

4th Qtr. 2019

Club Hours: Monday – Friday 5 a.m. – 8 p.m. Saturday 7 a.m. – 2 p.m. Sunday 9 a.m. – 11:00 a.m.

## STAFF

Gabe Merritt  
Principal/Trainer

Ryan Haug  
Fitness Trainer

Zack McVey  
Fitness Trainer

Steven Saner  
Fitness Trainer

Jesse Boelk  
Fitness Trainer

Hap Brecht  
Fitness Trainer

Jillian Petterson  
Fitness Trainer

Laura Coray  
Fitness Trainer

Nick Powell  
Fitness Trainer

Max Reyes  
Fitness Trainer



**The Club**  
at Gig Harbor

3201 Jahn Ave.  
Suite 200  
Gig Harbor, WA  
98335

**(253) 853-4434**

## EXERCISING YOUR METABOLISM by Nick Powell

You've probably heard someone say, or even said yourself, "I miss having a fast metabolism, I could eat whatever I wanted!" Does this sound familiar? It's a common phenomenon to experience a drop in one's metabolism over time, especially as we become more ingrained into a sedentary lifestyle. Do we, however, have to just accept a slowing metabolic system as our nutritional fate? The answer may be more hopeful than many realize. The purpose of this article will be to examine and clearly define what the human metabolism is and how it can be manipulated positively through exercise and practical nutritional choices.

The human **metabolism** is defined as the chemical processes within an organism that keeps that organism alive and functioning. A massively important part of this is the aspect of *energy systems* within the body that function to provide us with vital energy (known as Adenosine Triphosphate). This is where we come to know concepts like *calories* and the nutrients in which they compose that subsequently provide the body with energy. Therefore, the function of metabolic energy systems is to convert food and energy stores within the body (otherwise known as *fat*) to raw energy to be expended to perform any given function. Essentially, a faster metabolism leads to increased utilization of fat and therefore increased promotion of lean-body mass. There are many places one can go with this information, and many internet rabbit holes to go down to find the "secret" to a more effective metabolism. Instead of subjecting you to the Instagram fitness black hole, I'd like to highlight three practical, effective, and scientifically proven methods of manipulating the general function of the human metabolism at rest, otherwise known as basal metabolic rate (BMR).

**Resistance Training:** Perhaps the most effective means of achieving overall optimal fitness is through resistance training, and it's the only means of training that will actually increase your resting metabolic rate. Lean muscle requires higher amounts of energy to function, strengthen, and grow - therefore utilizing more energy from food or fat stores to function at rest. Theoretically, you are then technically burning fat stores while not working out when pairing resistance training to a caloric deficit. If a faster metabolism is what you're looking for, lifting weights is the way to go, and should always be of importance in a training program (and no, you won't get "too bulky" - that's one of the biggest myths in the history of the fitness industry).

**Cardio As a Means to Increase Caloric Deficit:** Although aerobic exercise doesn't increase resting metabolic rate, it is extremely effective at increasing energy expenditure and a caloric deficit (a cut in calories from your specific suggested daily intake). Especially when added concurrently to resistance training, cardiovascular training can benefit fat utilization immensely - most notably from long, moderate-intensity steady-state cardio sessions (30-45min). High Intensity Intervals are great, especially in conjunction with a goal of gaining muscle or strength. However, to be most effective for cardiovascular health, these intervals should be performed at the highest intensity possible for a series of short bursts for maximal cardiovascular effect - none of these complicated look-cool "fat-blasting" sets of exercises that look great on Instagram...you should be too spent from the interval to care about looks.

**Eat Every 2-4 Hours:** Eating a balanced meal consistently every 2-4 hours can have an immensely positive effect on the human metabolism. This year's fad diets aside, a well-balanced meal should include a balance of each macronutrient (proteins, carbs, fats) that corresponds with your daily intake of each of them. A major snag that many run into is that they just aren't eating often enough and experience metabolic spikes as a result of gorging in too few meals, which results in the storage of excess energy as fat instead of a steady utilization of it. Eating reasonable portions every 2-4 hours ensures that the body receives a steady energy source all day with far less risk to insulin spikes/issues, as well as a more balanced and effective recovery process.

Implementing these principles may seem daunting, or may even seem too simple compared to the newest miracle diet that just came out on Pinterest, but this is the true science of the human metabolism, and it is supremely effective. Start by making one positive choice at a time to build momentous change. Over time, these small choices generate incredibly significant results that will keep you functioning optimally for years to come.

## IS WATER ENOUGH TO KEEP YOU HYDRATED? by Jillian Petersen

Some research groups have calculated that about 95% of North Americans are constantly dehydrated. What are some signs of dehydration?

- Increase thirst
- Dry mouth
- Feeling tired and sleepy
- Decreased urine output
- Yellow urine
- Headache
- Dry skin
- Dizziness
- Feeling cranky or agitated

Optimally trying to drink the right amount of water every day can fix dehydration. The 'correct' amount of water for you is half your weight in ounces. Example 150lb person should drink 75oz per day = to 2.25 liters. **1 gallon = 3.78 liter = 128 oz**

When exercising longer than 1hr you need between ½ and 1 liter of water per that hour of exercise along with electrolytes.

What does water do in our body?

- Removes waste
- Regulate body temp
- Helps carry and absorb nutrients
- Helps convert food to energy through cell transport
- Protects and cushions vital organs and joints
- Makes up 75% of Muscle
- Makes up 83% of Blood
- Composes 75% of our Brain
- Accounts for 22% of Bones

Drinking large quantities of water without food morning, noon and night may not be the best or most efficient way to meet the body's hydration requirements. Drinking slow and steady throughout the day makes you more hydrated than drinking fast. If you're drinking enough water for your body and peeing around 6-7 times in 24 hours, that's roughly every 2.5 hours, all is well.

How to help the body absorb the water your drinking?

First it is ensure you have enough **salt** in your body. Though overconsumption of salt isn't good, not having enough is bad as well. People who play a lot of cardio-heavy sports, or do a lot of running, lose a lot of salt via sweat, and it needs to be retained back. Salt is used in the body to retain water in cells and if we don't have enough salt in the body, your cells can't retain enough water. This causes the cells to dehydrate.

Second is to eat **fibrous foods**, fiber in foods will help your body retain water in the intestines, where it is slowly absorbed. This means that instead of just passing through fast, it'll take its time, and your body can use all the water it can.

Top 10 fiber foods:

- Beans
- Whole grains (steel cut oats, GF)
- Apples (in the skin)
- Spinach
- Legumes
- Broccoli
- Flaxseed
- Carrots
- Chia Seeds
- Quinoa (GF)

Instead of drinking just water here is a great recipe for a healthy anti-bloating water-infused drink that will help promote nutrient absorption:

<https://www.youtube.com/watch?v=Ewpb8IngLfw>

- Mint Leaves
- Ginger Root
- Orange + Peel
- Lemon + Peel
- Cucumber

Other things you can add to your water that will also help the absorption into your body is baking soda. With a daily cup of water with a teaspoon of baking soda, you can help regulate your body's pH level and help improve your hormone balance, nutrient absorption, and blood quality. All of which can help your kidneys stay healthy.

## **MULTI-SPORT ATHLETES LESS LIKELY TO BECOME INJURED by Max Reyes**

When asking young athletes around the community of whether they participate in multiple sports, or if they participate in one specific sport and train year round for that sport, most athletes stated they participate in multiple sports. With that being said, there were still numerous athletes who stated they participate in just one specific sport. Within the last few years, participating in multiple sports is slowly becoming less popular. A question that I have been interested in lately is, 'do multiple-sport athletes have a greater, or lesser chance of sustaining injuries in comparison to those who focus solely upon one specific sport year round?'

One factor every athlete has to consider when deciding to participate in a sport is the risk of injuries. Whether that injury is minor or major, it is still an injury, and for the most part, that injury it is out of the players' control. One-recommendation doctors have for an athlete is trying to participate in a wide range of sports. Studies have proven that multi-sport athletes are in fact less likely to become injured in comparison to athletes who participate in a single, specific sport.

According to a study held by the National Federation of State High School Associations, conducted by researchers from the University of Wisconsin; high school athletes who specialize in a single specific sport are 70 percent **more** likely to suffer an injury during their playing season than those who play multiple sports. In a similar study conducted directly through the National Federation of State High School Associations (NFHS) that surveyed 1,500 male and female athletes, lower-extremity injuries happen **nearly twice as much** (46 percent) to single-sport athletes compared to multi-sport athletes (24 percent).

Why is this the case? When should an athlete start to specialize within a specific sport? High school? College? In a clinical report published last year, the American Academy of Pediatrics concluded that current evidence "suggests that delaying sport specialization for the majority of sports until after puberty (late adolescence — around 15 or 16 years of age) will minimize the risks and lead to a higher likelihood of athletic success."

These findings could be directly correlated with overuse injuries. If young, growing athletes hold their joints and muscle groups to the same movements and stress for an ample amount of time and repetitions, without proper rest and recovery, those joints and muscle groups will in turn have a greater chance of getting injured. Think about any one sport, and you'll see that at least one set of joints and/or muscle groups are going to be more susceptible to injury as a result of that sports specific movement. Baseball is a prime example. Most every athlete participating in baseball is continuously putting stress and strain upon their throwing arm (shoulder and elbow specifically).

Dr. James Andrews has spoken upon this concept recently. He focuses his discussion around the increase in Tommy John surgeries (Ulnar Collateral Ligament reconstruction within an athlete's elbow) in younger athletes, specifically baseball players. Certainly the possibility of injury can be reduced through a well-designed and implemented training program. With the general population of multi-sport vs. single sport athletes at a younger age, injury prevention is not always coached, or coached thoroughly.

A couple of the most notable professional players in the world were multi-sport athletes in high school. Two specific examples are: NBA star LeBron James (High school all state wide receiver), and NFL football star Russell Wilson (Major league baseball player). Neither one have developed any significant injuries in their professional careers. Another notable stat pertaining directly to multi-sport athletes is, in the 2017 NFL Draft, 90 percent of the draft picks and 30 of the 32 first round draft picks were multi-sport athletes in high school.

While studies and doctor recommendations advocate participating in multiple sports, there is no right or wrong approach to take when deciding whether to participate in multiple sports or pick a specific single sport. At the end of the day, it is up to the athlete to decide which path is best for them.

## **WARMING UP RIGHT FOR LOW BACK PAIN by Ryan Haug**

One of the craziest things that I see on a daily basis (other than the numerous amount of clients that come in to workout on an empty stomach) is the staggering lack of effort put into most clients' warm-up. The goal of the warm-up is to raise heart rate (roughly 60% max HR), thereby increasing blood flow which leads to a greater range of motion (ROM) and creating optimal conditions for stretching and stability work. 80% of the general public will suffer from some sort of low back pain this year which equates to a \$26 billion dollar industry.

Since we are the general public, let's focus on low back pain and an example of how we can properly warm-up to alleviate our sore backs.

Although it may seem counter-intuitive, lower back pain can often be attributed to soft tissue impairments in the muscles surrounding the lumbar spine. In other words, you're not dealing with a specific lower back injury. Instead, the glute muscles and the piriformis muscle, which are located below the pelvis, are what's causing lumbar pain.

The glutes are composed of three muscles all layered on top of each other: the gluteus maximus, gluteus medius, and gluteus minimus. These muscles play a key role in facilitating daily activities, as they heavily influence the movement and positioning of the pelvis and lower spine.

Weak, underactive, or tight glutes can cause biomechanical imbalances in the pelvis and hips, as well as instability in the lower spine.

Tight glutes can cause as much lower back discomfort as weak glutes can, so overtraining these muscles or working in occupations that requires prolonged sitting, can lead to tightness in the lower back area.

Here is an example of how a client should properly warm-up given any low back pain when starting their workout.

-Start with a stair stepper (5 minutes) instead of the elliptical. This will help increase ROM and activate weak glutes or in the case of tight glutes will increase blood flow thus loosening the area. Begin slowly and focus on keeping good posture throughout.

-After the muscle is warm, move to a static stretch such as a pigeon (30 seconds per side). Either using the stretch table for beginners or the floor for a more advanced stretch, lay in a prone position with a shin in line with your chest and with a straight spine low the chest towards your shin. This will stretch the glute and open the hip.

-Finally, work some stability in to your warm-up with a hip bridge. This will isolate contraction in the glute and stabilize the entire glute complex. Do this by laying supine on the floor, feet shoulder width and flat on the ground with knees bent. Slowly raise the hips towards the ceiling squeezing the glutes at the top, then slowly lower back to the floor. 15-20 reps should be plenty for the warm-up.

Do this warm-up and I'm sure you will find that much of your back pain will be alleviated, and you will be ready to take on any workout your trainer wants to throw at you. For alternate exercises or further explanation of these specific exercises, ask any one of the highly qualified trainers here at The Club. We're here to help!



### **Join us for these NEW CLASSES:**

**We are up to 24 classes a week!!**

**Spin, Yin, Vinyasa, Bootcamp,  
TRX, and Women and Weights  
classes are now offered through out the week**

**OUR CLASSES ARE FOR BOTH MEMBERS AND NON-  
MEMBERS, SO HELP US SPREAD THE WORD AND  
INVITE A FRIEND!**

## HOW WATER WEIGHT AFFECTS THE SCALE by Jesse Boelk

When you are on a mission to lose weight every pound counts right? However, not all weight is equal, what you are trying to do is lose fat, and fluctuations in your weight can have a negative impact on your mental focus. Many times this fluctuation is water weight, not fat or muscle.

What is water weight? 60 % of your body is water, and it is one of the first things to go. It isn't abnormal to lose up to five pounds of water in a single day. Average water loss is 1.8- 4.4 lbs a day, and it must be replenished with water and food to be absorbed. On the flip side, it is almost impossible to lose a lb of fat in a day. Its simple math: a lb of fat is 454 grams and each gram yields 9 calories, so you would need to burn 4086 calories to burn off a lb of fat.

Most people with fat loss goals tend to restrict their carbs and exercise more vigorously. The impact is a decrease in glycogen in the liver and skeletal muscles. What most don't understand is that when your body stores glycogen, it is also storing water with it so by tapping into the glycogen stores you are releasing large amounts of water and with that the scale with dip. Yes, you're losing fat, but not at the same rate as water.

There are 6 main factors that affect water loss:

- **Low Carb Diets** - affected by release of water stored with glycogen
- **High Protein Diets** - protein breakdown creates urea and nitrogenous wastes that require water to remove them causing water loss.
- **Salt** - changes in salt intake can have a huge change in water retention and your blood pressure that is critical when exercising vigorously.
- **Caffeine** - energy drinks are also diuretics which increase urination, water loss, and effect vasoconstriction and blood pressure.
- **Alcohol** - prevents release of vasopressin a pituitary gland hormone that regulates water loss through urine.
- **Exercise** - thermoregulation is controlled through sweat rate. Some athletes weigh in pre and post workout to determine how much fluid was lost and how to rehydrate to avoid dehydration with leads to a decrease in performance.

The bottom line is that you need to weigh in on regular basis ensuring that you are hydrated each time. Attempt to weigh in at the same time of day with similar nutrition and exercise patterns to ensure your are not measuring a change in glycogen and water loss. Be consistent and don't get frustrated if you see fluctuation on the scale. Fat loss is a long-term plan that requires determination and focus.

## EXERCISING FOR BRAIN HEALTH by Hap Brecht

Everyone has blanked on a name and attributed it to a "senior moment," but there is more truth to that than you may expect. Our brains, like muscles, atrophy over time. Some commonly prescribed brain boosters are learning a new language, playing an instrument, or using your non-dominant hand for tasks, but recent research has begun to emphasize exercise as a way to improve brain function and halt atrophy.

"Physical exercise might just be the most important thing you can do to keep your brain in good shape." – *Deane Alban of Be Brain Fit*. Why is that? When you exercise, your heart rate goes up and increases blood flow, not only to your muscles, but also to your brain providing it the nutrients that it needs to stay healthy. For years we've know that exercise prompts the release of "feel good hormones" like serotonin, dopamine and norepinephrine while reducing the "stress hormone" cortisol. That's one reason people who exercise are generally happier. Researchers are now finding that exercise also turns on the gene that sends a signal to create more brain-derived neurotrophic factor (BDNF), a protein that stimulates new brain cell formation.

You're probably thinking, "Are there better exercises than others to be doing for brain health?" The answer is, yes! Aerobic exercises like walking, jogging, and biking are great for increasing circulation of blood and nutrients to the body and brain that promote good health. Spiking your heart rate with intervals of intense work like circuit lifting has also been shown to help. An advantage to strength training in respect to brain health is the opportunity to work on coordination and strengthening muscle firing patterns. We can also work unilaterally, and/or in the frontal, sagittal, and transverse planes of motion to stimulate cross sectional brain stimulation.

We've always known that exercise is the key to physical health as we age, but it's just as important to mental health as well. Working on cardiovascular fitness to pump nutrients to the brain, moving in all directions and improving coordination are three big ways to maintain quality of life.

## PROS AND CONS OF CAFFEINE CONSUMPTION by Zack McVey

Caffeine consumption, and the amount with which people drink it, has been a hot topic of debate for decades. Offering aid to most of us to operate properly in the morning and sometimes throughout the day, it can have positive effects when kept in a reasonable serving size. It's a stimulant that acts on your central nervous system to drive your energy up. Obviously there are many popular sources of caffeine. Some can be much more potent than others, but I will focus on the source where 80 percent of people get theirs, which is coffee. A normal cup of home brewed coffee is usually around 95 mgs of caffeine, but some drinks such as a Starbucks Grande fresh brew pack more of a punch with 360 mgs.

While you may pour yourself endless cups of coffee to survive the morning, the Mayo Clinic suggests to stay under 400 mg a day for healthy adults. After you consume caffeine, it's absorbed into your bloodstream, where levels peak in as little as 15 minutes, the liver then takes over in cleansing it from your system.

When talking about potential health benefits from caffeine, I would like to point out this means standard black coffee. The Mocha choca latte frapp with sprinkles that many people drink has enough extra sugar and calories to outweigh most of the positives. Let's look at some health benefits!

**Boosts Brain Health And Memory:** When people consumed 200 mg of caffeine after studying, their memory was enhanced for up to 24 hours later. There are also links to assisting against the effects of dementia.

**Lowers Diabetes Risk:** caffeine has been shown to reduce the risk of type 2 diabetes by increased insulin secretion, improving absorption of glucose, and improved insulin sensitivity.

**Decreases Chances Of Cancer:** Has been found to lower risk of prostate cancer, melanoma and nonmelanoma skin cancer, and liver cancer. Why? Caffeine is rich in disease-fighting and anti-inflammatory antioxidants.

**Helps With Depression:** The stimulant effect of caffeine may boost your sense of well-being and energy. It may also play a role in releasing happy chemicals, like dopamine and serotonin.

**Helps You In The Gym:** It positively affects blood flow, fat burning, and oxygen capacity. You may find that drinking a small cup before going to the gym can make you feel more energetic and ready to tackle the exercise challenge.

Remember that moderation is key when it comes to caffeine. If you're drinking too much, short-term side effects can include migraines, insomnia, nervousness, irritability, restlessness, upset stomach, quickened heartbeat, and muscle tremors. Remember Zack's moto, everything in moderation! ;)



### We're on Facebook!

Not a friend on Facebook yet? "Like" us today and look for new recipes and tips to stay lean, healthy and fit, as well as schedule updates and *Club* news!

Just search "*The Club at Gig Harbor*" in the Facebook search bar, look for the logo and click "like".