

TOM PETRANOFF / MARK SWIGER

THROWING ZONE ATHLETICS

Unified Sports

*Improve your
accuracy, speed,
distance*

Injury prevention

www.turbojav.com



Movement With Purpose: Throwing Zone’s Response to the National Youth Wellness Wake-Up Call

In its recent release, the White House’s Make America Healthy Again initiative raised concerns about what many in education and youth development experience daily: a generation of young people is facing an unprecedented combination of physical inactivity, emotional disconnection, and mental health stress.

While some data points in the report have been challenged, its overall message rings true — echoing what we’ve been responding to for years.

The Challenge is Real — and So is Our Response

In classrooms, on playing fields, and in community spaces, today’s youth are:

- Spending more time behind screens and less time in active play.
- Reporting increased stress, anxiety, and feelings of isolation.
- Moving less, sleeping less, and disconnecting from peers and purpose.

At Throwing Zone, we’ve structured our mission around reversing those trends—not through hype, but through inclusive, intentional action.

Our Commitment: Movement That Heals, Connects, and Empowers

We meet youth where they are — with tools and programs designed for all abilities, all bodies, and all backgrounds.

We promote skill-building, not pressure—through RAD Challenges, Turbojav games, and accessible drills.

We make physical activity engaging and safe by focusing on bilateral strength, multidirectional movement, and injury prevention.

We support educators and coaches with materials aligned to SHAPE America and global standards.

A Manual With a Mission

Our newly released Throwing Zone Manual is more than just a training guide — it’s a statement of purpose. Designed for schools, Special Olympics teams, Unified Sports programs, and adaptive PE, it offers a blueprint to:

- Combat sedentary lifestyles
- Rebuild confidence through movement
- Offer safe, structured, and joyful athletic experiences

We believe this is a moment to act—not to react.

Regardless of where the statistics land, the call is clear:

Kids need movement. They need mentorship. They need belonging.

And we’re here to deliver all three.

Let’s move together.



INITIAL WORDS

Initial words

Introducing the New TZA Unified Sports Manual

Movement. Inclusion. Performance. Joy.

This isn't merely a manual—it's a movement.

Built by world-record javelin thrower Tom Petranoff and supported by decades of coaching, global experience, and advocacy for inclusion, the TZA Unified Sports Manual is your comprehensive guide to throwing sports for every athlete.

Coaches, PE teachers, and Unified Sports programs

Special Olympics & adaptive teams

Baseball, javelin, softball, football, cricket...

Parents who want to help their kids play safer and better

Anyone tired of injuries and ready for more innovative training

Inside you'll find:

- Training plans based on biomechanics, not guesswork
- Inclusive drills for all abilities
- Injury-prevention strategies that actually work
- Games that make skill-building fun
- A global vision of equity through movement

We don't just build equipment. We build confidence, connection, and community.

Whether your goal is distance, speed, accuracy, or just getting kids off screens and into motion, this is your playbook.

Grab your manual + kit now at www.turbojav.com

Every throw counts. Every athlete belongs.

Let's train like it.

#Turbojav #UnifiedSports #AdaptiveAthletics #InclusionInMotion

#PhysicalLiteracy #PEforall

Standards-Based Instruction: Built In, Not Bolted On

At Throwing Zone Athletics, we don’t believe in one-size-fits-all programming. We believe in purpose-built tools for real-world classrooms, where time is limited, resources are scarce, and every instructional choice counts. That's why our training tools and manual aren't just "aligned" to learning standards—they're strategically engineered to meet them.

Why Standards Matter

Educators, Special Olympics leaders, and club coaches understand that good intentions alone aren't sufficient; instruction must align with mandated learning goals. However, finding inclusive, engaging, and evidence-based activities that meet those targets can feel like a full-time job. We’ve done it for you.

We’ve embedded alignment with:

- SHAPE America’s National PE Standards (USA)
- UK National PE Curriculum
- Australian Curriculum (ACARA)

...and built a global crosswalk to illustrate how these standards are not only compatible but also interconnected.

Crosswalk

SHAPE America	UK PE Curriculum	Australia (ACARA)
Standard 1: Demonstrates competency in a variety of motor skills and movement patterns.	Master basic movements including running, jumping, throwing, and catching. Develop competence in a broad range of physical activities.	Practise and refine fundamental movement skills. Apply movement concepts in different physical activities.
Standard 2: Applies knowledge of concepts, principles, strategies, and tactics related to movement and performance.	Apply rules and tactics in competitive and cooperative physical activities. Understand how to improve in different physical activities.	Understand movement concepts and apply strategies in physical activity. Explore how body systems influence movement.
Standard 3: Achieves and maintains a health-enhancing level of physical activity and fitness.	Take part in outdoor and adventurous activity challenges. Develop flexibility, strength, technique, control, and balance.	Participate in regular physical activity. Evaluate and refine personal fitness goals and strategies.
Standard 4: Exhibits responsible personal and social behavior that respects self and others.	Work collaboratively in team settings. Show fairness and respect in physical activity contexts.	Demonstrate inclusive and respectful behavior. Use appropriate interpersonal skills in diverse situations.
Standard 5: Recognizes the value of physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.	Understand the long-term health benefits of physical activity. Use physical activity as a form of self-expression and enjoyment.	Explore how physical activity supports health and well-being. Use physical activity to express feelings and foster social connection.

Each component of our instruction supports these five core SHAPE outcomes:	Progressive throwing drills, target games, locomotor movement, and bilateral development.
Standard	Standard 2
What It Means	Concepts, principles & strategies
How We Support It	Teaches form adjustment, angle vs. force, and includes STEM-ready modules (e.g. trajectory physics).
Standard 1	
Motor skills & movement patterns	Standard 3
	Health-enhancing fitness

Gamified fitness stations, endurance development, and habit-forming self-assessment tools.

Standard 4

Personal & social responsibility

Unified team play, inclusive scoring, positive peer interaction, and respect for all abilities.

Standard 5

Valuing physical activity

Joyful play, goal setting, personal success tracking, and community-centered engagement.

These outcomes are cross-referenced with international curriculum frameworks, making this manual a validation tool as much as a training guide. Whether you're in a U.S. school, a UK after-school program, or an Aussie club setting, Throwing Zone helps you meet your targets and reach your students.

A Plan for Educators and Clubs

We understand that validation is important—so we've created a system for you to track and demonstrate standard-aligned instruction. Our throw-based activities can be:

- Tagged to SHAPE, UK, and ACARA outcomes

- Assessed through built-in skill progressions and challenge logs

- Scaled for ability, environment, and equipment

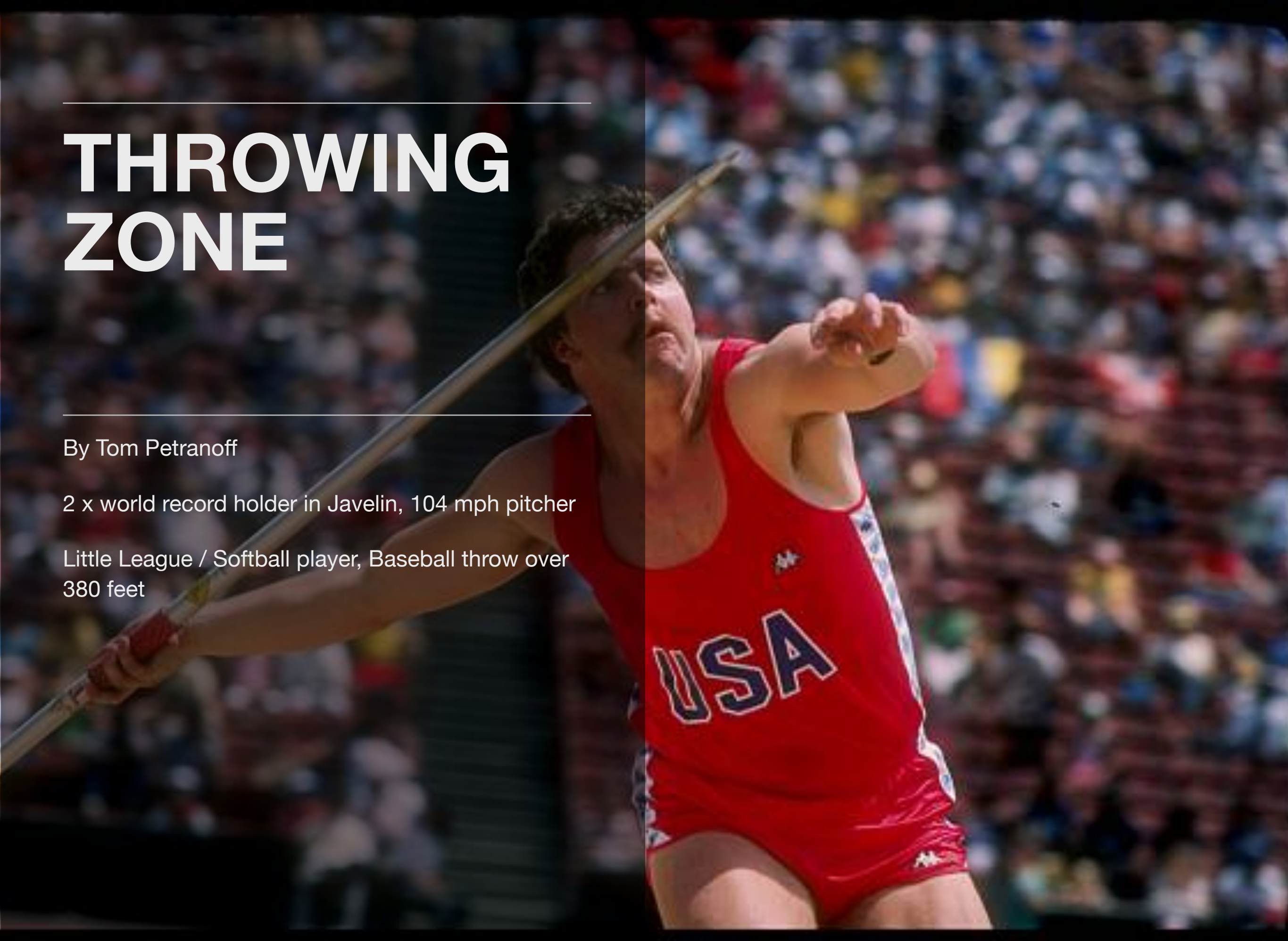
And for those seeking grants or funding for inclusive education, this manual provides clear documentation showing that your curriculum is research-backed, developmentally appropriate, and inclusive by design.

THROWING ZONE

By Tom Petranoff

2 x world record holder in Javelin, 104 mph pitcher

Little League / Softball player, Baseball throw over
380 feet



Throwing Zone Athletics

Throwing Zone's Legacy of Inclusion: A Global Commitment to Unified Sports and All Abilities

At Throwing Zone, inclusion is not just a feature; it is our origin story.

From our earliest programs launched in the townships of South Africa over 30 years ago, to shaping Unified Sports in Massachusetts schools in 2007, and supporting global Special Olympics initiatives since 2002, our mission has always been clear: to unlock human potential through movement, skill-building, and community.

Unified Sports is where our vision takes root—an inclusive model that unites individuals with and without intellectual disabilities through sport. However, we don't stop there. Our work connects the goals of Special Olympics, Paralympics, general education PE, and international physical literacy efforts, ensuring that athletes of every ability and background are included, equipped, and celebrated.

Our work is driven by purpose:

Mission

To create inclusive, empowering, and accessible opportunities in sports for athletes of all abilities, fostering physical, emotional, and social development through adaptive movement, skill building, and community connection.

Vision

A world where every individual, regardless of ability, has fair access to play, compete, and thrive through sport—unlocking human potential, dignity, and joy at every level of movement.

Core Values

- Inclusion first: Sport should meet athletes where they are.
- Equity in access: Everyone deserves a lane, a throw, a chance.
- Movement is medicine: Physical activity fosters healing and growth.
- All sport is real sport: Every effort is worthy of applause.
- Build with coaches, not for them: We support those who create opportunities on the ground.

What makes our approach unique? We don't just build equipment — we build equity. Every tool, event, and training resource we design is based on SHAPE America's national PE standards and aligned with international physical education frameworks, ensuring relevance and accessibility for schools, programs, and coaches worldwide.

Our Inclusion Footprint

- South Africa, 1990s: Where we learned that inclusion isn't charity — it's opportunity.
- Special Olympics Global Partner (2002–Present): Turbojav became an accessible standard across Special Olympics programs.
- Unified Sports Pioneer (MA, 2007): We contributed to creating one of the first fully integrated athletic experiences for high school PE.
- Paralympic Roots: Coaching and collaborating with national Paralympic teams showed us how competition and dignity go hand in hand.
- Global Education Alignment: Our materials are built to meet both U.S. and international educational standards for inclusive physical development.

This manual is more than a guide — it's a movement.

We invite you to join a global network of educators, coaches, and advocates who believe that every throw counts, every athlete belongs, and every moment of movement can be a step toward equity.

Let's create a world where inclusion is not the exception — it's the expectation.

Inclusion. Mechanics. Performance. Joy.

Whether you're an aspiring Olympian, a Unified Sports coach, or a parent looking for safe, empowering training tools, the Turbojav system was designed for you. From Little League pitchers to Paralympic champions, and from adaptive youth programs to elite track and field teams worldwide, the Turbojav has established itself as the most inclusive, skill-building throwing tool ever created.

We believe:

- Every athlete, regardless of their ability, should have access to real and measurable performance tools.
- Coaching should prioritize not just speed and power, but also injury-free progress, skill confidence, and joy.
- Training both sides of the body (bilateral development) fosters more than just balance — it develops resilience.



- That multidirectional movement forms the foundation of real-world performance.
- That throwing can be inclusive, adaptive, developmental, and elite all at once.

Over four decades of throwing, I never once injured my shoulder or elbow. The secret? Smarter training, better mechanics, and thousands of reps done right. That's what the Turbojav is for — building strong, smart, injury-free athletes.

– Tom Petranoff

Who This Manual Is For:

- PE Teachers and Special Olympics Coaches



Unified Sports Programs and After-School Trainers

- Track & Field Coaches (Youth to Elite)
- Parents of kids exploring throwing sports
- Adaptive Coaches building all-abilities teams

Our Modern Mission:

Empower every athlete to throw safely, effectively, and purposefully—whether for fun, competition, therapy, or transformation.

Throwing Zone's Commitment to Special Olympics

Supporting Coaches, Athletes, and Unified Sports

Special Olympics International Mission & Vision

Mission: To provide year-round sports training and athletic competition in a variety of Olympic-type sports for children and adults with intellectual disabilities. This initiative offers continuous opportunities for individuals to develop physical fitness, demonstrate courage, experience joy, and share their gifts, skills, and friendships with their families, other Special Olympics athletes, and the community.

Vision: To transform lives through the joy of sport by empowering individuals with intellectual disabilities to reach their full potential within inclusive communities globally.

Since 2002, when Special Olympics International officially adopted the Turbojav, Throwing Zone has been dedicated to promoting inclusive sport through intentional play and training. Our equipment and events are designed around the principles of the Olympic movement, highlighting skill, resilience, and joyful competition for everyone.

Our Ongoing Commitment:

- Provide safe, developmentally appropriate equipment for all ability levels, ready for events.
- Share training materials that are inclusive and aligned with Unified Sports principles.
- Host RAD Challenges and Turbojav events that recognize achievement.

- Support coaches with resources, guidance, and community.

- Promote the adoption of Turbojav and the RAD program in all chapters.

Turbojav in Unified Sports

Throwing Zone Athletics offers a platform for Unified Sports teams through scalable skill development and inclusive competition access. Whether in PE, after-school programs, or sanctioned events, Throwing Zone nurtures connection, movement, and shared success.

Why We Include

The Throwing Zone's Commitment to All-Abilities Athletics

Mission

To create inclusive, empowering, and accessible opportunities in sports for athletes of all abilities, while fostering physical, emotional, and social development through adaptive movement, skill-building, and community connection.

Vision

A world where every individual, regardless of ability, has fair access to play, compete, and thrive through sport—unlocking human potential, dignity, and joy at every level of movement.



Our Core Values

- Inclusion first: Sports should meet athletes where they are. - Equity in access: Everyone deserves a lane, a throw, and a chance. - Movement is healing: Physical activity promotes recovery and development. - All sports are legitimate: Every effort deserves recognition. - Collaborate with coaches, not for them: We empower those who create opportunities in the community.

At Throwing Zone, we don't just create equipment—we build pathways to confidence, community, and celebration for all athletes. Together, let's elevate the standard for inclusion in sports.

Celebrating Ability Through Athletics

Inclusion is not merely a feature; it serves as our foundation, from coaching the South African Paralympic team in 1996 to our current RAD programming, which champions Throwing Zone track and field for all. Our adaptive tools and challenges make the sport accessible to every athlete, regardless of ability or setting.

Testimonial: From the Field

"My son, Daniel, grew up throwing Turbojavs at his adaptive sports program in Baltimore. They serve as valuable tools for those of us who often lack access to standard training facilities!

Your generous gift of Turbojavs is greatly appreciated. Our athletes range in age from 6 to 24 and have varying disabilities. This gear is critical for their growth and access—we will put it to good use."

--Parent of a Paralympian and coach at Central Florida Dreamplex

Throwing Zone supports every athlete, every coach, and every student of every teacher. Through sports, we cultivate resilience, confidence, and community — together.

Introduction:

Tom is undoubtedly one of the true javelin legends. He broke the World Record twice and continues to make history with the development of this amazing javelin, the Turbojav," Dick Held - javelin designer and manufacturer of OTE HELD Javelins. His javelins have the top ten world best throws ever.

Enhance your accuracy, speed, distance, and power with our innovative equipment and training program. I have been a professional javelin thrower and have over 10 years of experience in baseball throwing events. I set two world records and achieved a 100 mph fastball. Perhaps my greatest achievement is that during four decades of throwing, I never injured my shoulder or elbow. In fact, I never experienced a major injury. How was this possible? By understanding throwing mechanics, refining the details, maintaining a solid rehab and prevention program, and practicing drills thousands of times from a young age. Common shoulder and elbow injuries can be prevented through careful planning and training, which is what we aim to offer you—parents, coaches, and throwers—so that you can have more fun, enhance your skills, and perform at your best. In just 90 days, you will see improvements in several areas, such as flexibility, power, strength, accuracy, and distance, regardless of whether you practice baseball, softball, quarterbacking, javelin throwing, or cricket.

Why this manual:

This manual will assist athletes and coaches in better understanding training for baseball and softball. It includes General Concepts of:

1. What to do,
2. How to do it,
3. Why do it? (This truly helps complete your picture, making it easier to perform)

This is a basic training plan for developing technique, fitness, strength, and mobility for throwing the discus and shot put.

Who should use this manual:

Coaches: middle school, high school, and college level.

Athletes of all ages, including beginners, intermediate, and advanced baseball players.

Multi-Directional Core Training for Athletes utilized by all the following:

- Special Olympics programs across various states
- Youth and Junior Olympics
- Japan Athletics
- Clubs and schools in England and Finland

- Little Athletics Australia
- IAAF Youth Programs

- Parks and Recreations Programs
- After School Programs
- Paralympic athletes
- Rhode Island Middle Schools
- Washington State Middle Schools
- Kentucky Middle and High schools
- Many countries around the world: South Africa, Hungary, Peru,...

Official Specifications

Implement Specifications for Youth Development Javelin Event by Dave Post and Tom Petranoff

Overall Length: 695mm +/- 10mm • Tip Length: 89mm +/- 5mm

Tip Diameter at the largest location: 40mm +/- 3mm

Grip Length: 104mm +/- 5mm • Grip Diameter: 37mm +/- 3mm

Shaft Diameter (forward of grip): 38/30mm (Max / Min)

Shaft Diameter (behind grip): 27mm +/- 3mm

Location of front grip: 327mm +/- 5mm from the tip of the tail section

Location of balance point (CG): 380/365mm (Max / Min) from the tip

Number of fins: 4 (exactly) • Fin Length: 165mm +/- 3mm

Fin Diameter (peak to peak of opposed fins): 100mm +/- 5mm

Weight: 300 grams (Min. for 300 gram model)

Weight: 400 grams (Min. for 400 gram model)

Tip Material: soft rubber with blunt point

Materials: Shafts, grip, and fins: plastic

About Tom Petranoff:

Javelin is one of the most demanding and challenging events, not only in track and field but in sports overall. The javelin throw requires a considerable amount of skill, drills, flexibility, and a technical understanding to execute effectively. You need to be fast, explosive, elastic, and possess a well-balanced overall fitness level. Tom had a successful twenty-year career in track and field, which included two world records, Olympic Games, World, African, and Pan-American Championships, as well as competing in 517 top track meets around the globe. Tom recognized the need to teach the javelin event to youth, enabling children of all ages to learn about javelin and throwing in a fun, safe, and accessible manner. Over the past three decades, we have sold over a million Turbojavs worldwide. We have been helping young athletes develop not only their skills but also have a great deal of fun in the process. Turbojavs are an excellent tool for improving throwing in general; it doesn't matter if you are a baseball pitcher, a quarterback, or a javelin thrower. Learning the proper mechanics will allow you to perform better.

How to throw the Turbojav

How to Throw a Turbojav

1. The Turbojav should always be held with the point facing forward and the tail section behind you. Place both feet firmly on the ground about

shoulder-width apart with your toes facing inward. Your entire body should be oriented forward. The Turbo Jav should be held at head height and parallel to the ground. It should be directly beside your eye. Your non-throwing arm should point in the direction of the throw.

2. Keeping the Turbo Jav level and the point facing forward, extend the throwing arm back. Point the opposite arm in the direction of the throw. The non-throwing arm begins to pull into the rib cage, initiating the right shoulder's rotation to start the throw.

3. In a smooth, continuous motion, pull the Turbojav forward and throw it over your shoulder. This is very important! If you do not throw it over your shoulder and instead throw in a rotational arc around your shoulder and body, you will experience poor flights and short distances. Aim to get the Turbojav to glide like a paper airplane and start with easy throws to get a feel for throwing with your shoulder.

4. After the throw, the follow-through is the most critical factor for success in throwing with proper mechanics. Stopping your motion short at the throw without continuing your momentum over your blocking leg will make it difficult to achieve good flight and distance. Like a bat or golf club swing, acceleration must continue forward beyond the throw for at least a step or two.

Who should use the manual

When we put the manual together, we thought initially who could use the manual, as there are millions of kids throwing implements and parents and coaches (baseball, softball, football, track and field, and cricket) who want to help their pupils and children have fun, perform better, and stay away from injuries. Most people we know do not have a real base in athletics and sports and lack the know-how and expertise to help their kids. We have spent the past 4 decades in competitive sports and know a lot about throwing events, and how to prevent injuries that can be so frustrating, expensive, and time-consuming to overcome. We also have a great deal of experience in special Olympics sports and

have built our company around the needs of these exceptional athletes. Through careful planning and knowledge implementation, you will see how easy it is to improve all your throwing abilities, speed, accuracy, distance, have fun, and perform better. It takes time to build this, and a system that we want to present to you with this unique manual.

What equipment do you need?

Medball



Medballs are used to generate strength and power and are very important for developing explosive movements. Medball training is utilized to enhance strength and power. Medball exercises are part of a plyometric training program designed to improve explosive movements. Medball training is suitable for all levels of ability, age, development, and sport. To be most effective, the program must include exercises that match the movement patterns of the sport.

Rubber band: Working out with elastic resistance (rubber bands and tubing) is an excellent way to enhance athletic power and flexibility through greater ranges of motion and repetitions. They are ideal for children and youth athletes since they are gentle on joints and muscles. You can perform the exercises repeatedly without significant strain on

the body. They can be used to warm up before a medicine ball drill workout or prior to throwing.

Turbojav: 300g /400g/ 500g/600g: The 300g is our lightest Turbojav and measures 28” in length. This is the official weight used in Junior Olympics, Special Olympics, and school programs. The 400g Turbojav also measures 28” in length. This weight is official for European club-level athletes and is an excellent choice for training as you gain strength and require more weight. The 500g Turbojav is 42” long and is utilized by USA and Canadian middle school athletes, as well as South African primary school and Peruvian secondary school athletes use this Turbojav model.

Radar gun or speed measurement app that can be installed on mobile phones

Supervision from parents or coaches, children and young athletes require adequate supervision from their parents and coaches.

Learning how to throw:

Learning to throw correctly will help you perform better without experiencing painful injuries during your throwing career that can last a long time. Understanding the key concepts and repeating them consistently will require time, thousands of repetitions, and plenty of dedication. The Turbojav is an excellent tool for learning the basics in a fun way. Once you have learned how to hold the

Turbojav and its different grips, you're ready to go! Let's start with the basics: the standing throw, and from there, we can add more steps and speed to your throw. There are three ways to hold the javelin. It is important to feel comfortable and maintain a good grip, as this will allow you to transmit force into the javelin.

Grip Nr.1: Index Finger Grip.

In this grip, the index finger wraps around the edge of the cord. The thumb and index finger position themselves on the edge of the cord. The thumb must be opposite the index finger, while the other fingers gently wrap around the cord. This is the most popular grip to start with due to its comfort and simplicity. It is an excellent grip for both beginner and elite throwers.

Grip Nr. 2: The Middle Finger Grip

A popular grip in javelin throwing is when you place the javelin in your hand, allowing it to sit comfortably in the groove of your palm, with your middle finger naturally resting on the cord edge. Many throwers, including world record holder Tom Petranoff, appreciate the feel of the middle finger grip.

Key terminology

Center of Gravity:



The center of gravity refers to the location in the body where balance, power, leverage, and speed can be optimized. Typically, the center of gravity shifts with the movement of the body, head, arms, and legs during activities such as running, jumping, and throwing, as well as other actions.

Foot Placement:

The feet should be placed shoulder-width apart for both the Turbojav and the javelin, as shown in the photo. This foot placement positions the implement directly over one's center of gravity, allowing all the levers used in throwing to move properly over the center of gravity.

Drawback:

The process by which a thrower moves a Turbojav or Javelin from a "carrying" position to a position where the implement is "drawn back" in preparation for the throw. Like the "carry," the implement must be level and the point facing forward.

Leverage:

It is important for a thrower to "apply force" and "leverage" over his/her "center of gravity".

A leverage system involves utilizing the body's levers—arms, legs, and head—to achieve complete control and balance. The thrower's center of gravity shifts when he/she changes the position of his/her levers. When these levers work together with careful control of body positioning during the processes of carrying, drawback, and release, the thrower will experience his/her best performances.

Over-Shoulder Throwing Motion:

Over-the-shoulder throwing is the process of bringing the Turbojav or Javelin over the shoulder to throw. By bringing the implement over the shoulder rather than around the body, the center of gravity remains aligned with that of the thrower. By keeping the center of gravity directly beneath the thrower instead of out to the side, the thrower will achieve more accurate and powerful throws with less stress on the elbow and shoulder joints.

By throwing away from the body, the arm becomes susceptible to injuries and does not utilize the body's leverage system or the large powerful muscles in the chest and shoulder.

Throwing through the Point:

A common fault for any thrower in any sport is thinking that throwing is a pushing motion. With the Turbojav and the Javelin, this idea may be clearer than with any other implement. Javelins are elongated, or long and slender, implements. The level carry and drawback are essential for 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, one optimizes the flight pattern of the implement.

Warm up:

Before every training session, make sure your body is warm. This means running 2-3 laps, stretching, and doing some running and throwing drills before adding intensity to your training. Never start the main exercise without a proper warm-up.

Test your fitness:

Testing your level of fitness is key to understanding where you are and what needs improvement. Before we start our training cycle, we need to have a clear idea of your current state. As training progresses, we must keep track of your performance. The importance of tests includes starting with the score sheet test, evaluating your progress every month, and analyzing your development. We have a standard test that measures your running, jumping, flexibility, strength, throwing capabilities, strong side, and weak side. It's also important to monitor your weight. Javelin throwers are typically slim, strong, and light athletes! You need to keep track of what you eat and drink. Test your skills regularly. Over the years, one of the most crucial aspects of training and performance is knowing where we stand at specific times, as this helps us identify areas that require work and improvement. We have a set of tests that are vital for measuring both our strengths and weaknesses.

One area that has helped us improve faster is the weak side, meaning the weak arm or the part of the body we use the least. When I broke the world record, I focused on developing the weak side, as this part of the body has no bad memory. We need to test both the strong side and the weak side; we must see where we stand in terms of jumping power, running speed, agility, strength, and

accuracy. We conduct a test every month to monitor the progress we are making.

Improving physical abilities will lead to a longer throw.

Training book

Most athletes keep track of their training and take notes on the completed training sessions. This is important for the future, as it helps the athlete maintain a clear view of their progress over long periods of time. Keep a journal and record your progress. It's a fun way to understand your activities.

Common elements of all Throws:

Throwers in any sport have many things in common, including cricket, baseball, football, and javelin.

Stretch reflex

All throwing events depend on the stretch reflex. The elastic, long arm waits for the body to finish the movement from the legs to the hips to the shoulders before the arm starts its motion. Power is built from the bottom up. No thrower relies solely on a fast and powerful arm.

Balanced throw

Center of gravity and using the legs in sequence requires waiting until the left blocks or hits the

ground before the hip and upper body start the action. Power comes from engaging the entire body and the larger muscle groups. To throw hard and fast, you must utilize these big muscle groups.

Accuracy

Throwing speed and accuracy are both critical to sports performance. Accuracy develops over time. Hitting the target in games is incredibly helpful for developing accuracy; they must be constantly practiced on both sides—strong side and weak side—at different distances and speeds. Once you master precise throws from a short distance, add a few yards and find new targets. It's important to learn to throw correctly many times before adding speed and power. Don't get frustrated if you don't hit the target at the beginning; keep practicing. Initially, you may only hit 10% of the time, but with practice, you will start to improve your percentage of successful hits.

Speed

Speed is not just about how fast someone can run (or cycle, swim, etc.), but also depends on their acceleration (how quickly they can accelerate from a stationary position), maximal speed of movement, and speed maintenance (minimizing deceleration). Achieving movement speed requires good strength and power; however, excessive body weight and air resistance can hinder a person's progress. In addition to having a high proportion of fast-twitch

muscle fibers, it's crucial to have efficient movement mechanics to optimize muscle power for the most economical movement technique.

Power

While strength is the maximum force you can exert against a load, power is proportional to the speed at which you can exert this maximum force. Training to improve power can involve lifting weights, throwing implements like medicine balls, running against resistance, and plyometric (depth jumping and bounding).

Distance

How far does it go (Javelin)? Other sports also rely on distance; for example, baseball outfielders need a strong arm to throw far so that the ball can reach



its target. Football is similar, as the quarterback needs to hit the open man with a long throw.

The Throwing Zone: Preparing to Throw Introduction

Welcome to the Throwing Zone, where skill development meets inclusive design. This is not just a place to teach throws—it's where movement literacy, joy, and lifelong physical confidence take flight.

At the heart of the Throwing Zone philosophy are three pillars:

- **Bilateral Development** – We train both sides of the body, not only to balance performance but also to enhance brain-body communication, improve coordination, and eliminate compensatory patterns that lead to injuries.
- **Multidirectional Movement** – Our games and drills require movement in every direction—forward, backward, sideways, and rotational. This mirrors how athletes navigate in real life and sports, equipping them for agility, adaptability, and control.
- **Injury-Free Progression** – We believe that success should not come at the expense of safety. We emphasize safe movement patterns, proprioceptive awareness, and gradual

progressions that align with each athlete's ability level.

Why Bands?

Resistance bands are small but mighty tools. They're a cornerstone of our approach because they:

- Scale to any ability level—beginner to elite
- Develop fine motor control and joint stability
- Enhance technique without needing high resistance
- Provide safe, accessible ways to build strength and range of motion
- Offer sensory feedback that enhances learning, especially for neurodivergent athletes

From warming up to cooling down, bands help bridge gaps in strength, balance, and control—making them ideal for inclusive environments like:

- **Unified Sports & Special Olympics** – Where equitable participation and skill progression are paramount
- **Paralympic Training & Adaptive Programs** – Where injury prevention and movement patterning must be customizable

- Schools – Where every kid deserves a chance to succeed regardless of coordination level, fitness, or learning style

This isn't just training—it's transformation through thoughtful, inclusive movement.

Warm-Up Routine: "Prep to Play" (8–12 min)

Goal: Activate muscles, increase blood flow, enhance balance, and prep joints for dynamic movement.

1. Dynamic Movement Flow (2–3 min)

- High Knees + Arm Swings (30 sec)
- Lateral Shuffles (2x across 10–15m)
- Skipping with Arm Circles (forward + backward, 1x each)

Why? It elevates the heart rate and stimulates the entire system. Combine upper and lower movements to enhance coordination and neuromuscular control.

2. Band Activation Series (3–5 min)

Looped resistance bands around ankles, knees, or wrists as needed.

- Lateral Band Walks (2x10 steps each direction)

- Monster Walks (Forward/Backward) (1x each)

- Banded Arm Pull-Aparts (Palms Down + Palms Up) – 10 reps each

- Diagonal Band Reach (Single-Leg Balance) – 5 each side

Why? It activates the glutes, shoulders, and postural muscles, encouraging stability around the joints and early engagement of proprioception.

3. Range & Rhythm Drills (2–4 min)

- Single-Leg Balance + Reach (front/side/diagonal) – 3 reps per direction

- Overhead Band Stretch + Side Bends – 5 reps each

- Mirror Throws (light practice with partner, no release) – 2 min slow reps, include both dominant and non-dominant side.

Why? This practice enhances throwing movement patterns and improves mobility in the shoulders, hips, and thoracic spine.

Cool-Down Routine: "Reset & Recover" (6–10 min)

Goal: Reduce muscle tension, restore movement control, and promote recovery.

1. Slow Movement + Breathing (2 min)

- Boxer Shuffle → Walk → Stop & Breathe

- Deep inhale (4 sec), hold (4 sec), exhale (6 sec) – repeat 3x

Why? It calms the nervous system and helps athletes mentally and physically transition into a state of recovery.

2. Seated or Supine Band Recovery Series (3–5 min)

- Seated Hamstring Band Stretch – 20 sec each

- Supine Hip Rotations w/ Band Resistance (knees bent, feet flat) – 10 reps

- Overhead Band Reach (lying on back) – 8 reps, hold final stretch

- Banded Scapular Slides on Wall – 2x10 slow reps

Why? It gently lengthens muscles, boosts circulation, and resets posture after throwing.

3. Balance & Core Control Reset (2–3 min)

- Single-Leg Stance with Eyes Closed – 20 sec each side
- Quadruped Arm/Leg Reach (Bird Dog) – 6 each side, slow
- “T-Stand” Balance Reach (standing on one leg, reaching arms wide) – 3 each side

Why? It reintegrates control into the stabilizers and enhances balance before the athlete leaves the session.

The Throwing Zone: Preparing to Throw Summary

The Throwing Zone is more than a place to learn how to throw—it’s a framework for building durable, dynamic, and joyful movers.

Whether you're working with elite athletes or first-time throwers, neurotypical kids or adaptive athletes, every component—from games to warm-ups to cooldowns—is designed with intention:

- Fun is foundational – Skill acquisition thrives when engagement is high.
- Balance is non-negotiable – Bilateral and multidirectional work is embedded to protect the body and enhance function.

- Bands bring access – Lightweight, versatile, and low-impact, bands empower coaches and athletes to personalize training for everyone.

In the Throwing Zone, everyone has a place, everyone gets better, and everyone gets to throw with power, control, and confidence.

Games

Games Introduction: Building Throwers for Life

Welcome to the Games Zone – where joy meets purpose and every throw builds a better athlete.

Our training games aren’t just fun—they’re strategic tools grounded in three foundational principles:

- Bilateral Development – We train both sides of the body to create balanced, adaptable athletes. A strong non-dominant side not only reduces injury risk but also sharpens the dominant side by reinforcing proper mechanics.
- Multidirectional Focus – Real-life sports demand movement in every direction. These games challenge athletes to move, think, and throw dynamically, enhancing coordination and footwork while engaging their core.
- Injury-Free Progression – Safe, repeatable movement patterns are baked into every game. From warm-up to cool-down, we protect athletes

by reinforcing body awareness, tempo control, and technical soundness.

How to Approach These Games

Each game develops essential throwing skills—accuracy, power, coordination—while fostering exploration and creative adaptation. Begin with simple setups and short distances. As athletes progress, increase complexity, distance, and movement patterns.

Warm-Up First: Prepare the body with multidirectional movements, light dynamic drills, and bilateral throws. Incorporate arm swings, high knees, lateral shuffles, and mirrored throws—maintain fluidity and enjoyment throughout.

Cool Down Wisely: Reinforce good habits with slow, controlled movements. Try seated throws, core resets, or rhythm games with light tosses using your non-dominant hand to de-load and reset your nervous system.

Implement 1-step, 3-step, and 5-step approaches to gradually introduce rhythm and mechanics. These variations teach the body how to throw while moving—exactly what game-day performance requires.

Don’t hesitate to create your own twists. The best coaches use these templates as springboards for creativity.

Game 1: Distance Challenge

Goal: Achieve maximum distance while using a safe technique and ensuring proper flight.

Setup:

Draw a straight line or place cones to guide throwers and promote proper alignment. Mark a toe board or starting line for consistency.

Scoring:

- 1st place: 5 points
- 2nd place: 3 points
- 3rd place: 1 point

Measure only nose-first landings for valid throws.

Why? It builds competitive spirit, reinforces full-body mechanics, motivates effort, and promotes an accurate, safe release.

Game 2: Hit the Target (Team Format)

Goal: Achieve a target from an appropriate distance using controlled, focused throws.

Setup:

Divide athletes into small groups (e.g., 4 athletes per Turbojav). Position each group behind their designated throw marker, facing the same direction. Utilize garbage cans, hoops, or other

safe, visible targets placed 5–10 meters away. Ensure groups are spaced safely.

Scoring:

- Points are awarded only for rubber tip contact with the target.
- Bonus: Nose-first landing equals extra point
- Gradually increase distance as skills improve

Why? It develops precision, enhances flight path awareness, and teaches athletes how to intentionally control their energy output.

Game 3: Over-the-Shoulder Target Ring

Goal: Build overhead strength and improve flight control using a target ring scoring system.

Setup:

Athletes throw over their shoulders at a circular target (like a hula hoop painted with rings or a bullseye tarp).

Scoring:

- Inner circle (bullseye): 5 points
- Middle ring: 3 points
- Outer ring: 1 point

Only nose-first hits count for points.

Why? It encourages strong, accurate overhead mechanics and visual targeting skills—ideal for developing bilateral overhead skills and engaging in fun competitions.

Game 4: Garbage Can Toss

Goal: Improve accuracy and arc control with a vertical target.

Setup:

Place a large garbage can or bin 5 to 10 feet from the athlete.

Scoring:

- Turbojav goes into the can: 5 points
- Nose hits can bounce off: 3 points
- Anybody hit (excluding the nose): No points

Why? It reinforces nose-first landings, adds a 3D spatial targeting challenge, and teaches athletes how to control height, force, and angle — all of which are critical for injury-free throwing.

Game 5: Mirror Throws (Bilateral Challenge)

Goal: Develop coordination and strength on both the dominant and non-dominant side.

Setup:

Pairs face each other, one using a Turbojav and the other mirroring without equipment. The thrower executes various throws (dominant arm, non-dominant arm, two-hand underhand, over-the-shoulder), while the partner mirrors the movements with proper form and rhythm.

Scoring (optional):

If using Turbojavs on both sides, points may be awarded for nose-first landings with the non-dominant side (bonus points for symmetry).

Why? It balances strength, sharpens proprioception, and encourages total-body awareness.

Game 6: The Zone Dash (Multidirectional Agility + Throw)

Goal: Cultivate movement in all directions with quick decision-making and safe landing techniques.

Setup:

Arrange 3–4 colored cones in various directions around the thrower (e.g., front, left, back-right). A coach or partner calls out a color, and the athlete sprints, shuffles, or backpedals to that cone, then returns and throws the Turbojav at a specified target.

Scoring:

Award points for accuracy, form, and transition speed.

Why? It reinforces multidirectional movement and develops real-time coordination, making it ideal for athletes in team sports and adaptive physical education.

Game 7: Core Countdown Throws

Goal: Reinforce core control, tempo, and controlled power.

Setup:

Athletes start in a seated or kneeling position. On a countdown (3...2...1), they stand up and immediately throw the Turbojav. Variations include rising from a squat, lunging, or transitioning from a side sit.

Scoring:

Points are awarded for flight quality and correct technique. A bonus is given for nose-first landings following a controlled transition.

Why? It builds dynamic core strength and transition control, which is especially beneficial for injury prevention and adaptive athletes.

Game 8: Target Knockdown Relay

Goal: Incorporate teamwork, strategy, and various throwing angles.

Setup:

Set up soft objects (cones, pins, foam blocks) at various distances. Teams try to knock them down using different throws (sidearm, overhand, reverse, seated, etc.).

Scoring:

Each knocked-down target is worth 1 point. To increase the challenge, require athletes to use their non-dominant side during alternating rounds.

Why? It develops throwing variety, enhances accuracy under pressure, and promotes functional adaptation for all body types.

Variations & Bonus Modes:

- "Switch Hands" Rounds: Require one round of non-dominant or alternating hand throws in each game.

- Seated Variation: For athletes with mobility impairments, games can be played from a seated position using back or side support.

- Wall Bounce Targets: Develop a bounce-back scoring game to promote quick release and reaction training (use soft rebound targets or safe indoor areas).

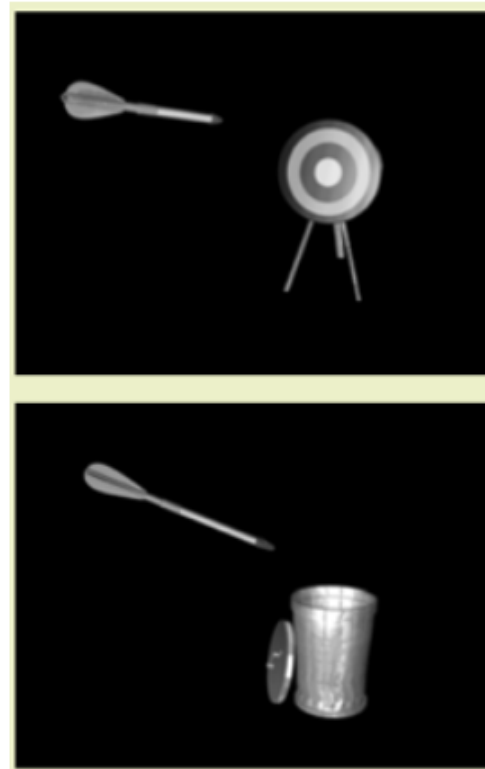
- Silent Score Challenge: Athletes evaluate each other's form and flight silently, recording points based on mutually agreed-upon criteria. This approach enhances visual learning and self-awareness.

Summary: Why We Play

Games in the Throwing Zone are more than just for laughs—they serve as a proving ground for skill development.

- They build a competitive spirit.
- They reinforce technique through repetition disguised as fun.
- They teach throwers to move with intent—and land with control.
- They adapt to every athlete, regardless of age, ability, or background.

By remaining consistent with bilateral, multidirectional, and injury-conscious techniques, we transform play into performance—and athletes into resilient, skillful throwers for life.



Training

The Throwing Zone Method: Built for Balance, Movement, and Safety

At Throwing Zone, we believe that great athletes aren't born from reps — they're shaped by smart movement. That's why everything we do, from resistance band routines to Turbojav throws and medball drills, is based on three foundational training principles:

Bilateral Training: Building Both Sides of the Athlete

Most athletes have a dominant side, but we train both. Why is that?

Because symmetrical strength, coordination, and control are essential for:

- Prevent overuse injuries
- Improve performance on and off the field
- Develop confidence in movement from every angle

How we do it:

- All drills are performed right & left
- Single-arm and single-leg movements are encouraged
- Progressions are scaled to challenge the non-dominant side equally

"One side leads, the other catches up. We train until they meet in the middle."

Multidirectional Movement: Training in Every Plane

Sport doesn't happen in straight lines — and neither should training.

We build dynamic agility, balance, and power by integrating movement in:

- Forward & Backward drills (e.g. sprint-starts, medball throws)
- Lateral drills (e.g. band walks, side shuffles, lateral bounds)
- Rotational drills (e.g. medball twists, Turbojav turns, anti-rotation holds)

This approach:

- Mimics real-world and sport-specific movements
- Strengthens the body across all planes
- Keeps training engaging and functional for every ability level

"If you can move in all directions, you can play in all conditions."

Injury-Free Environment: Train Strong, Stay Safe

Inclusion starts with safety. Our tools and programming are designed to:

- Decrease joint stress using lightweight, efficient equipment.
- Encourage control before power

- Foster warm-up, cool-down, and mobility habits in every session

Whether you're coaching elite teens, Unified Sports athletes, or individuals with disabilities, our approach creates a protective progression — building resilient movers who thrive through movement, not despite it.

Safety is never an afterthought. It's the launchpad.

"We train to win — and to keep playing tomorrow."

In Every Drill. In Every Tool. In Every Athlete.

From resistance bands to med balls, Turbojav throws to agility circuits, these three pillars serve as the connective tissue of everything we offer:

Pillar

Practical Application

Across Tools

Bilateral Training

Always train both sides

Bands, Medballs, Turbojavs

Multidirectional Drills

Forward, backward, lateral, rotational

Agility Games, Core Work, Throws

Injury Prevention

Safe loads, controlled movements, scalable tools

All Kits & Programming

Dynamic Strength in Motion: Medicine Ball Training for All Abilities

To build strong, balanced, and resilient athletes, we need to shift strength from static to dynamic. That's why Throwing Zone integrates medicine ball training into our all-abilities kits — pairing the functional control of resistance bands with the real-world force and flow of throwing.

Medballs provide a safe, effective, and versatile method for teaching explosive yet controlled movements at all ability levels, reinforcing:

- Bilateral Development: Each athlete trains their dominant and non-dominant sides to build muscular symmetry, enhance injury resistance, and improve total-body awareness.
- Multidirectional Power: Drills are executed forward, backward, and side-to-side to prepare the body for sport-specific and everyday movement demands.

- Safe Load, Big Output: Lightweight medballs (2–4kg) enable athletes to train for force production without the risk of overload, which is especially crucial for youth, adaptive athletes, and populations prone to injury.

- Throw-Based Strength Training: Unlike resistance bands, medicine balls allow for full-range, real-time throwing—encouraging rhythm, timing, and fluid coordination while still challenging core strength and joint control.

Recommended Load Guidelines

- Youth (elementary to middle school):
 - 2 kg medballs (both single-arm and two-arm drills)
- Teens and Adults (general and adaptive fitness):
 - 3 kg medballs for two-arm and single-arm work
- Athletes (advanced stages only):
 - Up to 4 kg for controlled two-arm drills only (never max effort with heavier loads)

Key Drill Concepts

1. Single-Arm Throws (Right/Left): Develop unilateral strength, core stability, and neuromuscular balance.

2. Two-Hand Chest Passes (Forward/Backward): Promote balanced power generation and trunk coordination.

3. Rotational Throws (Right/Left): Enhance rotational strength and readiness for multiple directions.

4. Overhead Throws: Train vertical force and engage the posterior chain, which is critical for injury prevention and total body development.

5. Anti-Rotation Holds & Tosses: Great for athletes with disabilities—builds trunk control and functional core strength in a supportive, scalable format.

Medball training isn't just about throwing; it's about teaching the body to generate and absorb force safely and efficiently. For developing athletes, adaptive athletes, and elite performers alike, it's a foundational aspect of the Throwing Zone movement philosophy.

Strength Through Movement: Resistance Bands for All Abilities

At Throwing Zone, our mission has always been to meet athletes where they are—and equip them for where they're going. That's why we now include resistance bands in our kits as a versatile and

accessible tool for developing movement strength, control, and confidence across all ability levels.

Whether you're training an elite athlete pursuing podium performance or introducing functional movement to a developing athlete with special needs, resistance bands provide a versatile solution that supports:

- Bilateral Training: Encourages balanced strength and coordination on both sides of the body, which is crucial for injury prevention and athletic symmetry.
- Multidirectional Movement: Promotes agility and responsiveness across all planes of motion—essential for sports, play, and daily mobility.
- Injury Prevention and Recovery: Provides controlled resistance that is ideal for prehab, rehab, and post-injury return-to-play strategies.
- Core Stability and Flexibility: Activates key stabilizing muscle groups and improves flexibility without requiring heavy equipment.
- Balance Training for Special Populations: Offers scalable, safe, and confidence-boosting support for athletes with physical disabilities or neuromotor challenges.

These bands are more than just accessories—they are equalizers, giving every athlete the opportunity

to strengthen, stabilize, and succeed on their own terms.

Whether in warm-up circuits, mobility drills, or resistance-based skill development, incorporating bands into our kits ensures that all athletes can develop movement from the inside out — with purpose, progression, and play.

RESOURCES

A young boy is captured in a dynamic pose on a grassy field. He is wearing a black t-shirt with a logo that reads "NORTH SHORE TRAINING" and "NORTH SHORE" below it, black shorts, and blue sneakers. He is holding a wooden paddle with both hands, extending his arms outwards. The background features a red running track, a white metal fence, and rows of red stadium seats. The word "RESOURCES" is overlaid in large, white, sans-serif capital letters on the left side of the image, with horizontal lines above and below the text.

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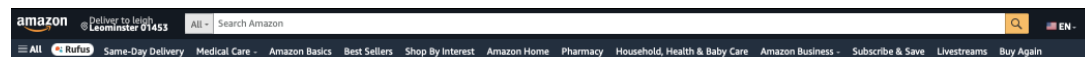
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