

Triple Threat

Nutrition Handbook



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ROCKit!
nutrition coaching

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For training that includes speed, power, strength, and endurance: CrossFit, obstacle course races and any other way you can Rock It!

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You train to be strong and fast, and you need your strength and speed to last through whatever is thrown your way. You train differently and you take training seriously. But, training is only half of the equation. Nutrition is often a limiting factor in physical performance as glycogen depletion and/or dehydration can cause even the best-trained athletes to fall short. Whether it's a CrossFit competition or a Spartan Super, athletes who reach their full potential take their nutrition as seriously as their training and know that nutrition and exercise are equally important for the best results.

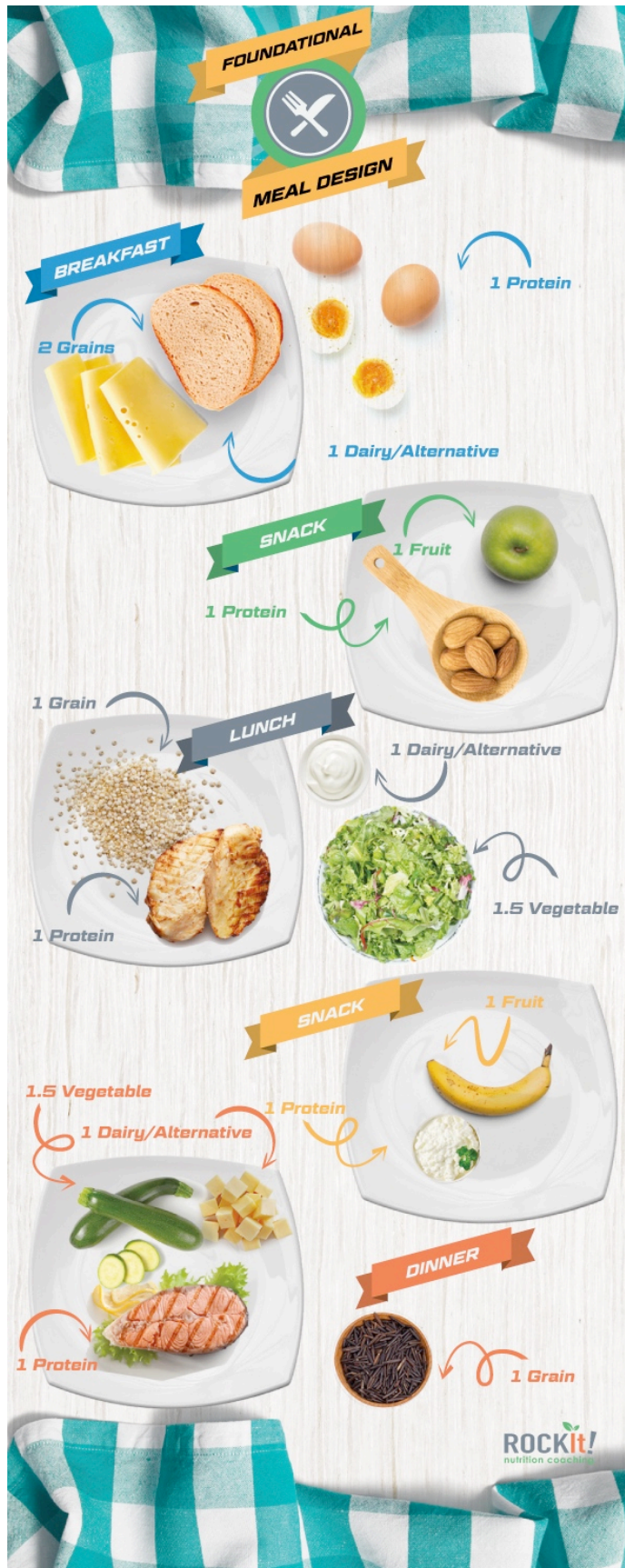
This handbook contains nutrition recommendations tailored to athletes that train for speed, power, strength, and endurance. If you have a health condition like heart disease, diabetes, kidney disease, or food allergies or sensitivities, discuss changes to your current diet and nutrition, supplement, or exercise routine with your doctor before implementing. Use the online chat feature of your Rock It Nutrition Coaching membership to further customize the Foundational Meal Design.

STRATEGIZING

To create your nutritional strategy, we will start with the foundation – what you eat during each meal of the day (your meal design). Then we decide what adjustments to make for training days. We consider what supplements, if any, need to be added. We do our research and take time to reflect on your nutritional strategy and make adjustments. Just like physical training, your nutritional strategy will take practice and adjustment.

By now you have heard “meal design” several times. What does that mean? Our bodies run best when fueled by optimal nutrition at the optimal time. Each meal should be designed with the proper amount of carbohydrates, fats, and proteins to ensure that your body has the available energy and building blocks that it needs when it needs them. While there is a focus on macronutrients (carbs, fats, and protein), the Foundational Meal Design carefully considers the source of macros to ensure a balance of micronutrients (vitamins and minerals), phytochemicals, and antioxidants.

Your fueling strategy will consist of two types of meal designs based on your physical activity for that day – typical non-training days (Foundational Meal Design) and training or event days. Eat every meal with your next workout in mind. Even on non-training days, your nutrient intake will effect your next workout. The more nourished your body is, the better it will perform.



This *Foundational Meal Design* infographic is an example of how foods can be paired together at specific times of the day to meet both macro and micro-nutrient needs. Customize your meal design using the *Reference Food List* at the end of this e-book.

The Foundational Meal Design is a framework that can be adjusted to suit your calorie and specific nutrient needs. It is a plan for both non-training and event days. For Triple Threat athletes, non-training days usually mean fewer carbohydrates because you don't need the additional available glucose and glycogen stores for energy.

What to Eat

The Foundational Meal Design for non-training or event days includes getting 40 percent of your calories from carbs, 30 percent from protein, and 30 percent from fat. For example, in a 2,000 calorie diet, this means 200 grams (g) of carbs, 150 grams of protein, and 67 grams of fat per day.

The following is a snapshot of the macronutrient breakdown for designing each meal:

	CARBS-grams	FAT-grams	PROTEIN-grams
Breakfast	50	16	37
Snack #1	20	9	20
Lunch	50	16	37
Snack #2/Recovery	30	9	20
Dinner	50	16	37

In order to get optimal micro-nutrition (vitamins and minerals), we must include the proper proportion of each food group throughout the day. The following food group proportions best meet both macronutrient and micronutrient needs.

As a starting point, aim for the following on each non-training day:

- ✓ **4-6 ounces (oz) of grains.** The majority of your grains should be whole grains. If you are sensitive to wheat or gluten, choose gluten-free grains or starchy vegetables.
- ✓ **At least 5 cups (c) of fruits and vegetables.** Variety is important.
- ✓ **3 cups of dairy or non-dairy alternative.** Many people are intolerant, sensitive or allergic to dairy. If you are one of these people, leave dairy out of your meal design, but be sure you add a little more protein from other sources, and be sure you are getting enough calcium.
- ✓ **7 ounces of high-protein foods like meat and beans.** If you are a vegetarian or vegan, look for vegan options in the *Meal Design Reference Food List*.

The calorie level of your meal design will depend on the products you choose and how you prepare your food. Unprocessed, whole foods will yield fewer calories. It might be necessary to alter listed portion sizes according to your needs. If you are unsure how many calories you need, see the *Rock It Calorie Estimator Tool*.

KNOW YOUR FUEL SOURCES

Protein is Key

Whether you are a CrossFit athlete, an obstacle course junkie, or an otherwise Triple Threat, you want to be stronger, stay healthy, prevent injury, and heal those strains and pains. Protein is key. **Aim for at least 1.2-1.7 g of protein per kilogram of body weight per day.** Larger athletes should stay on the higher end of this range. For example, a 150-pound Triple Threat athlete may need 82-116 grams of protein per day, but should probably be in the middle-range based on their average weight. Although protein is important, more is not necessarily better. There is only a certain amount of protein that can be used at a time. After that point, the protein you ingested is labeled “extra” by your body and reconfigured to glucose for energy (if there is not enough available), or stored as fat. The amount your body can use at once is still up for debate and differs among athletes, but current research suggests that there isn’t much benefit to consuming more than 30 grams of protein at once.

Estimating protein needs:

Step #1	Weight in pounds / 2.2 = weight in kg
Step #2	1.2 (or 1.7) x weight in kg = grams of protein needed per day

Rock It Coaching recommends including 30 grams of protein in each meal based on the leucine trigger hypothesis, which shows that consumption of approximately 30 grams of leucine (found in protein) at one time activates muscle protein synthesis. Muscle protein turnover happens throughout the day regardless of what we do, so it is important to continue rebuilding muscle back by making sure we are in a positive muscle-building state three times a day. The Foundational Meal Design includes three meals of at least 30 grams of protein for this reason. Many people find that their breakfast lacks protein, so focusing on increasing protein at breakfast is a good place to start.

The Case for Carbs

Carbs get a bad rap these days, but it will be to your advantage to make friends with them. Athletes need a full glycogen store and adequate blood glucose for fuel during their training and events. Glycogen and blood glucose come from carbohydrates; in other words, *carbs make fuel*. Carbohydrate needs vary considerably depending on the intensity and duration of exercise. Start with the Foundational Meal Design and add carbs as discussed in the *Prepare, Fuel, and Recover* sections below. Use your unlimited chat sessions with the nutrition coach for further planning.

Friendly Fat

Carbs have a bad rap and fat is often considered to be a foe, but thanks to new research we're learning more about the importance of good, healthy fats. The problem is that the fat we eat has become associated with the excess fat in the body, but often eating excess fat is not the cause of excess weight. Fat has many more roles in the body than accumulation and insulation. Fats work with protein to act as messengers, fat helps control growth and hormone functions, immune function, balance inflammation, and much more. Keep in mind that certain fats are harmful, but healthy fats are helpful (learn more about this in *Clean Eating Boot Camp*). We also recommend Dr. Mark Hyman's resources on fat:

<http://www.eatfatgetthin.com/challenge.html> or DrHyman.com.

LOVE THE MICROS TOO

Vitamins and minerals are micronutrients. Each plays a unique role in the body as a structural component, messenger, carrier, and much more. It is important to have a nutrient-dense diet that includes plenty of protein, healthy fat, and fruits and vegetables to ensure micronutrient needs are met. Suboptimal nutrient levels can result in injury, illness, and fatigue.

Micro Nutrients That Athletes May Need More Of

Research shows that athletes who consistently exercise in the heat may need more calcium, magnesium, potassium, and chloride than the average person. Eating a diet rich in all the food groups will help you meet your micronutrient needs. Individualized testing and assessment can help identify if you need a supplement.

IT'S TIME TO ROCK IT: BUILDING ON THE FOUNDATIONAL MEAL DESIGN

Prepare - Before Workouts and Events

During preparation, focus on:

1. Being well hydrated
2. Having available energy

Hydration

- Stay hydrated by sipping water and other fluids that contain small amounts of sodium throughout the day.
- Two to three hours before exercise, drink at least 17-20 ounces of water or fluid containing electrolytes (sodium, chloride, and potassium).
- Ten to twenty minutes before a workout or event, drink another 7-10 ounces of fluid.

Energy for workouts or events lasting 60 to 90 minutes:

- Include 30-60 grams of carbohydrates in your pre-event dinner. Studies show there is not much of an advantage of carbohydrate loading for shorter events lasting less than hour, like a 5K or 10K. It is more advantageous to focus on familiar foods and portions.
- Two hours before a training or a event, have a meal or snack with one grain, fruit or dairy choice for a good serving of carbohydrates and one-half to one protein choice from the *Foundational Meal Design Food Reference List*.
- Approximately one hour before your training session or event, eat 0.3-0.5 g of carbs per pound of body weight. For a 150-pound athlete, this would be 20-34 grams of carbs. The amount you eat and the timing depends on your personal tolerance. Many athletes find that liquids like shakes and smoothies are better tolerated closer to event time.
- Experiment with pre-event foods during training. Event day is not the time to try something new.
- Gels can be consumed before or during training or an event. Be sure to drink 4-6 ounces of water with them to prevent stomach cramps and diarrhea.

Energy for events lasting 90 minutes or longer:

Carbohydrate loading for events lasting longer than 90 minutes:

While several studies show that carb loading can be accomplished in as little as one day, some athletes prefer a three-day carb loading regimen that involves tapered training. It might look like:

Day 1	Tapered Training + Carb loading
Day 2	Tapered Training + Carb Loading
Day 3	Rest + Carb Loading
Day 4	Event Day

Carb loading can be accomplished with 10-12 grams of carbohydrates per kilogram of body weight each day (this is 680-818 g of carbs for a 150-pound athlete).

You may gain a few pounds or feel bloated when carb loading; this is most likely from water being stored with muscle glycogen. The extra fluid will help you stay hydrated during the event.

Have a meal or snack about 2 hours before your training or event. Include 2 grams of carbohydrates for every pound of body weight (136 g of carbs for 150-pound athlete) and one-half to one protein choice from the *Foundational Meal Design Food Reference List*. The amount you need to eat and the specific timing depends on your tolerance. Many athletes find that liquids like smoothies and shakes are tolerated best.

Again, experiment with pre-event foods only on training days.

Gels can be consumed before or during a training or event. Be sure to drink 4-6 ounces of water with them to prevent stomach cramps and diarrhea.

Fuel - During Workouts and Events

- Weight loss during exercise comes from fluid (not fat) and must be replaced. Be careful not to over-hydrate. You should not weigh more after your event than before.
- Healthy, active athletes should not restrict salt intake when training or competing in consistently hot or humid weather. While calcium, magnesium, and potassium are lost in sweat, sodium and chloride are lost at a greater rate. Many muscle cramps blamed on low potassium levels are most likely due to sodium and chloride deficiency.

Workouts and events lasting less than one hour.

- During short periods of exertion, you probably don't need much more than sips of water and a hydration drink with electrolytes.
- If the workout or event lasts more than 30 minutes, you may need to drink 7-10 oz of fluid every 10 to 20 minutes. Those who sweat heavily will need to drink electrolytes more often. See *Top Grab & Go Sports Products* for a recommended hydration drinks.
- For workouts or events lasting 45 minutes to one hour, hydration drinks with small amounts of carbohydrates and electrolytes are beneficial. Individuals who sweat heavily need as much as 1 gram of sodium per hour.
- See *Fluid Balance Worksheet* in the tools download to determine your specific sodium and fluid requirements.

Workouts and events lasting longer than one hour.

- You may need to drink 11-34 ounces of fluid every 20 minutes from various sources (water, hydration drinks, juice, etc.). Don't rely solely on water because it is low in sodium.
- See *Fluid Balance Worksheet* in the tools download to determine your specific sodium and fluid requirements.
- Consuming carbohydrates during exercise that lasts more than 90 minutes helps preserve glycogen stores and extends the length of time you can exercise. For a training or event that is 2-3 hours long, consume 25 to 60 grams of carbohydrates per hour. For longer exercise sessions, consume as much as 90 grams of carbohydrates per hour. Use several different carb types, like glucose and fructose, for maximum absorption.

- If you consume gels, do so right before you get to a water station.
- Alternate carbohydrate sources by using more solid foods like salted pretzels, earlier in your event when they are better tolerated, and liquids later.

Multiple Events in One Day

When competing in multiple events in one day, such as a CrossFit competition with a multi-WOD lineup, refueling between WODs is essential. Aim for 30 grams of carbohydrates with small amounts of protein (approximately 5-10 grams depending on the circumstance) every hour.

Recover - After Workouts and Events

Recovery nutrition means resupplying your body with the nutrition it needs to recover, progress and be prepared to properly Rock It during your next workout.

Recovery nutrition is needed to:

1. Replace fluid and electrolytes lost through sweat.
2. Replace muscle fuel (glycogen) used during exercise.
3. Provide protein to help repair damaged muscle tissue and stimulate new growth.
4. Prevent injury and illness.

How to recover:

- After a training or event, rehydrate with water or a hydration drink. For every pound of weight lost during the event, drink 24 ounces (3 cups) of fluid (this requires weighing yourself directly before and after the race). Also, pay attention to the color of your urine (it should be pale yellow). Weight loss of more than 2 percent of your body weight can affect performance and lead to dehydration.
- Aim for at least 30 grams of carbohydrates and 15-25 grams of protein within 45 minutes of exercise. This can be in a snack or your regular meal. Consuming enough calories ensures that dietary protein is used to repair and build muscle rather than burned as energy.
- Cold beverages are often tolerated best after events. Start with fruit juice, shakes, chocolate milk, lemonade, or a hydration drink.

The Recovery Nutrition Formula is:

30 grams of carbs + 20 grams of protein within 45 minutes of exercise

SAMPLE MENUS

The sample menus provided here should be personalized according to your needs. These menus are gluten and dairy free to accommodate those with sensitivity.

Every day Foundational Meal Design

I recommend the Clean Eating, Paleo, and Gluten Free meal plans from EMeals.com. Be sure each meal has a good protein source and a grain or starchy vegetable for carbohydrates. Refer to the *Food Reference List* for protein and carb sources.

Breakfast: ½ cup oatmeal + 1 oz raw nuts + 3 free-range eggs

Snack: 1 oz pumpkin seeds + 1 orange

Lunch salad: ½ cup quinoa + 3 oz cooked chicken breast + 2 cups leafy greens + ½ cup veggies (tomatoes, carrots, etc.) + 2 TBS salad dressing

Snack/Recovery Shake: 1 cup frozen fruit of choice + 4 oz non-dairy milk + 20 grams of protein powder (See Rock It *Protein Primer* webpage on the Rock It Nutrition website).

Dinner: 3 oz pork chop + 1 cup roasted mushrooms and tomatoes + 1 medium sweet potato

Carbohydrate Loading (680 g):

Breakfast (113 g carb per meal/snack): 3 six inch pancakes (63 g carbs) + 1 TBS honey (17 g carbs) + 1 cup of fruit juice (30 g) + 2 eggs

Snack: 1 cup cereal w/ non-dairy milk (30 g) + ¼ c dried fruit (30 g) + 1 cup fresh fruit (30 g) + ½ c nuts (15 g)

Lunch: 1 sweet potato (41 g) w/ cinnamon, 1 TBS grass-fed butter + 1 TBS honey (17 g) + 12 gluten-free crackers (30 g) + 2 oz chicken breast + 1/2 c brown rice (15 g)

Dinner: 2 cup pasta (90 g) + marinara + 2 oz ground beef + 1 cup winter squash

Snack: 3 oz pretzels (68 g) + 1 cup fruit juice (30 g) + 1 small apple (15) + 2 TBS nut butter

Bedtime Snack: 1 cup oatmeal (30 g) + ¼ c dried fruit (30 g) + 1 TBS honey (15 g) + 1 cup fruit juice (30 g)

Morning of Event Meal:

2 hours before: 2 eggs + 3 six-inch pancakes + 2 TBS honey + coffee + 1 c fruit juice

5 minutes before: sports gel + 4-6 ounces of water

During Event:

	First Hour	Second Hour	Third Hour
20 minutes	2-8 oz water	2-8 oz water	2-8 oz water
40 minutes	2-8 oz sports drink	2-8 oz sports drink	2-8 oz sports drink
60 minutes	1 gel + 2-8 oz water	1 oz pretzels + 2-8 oz water	1 gel + 2-8 oz water

TIPS FROM THE SEASONED

“Eat carbs. I notice a big difference in my performance when my carb count is low.” – Matthew Lindhe, Power Lifter & CrossFit Competitor

“On training days I always eat a big breakfast. I’ll have recovery snacks, and my lunch contains heavier carbs to fuel a higher volume training session. Competition day, I’m shoveling food in after each event at a 40/40/30 ratio (protein, carbs, fat). It’s all clean, but I make sure to get more than enough.” Cameron Bishop, CrossFit Coach & Competitor

“Staying energized during my first competition was a challenge when it came time for the 3rd WOD of the day. Food just didn’t sound good. Someone gave me caffeinated jelly beans (like runners use). They were easy to handle and got me through.” – Shannon Marical, CrossFit & Spartan Competitor

“I work out in the morning and I’ve figured out that my pre-workout meal is critical. My homemade power muffins keep me energized and full enough, but not too stuffed. They are healthy and carb loaded with a little more protein than most muffins.” – Wendy Streater, coach & competitor

“It is hard for me to eat when I’m competing, but I find that small, easy-to-digest snacks like peanut butter and pretzels, and pickles for sodium work well.” – Wendi Zachary, competitor

NOW...GO ROCK IT!

With the Foundational Meal Design and Fueling Strategies in your hands, you are on your way to Rock It – your training and performance that is! For an even better boost, utilize your unlimited free chats with the nutrition coach for any questions that come up while you practice

these strategies or to further personalize your plan. Check out the Rock It Coaching blog, tools, and e-books created to enhance your training and fueling strategy! Be sure to tell us how you Rocked It on our Facebook page!

REFERENCES:

Edwards, S. *Fuel Your Sport Quick Reference: CrossFit Competitors E-Book*.
Foundational Meal Design Food Reference List:

Rosenbloom C., Coleman E. *Sports Nutrition: A Practice Manual for Professionals, 5th Edition*.
Academy of Nutrition and Dietetics; 2012.

FOUNDATIONAL MEAL DESIGN FOOD REFERENCE LIST

The following is a list of food sources to use in the Foundational Meal Design. It is not an all-inclusive list.

Protein (1 Choice = 20 grams):		Vegetarian Protein Sources:	
Beef	3 oz	Cottage Cheese	½ c = 13 g
Chicken	3 oz	Greek Yogurt	½ c = 10 g
Eggs	3 whole or whites only	Vegan Protein Sources:	
Fish	3 oz	Chia Seeds	1 oz = 5 g
Lamb	3 oz	Chickpeas	½ c = 7 g
Legume-type Beans	1¼ c	Nut Butter (Peanut Butter, Almond Butter, Cashew Butter)	2 TBS = 7 g
Pork	3 oz	Nuts (Almonds, Cashews, Pecans)	1 oz = 6 g

Dairy Choices: 1 Choice = 12 g Carb + 8 g protein		Non-Dairy Sources	
Cheese	2 oz	Almond Milk	1 c (lower in carbs and protein)
Cottage Cheese	1 c (higher in protein)	Cashew Milk	1 c
Yogurt	½ cup	Pecan Milk	1 c

Grain Choices: 1 Choice = 15 g Carb + 3 g Protein (If you are sensitive to gluten, look for versions of these foods that are certified gluten free).			
Bread	1 slice	Crackers	6 each (saltine type)
Brown Rice	⅓ cup	Oats	½ cup
Cereal	¾ cup	Pasta	⅓ cup
Corn Chips	1 oz or 13 chips	Quinoa	½ cup

Fruits: 1 Choice = 30 grams of carbohydrates Any fruit is a good choice.		Examples of Fruit	
Dried Fruit	½ cup	Raisins, cherries, cranberries	
Fresh or Frozen	1 cup	Pineapple, Bananas, Mangos	
100% Fruit Juice	1 cup	Apple, Orange, Grapes	

Non-Starchy Vegetables: 1 cup cooked or 2 cups raw = 10 grams of carbohydrates		
Artichoke	Celery	Peppers
Asparagus	Cucumber	Radishes
Green Beans	Eggplant	Salad Greens
Broccoli	Greens	Sauerkraut
Brussels Sprouts	Leeks	Spinach
Cabbage	Mushrooms	Summer Squash
Carrots	Okra	Tomato
Cauliflower	Onions	Zucchini

Starchy Vegetables: 1 choice = 1 cup cooked, 30 grams of carbohydrates		
Corn	Mixed vegetables with corn and peas	Yam
Green Peas	Potato	Sweet Potato
Legume type beans (black, pinto, kidney, etc.) – ¾ cup = 30g carb	Winter Squash (Acorn, Butternut, or Pumpkin)	Lentils

Portion Size Examples:

3 ounces of protein = the size of a deck of cards or the palm of your hand

1 cup of fruit or vegetables = the size of a tennis ball

2 ounces of cheese = the size of two dominos

2 TBS = the size of a ping pong ball