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FUEL FOR SWIMMING TRAINING

SPORT NUTRITION FOUNDATIONS

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Goals of this presentation

- Quick overview of sport nutrition foundations
- Eating to perform at training
- How to plan for a busy school and training schedule



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Athlete development



Same thing in nutrition...





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How can nutrition impact your training?

- Preparing & fueling your body
- Recovering & repairing your body
- Reducing injury & illness
- Achieving peak performance
- Improving power and endurance
- Keeping a stable energy level

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Activity Time!!!

- Do you know your macros?
- Classify foods according to their main macronutrient.


Fuel	Builders	Immune
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Carbohydrate - fuel

- Major fuel source for high intensity exercise
- Major fuel source for the brain!
- Limited storage
- Needs to be 'topped up'
- Carbohydrate needs vary
- Not all carbohydrates are created equal




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Carbohydrate sources

- Quality long-lasting carbohydrate choices

Take longer to break down and include other micronutrients



Wholegrain breads and cereals
Rice
Pasta
Low sugar breakfast cereals
Whole Fruit
Legumes
Milk and yoghurt
Quinoa
Bulgur
Starchy vegetables i.e. sweet potato/corn/beetroot

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Carbohydrate sources

- Quick energy carbohydrate choices




Sports drink
Pop
Candy/Gummies
Gels
Honey/Jam/Syrup
Fruit Juice

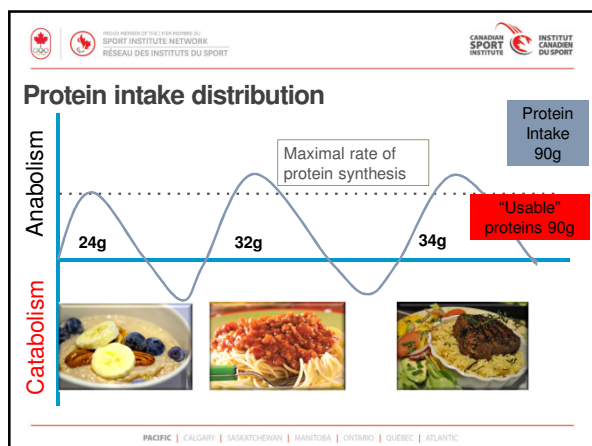
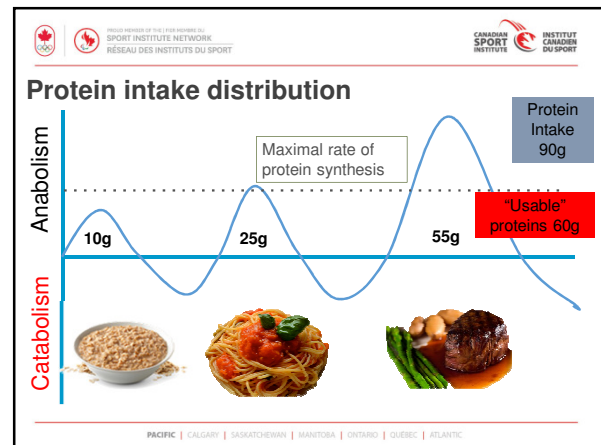
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Protein - Builders

- Important for muscle repair and growth
- Allow adaptation to training
- But also other roles such as immunity, growth and bone health
- More is not necessarily better
- Timing and spread is important



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Protein: 15 – 20g per item



3oz Meat 3 eggs 2 cups milk ½ tin tuna

1 cup beans or lentils ¾ cup cottage cheese 1 cup Greek yogurt ¾ cup Tofu

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Slide 12

GM1 Check these and change quantities if needed.
Genevieve Masson, 2/16/2018

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Fat - Immune


- Moderate intake of healthy fats is required on a daily basis
- Healthy fats are usually found in plant foods and oily fish
- High intake of fats may affect fueling for performance

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Sources of healthy fats



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Nutrient rich foods - Immune

We need to eat a wide variety of nutrient rich foods on a daily basis to get all the vitamins and minerals we need to:

- Make and repair cells and tissues
- Carry oxygen around the body
- Energy production and release
- Immune system health
- Optimize adaptations to training



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Building a meal - Breakfast

Fuel Immune

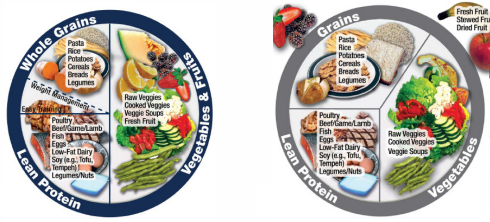
Builders Fluids

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Building a Meal – Periodization



Light training or day off Training day

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Pre-Exercise

When: 1 – 4 hours before

What:

- High carbohydrate
- Moderate protein
- Fluids (250 – 500 ml 60 min before)
- Low fat
- Low fiber
- Easy to digest
- Familiar




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Eating for Training


- Include carbohydrate at your main meals

Has it been greater than a few hours since your last meal?



- If YES ~60-30mins prior to training

Have a top up carbohydrate snack



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Nutrition during training

Hydration

- Fluids to stay hydrated
- Electrolytes helps to retain fluids in your body

Energy


- Carbohydrates help to keep a high level of energy

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Nutrition during training

➤ If well fueled prior to training and training under 1h30-2h, only water

➤ If not well fueled prior to training or training over 1h30-2h, use a sport drink or water + carbs + electrolytes



Homemade Sport Drink

- ½ fruit juice
- ½ water
- A pinch of salt

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Recovery from training

- What are the goals of the recovery snacks/meals?
 - Carbohydrate to replenish glycogen stores
 - Protein to restore muscle damage
 - Hydration (liquid + electrolytes)
 - To recover and be ready for the next exercise

**REFUEL
REBUILD
REHYDRATE.
RECOVER**

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Recovery from training

- How quickly after a training do you have to eat a recovery snack or meal?
 - As fast as possible, especially if next exercise is within 24 hours

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RECOVER**


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Examples of high-protein snacks





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Example of a day with 2 trainings

5am	Pre-training snack - Fruit smoothie (berries, yogurt, fruit juice)
5:30-7:30 am	Training – homemade sports drink or water
7:30 am	Breakfast on your way to school - Chocolate milk, peanut butter and banana sandwich on whole wheat bread
10 am	Morning snack – homemade muffin
12 pm	Lunch – Quinoa salad with shrimp, peas and bell peppers
3:30 pm	Pre-training snack – Fruit + dry breakfast cereals
4:30-7pm	Training – homemade sports drink or water
7:15pm	Post-training snack – Drinkable yogurt
8:30 pm	Dinner – Rice, marinated chicken and grilled vegetables. Something sweet, if desired.

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Example of a day with a morning training

5am	Pre-training snack - Fruit smoothie (berries, yogurt, fruit juice)
5:45-8:am	Training – homemade sports drink or water
8:10 am	Breakfast on your way home- Chocolate milk, peanut butter and banana sandwich on whole wheat bread
10 am	Morning snack – fresh fruits and milk
12 pm	Lunch – Grilled cheese sandwich and tomato soup
3:30 pm	Veggies, hummus and crackers
6 pm	Dinner – Rice, marinated chicken and grilled vegetables. Something sweet, if desired.
8:30 pm	Evening snack – small bowl of breakfast cereals with milk

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Example of a day with an afternoon training

7am	Breakfast- oatmeal cooked with milk, almonds, berries and water
10 am	Morning snack – homemade muffin
12 pm	Lunch – Quinoa salad with chicken, bell peppers and carrots, pieces of mangoes
3 pm	Pre-training snack – Fruit + dry breakfast cereals
4-7pm	Training – homemade sports drink or water
7:15pm	Post-training snack – Drinkable yogurt
8:30 pm	Dinner – Grilled salmon, rice, mixed vegetables

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And for you parents: more ideas!

Lunches	Snacks
<ul style="list-style-type: none"> Sandwiches (tuna, turkey, chicken, eggs, salmon) Quinoa, rice, pasta, whole grain mix salads made with proteins (i.e. chicken, eggs, nuts, fish, pork, tofu), vegetables and/or fruits. Wraps Leftovers 	<ul style="list-style-type: none"> Homemade muffins Cereal or fruit bars Fresh fruits Dry breakfast cereals Veggies with hummus Banana with peanut butter Drinkable yogurt, yogurt or chocolate milk

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And for you parents: more resources

- Canadian Sport Institute Pacific:
<https://www.csipacific.ca/services/sport-nutrition/recipes/>
- Team USA website: <https://www.teamusa.org/Cooking-With-Team-USA>
- Australian Institute of Sport:
<https://www.ausport.gov.au/ais/nutrition/recipes>
- For snack ideas, also check www.gourmethiking.com

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Take Home Message

- Let's check what you remembered from today's session. – PHONE time!
- <https://www.mentimeter.com/s/09af2f2beab80e1a489942f7da8cc48b4/5ea2f235c8f9>

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