

## THE JAVELIN THROW

### BASIC MODEL

THE COMPONENTS OF THE BASIC MODEL ARE:

GRIP  
 CARRIAGE  
 ACCELERATING APPROACH RUN  
 WITHDRAWAL and ALIGNMENT OF THE JAVELIN  
 RUNNING CROSS STEP  
 DELIVERY STRIDE and BLOCK  
 DELIVERY  
 RECOVERY STRIDE/S.

### GRIP

THE JAVELIN MUST BE GRIPPED AT THE STRING/CORD BY ONE HAND  
 THE SHAFT OF THE JAVELIN MUST BE HELD DIAGONAL ACROSS THE HAND BETWEEN THE FAT PADS OF THE PALM.

THE PREFERRED GRIP IS THE INDIVIDUAL ATHLETE'S CHOICE, THERE ARE 3 OPTIONS

1. V GRIP ALSO CALLED FORK ALSO CALLED CLAW GRIP
2. FINNISH GRIP THUMB AND FIRST FINGER BEHIND THE STRING.
3. AMERICAN GRIP THUMB AND MIDDLE FINGER BEHIND THE STRING.

THE REMAINING FINGERS LIGHTLY CLENCH THE TOP SURFACE OF THE STRING TO CONTROL AND BALANCE THE SHAFT OF THE JAVELIN.

### CARRIAGE

THE JAVELIN SHOULD BE POSITIONED IN A HORIZONTAL POSITION LEVEL WITH THE EYE.  
 THE PALM IS FLAT UNDER THE SHAFT AND THE TIP IS DIRECTLY FORWARD.  
 THE ELBOW SHOULD ALSO BE POSITIONED FACING THE DIRECTION OF THE RUN.

### APPROACH RUN

THE LENGTH OF THE RUN SHOULD BE NO LONGER THAN 13 RUNNING STEPS FOR A NOVICE.

THE RUN HAS TWO PHASES - PHASE 1 STEADY CONTROLLED SPEED WITH COMFORTABLE STEPS, - PHASE 2 A SERIES OF ACCELERATING LENGTHENING STEPS INTO THE DELIVERY.

### WITHDRAWAL and ALIGNMENT

THIS OCCURS 5 TO 9 STEPS BEFORE THE DELIVERY.

THE OPPOSITE SHOULDER IS TURNED UNDER THE CHIN AS THE THROWING ARM IS GENTLY PUSHED BACK BESIDE THE FACE TO THE COCKED DELIVERY POSITION.  
 THE NOVICE IS INCAPABLE OF A FULLY EXTENDED ARM POSITION DO NOT INSIST UPON IT.

A PROPER ALIGNMENT HAS THE FOLLOWING FEATURES: ==>

THERE IS A CROOK IN THE ELBOW

THE FOREARM FACES THE SKY .THE UPPER SURFACE DIRECTLY UNDER THE SHAFT IN A FLAT POSITION.

THE HAND IS ALSO TURNED UPRIGHT SO THAT THE PALM IS FLAT AND THE KNUCKLES CAN BE SEEN BY THE COACH STANDING ON THE THROWING SIDE.

THE WRIST IS A STRAIGHT LINE EXTENSION OF THE FOREARM

THE SHAFT OF THE JAVELIN IS PARALLEL TO THE SHOULDERS

THE THROWING HAND IS POSITIONED ABOVE THE ALIGNED SHOULDERS.

### RUNNING CROSS STEP

THE SECOND LAST STEP IS A LOW JUMPING CROSS STEP.

IT IS CALLED A CROSS STEP BECAUSE THE TORSO IS TURNED INWARDS AFTER THE WITHDRAWAL AND THE DRIVING LEG INTO THE CROSS STEP LITERALLY CROSSES THE PLANE OF THE BODY.

THE LENGTH OF THE CROSS STEP IS DEPENDENT UPON ==>  
 THE APPROACH SPEED AND STRENGTH OF THE THROWER  
 THE TYPE OF SURFACE GRASS - SHORT SYNTHETIC - LONGER  
 TYPE OF FOOTWEAR.

#### DELIVERY STRIDE and BLOCK

THE LENGTH OF THIS STRIDE IS OPTIONAL. (SEE CROSS STEP COMMENTS)  
 AS A GENERAL GUIDE, IT IS LESS THAN THE STANDING HEIGHT OF THE ATHLETE.  
 THE BRACING LEG (THE OPPOSITE SIDE TO THE THROWING ARM) IS POSITIONED  
 DIRECTLY IN FRONT OF THE BRACING HIP AS QUICKLY AND AS FLAT AS POSSIBLE ON  
 COMPLETION OF THE JUMPING CROSS STEP.  
 THE BRACING KNEE MUST BE HELD STRAIGHT FOR THE DELIVERY.

#### DELIVERY.

THE THROWING HAND MUST BE THROWN FORWARD ABOVE THE LINE OF THE SHOULDER  
 AND AS CLOSE TO VERTICAL AS THE NOVICE THROWER CAN ATTAIN.

#### RECOVERY.

ON RELEASE OF THE JAVELIN THE THROWER SHOULD ONLY REQUIRE 1 TO 2 STEPS TO  
 RECOVER BALANCE. THE BODYWEIGHT SHOULD CONTINUE FORWARD AFTER THE  
 BLOCK AND RELEASE AND THE ATHLETE SHOULD FINISH ON THE SAME LEG AS THE  
 THROWING ARM.

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#### TEACHING SEQUENCE.

##### WALK AND STAB

- EXPERIMENT WITH THE GRIP OPTIONS
- RESTRICT THE THROWING DISTANCE TEACH ACCURACY OF THROWING NOT DISTANCE
- THE FLIGHT OF THE JAVELIN SHOULD BE AT OR BELOW HORIZONTAL FOR THIS PHASE
- THE TAIL OF THE JAVELIN MUST POINT DIRECTLY BACK AT THE THROWER
- IGNORE THE LENGTH OF THE WITHDRAWN ARM.

##### RUNNING WITH THE JAVELIN

- ATHLETE RUNS DOWN A SINGLE LANE WITH THE JAVELIN - RHYTHM
- ATHLETE RUNS DOWN THE RUNWAY CARRYING JAVELIN FUNCTION OF FREE ARM IS EMPHASISED BY THE COACH = BALANCE
- ATHLETE RUNS DOWN THE TRACK WITH THE JAVELIN HELD BY BOTH HANDS AT THE BACK OF THE NECK.
- ATHLETE IN THE SAME POSITION RUNS AND TURNS THE SHOULDERS AND CONTINUES TO RUN = WITHDRAWAL AND CROSS STEPS

##### THROWING:

- RUN FREELY ON AN OPEN FIELD - NO WITHDRAWAL CHEST TO THE FRONT → THROW
- RUN FREELY MINIMAL WITHDRAWAL VIA A ONE ARM SOCCER LAYBACK → THROW
- RUN AS ABOVE MINIMAL TORSO TURN + MINIMAL WITHDRAWAL OVER SHOULDER → THROW
- SHORT APPROACH RUN JAVELIN ALREADY WITHDRAWN → THROW
- LENGTHEN THE RUN OF THE PREVIOUS STEP → THROW
- RUN WITH NORMAL CARRIAGE PROPER WITHDRAWAL → THROW

3

FOLLOWING THESE PROGRESSIVE STEPS THE ATHLETE SHOULD PROGRESS TO  $\longrightarrow$

**CONSTRUCTION OF A SET RUN ON THE JAVELIN RUNWAY**

**PREDETERMINE THE NUMBER OF RUNNING STEPS BEFORE THE WITHDRAWAL USE CHECK MARK**

**DO NOT INSIST UPON THE TRADITIONAL 5 STEP APPROACH RUN**

**THE WITHDRAWAL POINT SHOULD BE NATURAL AND COMFORTABLE TO THE THROWER  
FLIGHT SHOULD BE  $\longrightarrow$**

- **HORIZONTAL AND STRAIGHT**
- **UPON MASTERY OF POINT 1 DEVELOP A FLAT PARABOLA FLIGHT PATH**
- **PROGRESS TO EFFECTIVE INCREASED ANGLES OF ATTACK**
- **PREDETERMINE THE VOLUME OF THROWS PER SESSION AND THEIR INTENSITY**
- **SUGGESTED VOLUME BEGINNERS = 20 NONE MAXIMUM**
- **COACH BY INTERVAL THROWING.**
- **EXAMPLE PB 30 METRES**
- **5 THROWS AT 15 TO 20 METRES  $\rightarrow$  5 THROWS AT 20 TO 23 METRES  $\rightarrow$  5 THROWS AT 25M  $\rightarrow$  REMAINING THROWS TO 28METRES.**
- **CONCLUDE ALL SESSIONS WITH SHOULDER FLEXIBILITY EXERCISES.**

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# AN INTRODUCTION TO JAVELIN THROWING

By Dr. Wolfgang Lohmann

*There are many ways to introduce students to the javelin throw. The method below is a summary of the approach used in the German Democratic Republic. It is based on a translated extract from the author's book Lauf-Sprung-Wurf (Running-Jumping-Throwing), published by Sportverlag Berlin in their student sport series.*

## PREPARATIONS

*What do we use?* The following implements are suitable for throwing:

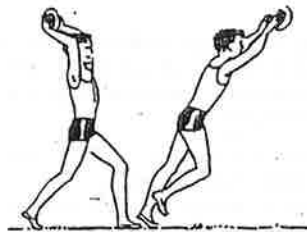
- Blocks of wood, tree branches and clubs, up to 30 to 50cm in length.
- Fist size stones and hard balls (hockey balls).
- Small metal balls up to 1kg in weight.
- Rods about 1.50 to 2.00m in length that can be handled as a javelin.

*How do we train?* Sport scientists and coaches have established that the skill and the speed of the throwing arm are even more important than throwing strength in the javelin event. The mobility of the shoulder joint plays also an important part. Your training must therefore be based on the following rules:

- Throw as much as possible and always with a full effort in order to develop a "fast arm".
- Throw with different implements! Frequent changes in the implements have a positive influence on the development of the throwing skill.
- Throw from a variety of positions, particularly from different approach runs.
- Throwing heavy implements is in the beginning used for the development of throwing strength. It should not make up more than a third of the total throws.
- Throws with the weaker arm are also useful. Organise contests where distances with the left and right arm throws are added up.
- Never forget to include mobility exercises in all training sessions.



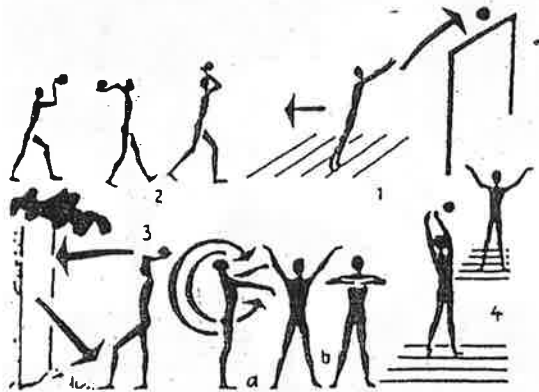
## BASIC DRILLS



*Double-arm throws* — Double-arm throws over the head are performed with heavy implements. Medicine balls are best, but large blocks of wood, bricks and sandbags are also useful. The aim is to accelerate the implement with both arms but you will discover soon that the upper body and legs are also involved. Observe carefully the following technical points:

- Throw from a position with the left leg forward or with one impulse stride (left leg forward-and-throw).
- The body weight in the starting position, or after the impulse stride, should be on the right leg with the body leaning back.

- The implement is held behind the head with the elbows pushed forward.
- The right leg straightens first during the delivery, followed by the left leg.
- The upper body is moved fast and energetically forward from its pre-tense position.

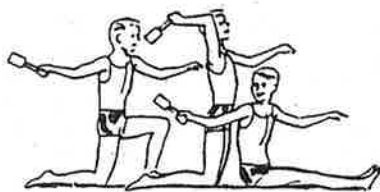


DOUBLE-ARM THROWS

The following exercises are useful:

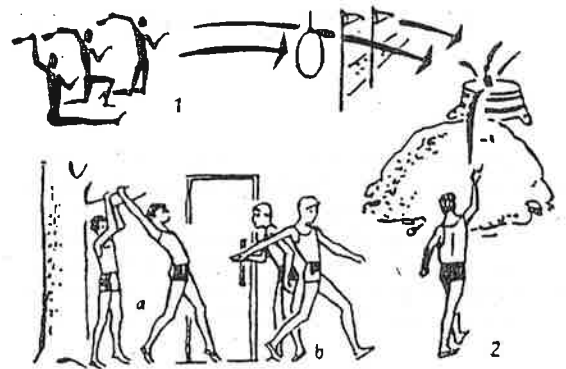
1. Throwing for distance over an obstacle about 2.00m high or a soccer goal. The throwing line is moved gradually back. (fig.1). 8 to 10 repetitions.
2. As exercise No.1, but from an impulse stride (fig.2) 8 to 10 repetitions.
3. Rebound medicine ball throws against a wall. The thrower stands back from the wall so that the rebounding ball can be caught, gradually increasing the distance (fig.3). 10 to 12 repetitions.
4. Throwing in pairs contest. The implement is thrown back from the position it lands until one of the throwers exceeds the 10m line behind the opponent (fig.4.).

Gymnastics exercises: a) Arm circles in opposite direction, one forward, the other backward. b) Arm stretching backwards.



*Different starting positions* — Throws from different starting positions with a correct arm movement close to the head. Observe carefully the following technical points:

- Keep the elbow close to the head during the withdrawal with the lower arm held relaxed.
- The arm action during the delivery must be straight and close to the head. A correct action can be evaluated according to the flight of the club. A slanting rotation of the implement indicates that the arm pull was not straight.
- The right shoulder and the upper body lead the delivery with a powerful forward movement.

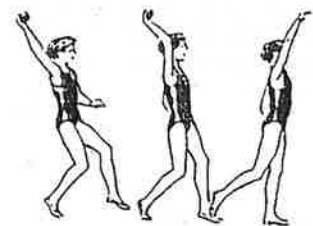


THROWS FROM DIFFERENT POSITIONS

The following exercises are useful:

1. Target throws from sitting and kneeling positions, rotating throws with clubs, blocks of wood and stones. Tree trunks, old bicycle tyres and other markers can be used for the target. (fig.1). 15 to 20 repetitions.
2. Target throws over a high obstacle from a standing or kneeling position. Hills, hedges and trees can be used for the obstacle (fig.2). 20 to 30 repetitions.

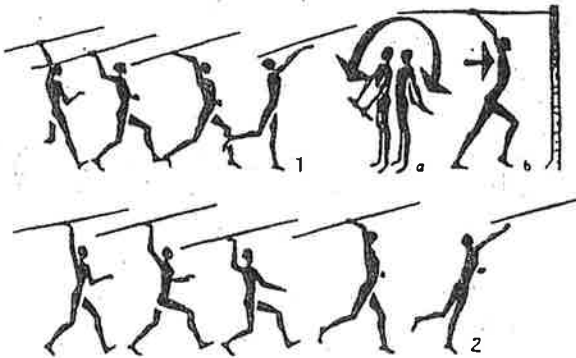
Gymnastics exercises: a) Stretching of the shoulder muscles. b) Development of the pre-tensed position holding on to a grip (door handle).



*Standing and impulse stride throws* — These throws will bring us considerably closer to the correct technique. The implements used are clubs, iron balls or heavy stones. The aim is to throw as far as possible in order to develop

a "fast arm". Observe carefully the following technical points:

- The arm should not yet be drawn back to an extended position. Keep instead the elbow in front near the head.
- Try to exploit the whole body in the throws but avoid bending from the hips after the delivery. Remain as tall as possible.
- Step with the right foot forward immediately after the delivery. This will keep you falling forward.



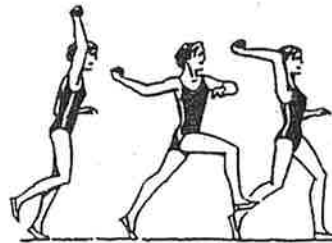
STANDING AND IMPULSE STRIDE THROWS

Most of the exercises described above are suitable for the standing and impulse stride throws, however, there are many more, such as:

1. A one-stride throw, starting with the right leg forward to take a single stride into the throwing position. This fast stride allows the athlete to feel how both legs straighten one after the other in the delivery (fig. 1).
2. Throws with an impulse stride, starting from a position similar to the standing throw. A flat,

jump-like, impulse stride brings you into the throwing position. It is a two-stride throw.

Gymnastics exercises: a) A javelin or pole, held with the hands placed about shoulder width apart is moved over the head back to the seat and returned b) Development of the pre-tensed position with the javelin supported against a wall or tree trunk.



Throwing from a run-up — A smooth change from the run into the throw without a pause is a difficult task. It is therefore recommended to throw often from a run, without worrying in the beginning about a correct delivery. It is important only that the left foot is in front when the delivery occurs.

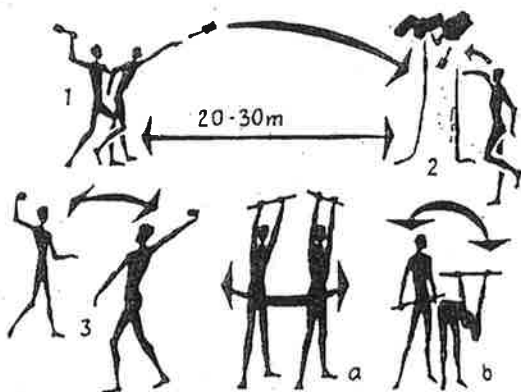
Once some confidence has been established, it is time to throw with a withdrawal of the implement. When light implements are used the withdrawal is executed during the second last stride, counting: left-and-throw. The arm should be back all the time when heavy implements are used.

A proper withdrawal action can be undertaken after the athlete has established a five-stride rhythm. Any attempts before this will only upset a fluent run and this should be avoided in the throws from a run-up.

The following exercises are useful:

1. Target throws from a run, aiming to increase the distance or trying to hit the target from gradually increased speed. (fig.1). 15 to 20 repetitions.
2. Distance throws from a run, aiming for increased distances. 15 to 25 repetitions.
3. Throwing in pairs contest. The implement is thrown back from the position it lands until one thrower exceeds the pre-arranged distance for victory. (fig.2).

Gymnastics exercises: a) Trunk rotations with a javelin or pole, held with hands shoulder width apart. b) Trunk bends with a backward swing of the arms (with and without the javelin).



THROWING FROM A RUN-UP

# *Javelin*

To achieve maximum distance in the Javelin the athlete will have to balance three components - speed, technique and strength. The information on this page is for a right handed thrower.

Throwing the Javelin comprises of the following phases:

- Start
- Carry
- Withdrawal
- Transition
- Pre-delivery stride
- Delivery
- Recovery



## Basic Technique



Working from right to left in the above standing throw picture sequence:

- The chin-knee-toe position should be adopted with the weight over the rear leg
- Hips are forward
- The feet should be in line with the throwing direction
- The throwing arm held parallel to the ground, long and relaxed with the palm uppermost
- The rear leg drives the hips to the front, transferring the weight from right to left leg
- The arm is brought in fast and last
- The elbow should be kept high and close to the head, with the javelin being thrown over the top of the head

## The Grip





A strong, stable grip is acquired. The grip must remain firm behind the ledge made by the binding (cord), and the javelin must run down the length of the palm and not across it. The fingers, which are not secured behind the binding, must press firmly on the javelin in order to produce a natural spin at release. The 'V' grip (C) is probably the most efficient for the novice thrower as it emphasises the supporting role of the palm. Grip 'B' is the one used by most experienced throwers.

### Start and Carry

The aim is to carry the javelin so as to allow the muscles of the right shoulder, arm and wrist to relax and also to allow an easy running action.

- Stand with right foot forward
- Carry the javelin above the shoulders or head
- Right elbow points forward
- Palm of the right hand points at the sky so as to provide a platform for the javelin to sit in
- Javelin points in the direction of the run up - point slightly down

### Approach Run

Experienced throwers will use an approach run of 13 to 17 strides - inexperienced throwers will use fewer strides.

- Run on the balls of the feet with hips high
- Free arm to swing more across the body
- Carrying arm to flex to maintain carry position of the javelin
- Speed to match athlete's physical and technical abilities

### Withdrawal

The aim is to ensure the withdrawal movement does not effect the athlete's momentum. A checkmark can be used to indicate start of the withdrawal phase which commences with the right foot and lasts for two strides.

- At the checkmark the athlete accelerates ahead of the javelin rather than physically pushing the shoulders and javelin back



- Head remains facing in the direction of throw
- Maintain hips at right angles to the direction of running
- Drive the right leg forwards and upwards to help maintain the correct position of the hips

### Transition

The aim of the transition phase, also known as the cross-over, is to place the right foot ahead of the athlete's centre of gravity so as to produce the characteristic lean back. This must be achieved by advancing the right foot forward and not by leaning back.

- Right foot remains close to the ground to maintain forward momentum
- Right heel makes contact with the ground
- As the right foot is advanced forward the left foot is advanced ahead of the vertical axis so as to be in place ready for a quick plant after the right foot has landed - the trunk is inclined backward at an angle of about  $115^\circ$  to the forward horizontal direction
- The cross over phase ends when the right foot makes contact with the ground and the left leg is forward in the air

### Pre delivery stride

- The left leg reaches forward
- Shoulders & hips now in line with the direction of throw
- The athlete waits for the ground to come up and meet the left foot
- Trunk is upright
- Head facing direction of throw
- Shoulders and javelin parallel
- Throwing hand above the level of the shoulder

### Delivery

- Following contact of the left foot with the ground the left side must brace against a thrusting right leg action
- Right leg drives upwards and forwards bringing the hips at  $90^\circ$  to the direction of throw
- Hip thrust is followed with the shoulders and chest turning square to the front and lining up with the hips and bringing the elbow of the throwing arm forward
- The throwing shoulder is brought over the left leg
- The left leg should lift as the athlete rides over it and the throwing arm now comes into play
- Arm strikes fast with the elbow high and close to the mid line
- The release angle (angle between the horizontal and the javelin) for the javelin has to take into consideration aerodynamic lift and drag. The optimum angle for the Javelin is about 33 degrees (Bartonietz, 2000).

## Recovery

The left foot remains grounded and the right leg is brought past it to halt the athlete. The amount of space needed to stop before the scratch line depends on the amount of horizontal momentum. This is typically 1.5 to 2 metres. Adjustment of the checkmark is required to achieve optimum distance on the runway.

## Skill Drills

Running activities without the Javelin

- At a steady speed
- With acceleration
- Sideways
- With repeated cross overs
- Cross overs mixed with normal running
- Over low obstacles between each stride

Running activities with the Javelin

- At a steady speed
- With acceleration
- With repeated cross overs
- Cross overs mixed with normal running
- Over low obstacles between each stride
- With repeated withdrawals

Throwing drills can also be performed using a [medicine ball](#), Javelin or sling ball

## *Javelin Photosequence*

Photosequence of Steve Backley in 1992 - comments by Max Jones.



Photo 1

Photos 1 & 2:

These are taken after the withdrawal of the javelin and have been preceded by a ten stride approach run.

Steve uses 5-6 strides between withdrawal and the cross over phase.



Photo 2

Note the effort to keep tall and the javelin steady and aligned.



Photo 3

Photos 3 & 4

Steve commences the cross-over with excellent left leg drive.

Note the high throwing hand with the hand turn slightly in.



Photo 4

The left shoulder is high with the left palm turned out which assists in keeping the left side to the direction of the javelin.

The eyes focussing on a mid-field point are looking over the left shoulder.



Photo 5

Photo 5:

Steve maintains his sideways on position with the whole of the left side still in direction of the throw. Hips and chest are kept high and the head is up and steady.

Photos 6-9:

On the completion of the cross-over it is natural for all throwers to sink to absorb the shock of landing, but Steve fights this tendency, endeavouring to stay tall.

It is a negative point to sink at the right



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10

hip for it will lose its strike capacity.

Still sideways on which has produced 'torque' and he has kept the throwing arm relaxed and delayed.

It is essential to control the point of the javelin at this moment - many throwers drop the throwing hand and subsequently raise the point with disastrous results.

The hip strike begins as the right foot lands.

Photo 10:

Steve benefits from his left side discipline since premature opening of the left side will mean that the right arm will strike early e.g.: the classical bent arm throwing position. Steve attempts to stay as tall as possible and keep the javelin aligned. Note how the right foot continues to turn and drive the hips forward.





Photo 11

Photo 11:

Classical Backley - strong hip drive leaving the javelin far back on a high right hand. The left leg is firm, absorbing the power of the right side and acting as a brace.



Photo 12

Photo 12:

The 'bow' that javelin coaches talk about - note how the arm has yet to strike. How many world class throwers can emulate this position? Note how Steve continues to keep both his head and chin up.



Photo 13

Photo 13:

Perhaps, in my opinion, the key to Steve's superiority - the drive of the right foot continues even at this point (and beyond) - the rest of the world (mere mortals!) would have ceased driving and left the ground well before. Note the left leg is not collapsing but beginning to strike upwards and forwards to contribute to the throw.



Photo 14

Photo 14:

The right foot is still down and therefore the throw is too long - lose contact and the throw will be short.



Photo 15



Photo 16

Photos 15 & 16:

Steve finishes the throw and follows through - throwing through the point of the javelin.

## **JAVELIN**

This is perhaps the most dangerous of the throwing implements. Therefore it is very important that every safety measure be taken when coaching this event.

Little Athletes begin throwing the Javelin in the U11 Age Group. Correct throwing technique is essential as elbow injuries can often occur if the event is not carried out correctly.

### **Safety**

- ❖ Use an area away from other groups and ensure that other group leaders or coaches know where you are working.
- ❖ Always supervise your group and carry your Javelins with the point down and tail up, i.e. vertically.
- ❖ The size of your group should be limited to no more than 8 athletes.
- ❖ Keep the throwing area in front of the athletes completely clear.
- ❖ Keep the area behind the athletes completely clear as well.
- ❖ All athletes should throw together and all athletes should retrieve together.
- ❖ The Javelin should never be thrown back.

### **Rules**

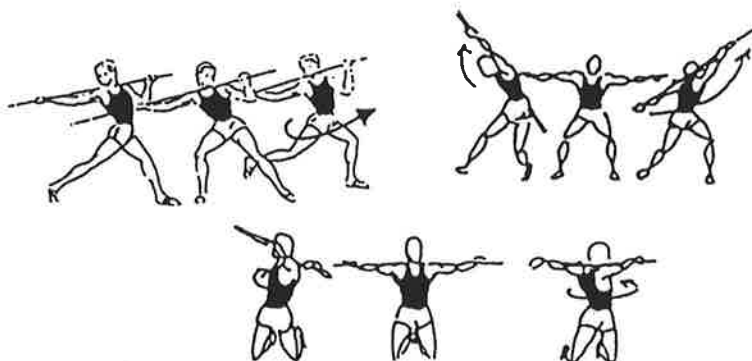
- ❖ Each athlete is allowed three throws.
- ❖ The Javelin must be held at the grip with the hand in contact with the grip.



- ❖ The athlete may enter the runway from any direction, but must leave the runway from behind the arc and its extensions.
- ❖ The throw must be commenced from a stationary position.
- ❖ The thrower must not turn his/her back on the sector at any stage of the throw.
- ❖ The thrower must not cross the foul line.
- ❖ The hand gripping the javelin must come over the shoulder or part of the throwing arm during the throw and must not be slung or hurled.
- ❖ The javelin must land point first between the sector lines.
- ❖ The athlete must not leave the runway until the javelin has touched the ground.
- ❖ Ensure athlete is using correct weight Javelin.

### Warm Ups

Always commence your training session or competition with this. Don't forget to include some short sprints over 20 metres and some mobility and flexibility exercises. It is also important to include some of Javelin specific stretching exercises.



## The Grip

Three different grips can be used. They all involve having the binding resting in the upward palm of the hand. The Javelin must be held firmly and the wrist must not be dropped.

1. **Index finger-thumb grip** :- The thumb extends back past the end of the binding with the index finger hooked around the other side. (Fig. 2.1)
2. **Middle finger-thumb grip** :- This is as above but the index finger points back along the shaft of the javelin with the middle finger hooked around the end of the binding. This may suit younger throwers. (Fig. 2.2)
3. **Claw grip** :- The index finger and the middle finger form a vee and hook around the end of the binding. (Fig. 2.3)



Fig 2-1



Fig 2-2



Fig 2-3

A common fault is that the palm of the hand holding the javelin is not facing upwards. This may cause elbow injuries. The wrist must be twisted to have the palm of the hand facing upwards.

## Technique

### THE STANDING THROW :-

It is essential for beginners to be taught to perform a standing throw correctly before they move onto a running throw.

1. Stand facing the direction of the throw with feet together.
2. Hold the javelin with the palm up, hand next to the ear with the point of the javelin slightly raised.
3. Draw the javelin back extending the arm behind the body with the trunk side on to the throw. The javelin should be pointing in the direction of the throw with the point slightly down. The elbow should be held higher than the shoulder and the hand higher than the elbow.
4. The athlete should take a step forward with the left foot.
5. The back should be arched to make a bow.
6. The throwing arm should be brought through, led by the elbow, over the shoulder.
7. The left shoulder should be pulled around by driving the left arm down and across the body, with the left hand passing the left hip to assist in rotating the shoulders and trunk to the front.
8. The athlete finishes the throw by stepping on to the right foot as a follow through.
9. The javelin should be watched in flight. (Not the ground.)

After this has been mastered, the athlete should move onto -

### **THE THREE STEP THROW :-**

1. Start as in steps 1 to 3 of the Standing Throw beginning with both feet together.
2. Maintain body and arm position. From the withdrawn position, the athlete steps off with the left foot three steps before throwing the javelin. The final step should land on the left foot, firmly planted on the ground.

3. Pull the shoulder around by driving the left arm around the body, bringing the right elbow up the right ear, rapidly pulling the right hand over the top of the head and follow through by stepping forward with the right foot.
4. Extend the right arm forward and upward at approximately 30 degrees.

### **THE FIVE STEP THROW :-**

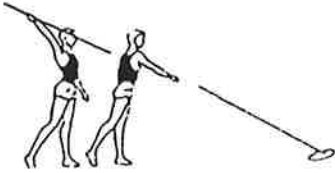
This is the same as in the 3 Step Throw except that 2 extra steps are added before point 2. This means that the athlete is stepping into the throwing position.

The throw is appropriate for most beginners. After having mastered this basic technique, the athlete can move into a run up and throw. This is done by adding steps to the 5 Step Throw.

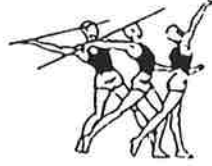
- ❖ Always add 2 steps at a time.
- ❖ The first 2 steps in any throw must be walking steps.
- ❖ The number of strides can vary from one athlete to another but generally 7, 9 or 11 are recommended.

### **Common Faults**

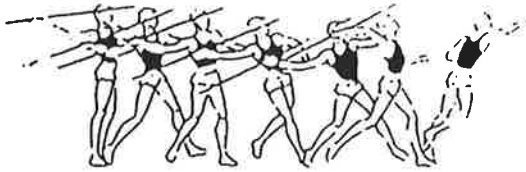
- ❖ Too fast a run up. This can lead to a poor delivery position and rushed throw.
- ❖ The javelin flips end over tip. Ensure that the javelin is not bowled but thrown. See that the javelin is not thrown too high.
- ❖ The javelin turns side-on in flight. Emphasise a firm wrist when throwing.



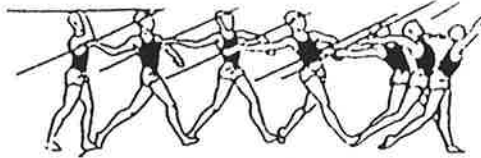
Stab Throws



1 Step Throws



3 Step Throw



RIGHT LEFT AND THROW

5 Step Throw

