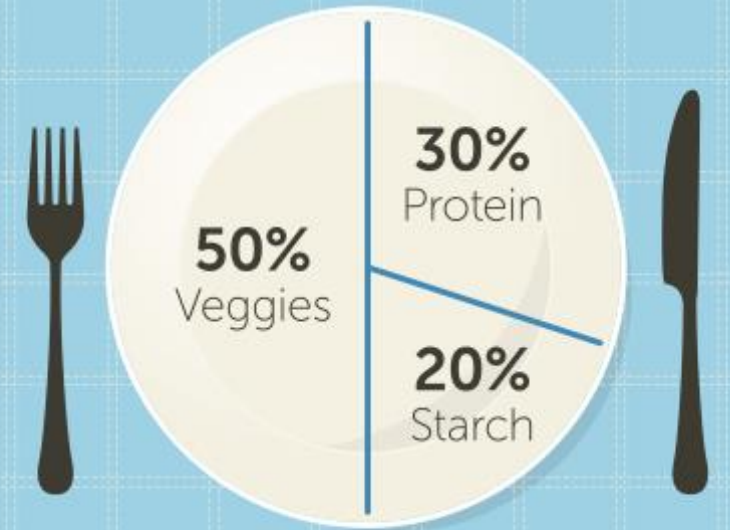
## BREAKFAST PLATE



## LUNCH PLATE



## DINNER PLATE





# Top Tips

**There is no perfect cooking method that retains all nutrients, but the following general rules apply:**

- 1) Cooking for shorter periods at lower temperatures with minimal water will produce the best results.
- 2) Use as little water as possible when poaching/ boiling / cooking veg.
- 3) Don't peel vegetables until after cooking them - or not at all!
- 4) Cut food after cooking to reduce heat exposure.
- 5) Consume the liquid left in the pan after cooking veg.
- 6) Eat cooked veg within a day or two, as Vit C loss exposed to air.
- 7) Use shortest cooking time for safe consumption of meat /poultry/ fish
- 8) Most enzymes are deactivated at a wet-heat temperature of 47 °C, and a dry-heat temperature of 66 °C
- 9) Anti-nutrients can be removed/deactivated by soaking, sprouting, boiling
- 10) Consume Calcium/ Iron supplements/ Tea away from high fibre meals





# Healthy Dietary Pattern

## Mindful Eating

Practice greater self-awareness around food choice & eating habits



## Social / Family Support

Exploring ways to meet everyone's needs - share the tasks.



## Contingency Planning

Know your weakness & plan ahead!  
eg. a 'Fake away' on Friday nights

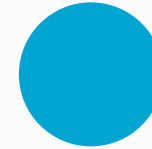


## Planning for Success



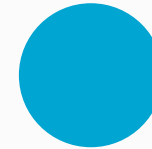
## Meal Prep & Batch Cooking

Taking time out over the weekend to plan the meals for the week ahead/ batch cook on a Sunday afternoon.



## Choice Architecture of Kitchen

Whole foods in full sight  
(countertop nuts/ seeds/ fruit bowl)  
Treats/ junk food not easily accessible



## Healthier Snack Options

Homemade where possible  
Read labels - be informed.

