



Nutrition for Gaelic Football.

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SPORT
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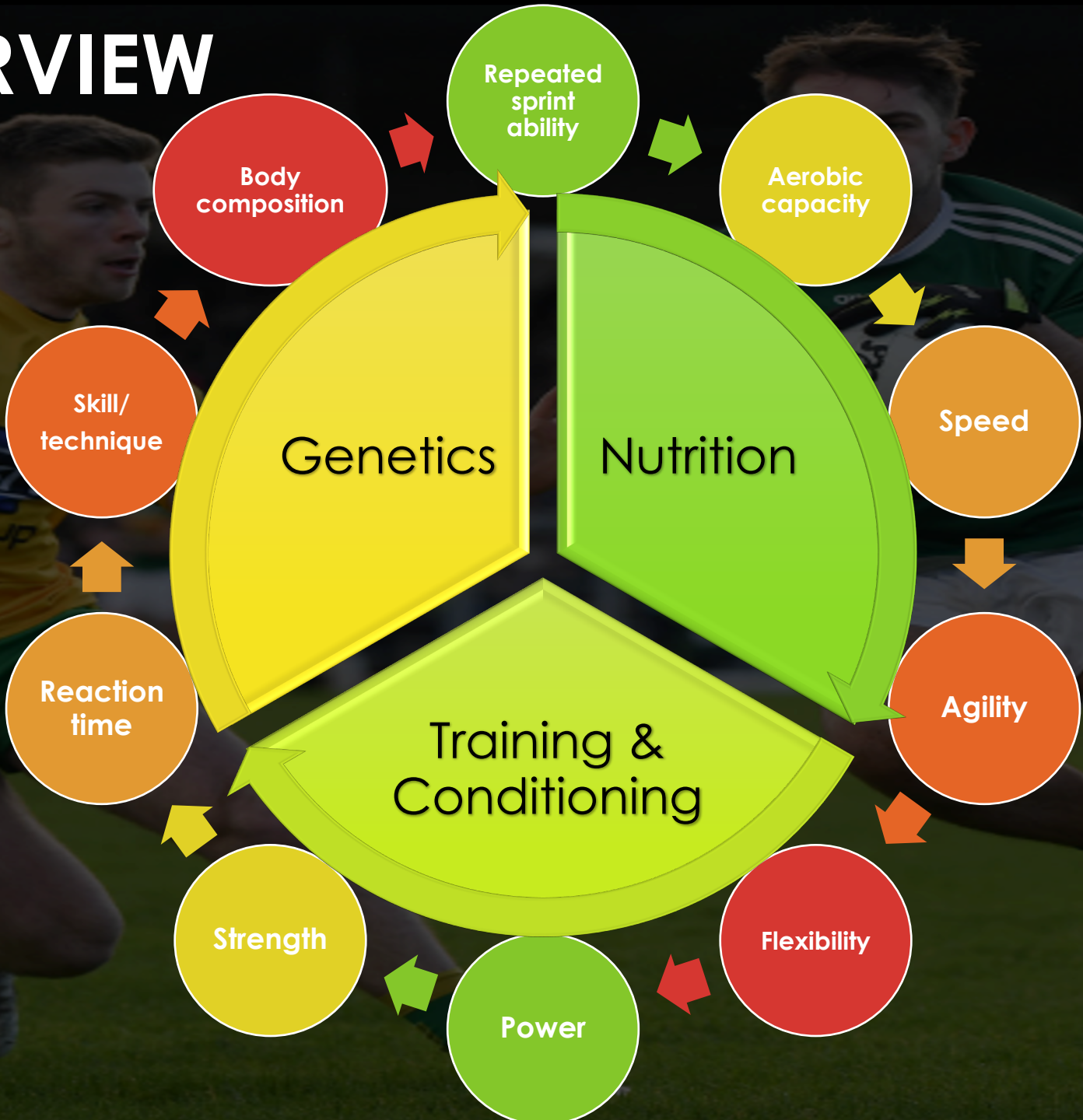
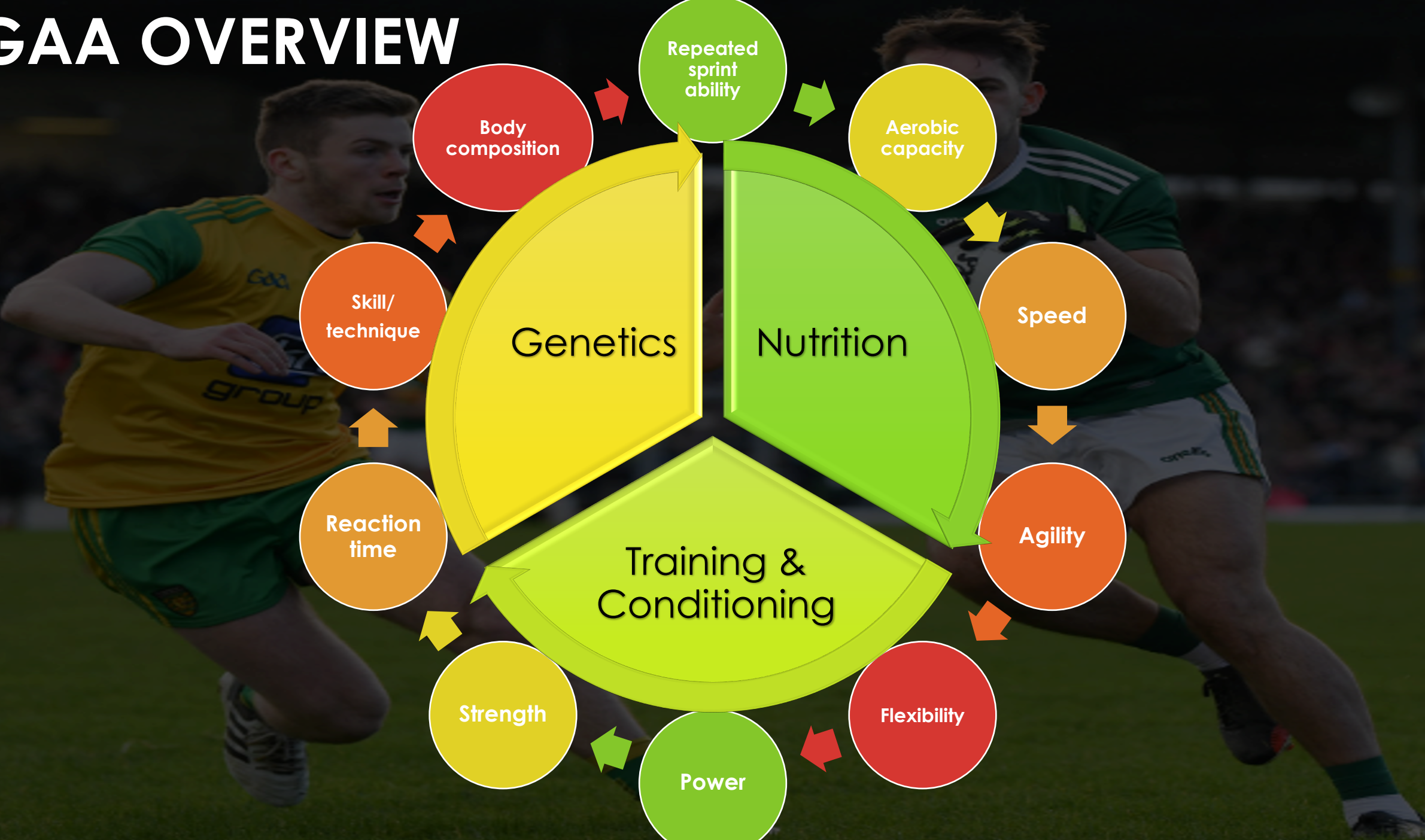
ROWING
IRELAND



Paralympics
IRELAND



GAA OVERVIEW





Vitamins & Minerals
Important for everyday body functions and to make energy available from food



Proteins
Needed for growth, development and repair of muscles



Carbohydrates
Provide energy for the working muscles

**NUTRIENTS
IN FOOD**



Fats
Provide energy, insulation and protection for organs such as lungs and kidneys



Water
Fluid is vital for all body functions as well as allowing you to sweat to keep cool



COMMON ISSUES



Poor skills



Poor choices when shopping/dining out



Poor or outdated knowledge of sports nutrition



Busy lifestyle



Poor availability of good food and drink choices at events



Indiscriminate use of supplements and sports foods

NUTRITION AND SPORTS PERFORMANCE





- Stay **hydrated**.



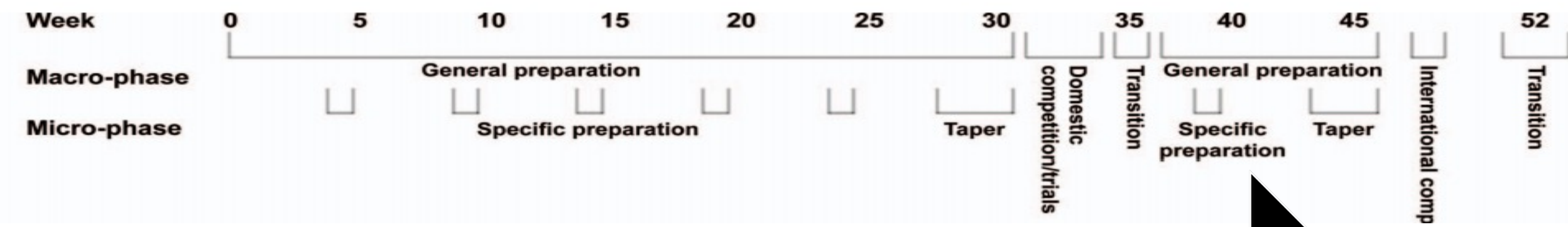
- Provide **fuel** for your muscles.



- Promote optimal **recovery** after exercise.



Foundation to performance is a balanced diet!!!



General Preparation

- Support training load
- Body composition
- Recovery

Specific Preparation

- Support high intensity training
- Recovery

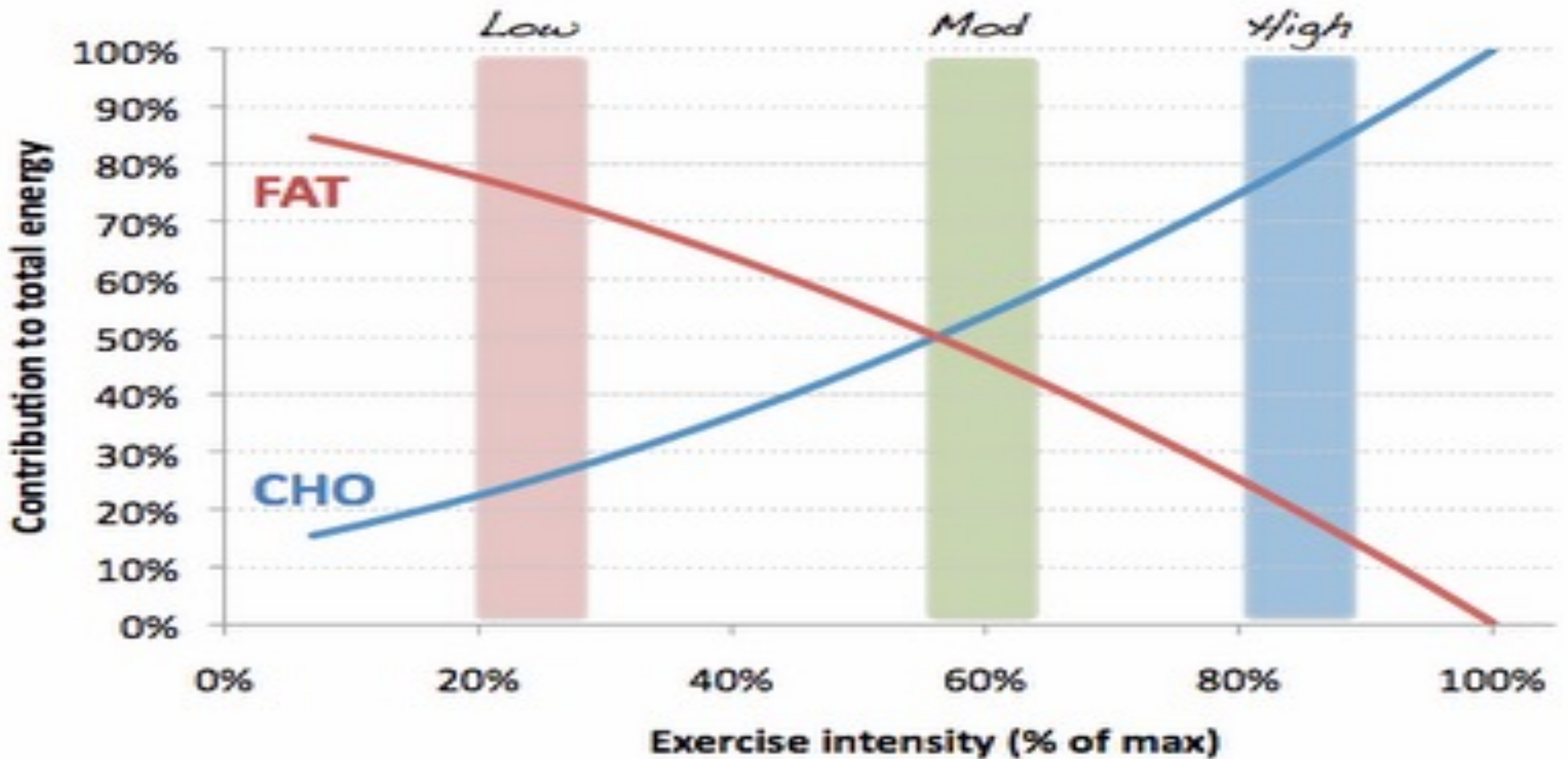
Taper/Competition

- Support high intensity training
- Avoid mass gain during taper

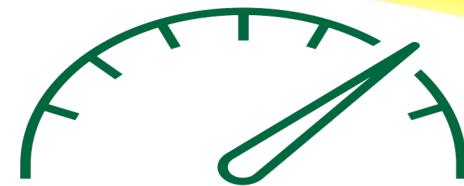
Transition/Rest

- Follow guidelines based on activity levels

USE OF FUEL AT DIFFERENT EXERCISE INTENSITIES



FUELLING



When you're fully loaded with CHO, you have:

- **Glucose**, which circulates in the bloodstream
- **Glycogen**, which is bundles of glucose stored in the liver and muscles

- About 40 calories of glucose in the bloodstream
- About 1,900 calories stored as glycogen in the muscles, plus liver glycogen



Fuelling

3-4 hours

Rice/pasta with tomato-based sauce
vegetables and lean protein

Large Omelette with Spinach, Ham and Cheese and Brown Toast

Overnight Oats with Banana and Peanut Butter

1-2 hours

Fruit and Yoghurt

Cereal with Milk



Healthy Eating

Healthy Food for Life

www.healthyireland.ie



The Food Pyramid

For adults, teenagers and children aged five and over

Not needed for good health.
Foods and drinks high in fat, sugar and salt



NOT every day

! Maximum once or twice a week

Fats, spreads and oils



In very small amounts

Meat, poultry, fish, eggs, beans and nuts



2 Servings a day

Milk, yogurt and cheese



3 Servings a day
5 for children age 9-12 and teenagers age 13-18

Wholemeal cereals and breads, potatoes, pasta and rice



3-5* Servings a day
Up to 7* for teenage boys and men age 19-50

Vegetables, salad and fruit



5-7 Servings a day

Needed for good health. Enjoy a variety every day.

*Daily Servings Guide – wholemeal cereals and breads, potatoes, pasta and rice

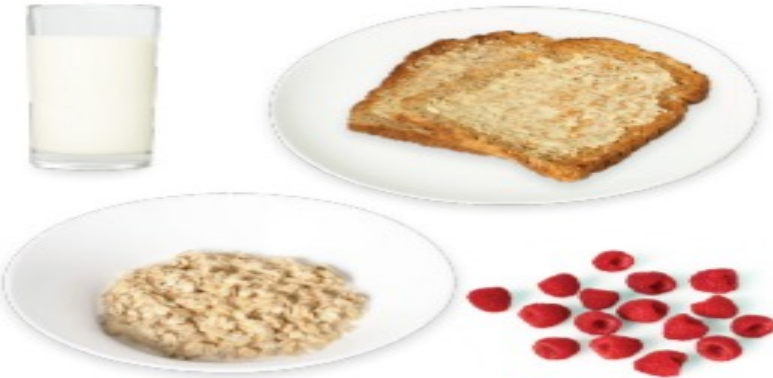
	Child (5-12)	Teenager (13-18)	Adult (19-50)	Adult (51+)		Teenager (13-18)	Adult (19-50)	Adult (51+)
Active	3-4	4	4-5	3-4	Inactive	3	3-4	3
	3-5	5-7	5-7	4-5		4-5	4-6	4

There is no guideline for inactive children as it is essential that all children are active.

Drink at least 8 cups of fluid a day – water is best

Get Active!
To maintain a healthy weight adults need at least 30 minutes a day of moderate activity on 5 days a week (or 150 minutes a week); children need to be active at a moderate to vigorous level for at least 60 minutes every day.

Example



Breakfast

- 1 200ml low-fat milk for cereal and drink
- 1 1/3 cup porridge
- 1 2 thin slices wholemeal toast
- 1 Raspberries



Lunch

- 1 2 eggs
- 1 Low-fat yogurt
- 2 4 small slices wholemeal soda bread
- 1 Lettuce, tomato
- 1 Mandarin oranges



Dinner

- 1 75g pork
- 2 2 cups wholewheat noodles
- 1 Vegetables cooked in sauce



Mid-morning snack

- 1 Pear



Afternoon snack

- 1 Apple



Evening snack

- 1 200ml low-fat milk for cereal and drink
- 1 2 wholegrain breakfast biscuits
- 1 Banana

Athlete plate – meat eater

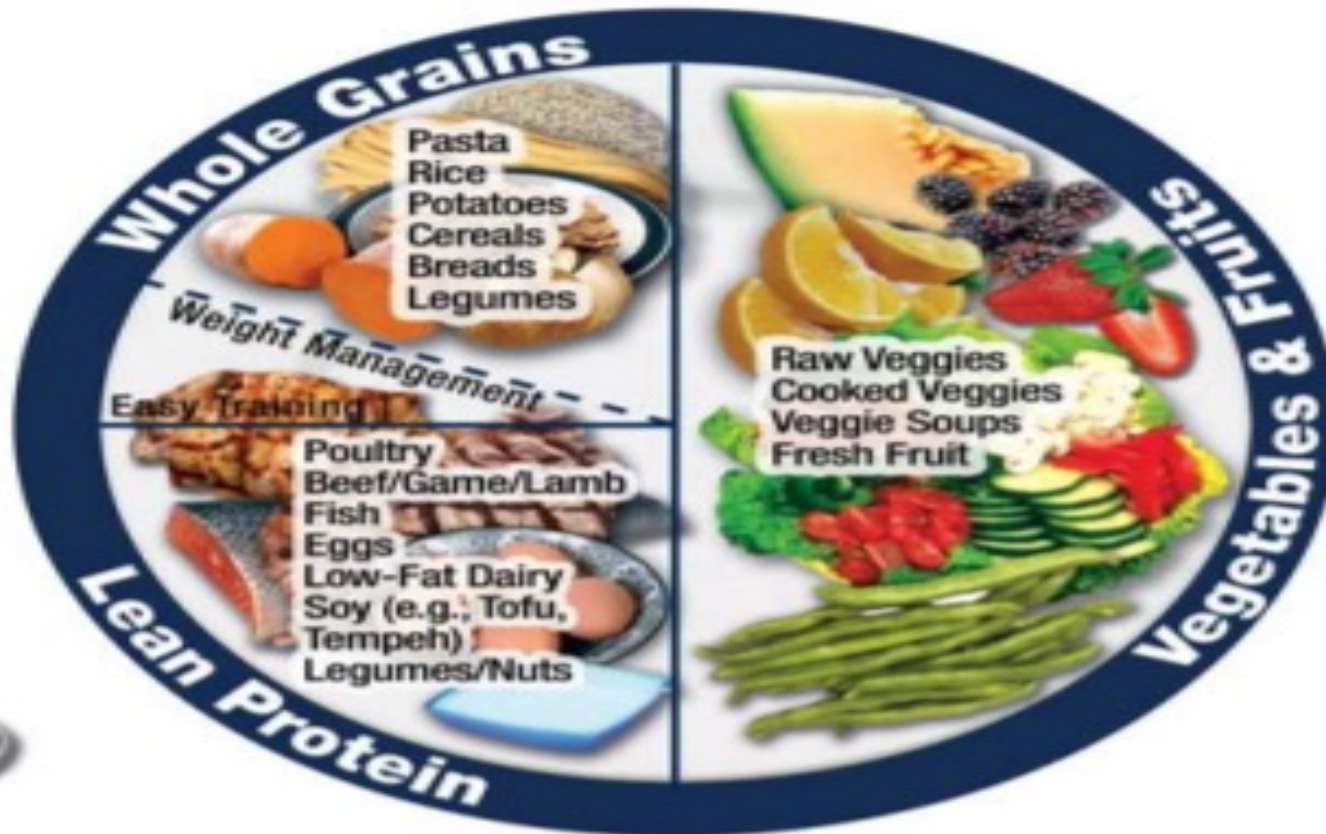
EASY TRAINING / WEIGHT MANAGEMENT:

FATS

1 Teaspoon



Avocado
Oils
Nuts
Seeds
Cheese
Butter



Water
Dairy/Nondairy
Beverages
Diluted Juice
Flavored
Beverages

Coffee
Tea

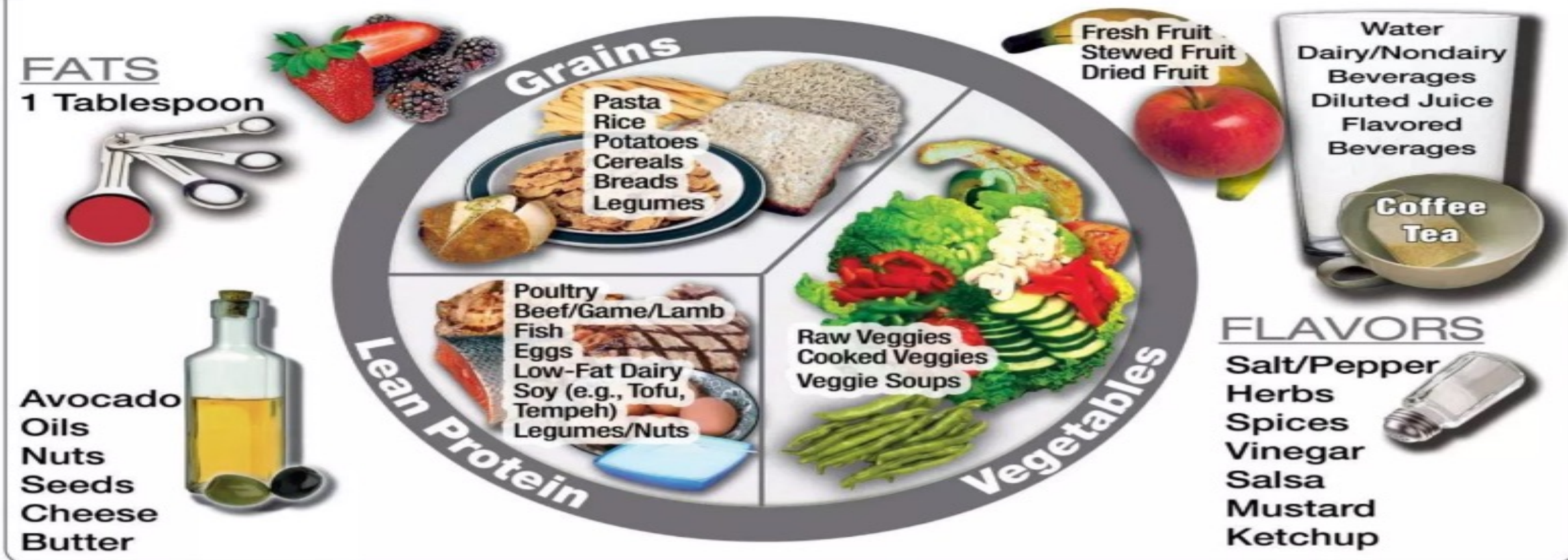
FLAVORS

Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup



Athlete plate – meat eater

MODERATE TRAINING:



Athlete plate – vegetarian

EASY TRAINING

FATS

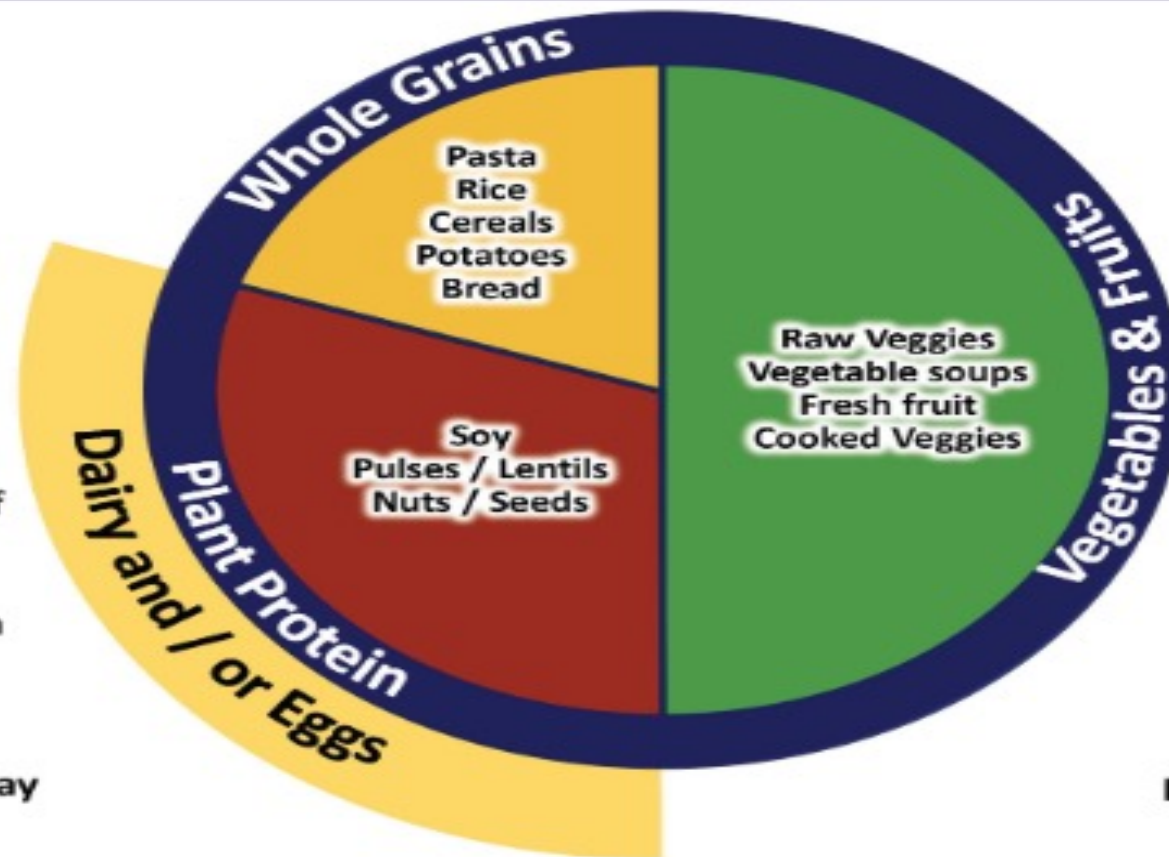
1-3 Teaspoon(s)

Avocado
Oils
Nuts
Seeds
Nut Butters

Eat at least one serving of
fermented food daily

Add Vitamin D, B₁₂, Iron
and Zinc supplement

Consume protein rich
snacks throughout the day



FLUIDS

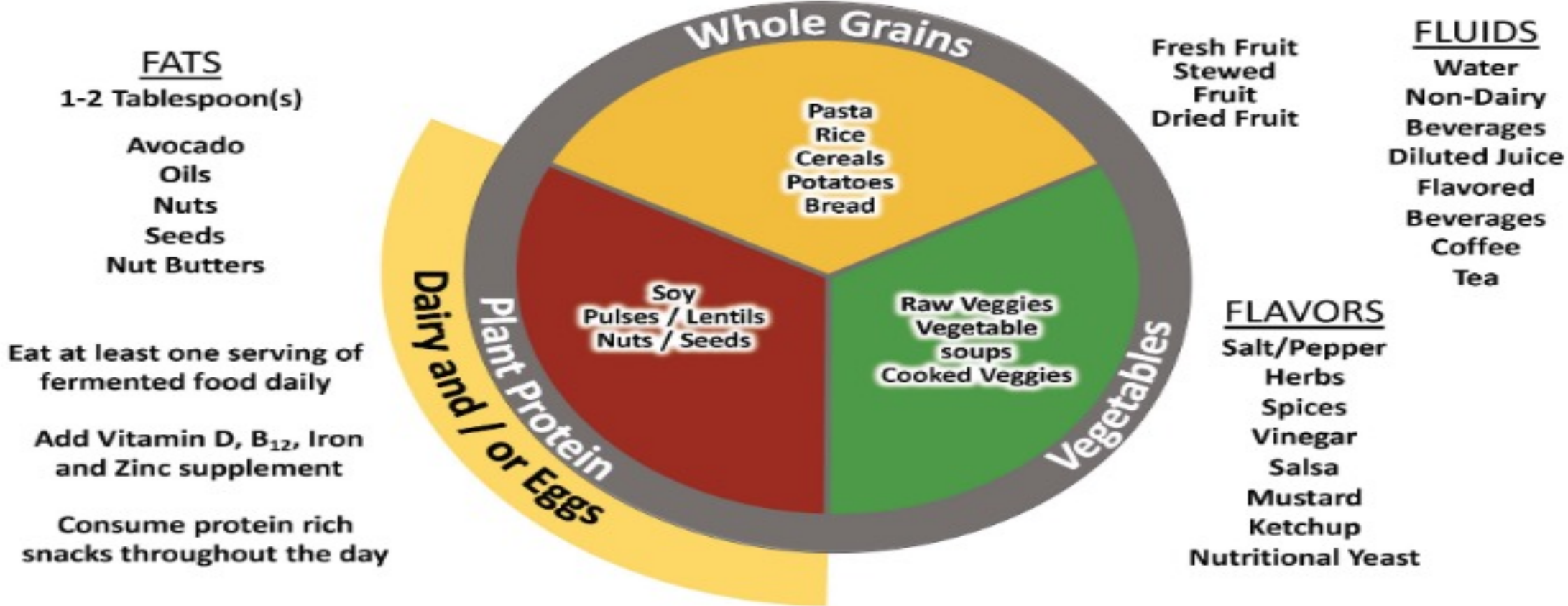
Water
Non-Dairy
Beverages
Juice
Flavored
Beverages
Coffee
Tea

FLAVORS

Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup
Nutritional Yeast

Athlete plate – vegetarian

MODERATE TRAINING



Training Diet Example

Time	Meal
7:30am	<p><u>Breakfast options</u></p> <ul style="list-style-type: none"> • Muller Rice, 1 piece of fruit + glass of fruit juice • 1 bowl (2 cups) cereal with natural yoghurt • 2 poached/scrambled eggs with 2 slices of wholegrain toast <p><u>Drink</u></p> <ul style="list-style-type: none"> • Water, milk or fruit juice
9:30	Piece of fruit or a handful of nuts
11am	<p><u>Snack options</u></p> <ul style="list-style-type: none"> • 3 small rice cakes with 3 tsp. peanut butter • A yoghurt and a piece of fruit • A bag of plain air popped popcorn • Cereal bar (<u>check label</u>) • 250ml sports drink
2pm	<p><u>Lunch options</u></p> <ul style="list-style-type: none"> • Baked potato with small pot of cottage cheese and salad • Sandwich/wrap with lean meat and salad filling <p>Drink Water or fruit squash</p>
4:30-5pm	<p><u>Pre-training snack</u></p> <ul style="list-style-type: none"> • Fruit/cereal bars or sports drink
6pm	<u>Sip water or sports drink during the session (depending on the length of the session)</u>
6:30pm	<p><u>Post session recovery</u></p> <ul style="list-style-type: none"> • Recovery drink immediately post session • Begin rehydration
8:00pm	<p><u>Dinner*</u></p> <ul style="list-style-type: none"> • Consume your normal portion size!



Recovery Drink Recipe

- ▶ 1 pint low fat or semi skimmed milk
- ▶ Add 1-2 scoops of Nesquik powder
- ▶ Portable, practical and cheap
- ▶ Mixture of Whey and Casein



*** If session is easy/technical skip recovery drink!**



Supplements will not
make you look like this!





Raw salmon

1 medium fillet (150g) = 31 g protein



Lean beef steak

1 medium fillet (150 g-raw) = 35 g protein



Pork tenderloin

2 thin slices (150 g)
= 31 g protein



**Canned in water tuna
(drained)**

1 can (130 g)
= 31 g protein



**Cooked beans
(Lentils/chickpeas)**

2 cups (360 g) = 26 g protein



Large eggs

3 pieces = 25 g protein

What does ~30 g of **protein** look like?



Emmental cheese

5 slices (110 g)
= 33 g protein



Whey Protein

1 average serving / scoop (30 g)
= 27 g protein



Cooked chicken breast

1 small fillet (100 g)
= 31 g protein



**Greek yogurt 0% fat or
cottage cheese**

1 cup (250 g)
= 26 g protein



Low Fat Chocolate Milk

750 mL = 26 g protein



Peanut butter

7 heaped teaspoons (98 g)
= 26 g protein

Breakfast	Breakfast
2 poached eggs, smoked salmon and a toasted 1/2 bagel with a tablespoon of cream cheese	Overnight oats - recipe given in previous e-mail add 1 flavour you like e.g. scoop of protein, table spoon of peanut butter, fruit, or a teaspoon of honey
3 eggs (scrambled) with ham and a handful of spinach	Bowl of cereal (2 cups) and a banana with a fruit flavoured yoghurt
Protein pancakes- recipes sent with e-mail	3 banana pancakes

Protein snacks	Snacks
1 peanut butter ball (recipe sent in e-mail) Good with tea	Piece of fruit and greek yoghurt.
Strawberry and banana protein bar - recipe sent in e-mail.	<u>A&B open sandwich:</u> 1/2 an avocado, 2 slices of bacon and one slice of brown toast
Boiled egg and a slice of brown toast.	Bowl of homemade soup - recipes sent in e-mail.
Protein bar: Tracker, Fulfill, Cliff, not Chocolate bars.	1 slice Banana Bread - recipe provided

Dinner	Dinner
Note: higher carbohydrate dinner 1/2 of the plate should be rice/potato/pasta/sweet potato, etc.	Note: moderate carbohydrate dinner less than 1/3 of the plate should be rice/potato/pasta/sweet potato.etc
Bowl of Quick Pasta Casserole	Lasagne with as much salad as you want
Spaghetti Bolognese	Asian Beef Noodle Salad
Chicken and pasta salad	Chicken Stir Fry with lots of vegetables and 1 cup of rice
Thai Chicken Curry and Rice	3 Baked eggs with spinach and tomato
Sesame beef stir fry with noodles	Chilli chicken with 1 cup of rice



AFTER - RECOVERY

- Priorities:

1. Replace lost
electrolytes

Fluid

2. Recover carbohydrates
and protein

Electrolytes



- Recovery Drink

Whey

- 25g of whey protein will aid
recovery

Casein

- Ideally consumed with 30
minutes

REST DAY



Restrict 'empty' or added calories



If you have trained the previous day then have a normal breakfast



You can then slightly reduce the portions of carbohydrate with the rest of your meals



Reduce consumption of high energy starchy carbohydrates



Including protein with each meal will also keep you feeling satisfied



Remember Hydration

Monitoring - Hydration



- Weigh yourself before training in minimal clothing.
- Weigh yourself after training in minimal clothing.
- $\text{Body mass before} - \text{body mass after} = \text{sweat loss} \approx \text{fluid needs}$.

Each Kg of body mass lost must be replaced with 1.5L of fluid.

Dehydration

- ↓ concentration
- ↓ alertness
- ↓ gastric emptying
- ↑ irritability
- ↑ fatigue
- ↑ RPE
- ↑ substrate use
- ↑ reaction time
- Impaired thermoregulatory function
- Headache
- Dizziness



HYDRATED	Safe Zone	1	
		2	
		3	
DEHYDRATED	Danger Zone	4	
		5	
		6	
		7	
		8	

Daily fluid needs before exercise $\approx 30\text{ml}\cdot\text{kg}^{-1}$ e.g. 50kg = 1.5 L

HYDRATION TIPS



30mls per kg before training

50kg = 1.5L

70kg = 2.1L

100kg = 3L



Water vs. Sports Drinks

Water

- Sipping throughout the day
- Sessions <60mins



Sports Drinks

- Before exercise may be appropriate to top up carbohydrate
- During even sessions >60 mins
- After exercise as part of your nutritional recovery



Sports Drink Recipes

Recipe 1

- 800mls water
- 200mls fruit squash
- Pinch of salt

Recipe 2

- 500mls fruit juice (unsweetened)
- 500mls water
- Pinch of salt





NUTRITION AND TIME LOST TO ILLNESS





NUTRITION AND TIME LOST TO ILLNESS

- A well balanced diet will provide you with necessary vitamins and minerals
- A carbohydrate depleted state while training will cause larger increases in circulating stress hormones
- Inadequate protein intake will affect immune function
- Fruit and vegetable consumption will provide you with antioxidants



Foods for Winter



- Probiotics: immunity.

- Dark coloured berries: anthocyanins – immunity and recovery.



- Oats and Barley: beta-glucan – antioxidant and antimicrobial properties.



- Garlic: allicin – immunity.



Stress

Recovery

Physiological

Adaptation

Neuromuscular

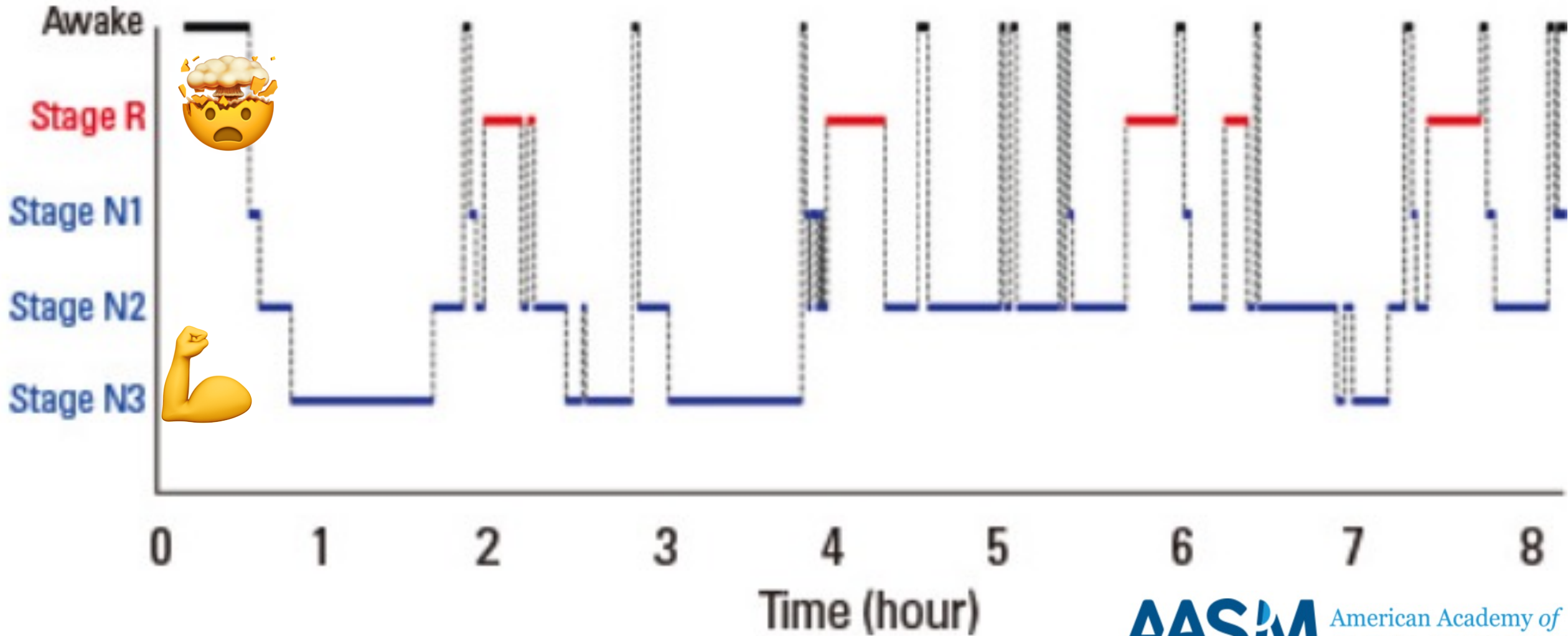
Performance

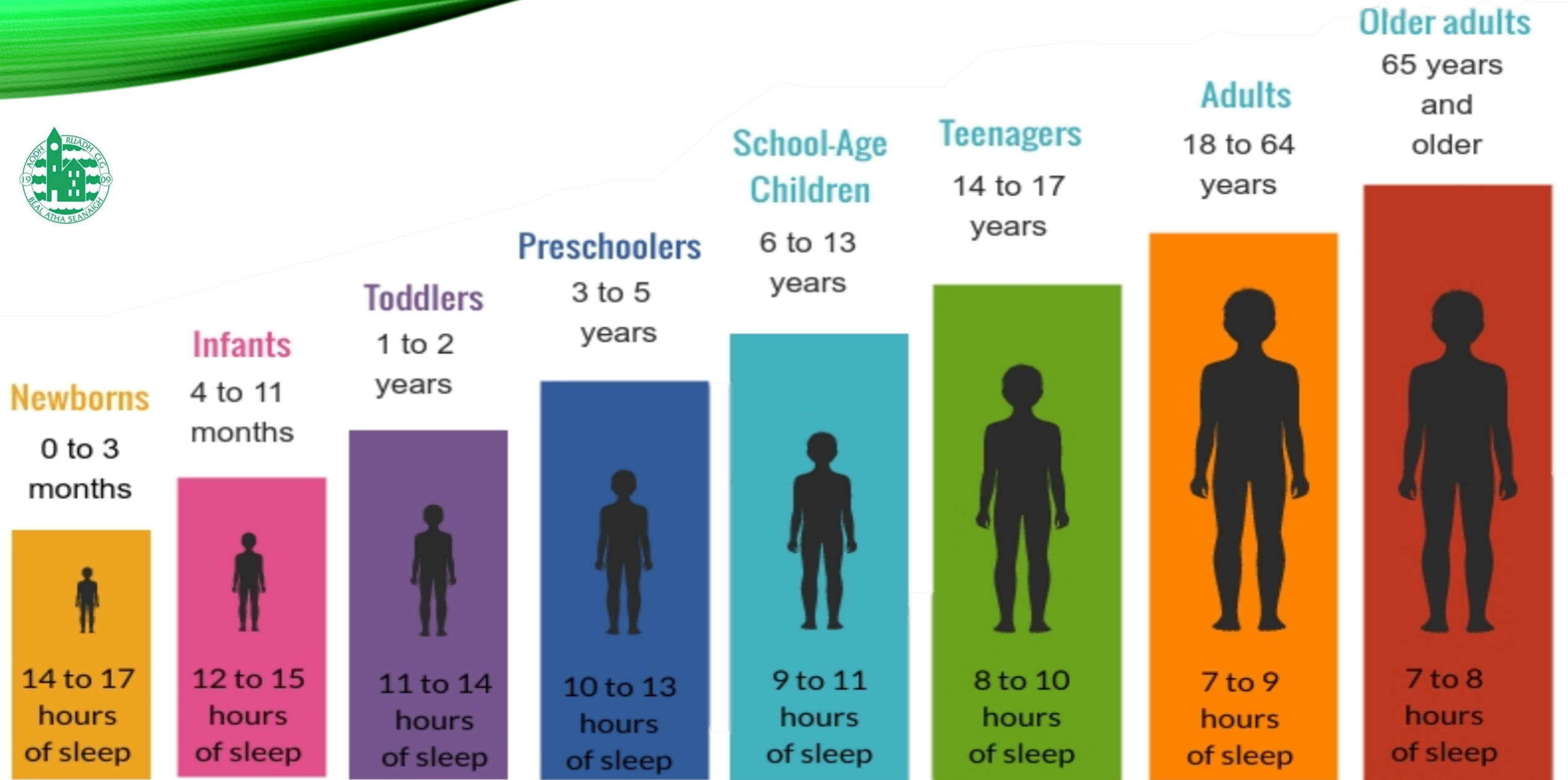
Psychological

Minimise Injury
Risk



Sleep Stages





Effects of Sleep Deprivation

ENERGY STORE



↳ Muscle glycogen resynthesis

MUSCLE RECOVERY



↳ Protein synthesis

IMMUNE DEFENSES



↗ Sensibility to illness & infection

CENTRAL NERVOUS SYSTEM



Alters memory & motor learning

SLEEP & NUTRITION INTERACTIONS

Reference: Doherty et al. Nutrients 2019

Designed by @YLMSSportScience

PROMOTE SLEEP

High glycaemic index evening meal



Tryptophan rich proteins



Milk, turkey, chicken, fish, eggs, pumpkin seeds, beans, peanuts, cheese, and leafy green vegetables

& Tart cherry juice*

either reduce sleep onset latency and/or increase sleep duration by promotion of the synthesis of melatonin

*its positive effect may be also related to its anti-inflammatory properties and its positive impact on muscle soreness reduction

Kiwifruit

contains a range of nutrients that can benefit sleep

especially serotonin, vitamins C & E (antioxidants) & folate (its deficiency has been linked to insomnia)

IMPAIR SLEEP

Large portions and/or meals later in the evening



can negatively impact sleep potentially due to the thermogenic effect of digestion

Alcohol

associated with poorer sleep quality and quantity, reduced REM sleep & increased sleep disturbance in the 2nd half of the night



Caffeine



increases the state of alertness & sleep onset latency, reduced total sleep duration and reduced sleep quality

Supplements



Multivitamin
Vitamin D



What should I focus
on?



Multivitamin
Vitamin D
Whey?
Casein?
Creatine?
Caffeine?
Nitrate?



MULTIVITAMIN

- Provides vitamins and minerals needed for physiologic

Claim

Ensures adequate intake of vitamins and minerals.

Use

- Prior to travel.
- Winter.
- Fussy eaters.
- Anyone training hard regularly.



U10 – Fundamentals

- ✓ Focus on healthy eating

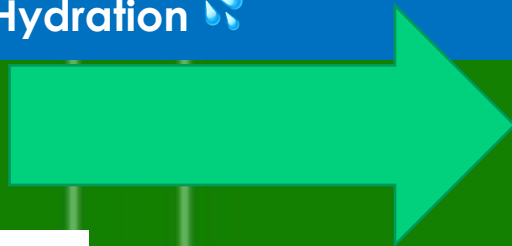


- ✓ Led by example

- ✓ What to eat before and after training /games

- ✓ Introduce concept of fuelling

- ✓ Hydration 💧



U14 – Emerging Talent

- ✓ Focus on healthy eating



- ✓ Individualised

- ✓ Lead by example

- ✓ What to eat before and after training /games

- ✓ Build on the concept of fuelling and introduce recovery

- ✓ Hydration 💧



U17/8 – Developing Seniors

- ✓ Focus on bespoke strategies



- ✓ Lead by example

- ✓ Signpost to reliable information

- ✓ What to eat before and after training /games

- ✓ Introduce performance nutrition

- ✓ Hydration 💧

- ✓ No supplements



REMEMBER!



