

Start at your beginning, to
where you want to go

primary. [prī'mĕr'ē, -mə-rē] adj. - being first or highest in importance



Agenda

- Basal Metabolic Rate (BMR) & The calories you need for your day
- Tracking v's Non Tracking
- Flexible v's Rigid Dieting
- Macronutrients – Protein, Fats, Carbohydrates
- Nutrition needs as we get older
- Supplements
- Hydration
- Race Day



The Starting Point

Basal Metabolic Rate (BMR)

- Males : 24 x Bodyweight
- Females : 22 x Bodyweight

Daily Physical Activity Level (PAL)

- Sedentary - 1.1 little or no activity. Desk job
- Lightly Active - 1.3 light activity. Some of the day standing or walking
- Moderately Active - 1.5 on feet most of the day, salesperson
- Very Active - 1.7+ hard daily work

Total Daily Energy Expenditure (TDEE)

- BMR x PAL



Tracking v's Non-Tracking Methods

TRACKING

- IIFYM – Macro tracking
- Points Tracking – eg weight watchers
- Individualised Macro tracking – only tracking Protein

FOR

- Easy to manipulate
- Numbers keep you accountable
- Can override hunger cues

AGAINST

- May require more education
- Can be time consuming
- Not always possible

NON-TRACKING

- Portion control – smaller plate, fork, spoon
- Intermittent Fasting / Windowed Eating 5/2, 16/8
- Reducing calorie dense foods / food swaps
- Eating a minimally refined, wholesome, natural foods (taking out processed foods)

FOR

- Always possible
- Intuitive Eating
- Less time consuming

AGAINST

- Need to be aware of your satiety factors – keeping sleep in check
- Can be harder to manipulate

The 3 Macro's



Protein

BENEFITS

- Helps with healthy hair and skin
- Aid in weight loss by increasing satiety and reducing appetite
- Necessary for immune function
- Essential for Growth and repair of or muscles and retaining muscles

INTAKE REQUIREMENTS PER KILO OF BODYWEIGHT

- Minimum amount to avoid a deficiency = 0.8g
- An ideal range 1.2 – 1.6g for the general population
- Athletes = 1.2g – 1.7g
- Building muscle = 1.8 – 2.7g

INCREASING PROTEIN INTO OUR DIETS

- Increasing our protein servings at each meal
- Including protein snacks into our diets
- Adding in a whey protein shake



Fat

BENEFITS

- maintain a healthy immune system
- Helps to absorb vitamins
- hormone production – testosterone, progesterone, estrogen effecting body composition, mood, libido
- can affect satiety levels – slow burning effect (also palatable)

INTAKE REQUIREMENTS PER KILO OF BODYWEIGHT

- Low fat diets (15%) of total calories from fat should be avoided long term
- A moderate fat intake sits around :
 - 25 – 45% of **your total calories**.
 - 0.5 – 1g/kg



Carbohydrates

BENEFITS

- Are our main source of energy. It is either used or stored as glycogen
- Helps to maintain digestive health
- Has a protein sparing effect ie Low Carb diets can use protein as energy
- Satiating and palatable = adherence to your diet (adding foods that will fill you up)

CHO are not essential HOWEVER the brain and Central Nervous System utilise glucose as the primary fuel source and need a continued supply

INTAKE REQUIREMENTS PER KILO OF BODYWEIGHT

- Fat loss = 1-3g
- Muscle Gain = 2 – 6g
- Maintain Health = 1-4g



What Is The Perfect Macro Split For Me?

SOCIAL

- Am I able to enjoy my eg family dinners, social outings

PHYSICAL

- Are my food choices allowing me to keep up with eg running with my children, training needs / goals

PSYCHOLOGICAL

- Am I allowing myself to have a good relationship with food ie allowing foods v's demonising foods

INTELLECTUAL

- Am I able to recognise cravings ie menstrual cycle or lack of sleep

ECONOMICAL

- Does it suit what I can afford

EMOTIONAL

- Am I allowing myself foods that make me feel good!



My Goal - Lose Weight, Gain Muscle or Both?

LOSE WEIGHT

- 1kg of fat = 7700kcal
- How much do I want to lower my calories by?
- Initially eat at maintenance calories to see if any weight gain / loss over a 2 week period

GAIN MUSCLE

- Gaining muscle is significantly slower than fat loss. Aim for 200-300cal surplus to begin with

CAN YOU GAIN MUSCLE IN A CALORIE DEFICIT?

- Increase protein whilst in a deficit. Deficit not as big as if in a fat loss phase



Keep on Track

- Stick to maintenance calories
- Adhering to the 3 macro's or just Protein?
- Meal Planning / Prepping
- Plan your daily meals around your food cravings
- Allowing yourself to eat the foods you love, without demonising them

*** Women *** Planning around your menstrual cycle



Nutrition needs as we get older

- In 2017, over 1 in 7 Australians were aged 65 and over
- In 2014-16
 - Australian men aged 65 could expect to live another 20 years
 - Australian women aged 65 could expect to live another 22 years
- An estimated 66% of Australians over 50 years of age reportedly have osteoporosis or osteopenia
- The prevalence of sarcopenia in Australians aged 65 years and older is estimated to be up to 6.4% in men and 9.3% in women



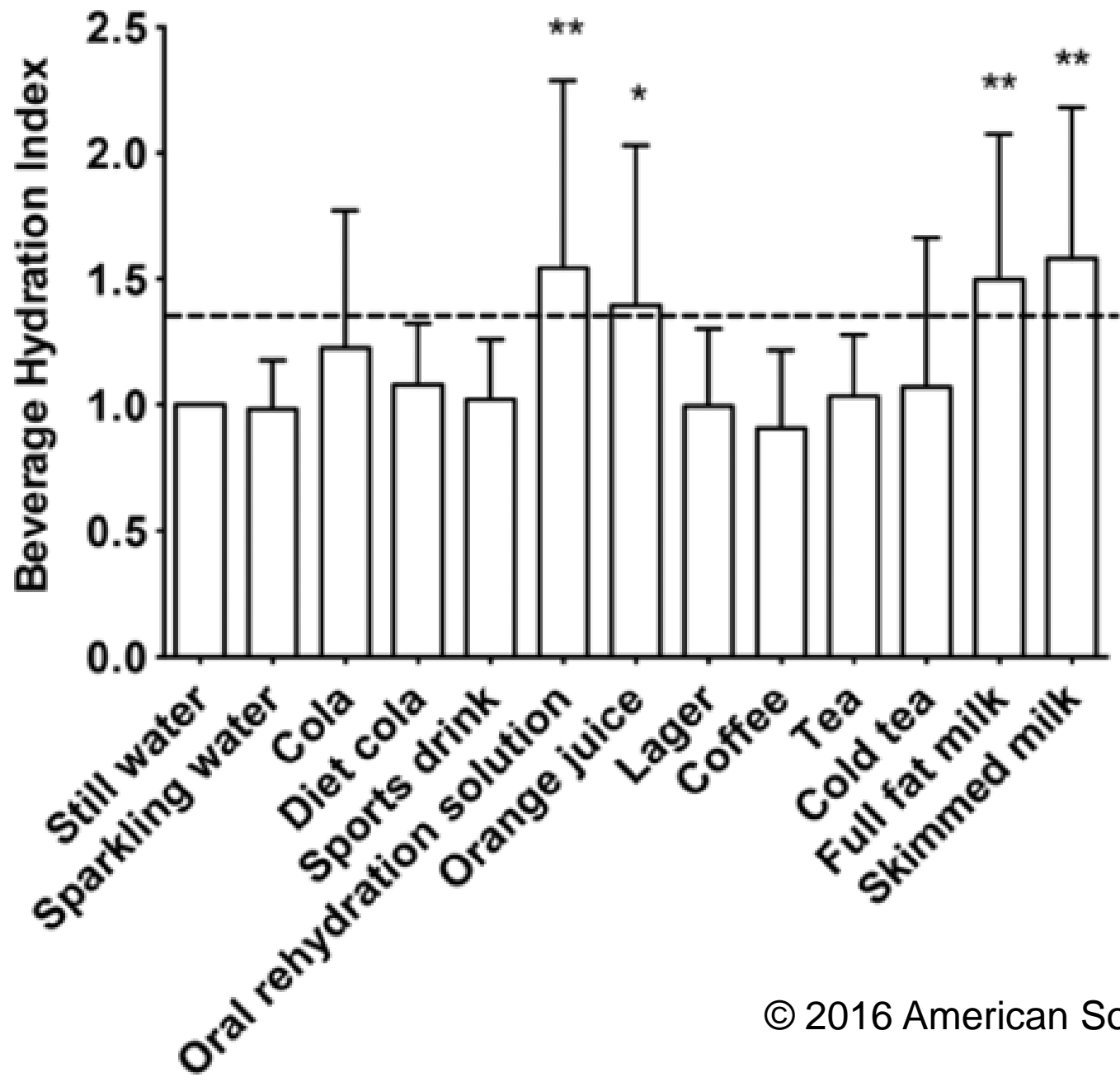
Nutrition + Supplements

- Adequate Protein at each meal *or at least in one meal*. Key Focus!
- Fish Oil – may aid in muscle strength, mass and functional capacity
- Creatine – enhanced muscle gain, strength and cognitive function
- Increasing calcium intake from dietary sources. 1200mg/day for 50+ females
- Vitamin D – required for bone formation.



Hydration

- 50 – 70% of body weight is water
- Sweat rates are individualised:
 - Gender
 - Bodyweight
 - Exercise intensity
 - Environmental Temperature
- Symptoms include
 - Thirst
 - Dry mouth
 - Feelings of lethargy / tiredness
- Exercise is harder when we are dehydrated. Start the exercise well hydrated





Estimating Sweat Rates

Sweat Loss (L) =

change in bodyweight(kg) + fluid intake (L) – urine losses (L)

Sweat Rate (L/hr) =

(Sweat loss (L) / exercise time (min)) x 60

Example :

Weight	Prior to training = 54.5kg, post training = 53.8kg
Fluid during training	100ml (0.1L)
Exercise Time	45min



Energy during training sessions

Metabolic *in*flexibility can be a detriment to performance however can be improved through carbohydrate periodisation

- Fasted Training
 - Most common
- Train Low (typically training twice per day)
 - Low carbohydrate diet. Eating / drinking carbohydrates pre / post training
- Recover Low (typically a morning session)
 - Carb loaded meal prior to session, protein and fat post session for remaining
- Sleep Low
 - Train, then recovery with no carbohydrates

Addition of Protein does not impair adaptations



Race Day

PRIOR TO A RACE

- 'Carb Load' Full stores can be achieved by 1 day of high carbohydrate intakes
- Ideally / more practical : over 3-4 days

ON THE DAY

- CHO = 1 – 4g/kg consumed 1-4 hours prior (generally something you have had previously)
- FLUID = 5 – 10ml/kg 2 hours prior
 - Plan a strategy that will ensure dehydration is avoided (>2-3%)

RECOVERY

- Protein 0.3 – 0.5g/kg
- Fats
- Carbohydrates according to replenishing requirements



Summary

- No magical, perfect equation / situation for every person
- Choose an approach that will enhance adherence over perfection
- Ensure adequate Protein per meal
- Interchange Carbohydrate & Fat to suit personal needs / preferences
- Hydration (>2-3% can be dehydrating)

