

# Throw Zone League

#### Why this manual?

This manual has been created for children and young people to have an adequate training plan that they can carry out at home, or in a small space, with basic equipment. The training plan can be carried out by all ages and levels. The manual is a complement to your regular training in your sports and will help to build the necessary body frame in an injuryfree way over time. Injuries kill the momentum of the athlete. So stay healthy! This training plan that we have included are being carried out by many world class junior and junior athletes, obviously with a higher degree of difficulty. This has served to create a general training plan for all ages that can be done at home, in a closed space, in an appropriate way. EXCERCISE BECAUSE IT MAKES YOU HAPPY AND IT FEELS GOOD.

This manual was written to help EDUCATE athletes and coaches in all the throwing sports disciplines; sports like: Javelin throwing, Baseball, Softball, American football, Cricket, Handball and many more. All these activities require that athletes have a strong arm, an excellent level of fitness, correct technique, explosiveness, accuracy, core strength, speed, and elasticity. It can also be used for any sport that utilizes an overhand throwing motion. In all these cases, the techniques utilized and physical preparation are similar. What all these sports have in common is that an overhand throwing motion is used to accelerate an implement. Overhand throwing if not done properly can cause serious injuries to the joints and muscles. Children especially have a high rate of injury, particularly in baseball. With this manual you will learn the proper techniques and training protocols to maintain a long and successful career as an athlete. Work hard, train intelligently, follow the training protocols described in this manual, and improvement is undeniable. The whole body is used to launch an implement. Elastic and fast arms are needed and correct technique is required to avoid injuries. It is frustrating to see how many pitchers in the baseball or cricket leagues are injured by throwing too often and too hard. Athletes have to prepare the body with time and protect it from injuries. This manual will help you do this. It is ideal for AGES at any level of fitness.

The first part is tailored for grassroots and youth athletes, and the second part, advanced training, is tailored for athletes who have a better background. All athletes should go through all our sequences, beginners and advanced, as the first part will help the athlete get ready for more intense training.

Coaches and parents from all levels and sports will be able to learn from this manual how to teach, step by step, how to strengthen the body intelligently, without injuries, and have their athletes consistently progress month to month. Proper training requires patience and discipline. This manual will provide you with both and will help to avoid injuries, and help athletes to progressively improve their ability in general. This manual is not only for youth and open athletes, but also for masters athletes who have a passion for this sport.

- You will learn the TAAT Test assess adjust test, a world-class test system that shows your improvement over time. Keep record of your improvement and progress. We perform at the end of the month basic tests that can be expanded depending on the level of the athlete to more and more tests.
- You will learn to throw technically correct and you will understand how to use all the parts of your body. You will learn to plan your workouts well. Only then can you achieve your goal of improving your performance.
- The correct training starts at younger ages. If you create a good foundation, you will achieve your goals in the long term.
- It is fundamental to understand that you must avoid injuries at all costs. Injuries are the illness of athletes, too much time is lost. Training time is lost. It takes a lot of time to just to get back to the level you were at prior to the injury.
- The body consists of several parts and this manual will allow you to understand the functions of the various parts and how to improve overall performance. It must be

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understood that it takes many years of intense preparation to achieve these objectives. You have to train hard and you have to train intelligently.

- You will develop a faster body that will help acelerate the implement. Speed is generated by the whole secuence of movements, and not just by the arm.
- Mental training must be a vital part of your training. The mind plays a vital role in performance.

### What we offer is a world class, injury-free system

A system for creating a base for all throwing events. This program will make your body frame ready for the upcoming challenges in your sports. It will help develop power, speed, accuracy and improve your throwing distance for your event. Whether you want to be a javelin thrower, a fast bowler, a cricket fielder, a baseball pitcher or handball player this system will develop right basics from the start. It is a handy tool for all coaches. The influence of grassroots sport is crucial. Sport is an obvious, enjoyable way of getting regular exercise and maintaining a healthy body weight. Our Grass roots system provides a structure that can be applied in schools, at home and in sports clubs. We focus on fitness, learning proper technique, develop an all-round athletic body, the best sports equipment in the world (Turbojav) and a fun, easy to follow system.

KISS: Keep it simple stupid. Tom started out with the basics at nineteen years old, then stuck to the basics his whole career. Sure many drills were invented along

the way, but if you lost the basics, you lost your throwing zone. You have to stick to the basics and build it brick by brick. Beginners should train 2-3 times a week for months and let the body get use to it. You need time to get the body use to training and add more as you get physically fit. It takes time to do any sport well and javelin is tough if you don't have basics down like clockwork. You must keep the fundamentals of training as your center, focus and build your anchor around it. The javelin event is a run, jump, and throw event! So you must do lots of running, jumping, and throwing, together in training your mind and body to get in sync.

You must do your drills so many times it becomes auto pilot. You don't have to think, you just let go, and let the throw happen. Repeat, and repeat with quality repetitions over and over, until you are sick of it and then do another 10,000. In Tom's twenty years of training he did the same medball drills over and over two million times. Sledge hammer drills the same, over two million. How many have you done? Not to mention 517 competitions including masters meets in his forties. Its like any sport, you must get the reps and core strength so fine tuned and perfect, it can't break no matter what stress you throw at it. I lost my focus a few times and lost my basics. Lost the Zone! It happens. Get over it quickly, or it will eat you alive. If you are not enjoying your sport, not getting better, and most of all not loving what you are doing, forget it and move on. Javelin throwing looks simple to most people, but throwing a spear without serious training can be very dangerous to your body parts. Tom says he can relate the javelin throw to the golf swing in many ways. You must generate power and accuracy by letting the feet

get torque from the ground, up to the legs, up to the hips, up to the shoulder and arms that guide the stroke and club head speed to the golf ball.

The same chain reaction happens in javelin. The block and ground create the whip from ground to hips and the chest and body reacts to the stretch reflex to the shoulder/ arm that is created by the torgue. The shoulder is torgue converter and most people think it is elbow and that means Tommy John surgery in many cases. There is no elbow use. It will bend a bit naturally to transfer energy. If you think of a bow and arrow, the bow does not move much when you pull back arrow. You do not see energy as it is short big stroke of energy that accelerates arrow. The C position is the bow at plant and you can t see the bump of energy in real time. You can slow it down and see how stretch reflex bump hits and its linear energy that Tom could feel and knew it was a long throw. This is hard to find and it is found in the basic and fundamentals over and over.

Most javelin throwers use a run up with run, draw back, and throw over 20-30 meters. Tom's run up was 86 feet or 26 meters and draw back was at 14 meters or 45 feet. Tom used 14 steps and two follow through steps to stop momentum. He broke it down into four left foot to draw back and four more to the plant and two steps to stop or 10-12 feet to toe board. He did this run up 20-30 times a day 3-4 days a week. Walking it in slow motion to full run speed, Tom's momentum only accelerated on the runway. He always ran through he block, and chased out after javelin when thrown. 20%, 30%, 40%, 50%, and 60% build it up, feeling the bounding run build into a scissors like leg drive that ends in the block and left side action that creates the

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bump and pull. You can't do enough of these! Tom used his left side count as his focus to the block, and 1 left, 2 left, 3 left, 4 draw back, and attack the block. Some throwers use no drawback like Uwe Hohn or 5 and 3 was popular run up. There are many ways to run up and deliver the javelin, what works best for you. How many reps can you get in to get the feel. It starts in the thousands and 10,000 run throughs you will be good, 50,000 you will be pro. You are training to run, jump, and throw. Keep that in mind whenever you train. Heavy weights are only for top shelf level and restricts flexibility to throw. Get good at the basics and get the form first. Then build it brick by brick.

### THE AUTHOR: TOM PETRANOFF:

Javelin is one of the most demanding and challenging events not only from track and field but in sports in general. The javelin throw requires a lot of skills, drills, flexibility and technical understanding to execute the throw. You need to be fast, explosive, elastic, and have an overall fitness level that is very well-balanced.

Tom had a twenty year successful track and field career that included two world records, Olympic Games, World, African and Pan-American Championships as well as competed in 517 top track meets around the world. Tom found a need to teach the javelin event to youth that would enable kids from all ages to learn about javelin and throwing in a fun, safe and easy way. Over the past three decades we have sold over a million of TurboJavs all around the world. We have been helping young athletes to develop not only their skills, but to have tons of fun during the process. Turbojavs are a great tool to improve throwing in general; it does not matter if you are a baseball pitcher, a quarterback, or a javelin thrower. Learning the right mechanics will enable you to perform better.

## Special Olympics and Unified Sports Programs: Turbojav official equipment of Special Olympics Worldwide

For almost 20 years, Special Olympics has offered sports that blend people with and without intellectual disabilities, and this is a model that encourages sports for all gets people together to learn more about each other and have fun.Special Olympics uses sport to empower children & adults with an intellectual disability and improves their wellbeing and health, the joy of sport and integrate people with special abilities into the community.

Special Olympics has become a very important movement around the world, with over 6 million athletes and Unified partners in 174 countries. Through sports, people with intellectual disabilities discover new ways to develop their fitness, abilities, skills and develop further in life. They also inspire people in their communities and elsewhere to open their hearts to a wider world of human talents and potential.Sports Training and Competition will help people with intellectual disabilities succeed and develop their motor skills. There are national and international competitions that help create dreams, friendships and integration. This vision of inclusion starts at the local level. It is expanding on a global scale.

It helps to change perceptions and become more inclusive. Special Olympics is the leading voice in

raising awareness about the abilities of people with intellectual disabilities. We fight negative stereotypes and misperceptions. We educate people young and old about the skills and gifts of our athletes. We provide educational experiences for coaches, volunteers and teachers to enhance their knowledge and show them how the Special Olympics experience can transcend all aspects of their lives. Special Olympics leads the world in researching the concerns of people with intellectual disabilities and how others perceive them. We use the research to influence policy and bring services to those in need. Special Olympics' research is a powerful force for social and policy change around the globe. The sport of athletics encourages athletes of all abilities and ages to compete at their optimum level. Through the track-and-field-based athletics training program, participants can develop total fitness to compete in any sport. As with all Special Olympics sports, athletics offers athletes the opportunity to learn through skill development and competitive settings and to be involved in large social settings.

## "In 2011 the Turbojav became an official event in Special Olympics summer games worldwide."

The 300g is the official weight for women and men under 15. The 400g is the official weight for men over 15 years old.

Both implements are fun to throw and that is most important. Our world class system helps training together and playing together is a quick path to friendship and understanding.Our system and

## equipment has been designed to introduce athletes into the world of sports. The benefits to this program have been proven worldwide. Our system and training plan will help the children improve physically, cognitively and socially. Young people with disabilities don't often get a chance to play on their school sports teams, but more and more U.S. states are adopting the unified sports approach that Special Olympics pioneered. Simultaneously, it is being adopted in other countries too.

We see the special athletes with a strong desire to learn new things, and we always take great experiences and experiences because they quickly learn skills, learn to know their body and enjoy doing this sport. It is wonderful to see how they celebrate each throw and how they encourage other athletes to do better. This type of activities that we propose not only seeks to bring fun and movement to special athletes, but also to look for some possible talent that can later develop their skills a little more and compete. The reception of our training system is very good, because we are looking for fun to bring the love for this discipline to athletes, parents and their coaches.

## TURBOJAV 300 & 400 GRAM

Official equipment for Unified Sports

# **Throw Academy**



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# Key terminology

# **Key Terminology**

#### 1. The Grip:

There are three ways to hold the javelin. It is important that you feel comfortable and have a good grip as this will allow you to transmit force into the javelin.

**Grip No.1: Index Finger Grip.** In this grip, the index finger grips right around the edge of the cord. The thumb and index finger are on the edge of the cord, and must be opposite to the index finger The other fingers simply wrap softly onto the cord. This is the most popular grip to begin with comfortable and simple. This is a great grip for both beginner and elite throwers. It is often called the "American Grip".

**Grip No. 2: The Middle Finger Grip** is also a popular grip in javelin throwing. If you place the javelin in your hand, you will notice that the javelin comfortably sits in the groove of your palm and that middle finger naturally lands on the cord edge. Many







throwers enjoy the feel of the middle finger grip including myself, the world record holder Tom Petranoff, so you can't go wrong with this grip. It is also called the "Finnish Grip".

**Grip No. 3: The Fork Grip.** We do not recommend this grip because it is very hard to master. Not many throwers use it because it's hard to control the javelin with this grip. The thrower places the javelin between their index finger and middle finger, very deep into knuckles. It is not a very balanced grip. This grip is sometimes used by beginner and intermediate throwers and typically phases out of use as throwers begin to throw further. I used the middle finger grip with the old rules javelin. Then when new the rules came out in 1986, I switched to fork grip as I threw further with this grip. Try them all. Pick the one that feels best and gets you good flights.



With your feet flat on the ground, face in the direction of the throw. The Turbojav should be

held at eye level, parallel to the ground, with the point facing forward. Your non throwing arm should also be pointing out in the direction of the throw. Draw the Turbojav back being careful not to bend the throwing arm and also not allowing the nose of the Turbojav to rise up or fall down. Keep the Turbojav trajectory always over the throwing shoulder, as it will help you to throw clean and through the point. Practice first throwing light and clean and as you master the throw, add more strength and speed. Throwing correctly will help you to improve the mechanics, not only for the Turbojav, but for all throwing sports, such as baseball and football.

#### 3. One, Three, Five Step Throw:

A right handed throwers will start with the right foot forward and the right arm back. The Turbojav should be drawn back and the non throwing arm or left arm should point in the direction of the throw. Both arms should be held high just above the shoulders. Your first step will be with the left foot planting hard and blocking. The left arm at the plant or block should pull into the ribcage quickly, while leaving the throwing arm back and relaxed. This will allow the right shoulder and hip to accelerate without resistance over the plant leg as you throw. Your body then continues forward to the follow-through position. Once you have mastered the one step throw, you can start practicing with a three step throw, This is done by adding a crossover from left to right before you reach

## the right position. Once you have this mastered, then you can add two more steps to make the five-step throw.

#### 5. Basic concepts

### Center of Gravity:

The center of gravity is the location directly under the body core where your balance, power, leverage and speed can be optimized if you use its levers and chain reaction of stretch reflex from the ground up.

#### **Foot Placement:**

Placement of the feet for the Turbojav, as well as the javelin should be shoulder width apart. Usie a long stride to develop the pull. After placing the feet in this position, hold the implement directly over your center of gravity. The javelin is then aimed at a target. This will allow all the levers used in throwing to be properly aligned and the javelin can then be thrown over the center of gravity with accuracy, utilizing a pulling action. The blocking action and pull is created by left side action. At no time does the right side come into play.

#### **Drawback:**

The process by which a thrower moves a Turbojav or javelin from a "carrying" position to a position whereby the implement is "drawn back" in preparation for the throw. The javelin must be kept very still, level to the ground, and the point must be facing forward towards your intended target. The drawback must be both smooth and relaxed. Practice this traansition over and over thousands of times to master it.

#### Leverage blocking action:

It is important to have a thrower balanced so they can "apply force" and "leverage" over their center of gravity. The center of gravity of a thrower should not change change when the thrower runs, draws back and throws. The most important thing is to gain momentum, building speed, slowly drawing back, and using the nonthrowing side to block and create the whip like stretch reflex reaction of the shoulder.

#### **Over Shoulder Throwing Motion:**

Over the shoulder throwing is the process of bringing the Turbojav or Javelin over the shoulder in order to throw. By bringing the implement over the shoulder instead of around the body, the center of gravity never leaves the center of the athletes body. By keeping the center of gravity underneath the thrower instead of out to the side, the thrower will experience more accurate and powerful throws. Additionally, by remaining centered the athlete will experience far less stress on the elbow and shoulder joints. By throwing out away from the body, off to the side, the arm becomes susceptible to injuries. The athlete is not using the body's leverage system and the large powerful muscles of the chest and shoulder.

### Throwing through the Point:

A common fault of many throwers in any sport is to think that throwing is a pushing motion, or in some way

# **Key Terminology**

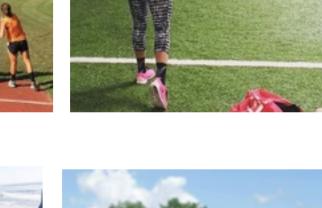


there is a rotational component to the throw; there is not. With the Turbojav and the javelin, this is maybe clearer than any other implement. Javelins are elongated, long and slender implements. They are easily affected in a negative way by the application of any rotation aspect. The level carry and drawback are also imperative to long, accurate, and safe throws. When someone "throws through the point" they are "pulling", not pushing the tail of the implement through where the point was only fractions of a second earlier. By throwing the tail through the point, or a baseball, or a cricket ball, one is optimizing the flight path of the implement.

# Games

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#### 1. Games: Distance and Accuracy Games:

The object of this game is to throw for accuracy and distance. Draw a straight line for throwers guidance. Throws are measured from the toe-board to where the Turbojav lands. Then measure the distance to the right or left of the line where the Turbojav landed. Then you subtract that distance from the distance thrown. 1st Place 5 points, 2nd Place 3 points, and 3rd Place 1 point.

- **Distance**: Throws are measured from the toe-board to where the Turbojav lands nose first. 1st Place 5 points, 2nd Place 3 points, and 3rd Place 1 point. Organize athletes into groups relative to how many Turbojav's are available. For example, a group of 24 athletes with 6 Turbojav's should be organized into 6 groups of 4 athletes. Place a group into a safe throwing formation. This means each group will be lined up behind a group marker, all facing the same direction, with adequate space between each group. For further safety, a coach may wish to have the athletes waiting for a turn behind a 2nd marker.

- Target: Garbage Can, Basketball Hoop, Hula Hula: The aim of these drills is for athletes to throw the Turbojav and hit the allocated target. For the first couple of lessons begin by positioning the throwers 5-10 meters away from the targets. As your athletes master the skills they can be moved further back. Points should be awarded only if the rubber tip of the Turbojav hits the target. Correct flight of the Turbojav is what we are after while performing these drills. Eventually athletes or groups could compete against each other and points should be awarded not only for accuracy but also for who has the best flight and technique. Points are awarded for nose hitting the can and Turbojav going into the can. Five points-going into can, and 3 points-hitting the can.
- Over the Shoulder System Target: Points are awarded for the nose only hitting the target. Five points-for inner circle; 3 points-for middle circle, and 1 point-for outside ring
- Test your speed! Use a radar gun to check your throwing speed. You will be surprised how much faster you can throw if you follow our manual.

# **Throw academy**

#### 1. Medicine Ball training

Medicine balls come in various weights. Youth athletes use 2kg, and junior athletes 3kg. Use 1 and 2 kg medicine balls for one arm throws starting at age 15. We don't ecourage one arm medicine ball throws at younger age as this can result in elbow and shoulder overload.

Stretch Reflex with Medicine ball: Begin this drill standing up on your toes with your feet shoulder width apart. You should be about one or two feet away from the wall with your core pressing against it for support. The Medicine ball should be positioned above your head ready to be pulled into the wall. When performing this drill keep your arms at the elbow as straight as possible. Throw the Medicine ball into the wall so it bounces off with enough force so it pulls your arms back behind your head. Then in one continuous motion repeat the process again throwing the Medicine ball into the wall. We are trying to create a stretch in the shoulders, so the harder you throw the Medicine ball against the wall the harder it will rebound forcing your arms behind your head.

Core Development on Stability Ball and Gym Pad: Begin this drill by lying with the small of your back pressed against the stability ball while hooking your feet under a stable object for support. With the med ball drawn back behind your head you should feel balanced and in control. Start by crunching your core leaving the med ball behind your head as long as possible, this will create the stretch reflex needed in order to throw the med ball with great force. As the med ball rebounds off the wall catch it and allow it's force to drive your arms back as far as possible. Now in one smooth motion and without hesitation start the process all over. As you become more comfortable and start to feel rhythmic and in control of your body you can apply even greater force, so more stretch and core development can be achieved.

Single Arm Stretch Reflex with Medicine Ball: This drill is very similar to the two handed stretch reflex but you concentrate on a single arm. Begin by standing up on your toes

with your feet shoulder width apart. You should be about one or two feet away from the wall with your core pressing against it for support. The med ball should be placed in your right hand and positioned over your center of gravity ready to be pulled into the wall. When performing this drill keep your arm as straight as possible. Throw the med ball into the wall so it bounces off with enough force to pull your arm back behind your head staying over your CG. Then in one continuous motion repeat the process again throwing the med ball into the wall. Repeat with the left arm. Age 14+

Standing Throw with Medicine Ball: This test measures upper body strength and explosive power. The subject stands at a line with the feet side by side and slightly apart, and facing the direction to which the ball is to be thrown. The ball is held with the hands on the side and slightly behind the center. The throwing action is similar to that used for a soccer/ football sideline throw-in. The ball is brought back behind the head, then thrown vigorously forward as far as possible. The subject is permitted to step forward over the line after the ball is released, and is in fact encouraged to do so in maximizing the distance of the throw.

One Step Throw with Medicine Ball: This drill is very similar to the one-step with the Turbo Jav. A right handed thrower will start with the right foot forward and the left foot back with the med ball positioned directly above your head over your CG. Your first step will be with the left foot stepping ahead of your right leg then planting down hard and blocking. Always remember not to initiate the throw with the upper body and always wait for the body to create the block before you throw. Once the block happens now the athlete can initiate the throw by pulling with the core creating hip drive or the "C". The med ball will be released high above your head over your CG creating the stretch reflex. As the med ball leaves your hands continue with an explosive follow through allowing your right side to come through in order to absorb your power. Note: An explosive block is always followed by an explosive follow through.

# **Training tools**

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Three-Step Throw with Medicine Ball: This drill is the same as the one-step but you just add to two more steps at the beginning. A right handed thrower will start with the right foot forward and the left foot back with the med ball positioned directly above your head over your CG. Initiate the throw with your left foot stepping ahead of your right leg. Once your left foot comes down immediately drive off it onto your right again then forcefully bring your left foot through and plant down hard and block. Always remember not to initiate the throw with the upper body and always wait for the body to create the block before you throw. Once the block happens now the athlete can begin the throw by pulling with the core creating hip drive or the "C". The med ball will be released high above your head over your CG creating the stretch reflex.

## 2. Hammer drills

Use a hammer drills to strengthen the core shoulder, torso and arm muscles. For this you can use different weights and do with it a series of exercises that allowed me to develop flexibility and strength in the shoulders, arm and back. Do hundreds of repetitions with both arms, hitting a tire, sideways, strong side and weak side. Follow the sequence that I have included in this manual, start with few series, few repetitions, increase the weight, the exercises and repetitions and you will see how the musculature and power develop.

### 3. Rubber Band Drills

The rubber band is an important component of any training because it allows in a controlled way, to improve the elasticity and flexibility of the arms and

shoulders. Many pitchers attach little importance to flexibility work, but without flexibility, it can not be released. They can hold the end of the rubber band to a high point, and start with slow stretching exercises, both sides, weak and strong, stretching the arms more and more and thus improving the elasticity of the joints.

#### 4. Gymnastics

Gymnastics is great way to train young athletes outside of the weight room. Developing dynamic strength in multiple dimensions is key to successful and injury free javelin throwing. Wall feet walks, wall hand walks, Push up circles, V-Walk, V-Walk bounce, Crab Walk, Handstand against wall, handstand push-ups, handstand walk. Wrestlers bridge, wrestler bridge push, wrestler bridge to stand

Gymnastics is a very important part of the training for young throwers as well as of the more advanced throwers, because several muscles are worked at the same time. It's excellent for strengthening the muscles in general and give elasticity to the joints. At the beginning it is difficult to do it, because it takes time to achieve balance, but once you manage to do it, you will feel how the muscles balance and strengthen. My record of handstand walking was 50 meters. Try to match it.

### 5. Plyometrics

Multi jump training will develop explosive athleticism that is essential for long throws. The intensity of Plyometrics is measured by the amount o upon impact and can be affected by many factors including the height of the jump, the athlete's strength and the athletes posture upon landing. The intensity of a plyometric workout should be adjusted for the training and skill level of each athlete to prevent injury

Burpees, rocket jump, Standing broad jump, Standing 2-foot triple jump, Skips, Bounds, Box jumps All athletes of throwing events must develop strong legs and a way to do this is through jumps. There are many different types of jumps that can be included during training. We start training with sand drills to strengthen the foot. Power is initiated through the contact of the foot with the ground, and many athletes forget to develop reactive, strong foot. Start by walking on toes or ancles, and sideways, 10 x 10 meters, Then you can do easy sand jmps, with two legs, one leg, lateral jumps. This will gradually develop strong and reactive foot. As you progress, you can incorporate other types of jumps, such as standing jumps, tripple jumps, lateral jumps, hurdle jumps and for more advanced athletes, dead jumps. As the athlete improves, he can do hurdle jumps and dead jumps but in a progressive way. You can set up 5 or 10 hurdles at low height and do 3-5 series of two leg jumps and as your athlete improves, raise the height and number of series.

### 6. Weight lifting

Weight training is very important for athletes who have already achieved a certain level in the javelin test. Children and young athletes should refrain from doing weights because they can work first using their own body weight or using medical balls. I started doing weights when I was 18 years old. This allowed me to develop my muscles naturally in adolescence. The work

# **Training tools**

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of weights must be done gradually and sustained, concentrating on achieving a correct technique first before starting to load weight. The weight exercises that I have used throughout my career are diverse. Regarding the load of weights, depending on the time of the year, the repetitions and intensity varies. In the offseason, I did more repetitions with less weight. Flve sets of 8-10 repetitions with weight between 50 to 60 percent of 1RM was enough. In the pre-season period, I dropped to five sets of 6 to 8 repetitions with weight between 60% - 80% percent of 1 RM. When the season started, I transition to 4 or 5 sets of 4 to 5 repetitions between 70% -90% of 1 RM. What varied was the rest times between each set.

Our base of weight lifting training consist of the following: Plate drills, Arm plate drills, Pullover, Squats, Lounges, Lateral lounges, Bench press, Clean and Snatch.

**7. Turbojav**: Turbothrowing is an essential part of any season javelin training. It is a great way to intoduce new concepts to throwers because the implement is much more forgiving the shoulder and elbow joints when mistakes are made.

Standing, forward throws: Low effort forward throws to teach the athlete to throw over their center of gravity and propel the implement using body whip rather than arm strength. Do afterwards 3 step (one left), 5 step (one left), 7 step (one left). Dont forget to train weak and strong side. Training both weak and strong side is an important part of developing a balanced athlete who remains injury free. Weakside improvements will always transfer to the strong side Target throwing: Helps develop the low trajectory of a good throw (29-32 degrees). Throw that land left or right of the target gives good feedback regarding misdirected rotational energy

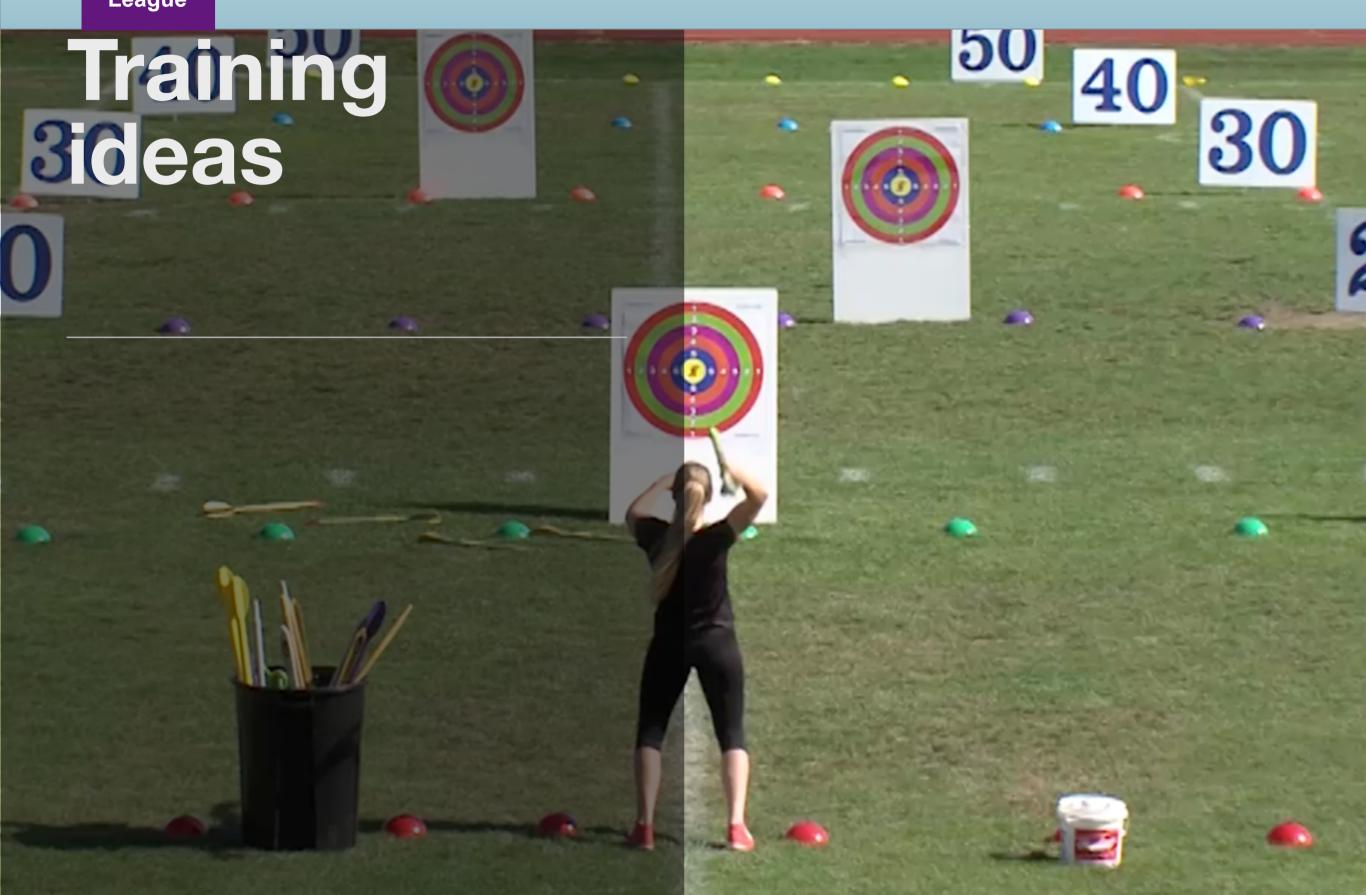
Standing warm up only, 3 step (one left), 5 step (one left), 7 step (one left)

Two hand overhead, One hand overhead, rainbow Two hand underhand, Over the back

#### 8. Weight plate,

You can use plates to improve your core torso strength. Use a 5kg plate to start or if you don't have one at home, you can also use a medicine ball. There are excellent drills that you can do such as plate swing, plate chop, plate reach back, plate halos, plate twist

# **Throw academy**



# **Throw academy**

TAAT: Test athletes constantly. We use our regular training plan for three weeks and on the fourth week we include TAAT test in one of the training sessions, so we can monitor the progress of our students and keep track of their development. (Check our TAAT test system).

**Age group: 8-10, 10 - 12:** For all throwing events, cricket, javelin, baseball, handball. Develops accuracy and throwing mechanics, speed and power.

Training should be done at least two times per week, ideally is up to 3 times, for a total of 30 minutes for 8-10 years, and 45 to 60 minutes for 10-12 years. This type of training plan can be done all year round and will be beneficial for all throwing events. It's a great way to improve athletics and the core body strength, flexibility, coordination, speed, accuracy, and so on. It is very important that you bring the enthusiasm and fun component of sports into the children's training, and make them realize the importance of sports. This age group is very important as healthy habits, discipline, perseverance and team spirit develops during this phase of life. The need is to promote sports, and slowly build up a core frame that will help build the base. During this age, the focus should be on teaching proper technique, core fitness and form. Always encourage and assist them during practice.

# Training sequence is as follows: Warm up, flexibility, Throws and Turbojav, hammer-medicine-rubberband, fitness

Turbojav Games. Set up a target that is initially 5 meters away and do different types of throwing games, it can be from standing position, or one step throw, or three step throws. It should be done focusing always on correct form and start with low intensity. Kids love these games and it's a great way to introduce them into throwing. As we want to teach the technique, let's follow this sequence, standing, one step throw, three step throw, five step throws. Medicine Ball throws: Use 1 or 2 kilo medicine balls. A teacher should assist the athlete, and throw or roll him or her the ball, so he does not get hurt catching the ball. Focus on repetitions and not on intensity. We do only two arm throws at this age. We do forward, overhead, under head, 2 hand throws from standing, one and three steps. You can also use a basketball or soccer ball if you don't have a medicine ball.

Specificity drills: We start using rubber band, plate twists (you can use the medicine ball as well) and add volume of the core exercises. Gymnastics is essential in sports, and we love to do handstand, Finish the training with some pushups and crunches to strengthen the core muscles.

Overall fitness: We have a mix of upper body and leg drills.. Mix them, choose new exercices and let your athletes sweat a bit. We have different types of jumps, standing jumps, standing hops, single leg jumps, 2 leg bouncing, small jumps. After jumps, lets do some upper body training and finish with midsection exercices. If you can, do some 10-30 meter-yard sprints

Age group: 13-15 For all throwing events, cricket, javelin, baseball, handball. Develops accuracy and throwing mechanics, speed and power. Training should be conducted at least three times per week, for a total of 45 to 60 minutes. This type of training can be done all year round. It's a great way to improve athletics and the core body strength, flexibility, coordination, speed, accuracy, and so on. We encourage that athletes should start throwing javelin at this this age, and not earlier, and only after they have mastered to throw the Turbojav and built a strong body frame. As a coach, it is very important that you bring the enthusiasm and fun elements of sports into the children and make them realize the importance of sports. It is very important as healthy habits, discipline, perseverance and team

# **Throw academy**

# Throw ZONE League

spirit develops during this phase of life. The need is to promote sports, and slowly build up the abilities required to succeed. During this age, the focus should be on teaching proper technique and form. Always encourage and assist them during practice.

## Training sequence is as follows: Warm up, flexibility, Throws and Turbojav, hammer-medicine-rubberband, fitness

Turbojav throw: Start with Turbojav Games. Set up a target that is initially 10-15 meters away and do different types of throwing games, it can be from standing position, or one step throw, or three step throws. It should be done focusing always on correct form and start with low intensity. We always follow the throwing sequence, standing, one step throw, three step throw, five step throws, teach first from walking, and then slowly add speed.

Medicine Ball throws: Use 2 kilo medicine balls. Focus on repetitions and not on intensity. We do only two arm throws at this age. forward, overhead, sideways, under head, 2 hand throws with one and three steps. We start with two arm throws, then we do one arm medicine ball throws that weights 1 kilogram. Focus again on form and not on intensity and power, as one hand throws can be very challenging to execute correctly. Do them in slow motion first and gradually at speed and power.

Specificity drills: We start using rubber band, plate twists (you can use the medicine ball as well) and add volume of the core exercises. Gymnastics is essential in sports, and we love to do handstand, Finish the training with some pushups and crunches to strengthen the core muscles.

Overall fitness: We have a mix of upper body and leg drills.. Mix them, choose new exercices and let your athletes sweat a bit. We have different types of jumps, standing jumps, standing hops, single leg jumps, 2 leg bouncing, small jumps. After jumps, lets do some upper body training and finish with midsection exercices. If you can, do some 10-30 meter-yard sprints

Age group: 15-18 For all throwing events, cricket, javelin, baseball, handball. Develops accuracy and throwing mechanics, speed and power.

Beginning and intermediate throwers should do this schedule. Training should be conducted at least three times per week, for at least 60 to 90 minutes. This type of schedule can be done all-year round. It's a great way to improve the core body strength, flexibility, coordination, speed, accuracy, and so on.

Medicine Ball throws and Hammer drills: Use 3 kilo medicine balls for two hand throws and 1 kilo for one hand throws. . Focus on repetitions and not on intensity. We do a lot of one and two hand throws, mixing forward, overhead, under head, 2 hand throws with one and three steps. Hammer drills are excellent to develop core strength. You can use a 2- or 3-kilogram hammer. Specificity drills: We start using rubber band, plate twists (you can use the medicine ball as well) and add volume of the core exercises. Gymnastics is essential in sports, and we love to do handstand, Finish the training with some pushups and crunches to strengthen the core muscles.

Overall fitness: We have a mix of upper body and leg drills.. Mix them, choose new exercices and let your athletes sweat a bit. We have different types of jumps, standing jumps, standing hops, single leg jumps, 2 leg bouncing, small jumps. After jumps, lets do some upper body training and finish with midsection exercices. If you can, do some 10-30 meter-yard sprints

## **INJURIES:**

Injuries are part of the athlete's life, but what one as a coach or as a parent can do is observe the athlete and constantly evaluate what type of pain the young person may be having when making the training plan. In the more than five formative years that I have practiced sports with my 12 year old son, he has never had a serious injury. You have had falls, a small tear when kicking a ball, or making a break, or knee or foot pain, but nothing serious. What we do during training is to talk if you feel any kind of pain and take caution and understand if it is due to some overload, or growth, or lack of specific training in some parts.

For example, my son suffers from knee and foot pain, and when this happens, we usually lower the training load, or simply eliminate leg work for a

few days, and when we return home, we use an ice bucket or bags with ice that is put on the joints. We do this three times, 10 minutes each time, we pause for 10-15 minutes and repeat it for another 10 minutes. Normally the joint pain goes down, and after a few days we can do the workouts, but always starting with low intensity.

It is important to understand that what we seek to do is build a long-term athletic body, and we do not seek the optimal result in a week, or a month. It is equally impossible to achieve this and it is totally harmful to overload the developing body of the young man. We have had very good experience planning in the long term, not only with my son's work, which I have planned with the help of sports specialists worldwide, but also evaluating what works and what does not, what we can do better , in less time, so as not to tire you quickly. Children from 8 to 10 years old are very deconcentrated, although we have made this plan from 10 years old, the plan can be made by younger children.

Regarding repetitions and series, we usually use 1 set per exercise, from 6 to 10 repetitions, and we mix 4-5 exercises from the set that we have included, in this way the children do not get bored, and always find something new to do. There are many exercises that we have for the different parts of the body, we also include basic exercises, such as the planks, the abdominals, exercises with bars, free bar, etc., but we give much more depth to the training with other things that help to strengthen other muscles. Listen to your children, don't force them to do more than they can do. Injuries start unexpectedly, and can quickly become chronic. If pain persists, it would also be good to visit a foot specialist to make special insoles for children. Always be careful not to do leg exercises with an angle of less than 90 degrees, ideally they are 110-120 degrees, as they put a lot of pressure on the knees and bones of young people.

What we do is raise the load over time, but this only after having made the training plan for a long period, but always meeting the limits that have been established.

#### How to use the manual:

We have included over 100+ exercises that should be followed by you. It includes different exercises that should be followed with the table TRAINING PER AGE GROUP.

8-10 year old: should a shorter warm up (5 minutes), flexibility (5 minutes), medicine ball (choose 5 different sets, and do 10 reps. Use only GREEN EXERCISES that are easy to do) and only two arm drills. Hammer and rubberband drills should not be done. We will do Turbojav throws or throws with different equipments, and 10 accurracy throws, using other implements such as cricket balls, baseballs, volleyballs, and finish with fitness. You can select from various exercises at least 10 different sets, and finish with pushups, jumps and situps.

-11 to 13 year old: should a longer warm up (10 minutes), flexibility (10 minutes), medicine ball (choose 10 different sets, and do 10 reps. They can start doing easy one arm medicine ball drills, 5 sets x 5 reps. Make a light hammer (max 1 kg) and do two arm sets x 10 sets x 10 reps, and do also 5 sets x 5 reps with one arm. The same applies to rubberband drills.

Mix GREEN-YELLOW AND RED EXERCISES We will do 50 Turbojav throws or throws with different equipments, such as cricket balls, baseballs, volleyballs, and finish with fitness. You can select from various exercises at least 10 different sets, and finish with pushups, jumps and situps. For fitness, you can choose 15 different fitness exercises, and then finish with pushups, jumps and situps.

-14 to 16 year old: should a longer warm up (10 minutes), flexibility (10 minutes), medicine ball (choose 20 different sets, and do 10 reps. Doeasy one arm medicine ball drills, 10 sets x 10 reps. Make a light hammer (max 1 kg) and do two arm sets x 10 sets x 10 reps, and do also 10 sets x 10 reps with one arm. The same applies to rubberband drills.

Mix GREEN-YELLOW AND RED EXERCISES We will do 50 Turbojav throws or throws with different equipments, such as cricket balls, baseballs, volleyballs, and finish with fitness.

You can select from various exercises at least 15 different sets, and finish with pushups, jumps and situps. For fitness, you can choose 15 different fitness exercises, and then finish with pushups, jumps and situps.

# **Throw academy**

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What we have designed is a training plan that can be done twice a week

for up to 60 minutes.

How do we structure the workouts?

1) 10 minute warmup: Let's get moving! Try to bring always different warmup routines, let them run one lap and mix also fun games. Be creative!

 Improve flexibility and start stretching. We should encourage athletes to warm up the joints and to stretch all mayor muscle groups, starting from the legs, mid section and arms. Check our flexibility drills that we posted. Try also to improve your flexibility w

3) Theory: Teach them how to firmly grasp the Turbojav, how to position the javelin and how to have the correct form. Let them throw the implement with a clean release. We focus on teaching a proper execution before we move into one or two or three step throws. Let them explore their bodies and encourage them to try again. It is one of the most beautiful experiences to see them throw and how they celebrate their accomplishments.

4) Target games are a fun way to learn to throw: The objective of the Turbo Target games is to learn how to work on your accuracy, so the athlete throws on a straight line at the target, like throwing darts at a dart board. Athletes must first develop these skills for both weak and strong sides, as the athlete gets better you can increase the distance between the athlete and the target. Throwing a javelin requires the athlete to keep the javelin in alignment with the target. Coaches should be teaching the Turbojav to be thrown over the shoulder and center of gravity. The point of the Turbojav must be aimed at the target and the non-throwing hand should be pointing at the target as well. If the Turbojav goes out from the alignment, it will be hard to throw well. The weak side throwing teaches the strong side throwing where the optimal release point is for the Turbojav. Practice makes perfect, practice perfects the skills.

5) We always finish the workouts with some jumps, some speed races of 20 to 25 meters, irons, abdominal work, dorsals, back. Can be included in the training throws with medical ball under close supervision, since they may have difficulty in catching the ball.

	T	RAINING PER AGE GROU	P
Age	8 to 10	11 to 13	14 to 16
Times per week	3	4	5
Duration	30 minutes	45 minutes	60 minutes
Warm up	5 minutes	10 minutes	10 minutes
Flexibility	5 minutes	10 minutes	10 minutes
Special Flexibility	x	10 minutes	10 minutes
Medicine Ball	5 sets @ 10 reps	10 sets @ 10 reps	20 sets @ 10 reps
	(only two arm throws)	(two arm throws)	(two arm throws)
		5 sets @ 5 reps	10 sets @ 10 reps
		(one arm throws)	(one arm throws)
Hammer Drills	x	10 sets @ 10 reps	10 sets @ 10 reps
		5 sets @ 5 reps	10 sets @ 10 reps
Rubber band	x	10 sets @ 10 reps	10 sets @ 10 reps
		5 sets @ 5 reps	10 sets @ 10 reps
Turbojav throws	30 throws	50 throws	50 throws
(Other equipment)	Accuracy: 10 throws	Accuracy: 30 throws	Accuracy: 50 throws
Fitness			
Push ups	25	50	100
Jumps	100	150	200
Situps	50	150	250

Throw	Throw academy
ZONE	
League	

Month 1			Month 2			Month 3					
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
3 x sessions	3 x sessions		2 x sessions 1 Test session		3 x sessions	3 x sessions	2 x sessions 1 Test session		3 x sessions	3 x sessions	2 x sessions 1 Test session
	NOTE:			NOTE:			NOTE:				
Follow the plan for the month			Increase slighttly repetitions and intensity			Increase slighttly repetitions and intensity					

TAAT:	Keeping track of your progress	Score	Date
Power test	:		
Overhead t	hrows medicine ball, 3 throws	Best throw	
Underheat	throws, 3 throws	Best throw	
Standing lo	ng jump, 3 times	Best jump	
Pushups: N	1ax	Max	
Abs: Max		Max	
Accuracy to	est:		
Standing th	row, 5-10-15 meters distance	% Hits	
Do 10 throw	ws, and count Number of hits at the target		
You can use	e a turbojav, tennis ball, cricket or baseball		
Distance th	IFOW:		
Do 3-4 max	throws, measure the longest , do standing throw, 3 step throw	Max meters	
You can use	e a turbojav, tennis ball, cricket or baseball		

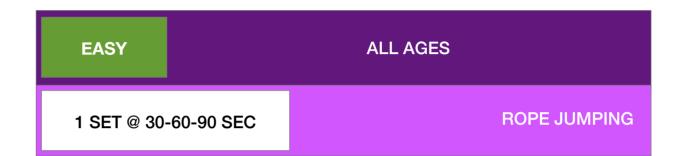


Throw	Throw academy
ZONE	
League	





Note: Warm up can include 2-3 laps around a stadium or run in the forest, or biking. We want athletes to sweat a bit before starting their training. In case that you must train indoors, you can start with running on same place, or rope jumping, mixing them with jumps, then you must do the circling drills, to warm up the joints, and then the muscles and tendons.





Good for cardio and coordination. Major muscle groups used: Legs, arms, shoulders.

Throw	Throw academy
ZONE	
League	

EASY	ALL AGES	EASY	ALL AGES
1 SET @ 5-10-15 REPS	BURPEES	1 SET @ 5-10-15 REPS	SIDEWAYS JUMPS





Throw ZONE	Throw academy
ZONE	
League	

EASY	ALL AGES
1 SET @ 10 MTRS	WALKING ON FOOT TIP, TOES, LATERALS

EASY	ALL AGES
1 SET @ 5-10-15 REPS	CALF STRENGTH



Note: Excellent exercise to strengthen foot muscles, tendons and joints. You can do them on the grass, or sand. Startin with foot tip walks, and toes, but do also laterls, and penguin walks (inside). This is used by world class sprinters and jumpers

This foot exercices have been used by world record holder high jumper Javier Sotomayor. Do initially 1 set of each exercice, later you can increase to 2 sets-



Throw ZONE	Throw academy
_	
League	

EASY	ALL AGES
1 SET @ 5-10-15 REPS	ONE ARM THROW, LEFT LEG IN FRONT

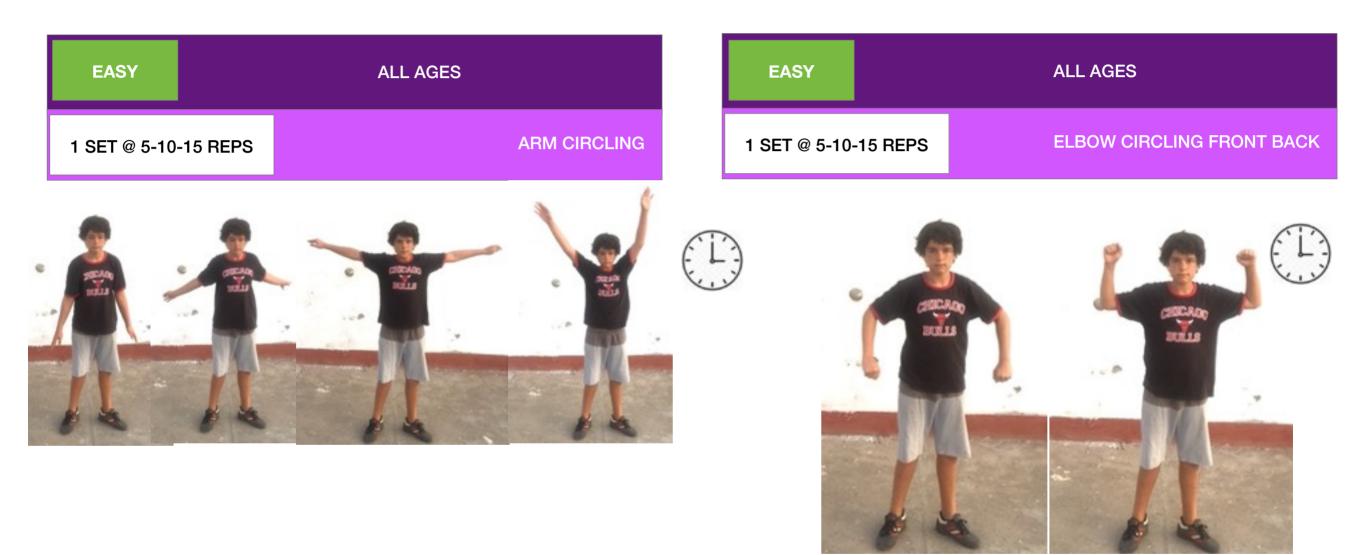






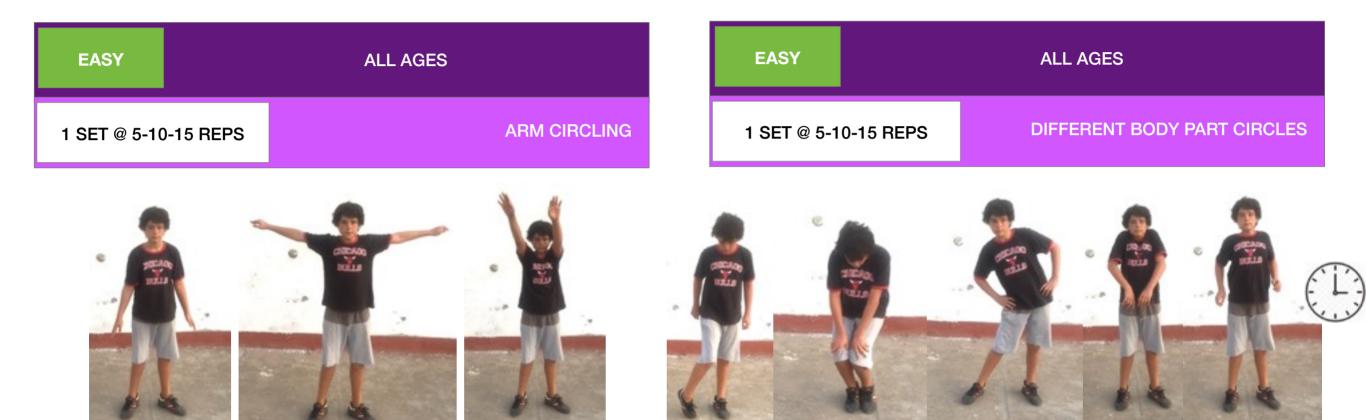
We use different circle exercices to warm up all major joints in the body, from ankles, to knees, to hips, shoulders, elbow and whrist. Do them slow, its enough to do 5-10 repetitions, both directions of the clock.

Throw	Throw academy
ZONE	
League	



Note: Do all circle excercises gently, and start slow and increase gradually the speed, but never do them fast. We need to warm up the joints and this is the best way to do it.

Throw	Throw academy
ZONE	
League	



Note: We do circling exercices with all joint groups, from top to bottom or vice verca. Foot, knee-hip, shoulders-elbows- hands-neck. Do all this circling exercices gently!

Throw	Throw academy
ZONE	
League	

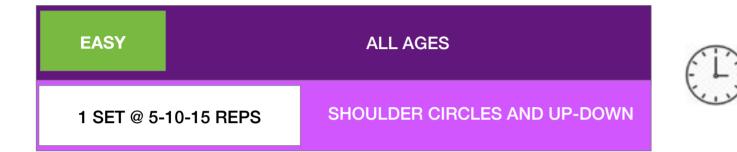
EASY	ALL AGES	EASY	ALL AGES
1 SET @ 5-10 SECONDS	ARM STRETCHING	1 SET @ 5-10-15 REPS	LOW BACK FRONT BACK

Note: We have included the most popular arm-stretch exercices, stretch until you feel a slight pain, then dont force the muscle anymore. Stretching has to be done gently over time. You will improve rapidly. Do them with the right and left side. Do them with the right and left side. If you want to add more arm stretch exercices, you are welcome!

Note: We have included the most popular leg-stretch exercices, stretch until you feel a slight pain, then dont force the muscle anymore. Stretching has to be done gently over time. You will improve rapidly. Do them with the right and left side. If you want to add more leg stretch exercices, you are welcome!

Stretching helps to elongate the muscles. These are the main stretching exercises we use for arms and legs.

Throw	Throw academy
ZONE	
League	





Do these exercices to stretch and strengthen the middle section of the body, do them slowly and gently.

# **Rubber band**

Throw	Throw academy
ZONE	
League	

EASY	ALL AGES
1 SET @ 5-10-15 REPS	BUTTERFLY FRONT



## Note:

Do all all rubberband excercises gently, and start slow and increase gradually the resistance and never do them fast. Increase the amount of reps over time, or buy a stronger rubberband,

EASY	ALL AGES	
1 SET @ 5-10-15 REPS	HIGH DOW	VN



Rubberband drills help to increase force and flexibility. We use them for all major muscle groups, from arms, to shoulders, to legs, to back and even for running drills. Find a good tension and increase the tension as you improve your force.

Throw	Throw academy
ZONE	
League	

EASY	ALL AGES
1 SET @ 5-10-15 REPS	BUTTERFLY BACK

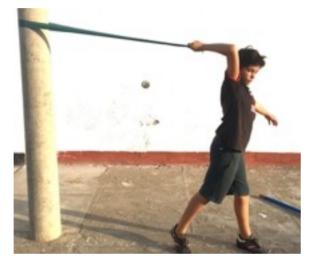


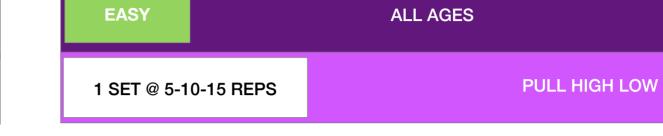
EASY		ALL AGES	
1 SET @ 5-1	0-15 REPS		BASEBALL SWING

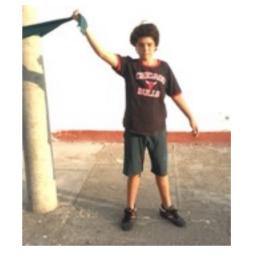


# MEDIUM ALL AGES 1 SET @ 5-10-15 REPS RUBBER BAND THROW



















# Throw academy

Throw	Throw academy
ZONE	
League	

MEDIUM	AGE GROUP 11-13	
1 SET @ 10 - 15 SECONDS	FORWARD RUNNING	

MEDIUM	MEDIUM AGE GROUP 11-13	
1 SET @ 10 - 15 SECONDS	BACKWARD RUNNING	



Note: Do all all rubberband excercises gently, and start slow and increase gradually the resistance and never do them fast. Increase the amount of seconds over time, or buy a stronger rubberband,



# Throw academy

# Throw ZONE League

MEDIUM	AGE GROUP 11-13
1 SET @ 10 - 15 SECONDS	LATERAL RUNNING









MEDIUM	AGE GROUP 11-13
1 SET @ 10 - 15 SECONDS	CRABB LATERAL RUNNING







Throw	Throw academy
ZONE	
League	

MEDIUM	AGE GROUP 11-13
1 SET @ 10 - 15 SECONDS	INSIDE LEG PUSH



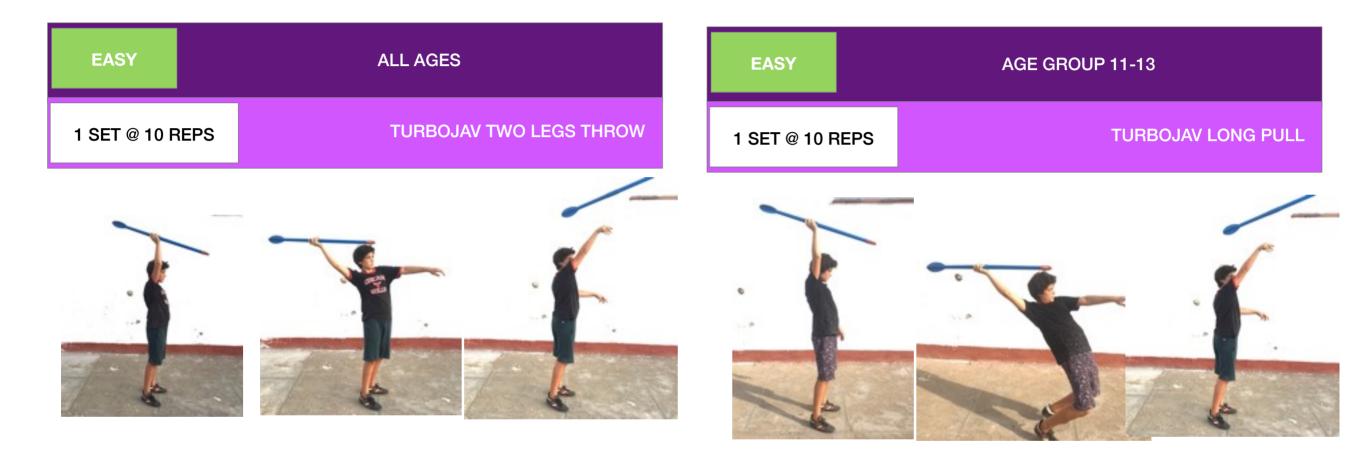
MEDIUM	AGE GROUP 11-13	
1 SET @ 10 REPS		FRONT KICK



# Throwing Drills

- 9

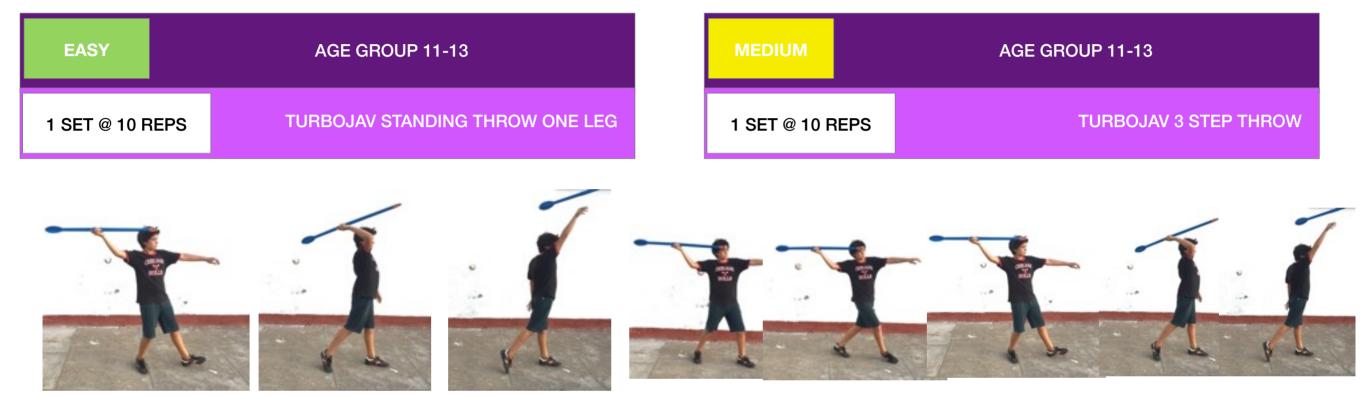
Throw	Throw academy
ZONE	
League	



Note: Throwing drills are extremely important because they will help an athlete improve the throwing mechanics, strength, flexibility and power. Start doing clean, easy throws, and add gradually more speed and power. We never throw full intensity, as you will end up hurting yourself. Most of the throws have to be in 50% intensity (50-60%), and add another 30% of all throws at 70%,, and finish the 20% with throws of around 80-85%. We want to showoff during competitions, where we go 100%.

Throwing drills will help you improve your accuracy, power, speed and coordination. Use all sorts of implements, Turbojavs (300-800g), cricket balls, baseballs, volley balls, tennis balls, soccer balls

Throw ZONE	Throw academy
League	



Note: Throwing drills are extremely important because they will help an athlete improve the throwing mechanics, strength, flexibility and power. Start doing clean, easy throws, and add gradually more speed and power. We never throw full intensity, as you will end up hurting yourself. Most of the throws have to be in 50% intensity (50-60%), and add another 30% of all throws at 70%,, and finish the 20% with throws of around 80-85%. We want to showoff during competitions, where we go 100%. MIX 3-5 STEP THROWS, ALWAYS DO STRONG AND WEAK SIDE. FOCUS ON PROPER TECHNIQUE. THROW EASY AND CLEAN, AND GRADUALLY INCREASE POWER AND SPEED.

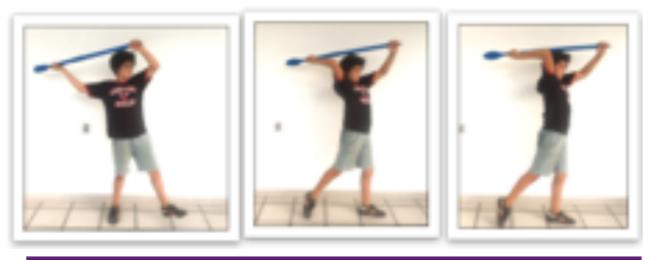
	Throw ZONE			Throw academy	
	League				
N	MEDIUM	AGE GROUP 11-13	EASY	AGE GROUP 11-13	
1	SET @ 10 REPS	TURBOJAV, STANDING, WALKING LIGHT TURBO	1 SET @ 10 REPS	TURBOJAV KNEEING	

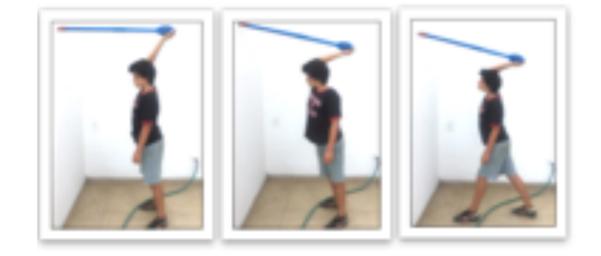


Note: MIX THROWS WITH LIGTHER IMPLEMENT, ALWAYS DO STRONG AND WEAK SIDE, MIX KNEEING THROWS, AND INVENT NEW THROWS.

Throw	Throw academy
ZONE	
League	FLEXIBILITY DEVELOPMENT

EASY	AGE GROUP 11-13		EASY	AGE GROUP 11-13
1 SET @ 10 REPS	SPECIFIC STRETCH ONE ARM STANDING		1 SET @ 10 REPS	SPECIFIC STRETCH ONE ARM STANDING





EASY	AGE GROUP 11-13
1 SET @ 10 REPS	SPECIFIC STRETCH TWO ARM SWING



#### ACCURACY DEVELOPMENT

Throw

ZONE

League

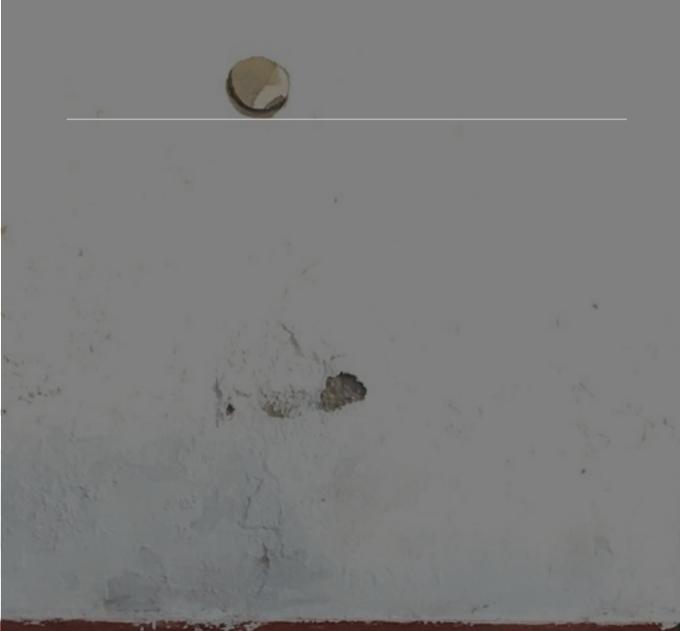
 MEDIUM
 AGE GROUP 11-13

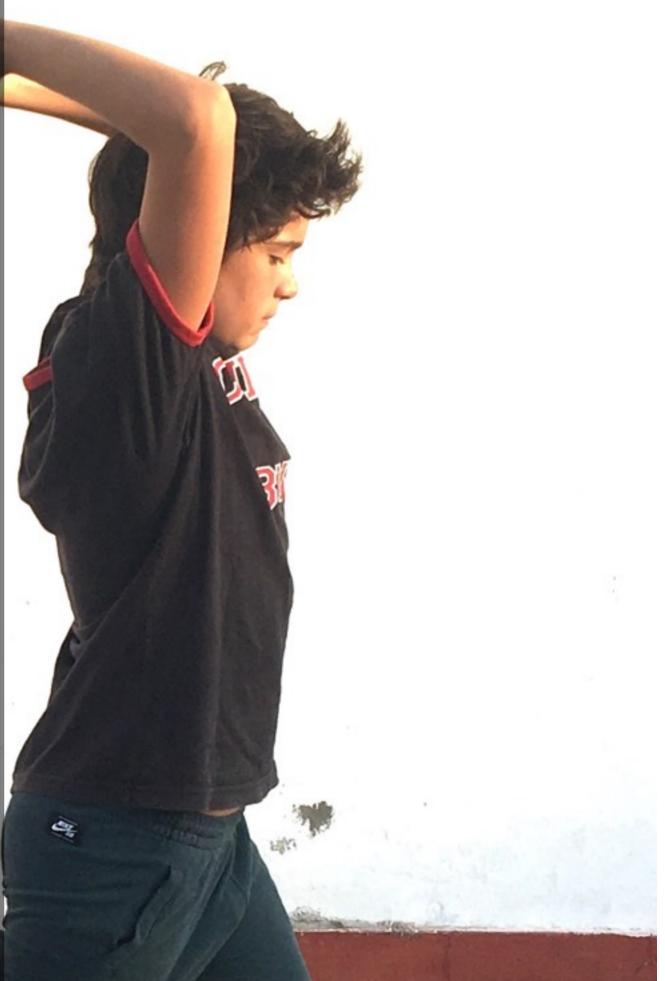
 10, 30, 50 THROW
 ACCURACY THROWS, BALLS & TURBOJAVS
 1 SET @ 10 REPS
 ACCURACY HIT TARGET DIFFERENT BALLS

 Image: Comparison of the compari

the throwing drins are extremely important because they will help an athlete improve the throwing mechanics, strength, flexibility and power. Start doing clean, easy throws, and add gradually more speed and power. We never throw full intensity, as you will end up hurting yourself. Most of the throws have to be in 50% intensity (50-60%), and add another 30% of all throws at 70%,, and finish the 20% with throws of around 80-85%. We want to showoff during competitions, where we go 100%. MIX 3-5 STEP THROWS, ALWAYS DO STRONG AND WEAK SIDE. FOCUS ON PROPER TECHNIQUE. THROW EASY AND CLEAN, AND GRADUALLY INCREASE POWER AND SPEED.

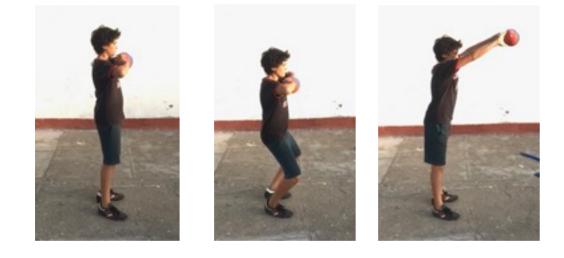
# Medicine Ball





Throw ZONE	Throw academy
ZONE	
League	

EASY	AGE GROUP 11-13		
1 SET @ 10 REPS		TWO ARM PUSH PRESS	







HELP INCREASE POWER, COORDINATION AND SPEED. Use two weights, 1 kg and 3 kg balls. Kids younger than 10 should not do single arm throws, only two arm throws. Drills should be done at comfortable speed, and as the athlete becomes more comfortable, they should try to accelerate more the execution.

EASY	AGE GROUP 11-13
1 SET @ 10 REPS	TWO ARM OVERHEAD



EASY	AGE GROUP 11-13		
1 SET @ 10 REPS	TWO ARM OVERHEAD 1 STEP FRONT		



EASY	AGE GROUP 11-13		MEDIUM	AGE GROUP 11-13
1 SET @ 10 REPS	TWO ARM OVERHEAD 3 STEP		1 SET @ 10 REPS	TWO ARM SIT PUSH





EASY	AGE GROUP 11-13
1 SET @ 10 REPS	TWO ARM OVERHEAD TWO ARMS UP

MEDIUM	AGE GROUP 11-13
1 SET @ 10 REPS	TWO ARM LATERAL SIT PUSH



MEDIUM	AGE GROUP 11-13	
1 SET @ 10 REPS	TWO ARM CIRCLE OVERHEAD SIT THROW	



DIFFICULT	AGE GROUP 14-16	
1 SET @ 10 REPS	ONE ARM THROW, OVERHEAD STANDING	

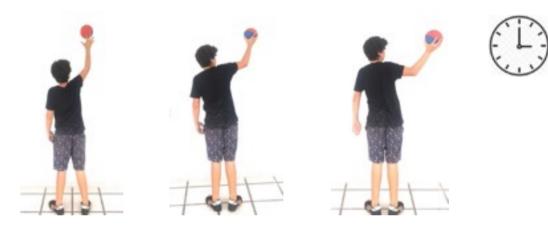




## Throw academy

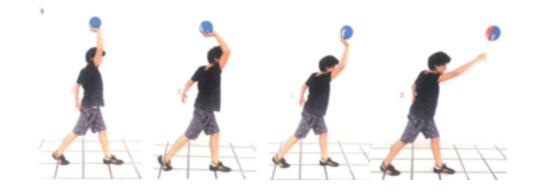
DIFFICULT	AGE GROUP 11-13	DIFFICULT	DIFFICULT AGE GROUP 14-16	
1 SET @ 10 REPS	TWO ARM CIRCLE OVERHEAD THROW	1 SET @ 10 REPS	ONE ARM THROW, LEFT LEG IN FRONT	





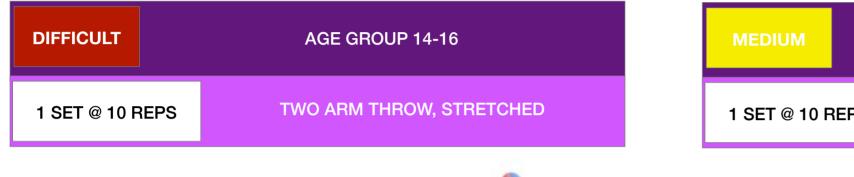
DIFFICULT	AGE GROUP 14-16	
1 SET @ 10 REPS	ONE ARM THROW, LEFT LEG IN FRONT	

MEDIUM	AGE GROUP 14-16
1 SET @ 10 REPS	ONE ARM THROW, LEFT LEG IN FRONT





Throw	Throw academy
ZONE	
League	

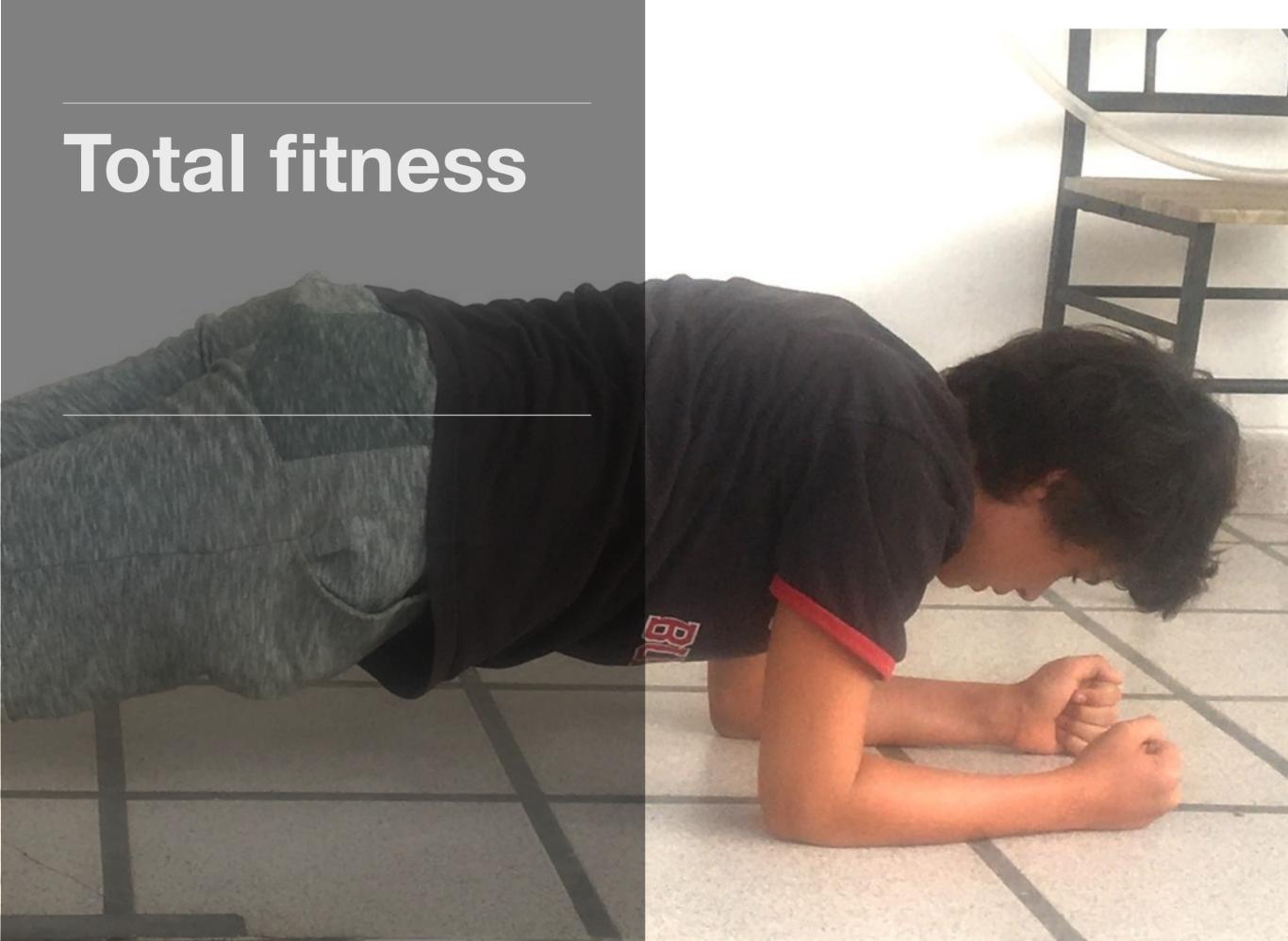


MEDIUM	AGE GROUP 14-16
1 SET @ 10 REPS	TWO ARM THROW, LEGS BEND









EASY	ALL AGES
1 SET @ 10 REPS	ABS

EASY		ALL AGES
1 SET @ 10 R	EPS	ABS LATERALS







EASY	ALL AGES
1 SET @ 10 REPS	BRIDGE







DIFFICULT	AGE 11+
1 SET @ 10 REPS	TRICEPS





DIFFICULT	AGE 11+
1 SET @ 10 REPS	PUSH UPS, WITH STAIRS



EASY	ALL GROUPS
1 SET @ 10 REPS	STANDING JUMP

MEDIUM	ALL GROUPS
1 SET @ 10 REPS	3 HOOP





## Throw academy

EASY ALL AGES		EASY	ALL GROUPS			
1 SET @ 10 REPS	TWO FEET JUMP, LANDING ON TWO FEETS	1 SET @ 10 REPS	PUSH UP JUMP			

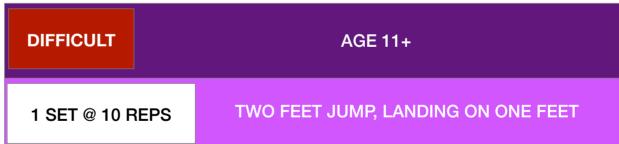








MEDIUM	ALL GROUPS	DIFFICULT		
1 SET @ 10 REPS	LEFT, LEFT, RIGHT RIGHT, MIX BOTH	1 SET @ 10 REPS	τv	







### Throw academy

EASY	EASY ALL GROUPS		MEDIUM	ALL GROUPS			
1 SET @ 10 REPS	LOW HIGH JUMP		1 SET @ 10 REPS	S	LUNGES,		
							and the second se
MEDIUM	MEDIUM ALL GROUPS		DIFFICULT		ALL (	GROUPS	
1 SET @ 10 REPS	LUNGES JUMPS		1 SET @ 10 R	EPS	PS DEAD JUMPS		





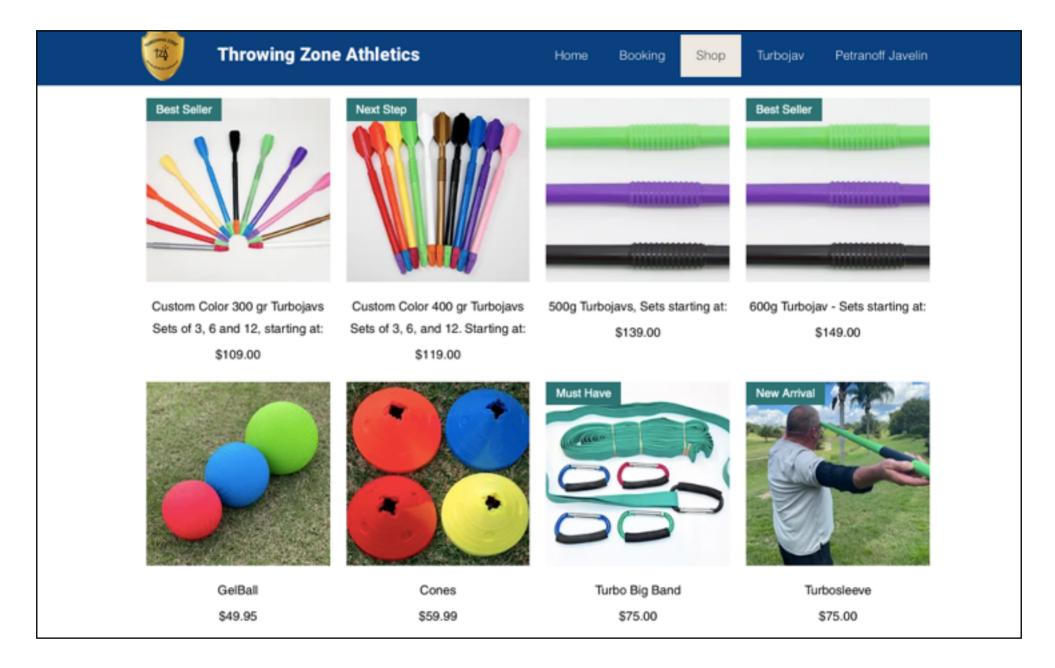


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by Tom Petra**noff** 

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