



Nutrition to fuel your body

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2 x 30min sessions

Today

- Fueling your immune system - working around your schedule
- Lockdown 2.0 – lessons learned from lockdown #1

Tomorrow eve

- Practical Application + Q&A



What can good nutrition do for you?

- Allow you to train harder therefore adapt and become stronger? True / False
- Keep your immune system fueled thereby reducing your risk of illness & keep you in the pool more often? True / False
- Improve your recovery in-between sessions thereby reducing risk of injury? True / False



Put these in order of importance....

1. Protein to help muscles grow
2. Carbohydrates to help fuel your body do your training
3. Water to keep your body hydrated
4. Calcium to help your bones grow strong
5. Sleep
6. Fruit & Veg to provide vitamins & antioxidants to help body to recover from training
7. Fibre to keep your gut healthy

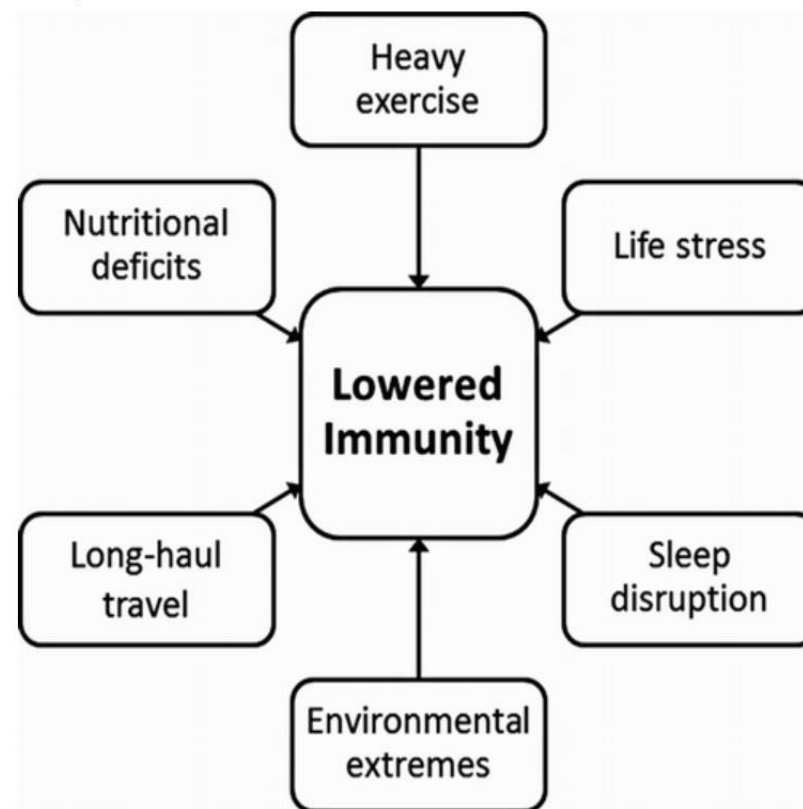


Order of importance....

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1. Sleep
1. Fruit & Veg to provide vitamins & antioxidants to help body to recover from training
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Keeping you fit & healthy, and ready for return to pool

- Lots of factors can affect your body's immune system
- Is there any that you need to focus in on?

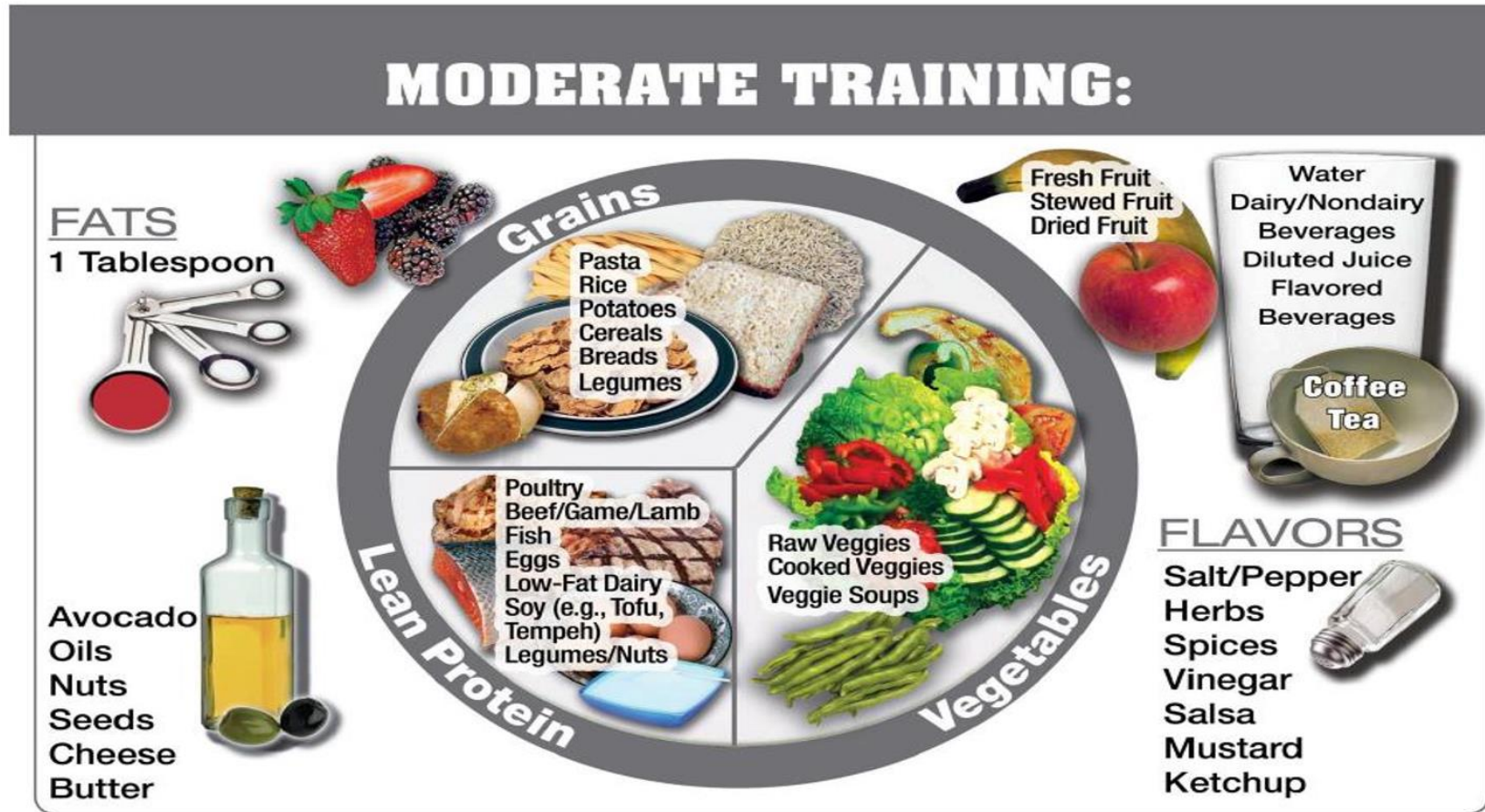


Where deficits can arise

- 1. Fuelling - total & type of energy.....
- 2. Hydration – immune system & concentration
- 3. Recovery – sleep, timing & type of food



Nutritional Deficits –what do I mean?



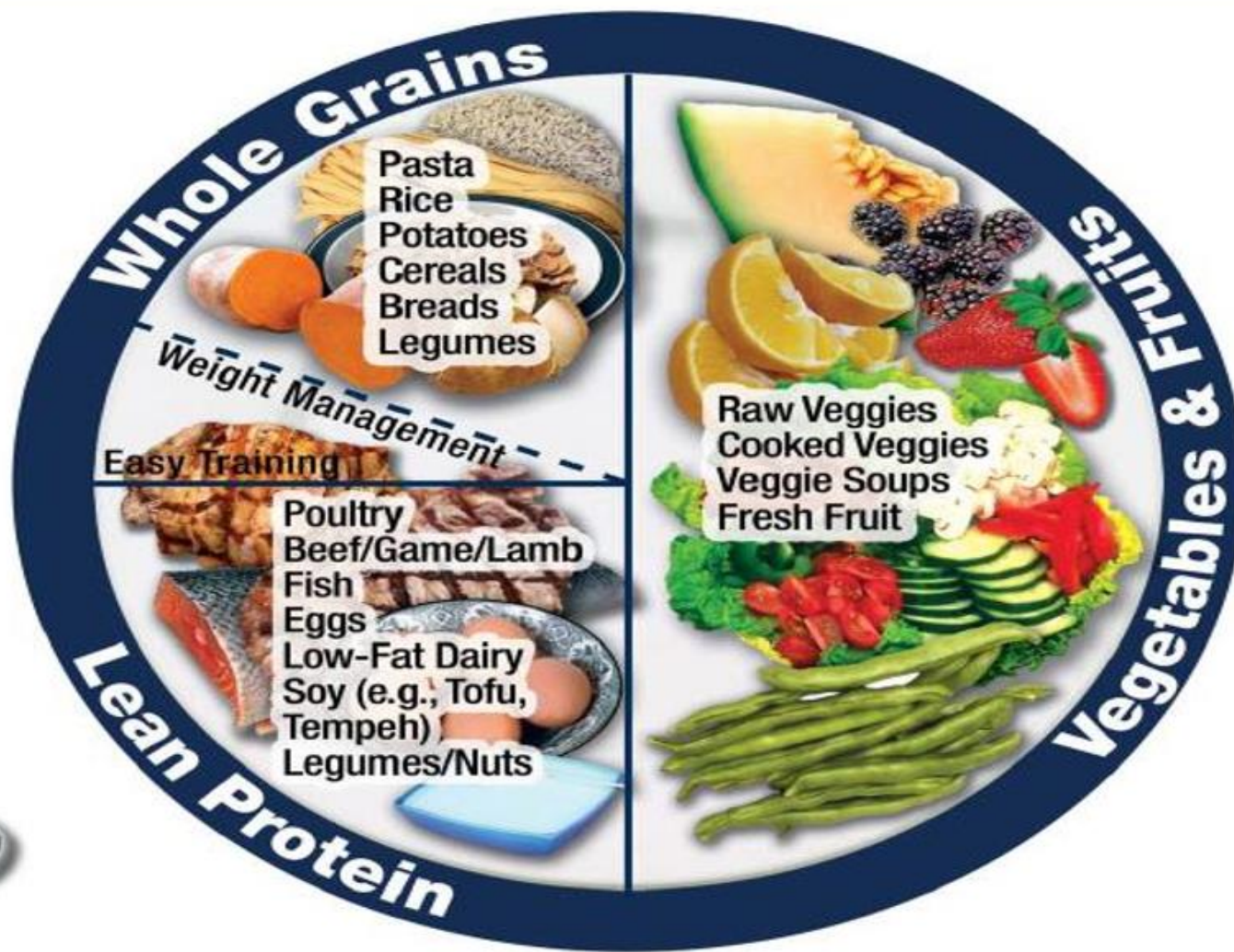
EASY TRAINING / WEIGHT MANAGEMENT:

FATS

1 Teaspoon



Avocado
Oils
Nuts
Seeds
Cheese
Butter



Water
Dairy/Nondairy
Beverages
Diluted Juice
Flavored
Beverages

Coffee
Tea

FLAVORS

Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup



MODERATE TRAINING:

FATS

1 Tablespoon



Avocado
Oils
Nuts
Seeds
Cheese
Butter



Grains

Pasta
Rice
Potatoes
Cereals
Breads
Legumes

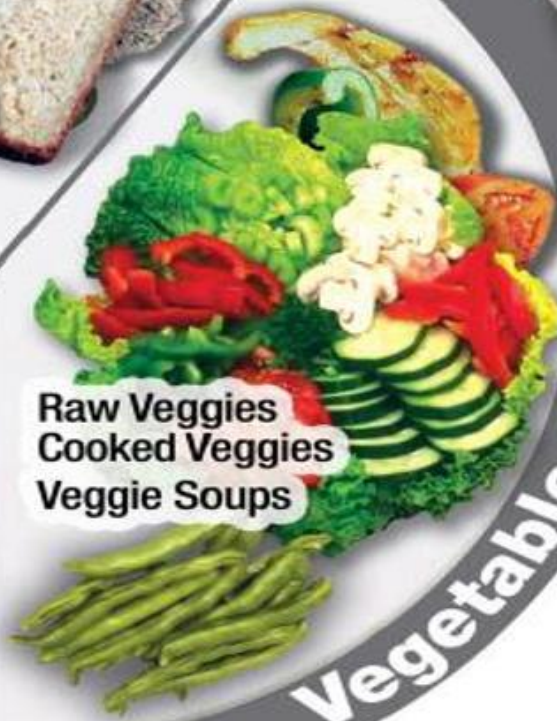


Lean Protein

Poultry
Beef/Game/Lamb
Fish
Eggs
Low-Fat Dairy
Soy (e.g., Tofu,
Tempeh)
Legumes/Nuts



Raw Veggies
Cooked Veggies
Veggie Soups



Vegetables

Fresh Fruit
Stewed Fruit
Dried Fruit



Water
Dairy/Nondairy
Beverages
Diluted Juice
Flavored
Beverages



Coffee
Tea

FLAVORS

Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup



HARD TRAINING / RACE DAY:

FATS

2 Tablespoons



Avocado
Oils
Nuts
Seeds
Cheese
Butter



Grains

Pasta
Rice
Potatoes
Cereals
Breads



Fresh Fruit
Stewed Fruit
Dried Fruit



Water
Dairy/Nondairy
Beverages
Diluted Juice
Flavored
Beverages



Coffee
Tea

Lean Protein

Poultry
Beef/Game/Lamb
Fish
Eggs
Low-Fat Dairy
Soy (e.g., Tofu,
Tempeh)
Legumes/Nuts



Cooked Veggies
Veggie Soups
Raw Veggies



Vegetables

FLAVORS

Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup



Lockdown 2.0

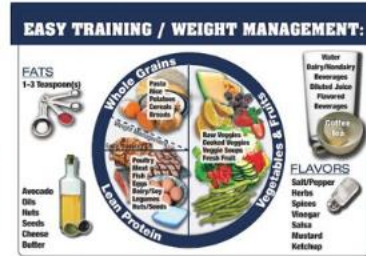
- Pools closed – reduced training volume or adapted training?
- Plan meals based around your schedule
- Keep to usual routine: breakfast, lunch & dinner
- Snacks may need to be reduced
- Portion sizes may need to be reduced

REDUCED TRAINING LOAD - WHAT DOES THIS MEAN FOR MY FOOD INTAKE?



DON'T ELIMINATE FOODS

KEEP ALL FOOD GROUPS IN YOUR DIET BUT BE SMART:
REDUCE PORTIONS AND NUMBER OF SNACKS - USING
SMALLER PLATES MAY HELP



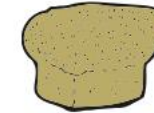
PROTEIN AT EACH MEAL



INCLUDE 20-30G OF PROTEIN AT EVERY MEAL TO KEEP YOU
FULLER FOR LONGER AND HELP TO MAINTAIN YOUR LEAN MASS



FIBRE AT EACH MEAL



INCLUDE FIBRE-RICH FOODS AT EACH MEAL, E.G. WHOLEGRAIN
BREAD, BROWN RICE / PASTA, OATS, ALONG WITH YOUR FRUIT & VEG
TO MAINTAIN FULLNESS AND A HEALTHY DIGESTIVE SYSTEM



7+ PORTIONS OF FRUIT AND VEG

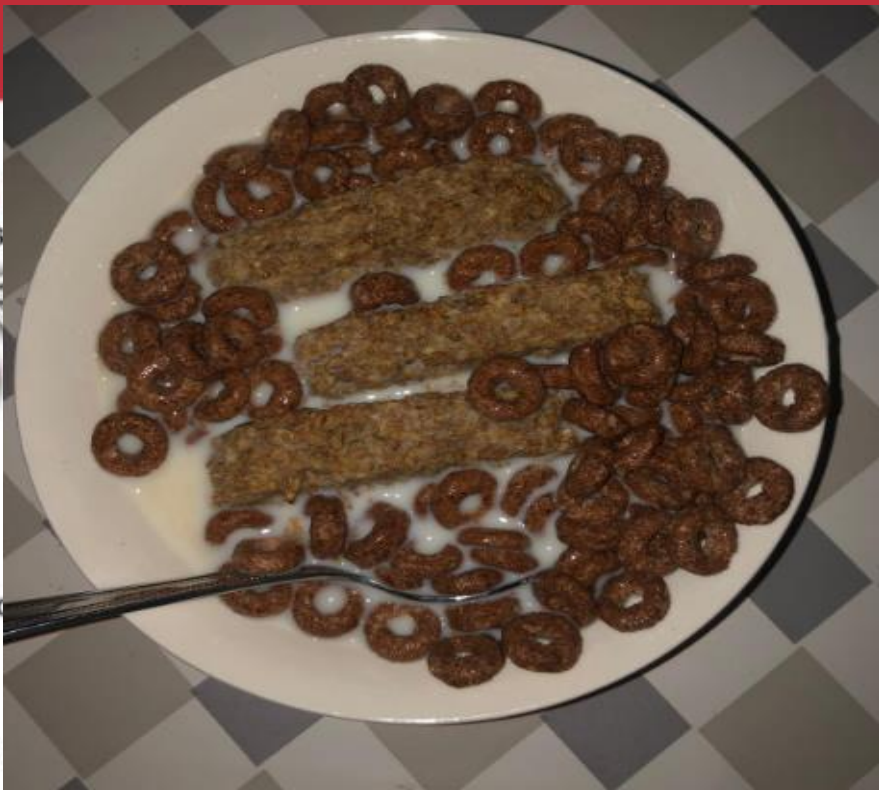


ADD PLENTY OF COLOUR AND VARIETY TO MEALS TO
INCREASE VITAMIN C INTAKE AND SUPPORT IMMUNE
FUNCTION

FATS

2 Tablespoons

Avocado
Oils
Nuts
Seeds
Cheese
Butter



Water
Milk/Nondairy
Beverages
Fruit Juice
Flavored
Beverages

Coffee
Tea

PROTEINS

Pepper
Soy
Sardines
Hard
Eggs



MODERATE TRAINING:

FATS

1 Tablespoon

Avocado
Oils
Nuts
Seeds
Cheese
Butter



Milk/Nondairy
Beverages
Fruit Juice
Flavored
Beverages

Coffee
Tea

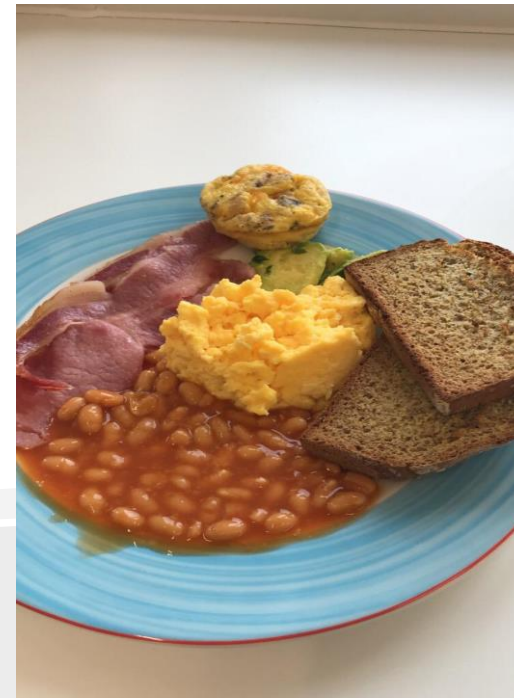
PROTEINS

Pepper
Soy
Sardines
Hard
Eggs

Fueling Demands

Breakfast –

- Blue plate = Omelette with toast
- Grey plate = Large bowl porridge + banana + honey + yogurt
- Red plate = 2 x toast, glass OJ, Bowl porridge with honey + banana





Where deficits can arise

- 1. Fuelling - total & type of energy.....
- 2. **Hydration – immune system & concentration**
- 3. Recovery – sleep, timing & type of food



Hydration

Basic Needs

- $35\text{ml} \times \text{kg Body weight}$ (e.g. $60\text{kg} \times 35\text{ml} = 2.1\text{L}$)
- Work this out for yourself.....
- Now, add up all the liquids you drank today....have you reached your minimum target?



Hydration

RECOVERY - 3 R's

Rehydrate (fluids)

Refuel (carbs)

Repair (protein)



Sleep – Quality & Quantity

8-10 hours/night

- Phone out of bedroom at night time – leave by hall table en route to bedroom
- Routine is key – try stick to same bed-time & wake-time
- Avoid all caffeine after 2pm (try decaf instead?)
- Try to avoid all screens for 1 hour before bed
- Time your fluid intake so as you are not getting up during the night to go to bathroom

How Much Sleep Is "Enough?"

Sleep is one of the cornerstones of health. Sleeping too much or too little can have adverse effects on your health. Sleeping less than 5 hours per night can double your risk of heart disease, heart attack and stroke. There is also a persistent relationship between lack of sleep and weight gain, insulin resistance and diabetes.

AGE GROUP	RECOMMENDED NUMBER OF HOURS OF SLEEP
Newborns (0-3 months)	14-17 hours
Infants (4-11 months)	12-15 hours
Toddlers (1-2 years)	11-14 hours
Preschoolers (3-5)	10-13 hours
School-age children (6-13)	9-11 hours
Teenagers (14-17)	8-10 hours
Young adults (18-25)	7-9 hours
Adults (26-64)	7-9 hours
Seniors (65 and older)	7-8 hours

Original Article

Too little sleep and an unhealthy diet could increase the risk of sustaining a new injury in adolescent elite athletes

P. von Rosen , A. Frohm, A

First published: 19 August 2016

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Abstract

Little is known about health variables and if these variables could increase the risk of injuries among adolescent elite athletes. The primary aim was to present overall data on self-perceived stress, nutrition intake, self-esteem, and sleep, as well as gender and age differences, on two occasions among adolescent elite athletes. A secondary aim was to study these health variables as potential risk factors on injury incidence. A questionnaire was e-mailed to 340 adolescent elite athletes on two occasions during a single school year: autumn semester and spring semester. The results show that during autumn semester, the recommended intake of fruits, vegetables, and fish was not met for 20%, 39%, and 43% of the adolescent elite athletes, respectively. The recommended amount of sleep during weekdays was not obtained by 19%. Multiple logistic regression showed that athletes sleeping more than 8 h of sleep during weekdays reduced the odds of injury with 61% (OR, 0.39; 95% CI, 0.16–0.99) and athletes reaching the recommended nutrition intake reduced the odds with 64% (OR, 0.36; 95% CI, 0.14–0.91). Our findings suggest that nutrition intake and sleep volume are of importance in understanding injury incidence.

Immunity – do I need to do anything differently?

1. Handwashing, handwashing, handwashing
2. Cough & Sneeze etiquette
3. Plan your meals around your training schedules
4. Maintain good hydration
5. Vitamin C – from all your veg – eat the rainbow
6. Sleep – at least 8-10hrs, remember your sleep hygiene
7. Vitamin D supplementation / food fortification



Why do I need Vitamin D?

Your body needs Vitamin D to absorb calcium and promote bone health, and may also be involved in good immunity.

Where can I get Vitamin D in my diet?

Sunlight is THE most important source of Vitamin D. Some foods that provide Vitamin D include:

- Fatty fish, such as tuna, salmon, and mackerel
- Foods fortified with vitamin D, such as some dairy products, mushrooms, orange juice, soy milk, and cereals
- Beef liver
- Cheese
- Egg yolks



Meal Timings

- Timing of meals & snacks – around your new schedule?
- Plan your meals & snacks in advance



 Tomorrow – 7.30pm

Submit your questions for
tomorrow's Q+A session

Snack station:

Energy balls

Overnight oats

Egg Muffins

