SPECIAL REPORT

WHAT ALL VOLLEYBALL PLAYERS AND COACHES SHOULD KNOW ABOUT STRENGTH AND CONDITIONING FOR VOLLEYBALL

Inside this Report

- What all volleyball players, especially girls should know about weight training.
- Why less is more when it comes to strength training for volleyball.
- The best exercises for you if you only have 10 minutes a day to train.
- How to prepare for two a day volleyball practices.
- How to change your strength training to focus more on building strength and power and less on muscle size.
- How to strength train with little or no equipment at all.
- When training for speed, why you should focus on training first step quickness rather than acceleration.
- Two core exercises that are the most important for volleyball players.
- Flexibility exercises you must have in your volleyball training program.
- What two strength exercises are the most important for increasing your volleyball vertical jump.
- Two popular strength exercises that just plain don’t work.
- The quickest and least time consuming way to increase hitting power and vertical jump.
- The most important shoulder strength exercise hardly anyone is doing.
- What popular strength training exercise I will never do again.
Disclaimer

The information in this book is offered for educational purposes only; the reader should be cautioned that there is an inherent risk assumed by the participant with any form of physical activity. With that in mind, those participating in strength and conditioning programs should check with their physician prior to initiating such activities. Anyone participating in these activities should understand that such training initiatives may be dangerous if performed incorrectly. The author assumes no liability for injury; this is purely an educational manual to guide those already proficient with the demands of such programming.
The most essential exercises if you only have 10 minutes…

Hip activation and dynamic flexibility exercises

Strengthening the hips and improving hip mobility is really important for volleyball. Strong hips are not only important for jumping strength and power but also for preventing injuries.

Lack of strength at the hips affects other problems such as knee or back pain.

Often when an athlete complains to their personal strength coach about knee or back problems, the strength coach will first look at the hips and correct problems there first.

My two favorite exercises to activate the hips are…

1) Hip circuits and 2) glute bridges

Use these exercises to get your hips firing properly before you start your workout.

Core exercises such as planks and side planks build good core stability.
The many small muscles that are attached to your lower back, abdominals, hips, pelvis, ribs, and shoulder blades are the keys to all athletic movements.

These muscles act to stabilize the body. Core strength is an important key to being strong and explosive.

There is a big difference between dynamic flexibility and static flexibility.

*Dynamic flexibility exercises should be part of every workout.*

Dynamic flexibility exercises strengthen muscles through a range of motion while you’re moving. This is how you want to strength train for volleyball...strengthening muscle groups while moving.

Hand Walks are a great dynamic flexibility exercise. Hand walks strengthen and stretch the total body (shoulders, legs, etc).

Dynamic exercises warm you up and increase your flexibility.

Dynamic flexibility training is a very efficient way to train because you are training dynamic flexibility and strength at the same time.
The two most important strength exercises for increasing your vertical...

Squats and Deadlifts

Everyone should have at least some variation of a squatting exercise in their strength training program.

Strength coaches know that if you want to increase your jumping ability, the squat is the most important exercise.

Increased strength in squatting movements is a big step towards developing the strength to increase your vertical jump.

Deadlifts strengthen these muscles by extending the hips.

Hip extension is important for jumping. Squats usually get all the attention, but deadlifts are extremely important also.

Deadlifts are important for increasing the strength of the guteus maximus and hamstrings.

Why focus on first step quickness instead of acceleration...

Not all speed training is the same.

There is a very big difference between training Start Speed and training Acceleration.

You’ve probably heard a sports analyst say something like, “Nobody had a first step like Michael Jordan.”

Speed in volleyball is all about Start Speed or first step quickness. This is very different than training acceleration.
Making plays in volleyball involve making quick explosive movements with very few steps (if any). This is much different in other team sports like basketball or football where in those sports, players may accelerate and make moves at a fast speed.

**What is the quickest way to increase hitting power and jumping...**

**Train movements, not individual muscles**

When playing sports, muscles don’t work in isolation and you shouldn’t be strength training muscles that way.

For example, how high you jump when you play volleyball has a great deal to do with how well the hips, knees, and ankles work with each another.

Think of training muscles as links in a chain.

For example, when performing a deadlift, you are working many different muscle groups.

The upper back, core, and legs work together to perform the exercise movement.

It’s very important to understand you should be training the entire body working together as a unit.

If you think you’re going increase your hitting and jumping power by doing a bunch of leg extensions or leg curls...you better think again.

Sometimes it’s appropriate to do single-joint work such as exercising smaller muscles like shoulder stabilizers (small muscles attached to the scapula) or exercises that focus on activating the muscles around the hips...but for strengthening larger muscles such as the glutes, hamstrings, and quadriceps, you should be training using multi-joint movements such as squats, deadlifts, and lunges.
If you are training using multi-joint exercises, that is great, but to be powerful you also need to perform movements quickly.

What exactly is power?

To measure power you can simply divide the amount of weight lifted by how quickly you can lift it.

Power output = weight lifted / time taken to lift

To increase power you simple do one of three things…

1) Decrease the time it takes to lift
2) Increase the weight lifted
3) Or both 1 and 2.

For increasing power, exercises that involve releasing the tension are important.

For example, jump exercises and throwing exercises are exercises where you release the tension of resistance.

The medicine ball is one of my favorite tools to use to increase power.

Medicine ball exercises such as the Squat to Press and Underhand Toss to the Sky are great power exercises.

In both exercises the volleyball player squats and then explodes up releasing the medicine ball in the air.

Think of training deceleration, not acceleration…

In volleyball, you need to make multi-directional movements…you hardly ever are running in a straight line.
This is something many people don’t consider…the ability of a volleyball player to stop quickly.

Being able to slow down, stop, and get in position to make a play is very important in volleyball.

Training eccentrically (strengthening while the muscle is lengthening) is important for volleyball.

Eccentric strength is often used to describe the strength an athlete is using to lower the weight during a squat exercise.

Lunges are great for training eccentric strength.

Being strong eccentrically allows you to more effectively slow down and change direction.

The best athletes are really good at stopping quickly and changing direction.

**How to prepare for two-a-day volleyball practices…**

A lot of players are concerned about being in shape for two-a-day high school volleyball practices.

For conditioning, I think playing doubles volleyball is a great way to prepare for the high school season.

Doubles (especially when played in the sand) is great for preparing for two-a-days because you are much more active during the game than you are when playing indoor sixes.

In doubles you get a lot more touches on the ball and you get a lot more playing in.
Playing sand is great because it’s much tougher to move around in the sand then when playing on a hard surface.

Many players make the mistake of running long distances to get in shape.

Running distance basically trains you to be slower and less athletic.

Instead of running, do sprints in intervals.

Volleyball is a sport where you make quick explosive movements with rest between plays.

Interval training is where you exercise hard in short intervals. You have rest periods between the intervals to allow you to go hard on the next interval.

This is why interval training is good for volleyball…interval conditioning is more specific to volleyball than long distance running.

The difference between running distance and running in intervals is the difference between aerobic exercise and anaerobic exercise.

When training for volleyball, anaerobic exercise should be your focus for conditioning.

Aerobic exercise, if used at all, should be used to help with recovery from training.

Even better than doing sprints is low impact plyometrics or fast feet drills.

A great deal of volleyball is played using multi-directional movements.

Like most sports, training for volleyball by running in a straight line isn’t sport specific.

**The most popular exercise I will never do again...**
The Bench Press

A common mistake high school athletes make (especially males), is too much bench press and too much lat pull down.

When it comes to the bench press, as long as I’m training for volleyball, I think it’s pretty safe to say I won’t use it in any of my training.

Here are some reasons why I’m not a big fan of the bench press…

It’s not as functional to volleyball as other exercises you could be doing.

1) You lie on your back with the bench supporting you, so your core isn’t stabilizing you like you need it to,

2) You’re pushing up while lying on your back (a position very non-specific to volleyball),

3) The bench press isn’t as functional as other horizontal pressing exercises such as push ups, chain push ups, incline push ups, band push ups, and medicine ball push ups. These are just some of the chest pressing exercises I do. There are a lot more horizontal pressing exercises that are much more functional than the bench press.

Many athlete’s make the mistake of bench pressing and leaving out exercises that are necessary for balancing the bench pressing movement.

If you do 50 pressing movements in your workout, do you have 50 pulling movements to balance your training?

Horizontal pulling is the opposite of the bench press.

If you are going to be doing a lot of bench pressing or other types of horizontal pressing exercises, then you definitely need to have pulling exercises to balance your training.
Too much pressing without enough pulling will likely lead you to shoulder and posture related problems.

So much of life takes place in front of our body. Many people have already created muscular imbalances due to their lifestyle. The bench press just accelerates the problem.

My favorite horizontal pulling exercise is the inverted row. In life and sport, most movement takes place in front of the body. Naturally, you are likely working the front side (anterior chain) of your body more than the back side (posterior chain).

For this reason it’s very important for many athletes to do exercises that work the body’s posterior chain. Inverted rows and deadlifts are a couple of my favorite exercises for working my back, hips and hamstrings.

**The most important shoulder strength exercise...**

**Inverted Rows**

I really like the inverted row for strengthening the back and shoulders.

I like the position you get your body into and how easy it is to activate your core before performing the movement. You can easily train different muscle groups by changing the position of your feet.
Two popular strength exercises that are a waste of your time…

Leg Extensions and Leg Curls

Movement in volleyball takes place with your feet in contact with the ground.

It’s important to remember that when strength training large muscle groups such as the quadriceps and hamstrings, you should be training using multi-joint movements (squats, deadlifts, etc) and not single-joint movements (leg extensions, leg curls, etc).

Leg extensions and leg curls train muscles in isolation. When you move on the volleyball court, your body doesn’t move using muscles in isolation.

Exercising large muscles in isolation won’t improve your game. In fact, you’ll likely become less athletic because you won’t be training muscle to work together like it needs to.
Strength Training Myth

“Strength training makes you bulky.”

"I don't want to lift heavy weights because I'll get bulky."

"Lifting weights is for guys. If I lift too much I'll start looking like a man."

Developing a big, muscular, bulky body isn’t easy.

If anything, it’s an insult to all those people spending years in the gym in order to look the way they do. They didn't create the body they have overnight, which is what you’re assuming if you think strength training will make you big and bulky.

Not all training brings the same results. Lifting heavy weight doesn't equal big muscles. Training for increased size is different than training for strength. And if you were training for weight loss, that would also be different.

Not all strength training is the same. Strength training does not equal big muscles.

The reality is it takes years of consistent training to develop a body like a competitive bodybuilder. Unless you're some sort of genetic freak, you have to train for more than a few months to get big and muscular.

Obviously, increasing muscle size isn't necessarily your main goal when it comes to being a better volleyball player. In fact, developing great big muscles is likely something you want to avoid.
Creating a masculine look by putting on a ton of muscle shouldn't be the only fear teenage girls that play volleyball have. Extra weight will likely affect their performance on the court in a negative way.

For most players, increasing size is likely going to hurt performance.

The best volleyball athletes on the court aren't typically the most muscular looking athletes.

The quickest players and "biggest leapers" are typically the ones that are pound for pound the quickest, strongest, and most explosive athletes.

In the 1960's, Bruce Lee was widely regarded as one of the world’s premier martial artists.

Lee was incredibly strong for his size, especially for only 145 pounds.

There are stories about him doing two-finger push-ups on one hand and also doing them horizontally holding up a 125-pound barbell.

You could say, pound for pound, Lee may have been one of the strongest men in the world, and most certainly one of the quickest.
Lifting heavy weights at a high intensity…

If you follow the philosophy of lower reps at higher intensities, you won't likely put on a great deal of muscle mass because to get big, you need a high training volume (high reps, high sets, and many exercises that work the same muscle groups).

To get strong without the bulk, you need to lift heavy weight using fewer repetitions with less total volume.

Weight training for volleyball is much different than traditional bodybuilding workouts.

Bodybuilding is more closely related to training for increased muscle size and endurance.

To add bulk, bodybuilders lift lighter weight at lower intensities (ie: 50% to 70% 1RM) with higher number of reps and sets (ie: 4 sets of 12 to 15 reps per exercise) with less rest between sets (ie: 30 to 90 seconds).

Total volume (sets X reps X weight) for the workout is much higher than when you train for strength and power.

Therefore, a bodybuilding program is much different from a volleyball weight training program whereas the goal for volleyball is to increase muscle strength and power and not necessarily muscle size and endurance.
Strength Training Myth

“Strength training isn’t for girls.”

"Weight training is only for big strong athletes such as bodybuilders and football players.”

“Women can't benefit from weight training.”

Women can get strong, muscular, and fit while staying incredibly attractive and feminine.

Most women have a much lower level of testosterone than men, approximately 10 times less.

Since testosterone is known to increase protein synthesis and muscle size, it makes sense it's much more difficult for women to build huge muscles compared to men when using intense strength training.

Women shouldn’t be so afraid of lifting heavy weights and using the stereotypical male/macho exercises such as the deadlift, squat, and power clean.

For women (or men) that are less trained, neural factors have a huge impact on strength gains when first learning to lift weights.

For an athlete that's untrained, strength increase is more neurological, that is, your increase in strength is more directly the result of your body learning the movement patterns of the lifts.
Basically, if you’re a beginner lifter, your increase in strength will be much more due to neurological efficiency rather than increased muscle size.

Volleyball is a sport where it’s important to get stronger and not necessarily put on a lot of weight.

For example, in order to make quick movements and jump high, the extra weight you put on must be compensated by an increase in power or else it will slow you down and lower your vertical jump.

If you are an untrained athlete, it would be smart to strength train because you would experience great gains in strength neurologically without adding a lot of muscle mass.

In fact, if you are untrained, you will increase in strength much more rapidly than athletes that are trained. It is common for athletes new to weight lifting to notice great gains in strength from workout to workout.

**Strength Training Myth**

“The point of strength training is to build big muscles.”

In many sports such as football or basketball, strength training to build muscle bulk is important. For example, increasing muscle size for those sports can give you an advantage over your opponents because they are contact sports.

A lineman in American football can use body weight to push on the opponent.
In basketball, the post player can bump and shove to get in better position to make a play.

Both American football and basketball are strength and power sports, but players in these sports can have an advantage by adding muscle bulk and muscular endurance.

For volleyball, increased muscle size isn’t likely what you want or need.

It’s important to understand that if you strength train, you are generally going to experience one of 4 outcomes…

1) Increased Strength

2) Increased Power

3) Increased Muscle Size

4) Increased Muscular Endurance

There are many factors that influence these outcomes….training volume, intensity (weight lifted), number of reps, exercise tempo, rest between exercises, rest between workouts, number of workouts a week, workout periodization, nutrition, body regeneration and recovery, etc.

The point is, lifting weights does NOT equal big muscles.
**Strength Training Myth**

“You need a lot of strength training equipment in order to strength train.”

You don't need a lot of equipment to train.

Most people think equipment like weight training machines, squat racks, and jump boxes are required for strength training.

You could workout with as little equipment as just a resistance band.

Actually, you really don't need any equipment at all. There are many exercises you could do using your own bodyweight as resistance.

For example, when I workout, a lot of times I only use my own bodyweight without using any equipment. Then other times I'll use bands and then also a medicine ball.

You really don't need much equipment and you don't have to belong to a gym. You can do workouts in your own home.
Here’s an example of a short workout that only uses bodyweight as resistance.

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For more of a challenge, you can substitute harder exercises.

Some tougher single leg exercises are…

- single leg box squats
- single leg RDL's
- pistol squats

Some tougher core progressions are…

- one arm planks with other arm raised up
- side plank with leg on top raised up
- one leg glute bridge with other leg straightened inline with your torso
Strength Training Myth

“The way to get toned is by lifting light weights.”

“I just want to get toned. Lifting heavy weights will make me big and bulky.”

Many people think to get toned; they should be doing easy exercises.

Many people don't understand working out hard is the best way to get toned.

Often people think, “Big heavy weights equal big muscles”. This isn’t necessarily true.

Another common mistake is people focus on one area of the body (such as the abs) to get results. That's not how to train to lose weight or get toned. Training muscles in isolation won’t give you the results you want. Focusing on one area of your body is a waste of time.

Many people think, "I just want to get toned and not get big muscles." They think working out really hard leads to big muscles, where as, if they just want to get toned, the workouts are much easier. This thinking is completely backwards.

Other than genetics, probably the two biggest things to consider when thinking about getting big (or how to avoid getting big) are 1) training volume and 2) nutrition.

Training volume is basically calculated by multiplying Sets times Reps times Intensity (weight lifted).

Generally, the higher the training volume, the better you will increase muscle size.
What results do you want from your training?

Do you want to get big?

Do you want to lose weight?

Do you want to get stronger?

Do you want to be more explosive and powerful?

When it comes to the number of repetitions and total volume, Less is More…

Lower total volume and less repetitions is better when weight training for volleyball strength!

Strength and power vs. muscle size

Generally, keep intensity high and volume low.

For max strength, keep repetitions less than 6.

For strength and power, keep repetitions between 2 and 6.

For increased size, keep repetitions higher, more than 10.

1RM (1 repetition maximum) means the athlete can at most do 1 repetition for the amount of weight being lifted. This is also referred to as max lift.

For example, if your 1RM deadlift is 200lbs, this means the most weight you can successfully deadlift is 200lbs. If the most you can deadlift 150lbs is 5 times, this means your 5RM for the deadlift is 150lbs.
Now, consider the follow workouts…

**Example Workout #1**

training goals: strength and power

6 exercises (2 total body, 4 assistance)

3 to 4 sets of 4 to 8 RM loads

**Example Workout #2**

training goals: strength, endurance, muscle mass

8 exercises (3 total body, 5 assist. (ie: 2 lower body, 6 upper body)

2 to 3 sets of 12 RM to 15 RM loads

In the first example, you are lifting with fewer repetitions.

With fewer reps, your workout is going to be more intense because you can put more weight on the bar. This is what you want if you want to get stronger.

I’ve seen many high school volleyball weight training programs using too low intensity with way too much volume. It seems to be common to make the mistake of too many exercises done at too low of an intensity.

It’s great to workout with low intensity when you are just first learning technique, but after that you need to add weight and turn up the intensity to get stronger.

It's also important to note that heavy weight lifting doesn't equal big muscles.
I know many teenage girls are worried about getting big from lifting heavy weights. Repetitions and volume need to be high to put on a lot of weight.

Also, nutrition is a huge factor in gaining weight. How many calories you consume has a huge impact on whether you get bigger and put on muscle.

Remember, if your training volume is low and if you do fewer exercise reps at a high intensity (heavy weight), then you are training more for strength and less for muscle size.

**Strength Training Myth**

“**It’s just not worth the time to strength train for volleyball.**”

You can get a lot done in just 10 minutes a day. So if that's all you have time for, you can still get in a good workout.

Many people make the mistake of thinking, “the longer and harder I workout, the better the workout is for me.” That's usually a mistake.

If you train while you’re fatigued, you might exercise with poor technique. Also, muscle contractions are slower when you’re tired.

To get fast, you must train fast.