

What the right nutrition can do

- ▣ Hydration for energy & performance
- ▣ Balance blood sugar for mental/physical performance
- ▣ Support fat loss and/or muscle gain
- ▣ Improve cellular function
- ▣ Provide the right fuel for maximum performance
- ▣ Support a healthy immune system

- ▣ Influence the way you feel, think and behave

Consequences of Poor Nutrition

- ▣ **LACK OF ENERGY!**
- ▣ Lower mental acuity
- ▣ Poor aerobic capacity worsened by;
- ▣ Failure to gain lean muscle mass
- ▣ Increased fat mass
- ▣ Lethargy - 'Heavy legs'
- ▣ Slow recovery from sporting events
- ▣ Infection and injury
- ▣ Shorter life span
- ▣ Sarcopenia



Macronutrient Manipulation – The Tools

- ▣ Water: hydration cellular function
- ▣ Protein: structure, growth & repair
- ▣ Carbohydrate: fuel, short term energy
- ▣ Fat: energy storage, fuel & structure

Hydration

Poor hydration is a major issue for athletes

3% dehydration

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graph TD; A[3% dehydration] --- B[10% loss of strength]; A --- C[8% loss of speed];
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10% loss of strength

8% loss of speed

AND MORE

- ▣ Dehydration reduces mental functioning:
 - decision making
 - reaction times
 - concentration
 - anticipation
 - skill delivery
 - task inaccuracies

ENERGY

Memory

STRESS

CRAMPING PROTOCOL

- ▣ Dehydration
- ▣ Salt - increase
- ▣ Magnesium
- ▣ Electrolytes
- ▣ Lack of fitness CNS fatigue
- ▣ Muscular imbalances
- ▣ How many single legged calf raises can you do?

Hydration Protocols

- ▣ On going Hydration – build good habits
- ▣ It takes 10-14 days to become fully hydrated
- ▣ Pre Hydration – start the day hydrated

- ▣ Hydration During the event – don't become dehydrated if possible

- ▣ Rehydration – rehydrate fully for maximum benefit

Base Hydration Requirement

- ▣ On Going Hydration –
- ▣ 85kg = 2 litres
- ▣ 100kg = 2.5 litres

- ▣ Plus 1 litre for each hour of exercise
- ▣ High temperatures, high humidity and unsuitable clothing will increase fluid losses

Anti-Nutrients and Empty Calories

- ▣ All refined foods
- ▣ Sugar (except post training)
- ▣ Excess Caffeine
- ▣ Alcohol
- ▣ Cakes, biscuits and pastries
- ▣ Crisps and confectionary

- ▣ Soda Pop
- ▣ Refined Wheat
- ▣ Chips
- ▣ Fast and junk foods
- ▣ Snack a jacks
- ▣ Doughnuts
- ▣ Breakfast cereals
- ▣ All chemically assisted foods

Basic supplement principles

- ▣ Particular Need for **iron, calcium** and other minerals such as zinc during adolescence
- ▣ Vitamin D – pandemic deficiency
- ▣ Magnesium commonly deficient
- ▣ Omega-3 essential fatty acids
- ▣ Antioxidants
- ▣ A multivitamin & mineral
- ▣ Joint care and cartilage support – older athletes

- ▣ Adherence

BACK TO BASICS

- Golden Rules to be Practiced 80-90% of the time and never forgotten;
- Drink enough water / green tea / hydration drinks, never get thirsty!
- Eat Frequently, eat every 2-3 hours no matter what, unless you are sleeping
- Eat Protein every time you eat
- Eat vegetables or fruit every time you eat but eat more veggies than fruit
- Eat starchy carbs every time you eat but eat more around time of the day when you are more active (breakfast and lunch) and less or none when you are less active
- Recover aggressively and appropriately after every session
- Eat whole-foods, low GI all the time except post-training when high GI foods are better for speedy recovery
- Eat fat, but eat the right kind of fat – from oily fish, nuts and seeds, olive oil and omega eggs
- Avoid 'empty' foods which contain calories but no goodness; doughnuts are a good example of these types of food
- Remember to enjoy your foods and practice the 80:20 rule or 90:10; this means of 42 weekly meals and snacks, 4 can be whatever you want if you are being strict 90% of the time and 8 can be naughty if you are being strict 80% of the time

CHECK LIST

- ▣ Am I thirsty?
- ▣ When did I last eat?
- ▣ Did I eat Protein with that?
- ▣ Were there veggies or fruit with that?
- ▣ Did I eat Starch according to my training?

- ▣ Were there 'good' fats with the meal?
- ▣ Am I eating sweets all the time even when I have not trained?
- ▣ Do I eat wholefoods?
- ▣ Am I thirsty?

EXAMPLE DAY

▣ Breakfast

- ▣ Porridge & Protein
- ▣ Sardine Omelet with red onion
- ▣ Eggs and beans on toast

▣ Snacks

- ▣ Cottage cheese & apple
- ▣ Fruit / Protein Bar
- ▣ Open Tuna Sandwich

▣ Lunch

- ▣ Recovery Shake and fruit
- ▣ Spinach Salad with chicken and walnuts

- ▣ Rice, Chicken and Peas
- ▣ Mackerel, potato and broccoli

▣ Snacks

- ▣ Sugary drink and fruit and a protein bar

▣ Dinner

- ▣ Steak and Spinach
- ▣ Salmon and green beans
- ▣ Lamb and roasted veggies
- ▣ Cold meats and raw veggies
- ▣ Cottage cheese

TREAT
FOODS

GRAINS

ROOT VEGGIES

FRUITS; BERRIES

GOOD FATS

PROTEIN

VEGETABLES

WATER

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