

NET RESULTS...PASS, SET AND CLIMB HIGHER!

As an athlete, you know about the importance of training and practice to improve your skills and game.

What many athletes do not realize is that diet can be a powerful tool in your success.

By supplying you with energy and nutrients, a winning diet can help a good athlete become great. However, a poor diet, even with proper conditioning, can make a great athlete seem quite ordinary.

Keep reading... learn more about giving yourself the opportunity to be great!

NUTRITION FOR VOLLEYBALL ATHLETES

Food is your Fuel:

Carbohydrates = Gas to run your Engine

Protein = Building blocks of the Body

Fat = Oil to run things smoothly

Fluids = Coolant

What you choose to eat daily DOES affect your training.

If you eat poorly on a regular basis (soda, candy, cookies, chips, ice cream..) and then decide to eat better on a game day, it will not have a great effect.

Best practice is to eat well consistently rather than have one healthy day that tends to be on tournament weekends.

EATING WELL TIPS

Carbohydrates

Highly processed snacks, cakes, cookies and pastries have little nutritional value and can cause unwanted weight gain.

Healthy carbs found in fruits, vegetables, whole grains and beans are a good source of fuel.

Healthy carbs contain fibre- which helps with digestion, and can be good sources of antioxidants.

Fats

Fats have a bad reputation- but not all are bad.

Limit saturated and trans fats. Eg-butter, cheese, ice cream, fried foods, commercially baked goods..

Choose unsaturated fats. Eg-nuts, seeds, avocados, olive oil, canola, peanut oil, sesame oil, sunflower oil, salmon..

Protein

Protein is found in meat, chicken, fish, eggs, nuts, dairy products, beans, lentils and tofu.

Try to eat more fish!

Why should you eat your fruits and veggies??

Most fruits and vegetables are high in alkaline which will help your body recover better after training hard.

Most junk food (cake, candy, soda) are acidic.

Eating better foods consistently will help your training ..so..eat your fruits and veggies!

WHEN ? should you eat ??

Timing is critical.

Have a balanced pre-exercise meal or snack **2-3 hours** before working out.

Fuel in the hours before exercise is an opportunity to maximize carbohydrate and fluid levels to ensure your blood sugar levels are maintained throughout exercise.

Have a high carb snack **30-60 minutes** before working out.

If you have < 1 hour prior to exercise and are feeling hungry, too nervous or find it difficult to eat, a better choice may be juice or a sport drink for you.

Breakfast is a very important meal, regardless of the start time for training or competition.

During exercise- maintain adequate hydration.

RECOVERY

Protein consumed immediately **AFTER exercise** is used more effectively by muscle than protein consumed a few hours after.

To maximize the recovery effect of protein, combine with a carbohydrate.

Exercise creates stress on the body and causes minor damage to muscle and tissues.

In the recovery period, adaptation occurs and allows the body to become fitter, stronger, faster.

It is vital that your recovery nutrition supports this practice or you will not gain from all the benefits that are possible.

BUILD A WINNING SNACK

- Start with a Carbohydrate
 - o Vegetables and Fruit
 - o Grain Products

- Add a Protein
 - o Milk or Alternative
 - o Meat or Alternative

20 Post-Workout Foods

- 1. Whole Wheat Bagel With Peanut Butter**
Contains plenty of essential nutrients and protein to rebuild your muscles



- 2. Dried Fruits and Nuts**
Get a dose of protein from the nuts and quick carbs from the fruits



- 3. Chocolate Milk**
Packed with protein and carbs chocolate milk refuels you



- 4. Egg Omelet**
Eggs contain the fastest-absorbing form of protein in the world



- 5. Cottage Cheese**
Lots of good protein and fat, very few calories



6. Salmon

One of the leanest meats, salmon helps repair muscles



7. Sweet Potato

A superfood that can be prepared in the microwave!



8. Tuna

The budget friendly way to get your protein



9. Greek Yogurt

Great for on-the-go and high in protein



10. Peanut Butter Sandwich

This simple classic is surprisingly healthy and nutritious



11. Healthy Cereals

High fiber and high protein cereal is a quick snack



12. Fruit Smoothie
Add protein powder or some peanut butter for added repair



13. Hummus and Pita
Slowly releases to provide long-term energy



14. Steel-Cut Oats
Add a scoop of protein and almonds



15. Protein Pancakes
If you work out in the morning this is a great one



16. Good Old Whey Protein
Dr. Nick recommends Now Foods Whey Protein



17. Apples and Peanut Butter
Sweet, salty, and full of great nutrients for recovery



18. Cheese and Crackers

Make sure the crackers are whole wheat for extra fiber



19. Stir Fry

If you have a bit more time this is a great meal post workout



20. Light Pizza

If it's not smothered in heavy meats and sauce, pizza can be a healthy meal full of protein and carbs



Sources

- <http://www.sparkpeople.com/resource/slideshow.asp?show=31>
- <http://www.fitnessmagazine.com/recipes/snacks/low-calorie/after-workout-snacks/>
- <http://www.village.com/5-best-post-workout-foods/4-a-142434>
- http://www.askmen.com/top_10/fitness/top-10-post-workout-foods.html
- <http://greatist.com/fitness/50-awesome-pre-and-post-workout-snacks>
- <http://www.livestrong.com/slideshow/514729-best-post-workout-foods/>
- http://www.intense-workout.com/post_workout.html
- <http://www.fitnessmagazine.com/recipes/snacks/low-calorie/after-workout-snacks/>

*** NOTE- Replace Good Old Whey Protein with low sugar Protein Bar like: Kashi, Vector, Nature Valley, Lara, Cliff or PowerBar,

KEEP IT SIMPLE

Whole Grains -where possible

- pasta, quinoa, couscous
- brown, wild, basmati rice
- Triscuits, Ryvita, Finn crisp

Dairy

- skim or 1% milk
- cheese <20% M.F. (feta, goat)

Meat & Alternatives

- lean, no visible fat
- chicken without skin
- no breading

Fruits & Vegetables

- fruit better than juice
- fresh, frozen, canned (in it's own juice) all good

HYDRATION

Optimal hydration varies for individuals due to differences in size, gender, sweat rate and training practices.

Drink consistently throughout the day. All fluids - not just water- add hydration. This includes- caffeinated beverages.

Aim to pee the colour of pale lemonade. The colour of your urine is a good indicator of your hydration status.

As little as a 3% loss of hydration of your body weight can lead to a 10% decrease in performance level.

To help prevent cramping and to ensure optimal absorption of fluids, drink 2 cups of fluid 2 hours prior to exercise and 1 cup of fluid a few minutes before exercise.

During exercise- sip fluids in short intervals.

Watch for signs of dehydration- dark urine, headache, early fatigue, poor concentration

DO YOU NEED A SPORTS DRINK ?

Daily = NO

Sport drinks are designed to provide rapidly digestible carbs which give energy to working muscles.

Sport drinks replenish electrolytes lost through sweat during exercise.

When not exercising, sport drinks cause an increase in blood sugar, followed by a crash. They provide excess calories without nutrients or vitamins.

Pre-Exercise = YES, IF..

You are feeling dehydrated and need to replace fluids OR

Have not eaten a pre-exercise snack and you are within 10 mins of exercise.

Post-Exercise = NO, IF..

There is > 12 hours to recover and you are able to consume a meal or snack within a few hours.

Sport drinks are ideal for endurance sports with > 60-90 mins duration.



CONSEQUENCES OF NOT EATING ENOUGH

- Amenorrhea
 - = loss of periods
 - = reduced estrogen
 - = bone mass loss
 - = osteoporosis
- Poor recovery and more injuries
- Lowered immunity
 - = time sick, away from training



- Loss of muscle, strength and endurance
- Nutrient deficiencies (e.g. iron, calcium, Vitamin D, folate)
- Lowered metabolism
- Inflammation
 - = slower healing of injuries
 - = heart side effects



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DBAC SPORTS MED CLINIC

Need More Help?

The David Braley Sport Medicine Centre has a Registered Dietitian that can help with :

- Sports specific nutrition issues
- Addressing nutrient deficiencies (iron, minerals)
- Food allergies, digestive concerns
- Health issues (diabetes, heart health etc.)
- Disordered eating issues

RESOURCES

The information following is taken from the Athlete Resource Centre at McMaster University.



FEMALE ATHLETE ENERGY NEEDS

Weight (lbs/ kg)	BMR	Low	Med	High	V/High
100/ 45.4	1225	1575	1825	2075	2450
120/ 54.5	1300	1700	1950	2200	2600
140/ 63.5	1425	1850	2150	2450	2875
160/ 72.7	1575	2050	2350	2675	3150
180/ 81.8	1700	2200	2550	2900	3400
200/ 90.1	1850	2400	2750	3125	3675

* These values are simply a guideline based on an equation – energy needs can



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EATING OFF CAMPUS



Restaurants	\$Cost	Calories	Carbs (g)	Protein (g)	Fat (g)	Sodium (g)
Location: Pita Pit						
Meal # 1: Chicken Breast (per 84 g)	\$6.89	110	2	16	4	580
Meal # 2: Chicken Souvlaki (per 76 g)	\$6.89	90	1	13	4	540
Meal # 3: Turkey Breast (per 88g)	\$6.89	80	3	13	2	1150
Popular/Worst Choice: Meat of the day breakfast pita (per 278g)	Avoid Eating It!	440	16	25	30	1020
Location: Pizza Pizza						
Meal # 1 Large Garden Veggie Pizza-Whole Wheat	15.74 (4.74 for slice)	190	27	9	5	410
Meal # 2 Large Spicy BBQ Chicken- WW	15.74 (4.74 for slice)	220	31	11	5	600
Meal # 3 Garden Salad with chicken	\$5.99	200	11	23	3.3	400
Popular/Worst Choice:Tropical Hawaiian	\$4.74	850	86	33	41	1810
Location: Tim Horton's						
Meal # 1 Toasted chicken Club Sandwich on W/W w mustard and veggies	\$4.59	460	70	30	7	1170
Meal # 2 Chili w w/w/bun	\$3.99	300	18	21	16	1210
Meal # 3 12 Grain Bagel w P.B or Cheese	\$1.15	330	52	16	9	580
Popular/Worst Choice: Bagel w Cream Cheese	\$1.85	390	54	12	13.5	630



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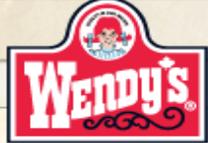
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EATING OFF CAMPUS



Restaurants	\$Cost	Calories	Carbs (g)	Protein (g)	Fat (g)	Sodium (g)
Location: Subway						
Meal # 1 Footlong Turkey - Whole Wheat	\$8	564	96	34	6	1800
Meal # 2 Footlong Oven Roasted Chicken	\$9.54	620	96	44	9	1400
Meal # 3 Chicken Garden Salad	\$6.69	130	10	17	2.5	520
Popular/Worst Choice: Cold Cut Combo	\$8	960	98	38	48	2440
Location: McDonald's						
Meal # 1 Grilled Chicken Classic Sandwich	\$4.99	390	46	28	11	810
Meal # 2 Mediterranean Salad w/ Chicken	\$6.79	210	4	26	7	770
Meal # 3 Hamburger	\$1.29	250	32	12	8	510
Popular/Worst Choice: Big Mac		540	44	24	29	1020
Location: Swiss Chalet						
Meal # 1 Quarter Chicken Breast (Skinless)	\$10.61	210	0	38	7	430
Meal # 2 Chicken on a Kaiser (White)	\$10.61	440	31	53	8	560
Meal # 3 Grilled Chicken Breast	\$10.61	500	70	37	8	1810
Popular/Worst Choice: Bacon cheeseburger		870	45	55	46	1920



EATING OFF CAMPUS



Restaurants	\$Cost	Calories	Carbs (g)	Protein (g)	Fat (g)	Sodium (g)
Location: Wendy's						
Meal # 1 Ultimate Grilled Chicken Sandwich	\$4.89	370	42	34	7	1150
Meal # 2 Grilled Chicken Go Wrap	\$2.29	260	25	20	10	750
Meal # 3 Apple Pecan Chicken Salad w Pomegranate Vinegrette	\$4.99 (1/2) or \$8.99	580	50	38	27	1590
Popular/Worst Choice: Baconator	\$6.19	610	43	32	34	1170
Location: Kelsey's						
Meal # 1 Sizzling Chicken Fajita	\$17.99	370	31	44	11	1930
Meal # 2 9oz Sirloin Steak	\$18.99	330	0	47	14	400
Meal # 3 Sonoma Valley Salad - Side size	\$11.99	240	20	9	14	370
Popular/Worst Choice: Fully Loaded Nachos	\$12.79	2160	167	88	125	2700
Location: Quizno's						
Meal #1 Honey Bourbon Chicken	\$6.99	510	73	28	8	1380
Meal # 2 Pesto Turkey Bullet	\$3.99	330	38	16	13	1140
Meal # 3 Cantina Chicken Sammie	\$7.49	265	35	12	6	625
Popular/Worst Choice: Regular Tuna Melt	\$6.99	1740	82	51	135	1940



EATING OFF CAMPUS



Coffee	Calories	Fat
TIM HORTONS		
Café Mocha	150	6g
French Vanilla Cappuccino	250	8g
SECOND CUP		
Vanilla Bean Latte (reg. non fat milk)	170	0g
Moccacino (reg. 1% milk)	400	22g
TIMOTHY'S		
Cafe Viennese (medium, non-fat milk)	71.6	0g
Caramel Latte (medium, whole milk)	277.2	8.3g
STARBUCKS		
Caffé Latte (grande, non-fat milk)	160	0g
Caffé Latte (grande, whole milk)	260	14g
White Chocolate Mocha (grande, whole milk)	510	24g





GROCERY STORE COMPARISONS

Product	Size (ml or g)	\$/100g/ml	\$Cost	Carbs (g)	Protein (g)	Fat (g)	Sodium (mg)	Energy K/Cal	Serving
DELI MEAT									
Natural Selection Turkey	175g	2.85/100g	4.99	0	15	1	570mg	70	4 slices (64g)
Mastro Salami	175g	3.33/100g	4.99	0	7	7	450mg	90	5 slices (30g)
NUTS									
Selection Deluxe Trail Mix	700g	0.99/100g	6.99	15	10	20	2mg	270	1/3 cup (50g)
Selection Walnut Halves	250g	2.79/100g	6.99	6	7	34	0mg	360	1/2 cup (50g)
BREAD									
Kasseler Whole Rye	500g	0.99/100g	3.99	29	4	1	140mg	140	1 slice (60g)
Equality 100% WW	675g	0.324/100g	2.19	20	6	2	300mg	160	2 slices
Pita Break WG Wheat	450g	0.664/100g	2.99	28	6	1.5	380mg	150	1/2 Pita (50g)
CEREALS									
Kashi GoLean	400g	1.37	5.49	46	16	1	120mg	250	1 1/4 cup serving
Special K Satisfaction	410g	1.29	5.29	40	10	1	380mg	200	1 1/4 cup serving
Cheerios Original	400g	1.15	4.59	25	4	2.5	265mg	140	1 1/4 cup serving



GROCERY STORE COMPARISONS

Product	Size (ml or g)	\$/100g/ml	\$Cost	Carbs (g)	Protein (g)	Fat (g)	Sodium (mg)	Energy K/ Cal
FISH								
Selection Pacific Sockeyed Salmon	213g	1.04	2.99	0	20	7	380	140
Selection Chunk light Tuna (water)	170g	58.2 C	0.99	0	13	0.2	150	60
Atlantic Salmon Fillets (Refridge)	140g	3.21	4.5					
Peanut Butter/ Spreads								
Selection Smooth Peanut Butter	1kg	39.9 C	3.99	2	4	7	55	90
Selection Smooth Peanut Butter	2kg	30.0 C	5.99	2	4	7	55	90
Kraft All Natural Peanut Butter	750g	70.5 C	5.29	3	4	7	0	90
Selection Hazelnut Spread with cocoa	750g	66.5 C	4.99	9	0	6	10	90
Kraft Smooth Peanut butter	500g	79.8 C	3.99	4	3	8	70	90
Chips/Tortilla								
Neal Brothers Oven Baked Tortilla Chips	227g	1.45	3.29	41	4	2.5	100	200
Kettle Brand Baked Salted	113g	3.09	3.49	29	4	4.5	190	170
Lays Original	235g	1.23	2.89	26	3	18	330	280



GROCERY STORE COMPARISONS

Product	Size (ml or g)	\$/100g/ml	\$Cost	Carbs (g)	Protein (g)	Fat (g)	Sodium (g)	Energy K/Cal
DIPS								
Fontaine-Sante (Hummus)	260g	\$1.34	\$3.49	6	2	5	115mg	70
Summer Fresh (Hummus)	227g	\$1.54	\$3.49	5	2	3	140mg	50
Summer Fresh (Tzatziki)	227g	\$1.54	\$3.49	2	1	4	150mg	45
Summer Fresh (Spinach Dip)	227g	\$1.54	\$3.49	1	0.2	18	180mg	170
MILK								
Beatrice Chocolate Milk	4L (3 bags)	0.17/100mL	6.79	29	6	2.5	180mg	160
Beatrice Chocolate Milk	2L	0.24/100mL	4.79	29	6	2.5	180mg	160
COTTAGE CHEESE								
1% Selection Cottage Cheese	500g	0.558/100mL	2.79	7	14	1	430	100
1% Nortica Cottage Cheese	250g	1.12 / 100mL	2.79	7	15	1.5	290	100
YOGURT								
0% LIBERT Greek Vanilla Yogurt	500g	0.998/100g	4.99	20	18	0.4	85	180
1% Original French vanilla	750g	0.465/100g	3.99	18	5	1.5	75	100
2.9% Activia Vanilla	650g	0.66/100g	4.29	14	4	3	55	100
1.5% Danone Creamy (16 pack)	100g	0.487/100g	7.79	16	4	1.5	40	90