Shakopee Volleyball Association

Strength | Agility | Quickness

Parent & Athlete SAQ Guide 2023-2024

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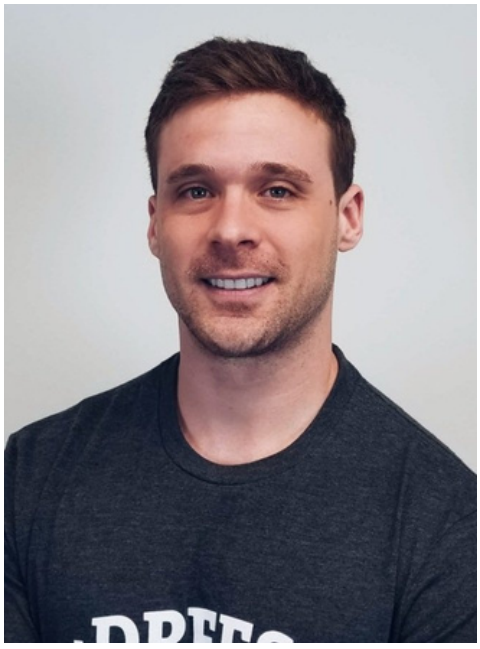
Welcome

Volleyball Athletes and Parents,

My staff and I are excited to work with all the new and returning athletes for another year of SAQ!

In this guide, you will find important details about our SAQ program, as well as additional information about nutrition, recovery, goal setting, and mental toughness.

If you have any questions or need to notify us of any injuries or training restrictions don't hesitate to email me at jon@dreesperformance.com.



Jon Drees, Owner
Drees Performance Training

Philosophy

Our program's philosophy is anchored on three key principles: Injury Prevention, Technique Focus, and Maximum Effort.

Injury Prevention: Our primary objective is to minimize on-court injuries common to the high-intensity, explosive nature of volleyball. Such injuries frequently target the knees, lower back, and shoulders. To mitigate these risks, we emphasize the importance of proper jumping and landing techniques. Additionally, we undertake strength-building exercises for the muscles and tendons surrounding these commonly affected joints, enhance coordination, and fortify core strength. This prepares the athlete's body to better withstand the physical demands of jumping and repetitive arm swings.
We believe in the power of appropriate nutrition and adequate rest as vital tools in injury prevention. Studies have revealed that sufficient protein intake can reduce injuries by up to 40%[^1^], and adequate rest can slash injury rates by half[^2^]. For optimal performance and reduced injury susceptibility, prioritizing nutrition and rest is non-negotiable.

Technique Focus: To maximize training benefits, we advocate for the right technique from the start of the warm-up through the last exercise. Ensuring all reps are completed with the proper range of motion and speed not only boosts results but is also crucial to preventing training and competition injuries.

Max Effort: Strength, speed, power, jump, and agility training all require maximum effort to force an adaptive response. This means running at full speed during sprints, reaching peak heights during plyometrics, and lifting weights as heavy as possible, all while maintaining impeccable technique. We will provide the tools and knowledge needed to see results, but only the athlete can make the decision to commit to their off-court training.

[^1^]: Effect of Protein Intake on Muscle Injuries in Sportsmen. British Journal of Sports Medicine, 2016; 50(24), 1442-1447.
[^2^]: The Effects of Sleep Deprivation on Injury Risk in Athletes. Sports Medicine, 2019; 49(12), 1793-1804.

Training Structure &Terminology

Below is a brief overview of our training program and some terms that all athletes should be familiar with before their first training session.

Repetitions (Reps): Repetitions, commonly called reps, are how many times the athlete will complete the given exercise. For example, 10 squat reps would require the athlete to squat ten times in a row, without stopping.

Sets: A set is a group of consecutive repetitions of an exercise. Once the set is complete, the athlete will generally rest for a brief period of time or move on to another exercise. For example, if the session calls for 3 sets of 10 reps of squats, the athlete will perform 10 reps, rest, and then repeat for a total of 3 rounds.

Rep Ranges: Rep range is the min and max target range of reps that should be completed in a set. Rep ranges for an exercise will vary based on the training phase. It's important that the athlete select the appropriate weight for the number of reps, so they are properly challenged during the set.

For most exercises, we will provide a rep range for the athlete to stay within (e.g. 6-10 reps). The purpose of these ranges are to allow the athlete to continually push themselves when they are in between weights (e.g. 10lbs is too light, 15lbs is too heavy). This gives the athlete the ability to do more reps with the lighter weight or fewer reps with the heavier weight.

When an athlete is able to complete the top end of the rep range for a given exercise, they should increase the weight on the following set. On the other hand, if the athlete is unable to complete the exercise for the minimum number of reps in the range, they should decrease the weight on the following set.

Rep ranges are NOT used so the athlete can complete as many reps as they feel like doing on that day. Unless specifically mentioned, the athlete should aim to complete the high end of a range with perfect technique, on each set.

Plus or Minus Rule:

- **2+/-** (plus or minus 2 reps): Used for higher rep exercises. If an athlete can complete 2 more reps than prescribed, they should increase weight the following set. Athletes should always attempt to complete as many reps as possible.
- **1+/-** (plus or minus 1 rep): Used for heavier exercises at the beginning of the workout. If an athlete can complete 1 more rep than prescribed, they should increase weight the following set. Athletes should always attempt to complete as many reps as possible.
- **NR** (no range): Used for explosive exercises where the speed of the movement is most important. Athletes will stop when they reach the number of reps prescribed, even if they feel they can complete more.

Phases of a Movement

Strength exercises are broken into distinct phases defined by the muscle action involved.

- **Eccentric** - This phase is when the working muscles lengthen. For example, going from a standing position to a seated position during a squat or the lowering down movement of a pull-up.
- **Isometric** - This is the static position between the eccentric and concentric phases when muscles contract. For example, the time in a seated position of a squat (before standing back up) or the time spent holding the chin above the bar in a pull-up.
- **Concentric** - This is when the working muscles shorten. Examples include, standing back up from a seated position during the squat or the pulling up the body movement of a pull-up.

Eccentric

Isometric

Concentric

Reset/Pause

Tempos

Tempo training refers to the time spent on each phase of a lift or movement. Throughout the season athletes will use several different exercise tempos, to target specific training responses. In order to fully benefit from the SAQ sessions, athletes must follow the tempos as they are written.

Tempos are written numerically, in this order:
(eccentric value) : (isometric value) : (concentric value)

For example, if we are using a 3:1:0 tempo for the squat, the athlete will lower into a seated position for 3 seconds, pause at the bottom for 1 second, and stand up as fast as possible (while maintaining proper technique). The chart below defines the most common tempos we use and their benefits.

Standard	3 : 1 : 0	Increase strength and stability
Eccentric	5 : 1 : 0	Increase stability, strength, and force absorption
Isometric	3 : 4 : 0	Increase stability, strength, and power transfer ability
Explosive	0 : 0 : 0	Increase speed and power
Controlled	2 : 2 : 2	Core and injury prevention exercises

Training Phases

Our programming is based on multiple training phases (or cycles) that are described at a high level below. Cycling training phases this way allows athletes to develop all major areas of athleticism, while preventing over-training.

GPP (General Preparatory Phase): This is a foundational training phase aimed to develop general fitness and strength. During this phase, athletes will improve exercise technique, gain strength, build injury resiliency, and increase muscular endurance. Generally, reps will stay in the 6-12 range during this period.

Strength: In a strength phase, athletes will work to improve muscular strength and power. For teenage athletes, this is the most important training phase for increasing vertical jump height and arm swing power. Generally, reps will range from 1-8 during this period.

Power: This phase incorporates moderate to heavy weights, while focusing on moving the bar explosively. During this phase, athletes work to turn strength into power. Generally, reps will range from 1-5.

Deload/Recovery: Following major tournaments, athletes will often complete a "recovery week." The main objective of this is to allow the body to recover, and restore range of motion and strength to the joints. Volume and intensity remain low during this time.

Important!

- If you are injured, be sure to notify SAQ coaches, so that your workout can be modified.
- If you have a sprained ankle, you can still do upper body exercises. If your shoulder is hurt, you can still do lower body exercises.
- While some muscle soreness is to be expected during and after training, no exercise should hurt. If an exercise hurts, stop and ask a coach for help with your technique.
- “Feeling the burn” is not always a good indicator of an effective workout. Completing 100 body weight squats will make your legs burn, but will do almost nothing for your strength or vertical.

Nutrition

Proper nutrition and hydration are essential for optimal mind and body performance for all athletes, but especially important for teen athletes that are still growing.

Macros
Macros, short for macronutrients, are the nutrients your body needs in large quantities for energy and growth. They comprise proteins, fats, and carbohydrates.

- **Proteins:** These are the building blocks of your muscles, skin, and other body tissues. They're also essential for making hormones and enzymes. Foods rich in protein include meat, fish, eggs, beans, and dairy products.
- **Fats:** Fats provide energy, support cell growth, and help absorb vitamins. Good fats can be found in foods like avocados, nuts, seeds, and fish.
- **Carbohydrates:** These are your body's main source of energy. They're broken down into glucose, which fuels your brain and muscles. Carbs can be found in grains, fruits, vegetables, and dairy products.

When To Eat:

- **Pre Training:** Eat 1-2 hours prior to the start of your training. Foods should contain protein and carbs.
- **Post Training:** Eat within 2 hours of physical activity.

Ideal feeding windows will vary, so change when and what you eat depending on how you feel during physical activity.

Note: Calories and macros will vary on the age, size, and activity level of the athlete. Please consult a doctor or licensed nutritionist before starting any new diet.

For more info on calorie/macro recommendations and game day recipe ideas download our **Athlete Nutrition Guide** .

Pre & Post Game Nutrition

Pre: Prior to practice or competition, it is a good idea to consume a healthy meal 1-2 hours ahead of time. This meal should be familiar to the athlete, to avoid any digestion issues. What the athlete eats and the quantity will vary, but athletes should aim to consume 15-30 grams of protein and 45-90 grams of carbohydrates (1:3 ratio). Fats are fine to consume, but avoid "heavy" greasy foods that will take several hours to digest.

If unable to eat a meal within this window, a quickly digestible snack is fine to eat 45-90 minutes prior to competition. Examples include:

- Protein shake with fruit
- Greek Yogurt
- Banana or other fruit
- Protein bar

Post: After completing a game or practice, athletes should eat within 1-2 hours. Similar to pre-game, athletes should look to refuel with a high protein and carbohydrate meal. If unable to eat within this window, athletes should at least consume a high protein and carbohydrate snack, like a protein shake, until they are able to have a full meal.

Tournament Weekends

Playing several games over the course of a weekend is extremely taxing on the body. By utilizing proper recovery and nutrition strategies, athletes will be in a much better position come Championship Day.

Pre-Tournament: Preparing for a big tournament begins 1-3 days prior. Athletes should begin increasing water consumption and make sure they are getting proper nutrients from their diet. During this time, parents should also begin planning snacks and meals for the weekend - especially for out of state tournaments where they will be staying in hotels.

- **Between Matches:** Depending on the length of time between matches, athletes should focus on recovery and nutrition. For breaks 1-2 hours in length, athletes should prioritize hydration and consume a small snack. During longer breaks, athletes should try and consume a small meal, when possible.

- **Post Competition:** Once the last game of the day is finished, athletes can eat a larger meal to replenish the calories lost during the day. This would be the best time to eat an "unhealthy meal," but players should still make sure they are getting enough protein.

- **Hydration:** Hydration should be priority number one during a long weekend tournament. During normal days, athletes should consume at least half their body weight in ounces of water. During a tournament weekend, athletes should increase that closer to 75% of their body weight. Water is generally all athletes need to consume to stay hydrated, but a few sips of a sports drink are fine, too.

- **Carb-Loading:** Carb-loading is the process of consuming higher than normal amounts of carbohydrates during the week prior to a big event. This is a technique utilized by endurance athletes, in hopes of improved performance. Because volleyball uses energy much differently than endurance sports (think long distance runners), the benefits of carb-loading will be minimal and could even be a net negative for performance. For every gram of glycogen (i.e. carbohydrates) the body needs to store 2-4 grams of water. This is partly to blame for the bloated sluggish feeling you get after a weekend of Mexican and Chinese food. Save the big pasta dinner for the post tournament celebration and focus on serving a balanced meal high in protein team dinners.

Supplements

As the name suggests, supplements should be used to supplement an athlete's diet, not as a replacement for proper nutrition. Most products on the market have been shown to have little to no benefits for athletes, but there are a few that are effective. The website **www.examine.com** is a great resource to view the scientific research on a variety of products.

Below are a few supplements that have been shown to be safe and effective for athletes. Consult with your doctor or health care provider prior to using any supplements.

Creatine: Creatine is the most studied and one of the, if not the most, beneficial supplement an athlete can take. Creatine is simply an amino acid that is found in animal protein. This supplement helps with muscular power endurance, which indirectly can improve strength and explosiveness. Athletes can benefit from 1-5 grams of creatine a day.

Whey Protein: Whey protein is one of the best sources for protein for any athlete. Its bio availability is very high, which allows it to be utilized by the body better than most sources of protein. Depending on diet, most athletes can benefit from 20-40 grams of whey protein a day.

Fish Oil: Fish oil is another highly researched supplement that has shown to have several health benefits. Specifically for athletes, it has been shown to reduce inflammation in the body and improve cognitive function. When using fish oil, it is important to use a high quality brand that is high in EPA and DHA.

Iron: Iron is an important mineral that helps with energy production and recovery. It's estimated that 15-35% of female teen athletes are iron deficient. Symptoms include - fatigue, headaches/dizziness, brittle nails and hair, and impaired immune function. If your daughter commonly experiences these symptoms, it's worth considering an iron supplement.

Vitamin D: Vitamin D is an extremely important hormone that affects everything from our bones, muscles, and immune system. Upwards of 50% of athletes are deficient in this hormone. Being that most of our Vitamin D production is a result of sun exposure, that number could be even higher for winter sport athletes in northern states. Symptoms include - muscle weakness, fatigue, poor mood, and joint pain. The best way to get Vitamin D is daily sun exposure. If you cannot get 20-30 minutes a day of direct sunlight, it's recommended to take a supplement.

Vitamin C: This is another important vitamin for energy production, muscle function, and the immune system. A diet high in fresh fruits and vegetables should provide enough vitamin C for most people. People that do not consume a lot of these foods should consider taking this vitamin as a supplement.

B Vitamins: B Vitamins are a class of vitamins that play an important role in energy production. Symptoms of being deficient in these vitamins include - muscle weakness, muscle soreness, and fatigue. These vitamins can be taken individually or together in what is known as a B-complex supplement.

Multivitamin: Taking a high quality multivitamin can be a great way to fill in nutritional gaps.

Rest & Recovery

Proper rest is crucial for performance and injury prevention.

Sleep: Getting adequate sleep at night is, perhaps, the most important thing an athlete can do to improve their performance. From a physical standpoint, it allows the athlete's body to heal and grow stronger. From a cognitive standpoint, it is crucial for mental health and performance.

66% of teenagers get less than the recommended 8-10 hours of sleep at night. Physically, this leads to fatigue, weakness, and overuse injuries. Mentally, this leads to learning impairment and mood disorders.

Beyond the total hours of sleep, one must also be conscious of the quality of rest they are getting at night. Consuming caffeine in the afternoon, eating before bed, and staring at a TV or phone screen prior to bed can prevent a person from getting consistent quality sleep.

Tips to improve sleep

1. **Have a consistent bedtime** Go to bed at the same time and wake up at roughly the same time every day.
2. **Create a bedtime routine** 30-60 minutes prior to bedtime, turn off electronic devices and begin your routine. Consider reading a book, writing in a journal, or anything else that helps you prepare for bed.
3. **Limit caffeine** Limit caffeine intake 8-10 hours before your bedtime.
4. **Limit food and drinks** Stop eating 1-2 hours before bedtime and liquids 30-60 minutes prior.
5. **Block out light and noise** Make your room as dark as possible and eliminate as much outside noise as possible. A fan or white noise machine can be a good option for people that cannot eliminate noise outside their room.

Cold & Hot Therapy

Icing: Icing reduces pain and inflammation by restricting blood flow. It's generally recommended to ice immediately after an injury for 5-20 minutes. Then, remove the ice and allow the tissue to naturally warm up for 15-30 minutes prior to re-applying ice. Icing is great for sports and acute injuries (ex. sprained ankle), but could slow the healing process if used long-term.

Heat: Unlike icing, heat increases blood flow to reduce stiffness and provide relief for chronic injuries (ex. knee stiffness or back pain).

For athletes that often experience "jumper's knee" or other chronic muscular/tendon injuries, regular heat therapy can help speed recovery and reduce pain and stiffness. An easy way to do this at home is to put a damp washcloth on the injury and lightly wrap a heating pad over the top. The moisture from the washcloth will help the heat reach deeper under the skin.

Mobility

Static Stretching: Static stretching involves lengthening the muscles into a stretched position and holding for 30-120 seconds. This can be helpful for improving the flexibility of the muscles and for relaxation. Generally, this is best to be done after playing or on a rest day. While likely minimal, there is some research that excessive stretching prior to competition can reduce muscle explosiveness for a brief period of time.

Active Stretching/Dynamic Warm Up: This technique improves flexibility by actively moving the joint through a full range of motion, using the athlete's own body. Usually, this is performed prior to competition because it helps warm the athlete up and prepares the body for dynamic movements. See additional resources at the end of this guide for a demonstration video of a quick and effective dynamic warm up we use at SAQ.

Hypermobility: Roughly, 1/3 of female teen athletes are considered hyper mobile. This is characterized by excessive joint mobility in one or more of the joints in the body. This excessive joint movement can increase the likelihood of injury. For this reason, athletes with hyper mobility should limit stretching the joint beyond the normal range of motion, and work to build muscular strength to support the joint.

Massage/Foam Rolling: Surprisingly, a lot of hypermobile athletes experience tightness in the hip flexors, hamstrings, and back. This is a result of these muscles overcompensating for the lack of passive stability in the joints. Because these athletes do not lack joint mobility, it's often best for them to use massage therapy or foam rolling to reduce tightness.

Core Activation: A byproduct of a strong core is improved mobility. When the muscles of the hip and abdomen are strengthened, they improve posture and joint stability, allowing the legs and arms to move more freely. For this reason, athletes should also strengthen their core when looking to improve mobility.

Mind & Body Wellness

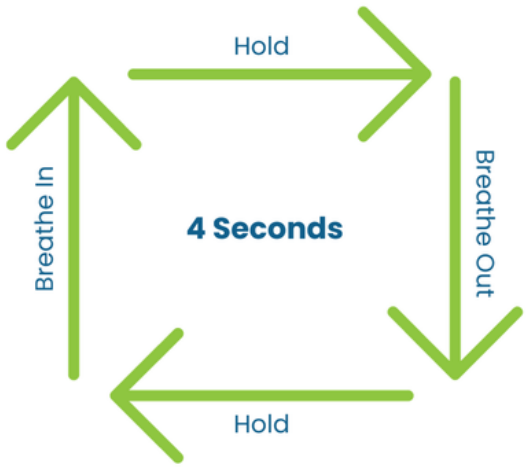
Stress Reduction
Stress can have negative effects on many areas of an athlete's health. While some stress is normal, chronic or high levels of stress can lead to decreased physical/mental performance and even long-term health issues. For this reason, athletes should look to control their stress response.

Box Breathing
One way to immediately reduce feelings of stress or nervousness is box breathing. This breathing technique is used by athletes, military personnel, and others in high-stress situations to help them calm the mind, enhance focus, and maintain composure, making it a valuable tool in both athletics and life.
Our friend and professional volleyball player, Jenny Mosser has created an audio **Box Breathing Guide** that will walk you through each step of this breathing technique.

How To Perform:

- Breathe in for 4 seconds (slowly).
- Without exhaling, hold your breath for 4 seconds.
- Breathe out for 4 seconds (slowly).
- Without inhaling, hold your breath for 4 seconds.

Repeat steps until you feel calm and refocused.



Tip: To ensure you are breathing deeply, place one hand on your chest and the other on your stomach. You should feel your stomach rise as you inhale, not your chest.

Goal Setting

Having goals is like having a road-map for achieving success. Effective goals give you direction on where to focus your efforts as well as purpose to achieve them either for yourself or your team. Think of it as your game plan, helping you stay motivated, focused, and organized. The SMART goal method is a fool-proof method for achieving meaningful but challenging goals.

S.M.A.R.T. stands for Specific, Measurable, Attainable, Relevant, and Time-bound. Using the SMART method you can breakdown your goals into smaller more manageable steps, making it easier to track progress and celebrate achievements along the way.

- **Specific** Layout the details of the outcome you want. What is the desired end result? Answer questions like What, When, How Much/Many? For example, most runners have a goal to "run faster" but by how much and in what race?
- **Measurable** List the methods you'll utilize to measure your progress and determine if you succeeded in reaching your goal. Imagine our runner has a goal to beat their personal best time in the 200 meter by 2 seconds... Obviously the runner would use the recorded race times to determine if they ultimately reached the goal, but along the way they should be recording things like number of training sessions, sleep, nutrition, practice runs, recovery sessions etc...
- **Attainable** Is it realistic that you can reach this goal? Consider things like current resources, skill level, physical health, and the amount of time you can dedicate to making progress towards your goal.
- **Relevant** It's important to set goals that are meaningful to your identity and long-term objectives. Before committing to any goal, ask yourself why you are pursuing it and is it worthwhile?
- **Time-based** Set a realistic, but challenging deadline for your goal.

To see an example of how to construct a SMART goal and templates for athletes and teams, check out our **Goal Setting Template** .

Daily Habits

In the realm of sports, continuous improvement over time is key to any athlete's success. Establishing small daily habits is what makes consistent progress, and ultimately long-term success, possible. These simple, everyday actions can contribute significantly towards honing your skills, improving your fitness levels, and even boosting your mental toughness.

Remembering to complete a new habit every day can be a challenge. One tool athletes can use is a daily habit tracker to "check-off" that they completed the habit. This not only ensures they remember to uphold the habit, but also fosters a sense of accountability. Marking off that a habit was completed creates motivation to maintain an unbroken streak.
Another easy way athletes can set themselves up for success is to stack their new habit onto one they already do without fail. For example, if an athlete wants to start a daily visualization practice they could complete it everyday after brushing their teeth in the morning.

To learn more about goal setting and creating healthy habits visit **headstrongathlete.com** for more content and free daily habit tracking app.

For strategies on implementing new habits, review our **Daily Habits Guide** .

Additional Resources

Technique Demonstration Videos

- **Dynamic Warm Up Video** Full body warm up. We will start each SAQ session with a version of this warm up.

The videos below demonstrate proper form and cues of foundational exercises (and their variations) that we often incorporate into SAQ sessions.

- **Squat Variations** Goblet Squat, Rear Elevated Split Squat, Barbell Back squat
- **Deadlift Variations** Hex Bar Deadlift, Romanian Deadlift, Dumbbell Single-leg Deadlift
- **Lunge Variations** Forward lunge, Lateral Lunge
- **Row Variations** Chest Support Row, TRX Row, TRX Face Row
- **Press Variations** Bench Press

Athlete Mindset Training Resources

Athletes can join Headstrong Athlete for free by visiting **www.headstrongathlete.com** and clicking the "Join Now" button.

Once registered, contact info@headstrongathlete.com and ask to join the SVA Private group. This will give you free access to the Peak Mindset Course, instead of having to purchase it for $80.

You can also join our brand new private Facebook Group, where athletes can ask coaches any mental toughness or sports related questions - **Headstrong Athlete Facebook Group.**