



# Hammer Throw

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## About the Tutorial

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Hammer Throw is a sport in which a heavy metallic object is thrown which has to land in a prescribed area. The heavy metallic object is connected with a string and the athlete throws it by holding the end of the string in his hand.

In this tutorial, we will discuss the fundamentals of Hammer Throw such as its techniques, rules and regulations, trainings, safety measures, etc.

## Audience

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This tutorial is meant for anyone who wants to understand the basics of Hammer Throw. It is an introductory guide to help enthusiastic readers learn how to play this sport.

## Prerequisites

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Before proceeding with this tutorial, you are required to have a passion for Hammer Throw and an eagerness to acquire knowledge on the same.

## Copyright & Disclaimer

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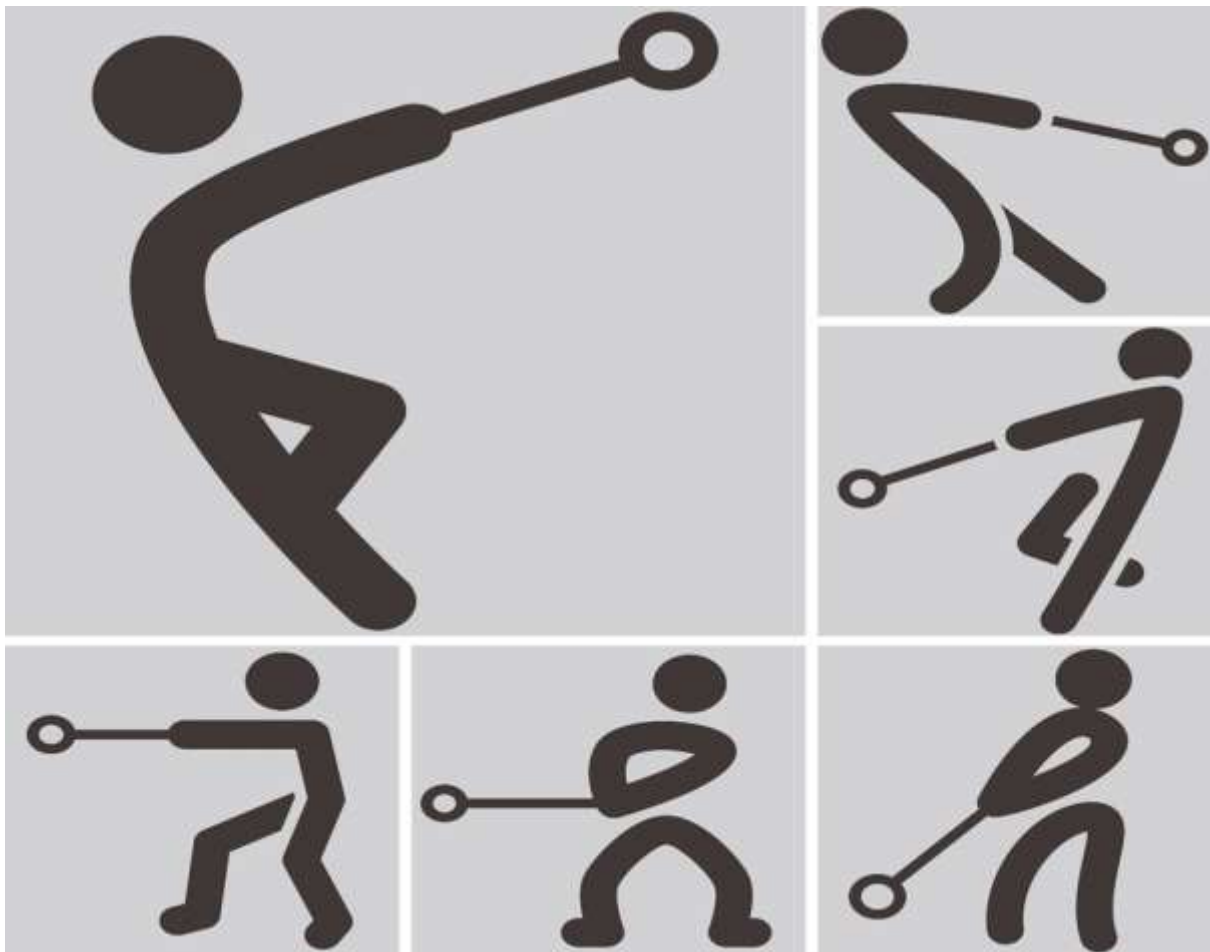
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# 1. Hammer Throw – Overview

Hammer Throw is a sport of strength, balance, and projection. Apart from heavy physical strength, it requires excellent foot work coordination. Since 1900, it is a part of Olympic Games in men's category. In the year 1995, it was introduced to women's category too. International Association of Athletic Federation (IAAF) is the governing body of this sport.

Hammer Throw is a popular field and track event in which the athlete needs to throw a heavy spherical object to prescribed distance, by spinning it in air with the help of a wire or string attached to it. This sport is played in both men and women category. For the safety of the spectators, the athletes use to perform inside a semi enclosed perimeter.



## A Brief History of Hammer Throw

Traces of hammer throwing can be made into 18<sup>th</sup> century where the Tailteann people used to showcase their talents in front of their kings by throwing heavy stone or metallic materials being attached with a rope. Soon the culture was developed and was transformed into a sport that was introduced in modern Olympic Games in 1900.

Many people also believe that the origin of this sport is from the Scottish independence war, where King Edward-I has prohibited the use of weaponry. As a result of which this type of throwing was practised by the army men in the late 13<sup>th</sup> or 14<sup>th</sup> century. Till 1995

International Association of Athletic Federation (IAAF) did not made any rectification to include women's event in this category but finally in 2000 Summer Olympics, women made their debut in hammer throw and a year after that it was also introduced in world championships.



## Participating Countries

Hammer Throw comes under the track and field job event. Since its introduction to Olympic Games in 1900, the popularity of this sport grew exponentially in different nations. Many Asian and Non-Asian countries participate in this sport. The countries that participate in this sport are China, Tajikistan, Uzbekistan, India, Kuwait, South Korea etc. In 2014 Asian Games, **Dilshod Nazarov** of Tajikstan bagged the gold medal in men's category and **Zhang Wenxiu** of China bagged gold medals in women's category.

Many Non-Asian countries have shown their talents in events like Summer Olympics. Countries like, Norway, Great Britain, USA, Russia, Czech Republic, etc. are dominating in the competitions. In 2012 Summer Olympics, **Krisztian Pars** of Hungary bagged the gold medal in men's category while **Tatyana Lysenco** of Russia bagged gold in women's category.



## 2. Hammer Throw – How to Play?

Before moving to various techniques of the sport, let's start from the basics.

### The Grip

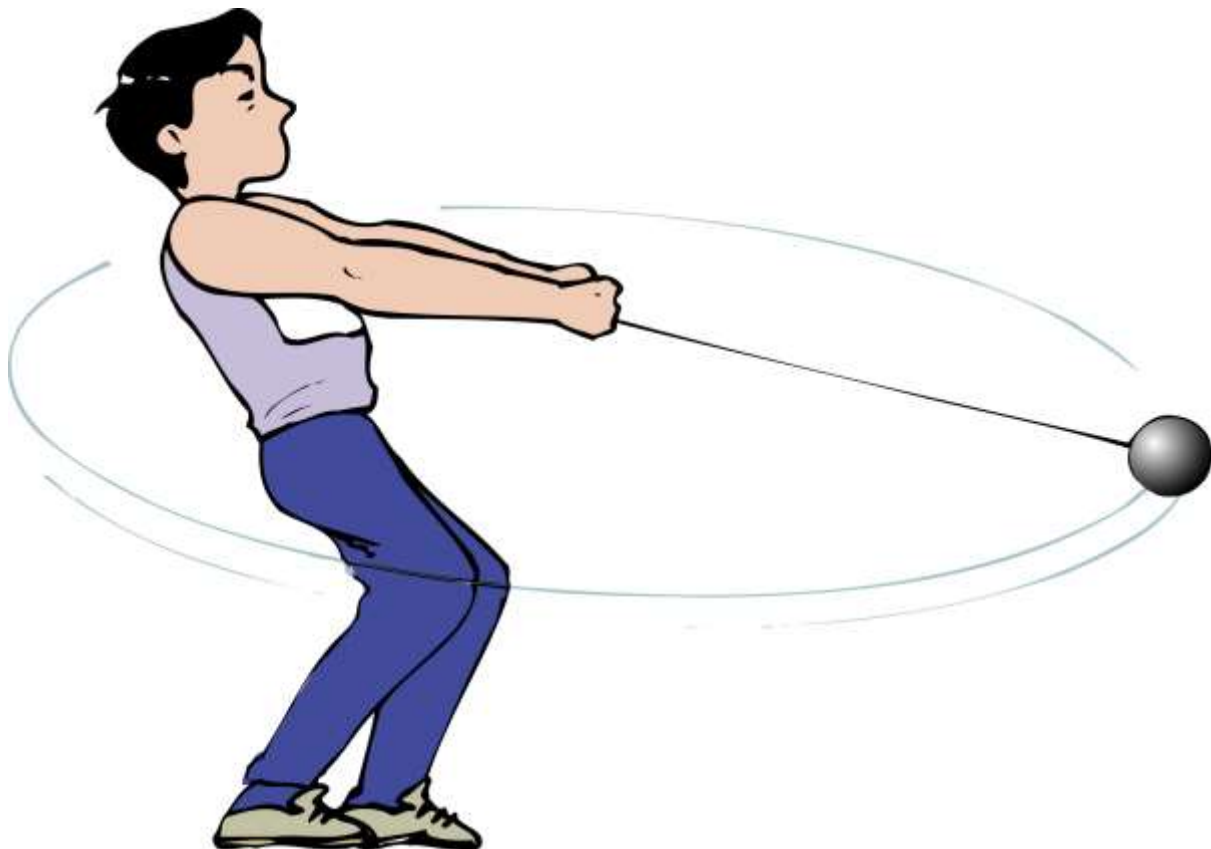
Gripping is done basically in the left hand for a left hander and in right hand for a right hander. To protect the palms from the mechanical injuries, gloves are provided by the sporting organisation.

Gripping is done in between the second and third joints of the fingers. On the top of the left hand, right hand is placed. It should be placed inside the handle.



### The Swinging

At first, you have to stand at the rear point of the circle. Technically speaking, this will be a 12 o'clock position. Your feet should be exactly parallel with the ground and your back should be towards the throwing direction i.e. throwing direction will be at 6 o'clock with respect to you. To increase the momentum of the throw, use the preliminary swinging.



In general, an athlete uses two swinging; however, there is no restriction upon the increase or decrease of the swinging. The swinging must be started from behind the right side of the body. Take the hammer in the forward direction away from the body. Swing it over the head. Through this act, the low point of the hammer will lie in a 12 o' clock position and tip in 6 o'clock position with respect to your body.

## The Entry

Soon after the swinging, the athlete enters into the turning phase. The position of the hammer comes directly in front of the thrower and turning of the low point commences. Pushing of the hammer takes place to the left and the turn starts.

Some other positions of the body that should be taken care of are:

- Shoulders should be relaxed
- Movement of the head should be passive
- Keep hips and knees flexible
- Feet should remain in contact with the circle

## The Turns

These are a series of movements done to increase the speed of the hammer. Generally 3-4 turns are made but an athlete can go for more also if he/she likes. However; one important aspect that should be taken care over here is the balancing of body. Strong gripping of both the feet over the ground and their gradual movement aids the turning process.

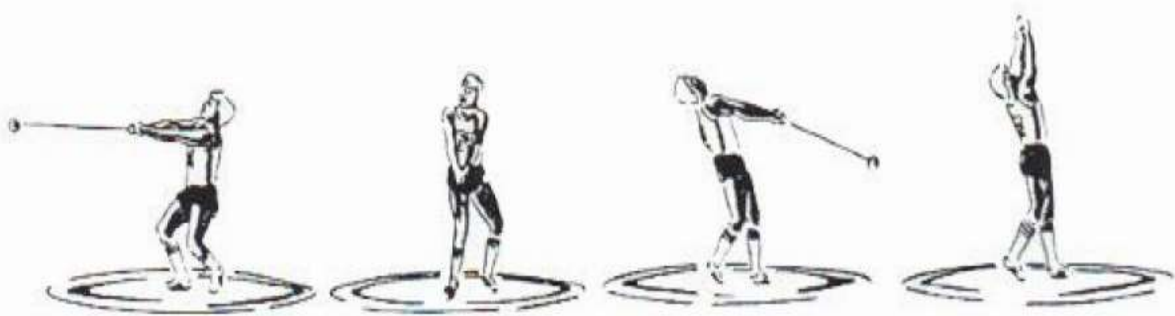


Turn your right foot through your toes and left foot through your heels. Perform a driving action with the help of your right knee and lift your right leg up in the air in the 6 o'clock position once it completes its movements. Rotation of the right hip takes place around the back and up along with the right foot. It touches the ground on the circle exactly making a 3 o'clock marking.

Through the rotation of the foot, acceleration force gets transferred from hips and right foot to the base of the hammer, positioned at 12 o'clock. During the time of application of force the hammer ball should be on downward path and contacts should be there between both of your feet with the circle. Throughout the turning process the right foot keeps in contact with the circle. The upper part of the body remains in the passive position and arms should be straight with shoulders being relaxed.

### The Delivery

Through repetitive rotation, the ball achieves its acceleration but the thrower still keeps rotating the ball with his feet in contact with the circle. The point at which the hammer is released is known as the **high point**.



It is positioned just opposite to the low point. Opposite to the low point, the hammer is driven upward through the proper extension of hips, ankles, and knees and then is released. During this process the left side of the body should be blocked and at 9 o'clock position, the upward driving of the feet should be made.

### Heel Toe Turn Footwork

Preliminary swinging action starts with the turning of the heel of the left foot and the ball of the right foot. You can lift the right foot up in the air as soon as the hammer passes the 9 o'clock position and rotation will be done on the outside of the left foot. As soon as the ball reaches 6 o'clock position, shifting of the left foot is done onto the ball of the foot. With the arrival of 3 o'clock position, put the right foot on the ground.

All the remaining turns between 3 o'clock to 12 o'clock can be done with the help of the ball of the foot. Shifting of the left foot goes onto the heel level as the ball comes near 12 o'clock position and the next turn takes place. The distance achieved by the hammer primarily depends upon three factors which are:

- The angle at which hammer is being released
- The height at which it is released
- Speed at which it has been thrown

The speed at which the hammer is thrown has the dominating effect among all. So the athlete should exercise upon that more and more with effective training and continuous practice.



# 3 . Hammer Throw – Rules

An athlete has to abide by the following rules while performing in a Hammer Throw competition:

- Before the starting of preliminary swinging, an athlete is allowed to put the head of hammer either inside or outside the circle.
- It is not a foul if before the starting of preliminary swing, the thrower puts his hammer on ground but if after preliminary swing, the head of the hammer touches ground or the hammer is dropped by the athlete, then it will be counted as a foul.
- While being in the air, if the hammer breaks then it will not be counted as foul, provided the athlete has played under correct rules and regulations.



## Rules about Hammer

A hammer consists of the following three parts: Metal head, Wire, and Grip.

- The head of the hammer should be made up of solid material like iron and it should be spherical in shape. The diameter should be 110 mm for men and 95 mm for women.
- Filling is allowed and should be done in such a manner that it will be immovable and the centre of gravity will not be more than 6 mm from the centre of the sphere.
- Wire that is going to be used over here will be single and unbroken type having a minimum diameter of 3mm. It should not stretch more while being in air. The wire can be lobbed to the either ends of the hammer.

- Construction of the grip can be either single or double loop type but it should be rigid and should not have any hinging joints at both the sides.
- The grip should be attached to the wire in such a manner that it cannot be turned within the loop of the wire.
- Measurement of the hammer should be done from the inside of the grip.
- To ensure the safety of the spectators, the performance should be carried out inside an empty cage.

## 4 . Hammer Throw – Training

Generally the throwers do not compete for a single throw; they participate in multiple events like hammer throw, javelin throw, etc. Hence, their training schedule is prepared keeping an eye on the performance that will aid to all types of throws. So let's go through some of the basic training schedules that will help in building up the power and strength of an athlete.

### Power Snatch

During the time of throw, you need sufficient energy to lift up the accelerating hammer and to throw it in a required direction. This exercise is solely designed for that purpose.

You need an Olympic bar to have a grip during the snatch. Place it just outside of your knees and push hard towards the ground during the starting of the snatch and soon after that regain back your entire weight on your heel. Snatching is better if you follow **Split Leg snatch** pattern.



### Front Squats

Hammer throw demands excess strength of hamstrings, thighs, and hips. If you will practise squats in your daily exercise schedule, it is going to aid your performance.

You can mix front and back squat to design your own style of exercise. But in case of hammer throw, our hips remain at the back of the heels so it is the front squat that is going to help us a lot.

A three quarter squat movement is also better. Generally while countering the hammer, athletes think too much about the outward pulling force of the hammer. So a front squat practise is going to make their thigh and hip muscles much stronger.



### Trap Relaxing

Hammer throwing depends upon the centrifugal force. It is true that speed aids the hammer throw but sometimes excess speed can spoil the throw too. So it is better to increase the radius than speed.

From this statement, we mean that while uplifting the hammer, if you will apply much force by tightening and squeezing your muscles, then it is going to shorten the radius of turning, which in turn will decrease the level of the throw too. So instead just concentrate more on the pulling motion by creating a continuous motion that will gradually pull the weight off the ground.

## 5 . Hammer Throw – Safety Measures

Although the sport looks simple from outside, but it needs many safety measures while performing it over the field. This is because any slight mismatch in the performance can hamper a great injury to both athlete and the spectators. For this reason it is often played in a semi closed encasement.

Some important safety measures that should be followed during the competition are:

- During the performance, all the retrievers and officials are ordered not to turn their back to the area of playing. This is because in the worst case, if any practitioner loses his/her balance, some hazard may happen.
- Soon after bringing the implement to the athletic area, the retrievers are advised to walk backward or on the side of their head.
- Officials and other judges should always stand at the back side of the net.
- Always inspect the ground before practicing because maximum times during rainy season or in winter season, the ground becomes wet and slippery.
- The ground should be clear from any foreign objects.
- Before throwing, make sure that no one is present on the landing area.





## 6 . Hammer Throw – Champions

International Association of Athletics Federation (IAAF) is the governing body of hammer throw. Every participating country has its own governing body to organize the sport successfully throughout the calendar.

Here is a list of some important tournaments of this sport.

- Summer Olympics
- World Championship
- Asian Games
- Commonwealth Games

Many players have grabbed gold, silver, and bronze medals in various tournaments. Some of those champions with little details have been discussed here.

### Yuriy Sedykh

Yuriy Sedykh is a competitor for Soviet Union. He bagged six gold medals out of which two are in Olympic Games and one from World Championship. He has also won one silver medal each in Olympics and World Championship.

Besides this he is the winner of three gold medals in European Championship he has set a world record of throw of 86.74 meters. Currently he is handling various hammer annual camps in USA.



### Sergey Litvinov

Sergey Litvinov is a competitor for Soviet Union. He bagged a silver medal in 1980 Olympics held in Moscow and a gold medal in 1988 Seoul Olympic Games. He won gold medals two times in World Championships.

He also won a silver and a bronze medal in European Championships. He set the world record of 84.14 meter in 1983. His son Sergey is also a good hammer thrower.





## Anita Włodarczyk

Anita Włodarczyk is a competitor for Poland. She won her first medal in 2007 when she participated in U23 Championships. She bagged silver in 2012 Olympics and a gold in 2016 Olympics.

In World Championships, she won two golds and one silver while in European Championships, she has won three golds and one bronze. She has also won two golds and one silver in European Team Championships. She is the first woman to throw hammer beyond 80 meters.



## Betty Heidler

Betty Heidler is a competitor for Germany. In her career till now she has won seven medals which include three golds, three silvers and one bronze.

Betty won one gold medal each in World Championships, European Championships and Universiade. She bagged two silver medals in World Championships and one in European Championships.

In 2012 London Olympics, she won a bronze medal. She has a world record of throwing at the distance of 79.42 meters.

