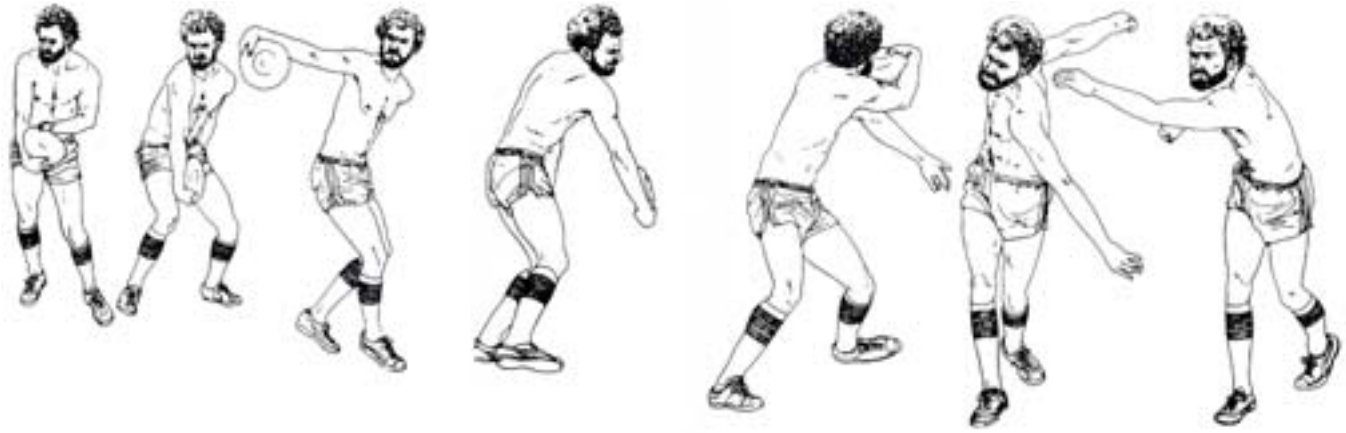
Distance

How to Play

DISTANCE



Throwing for distance is much more involved than it may seem. Because of the relatively lightweight of the disc, many factors come into play, which do not affect other thrown objects.

Dave Johnson, past holder of the world outdoor distance record and world champion in 1976 and 1977 gives some insight on the event:

SHOOTING THE BREEZE

"The race is not to the swift, nor the battle to the strong, neither yet bread to the wise, nor yet favour to men of skill; but time and chance happeneth to them all." Ecclesiastes 9:11 …And happeneth all too unpredictably to the swift, string, wise, understanding, and skillful Distance thrower. Ride the wind, who knows the wind, the wind cried Mary, and we cry foul when there is nary a breeze. Yes, we who throw the flying disc are obsessed with the wind. This is the story of the long Distance throw and of his (her) dealings with those couriers of fate, the breezes.

Stepping up for an outdoor Distance competition is like being thrown into the arena of life; alone and naked with but a piece of plastic to work with. That piece of plastic aesthetically molded into the flying disc is your tentative offering to the elements, a somewhat brave attempt to advance in the cosmos and be one for a few moments with ancient and untamed forces. Whether or not your offering will be accepted depends on many factors.

Fate is an intangible obstacle, so instead let's concentrate on some basic practicalities of Distance throwing that can be readily improved. We've all heard it's "all in the wrist" so often that is would be nice to hear it's all in something else for a change. For instance in dinosaurs, what little there was, was all in the big toe. It is the throwing wrist, a microcosm acting in consort with the macrocosm of the rest of the body that finally and definitely propels the disc to glorious oblivion – or else to ignominious groveling in the earth near-by. The wrist is supple and capable of a thousand different angles of movement and must in the end define the all-important angles of the throw. It must be strong enough to snap a fierce whiplash as the throw is released, and yet in that thousandth of a second of release be able to act in intricate subtlety as an instinctual computer making the final calculations that will result in a long flight.

The wrist also imparts spin to the disc which helps it to cut dizzily through the air in its initial flight and gives it the staying power to take advantage of possible updrafts in the warning moments. Yes, the wrist is the attention-getter but the rest of the body is hardly idle, or less essential.

The backhand throw for instance, still the most powerful, starts in the run-up usually consisting of a few backward steps to gain momentum. Beginning backwards allows the throw to unfold in a sudden pivoting around the torso with the thrower unwound and facing forward as the disc is released. In the meantime, the arm has taken a great downward sweep and is fully extended, the hips have snapped through in the direction of the throw, and the whole body is propelled forward as the wrist adds the final and most concentrated powerful propulsion. It all happens in a second or two, but coordinating these many different elements so they culminate in a consistently long throw takes much practice. The whole process must become spontaneous and for the most part unconscious for true mastery, and this is where the mind comes in.

Athletic performance is 80% in the mind, it is said, and a flying disc on its graceful journey might be described as the closest physical manifestation of a thought conveyed. The mind, or what it perceives, conjures up the adrenaline in certain moments that gels all that practice into a dramatic culminating throw. Listen to the wind at your back, it's telling you something; it's ready to take you and yours for a ride, and if in such a moment you can only feel as inspired as when emptying the garbage, you may as well use a Master For Distance! Inspiration and enthusiasm are at the root of most advances, and a Distance thrower is going to want to make some great leaps forward indeed!

But of the course there is always the groundwork to be covered which is hardly glamorous, but then the Tower of Babel wasn't built in a day. Obviously if you want to throw far, a strong arm is essential. If you're lucky, you were born throwing, grew soon to be the scourge of your neighborhood, breaking occasional windows, and so paving the streets with slippery crushed apples in your endeavors, that during your worst years, cars needed snow ties in October. Ideally you matriculated from jar-lids to rocks, apples, dirt bombs, snowballs, then on to baseballs, and finally evolved to Frisbee® discs.

But even lacking this early training, the throwing arm can be improved. It (and indeed the entire body) should be a mixture of strength and suppleness. Wrist pumps with a weight should be accomplished by a limp arm stretches with that same weight. A limited number of push-ups should be complimented by yoga type stretching exercises. If you can't touch palms to the ground, then start trying. This is of particular benefit to the lower back muscles, so important in the extension of the body as the throw is released.

So now it's gone, solid gone. It's been sent downtown, and you can only wait like an anxious parent to see how far it will go in its brief life. Here the winds have their say and once again we're back to those variables of chance and circumstance. What direction is the wind from for instance? It it's south or southwest, it's most likely a warm bubbly wind with uplifting air currents, and the disc is favored to go far indeed. Northwest wind on the other hand generally has subsiding currents and therefore is more likely to contain downdrafts that could slap a promising youngster to earth. No wind at all? It died down just as you came up to throw? Maybe it's something you did a past life.

SIDEARM

Mother Nature's Way to Better Long Distance Throwing

Inspired to throw one away? Victor Malafronte, once the indoor record holder gives some practical advice. While Victor's workout is specifically directed to the sidearm thrower, the practice technique can be helpful for all delivery styles.

Today, more players are becoming aware of the two-finger sidearm throw as being the panacea for disc mania. A player in possession of a good sidearm throw has the best possible

chance at developing a top-notch repertoire for fun and series competition. Being able to make an accurate left to right curve during a Golf game will certainly ease the pressure on your game. How about long distance flights of 300 feet? Would you like to be able to do that?

According to our anatomical structure and the study of kinesiology, a sidearm throw is the best possible technique for long distance throwing. Now off the top of your head, you could easily challenge this statement by simply referring to the fact that 99% of all past and current world records were set with backhand throws. This is true, but it is partly due to the lack of experimentation during the early years. The level of play and nature of competition did not necessitate new and highly advanced techniques. Consequently, most players only use the backhand throw. It was an easy throw to learn and everyone was using it.

There is evidence that the sidearm throw is more of natural movement than the backhand throw. It is an inherent movement pattern in man. Elements of the sidearm throw can be seen in primate behavior and in the performance of very young children who have had no instruction throwing. This fact in itself may indicate that the human arm is best designated to throw with a sidearm motion rather than a backhand motion. The power of a technique is in its structure.

Knowledge of the structure and function of certain parts of the human anatomy are beneficial to people who want to increase the effectiveness and efficiency of their movements. Remember that your bones act as levers and they are moving parts of your body held together by tendons and ligaments. Your muscles act as the energy producing material.

Another difference between the backhand and sidearm motions is that the sidearm utilizes more muscles and therefore has more energy producing elements at its disposal. The backhand throw uses only the muscles of the back and shoulder. The sidearm motion uses these muscles and the powerful latissimus dorsi, which is a broad sheet of muscle covering the lower and middle portions of the back. Its actions are adduction, extension, horizontal extension and inward rotation of the arm.

Et us compare three areas of difference between the sidearm and backhand throws: (a) each type of throw causes the arm the arm bones to rotate in different ways, (b) each type of throw uses different muscles, c) each type of throw uses different wrist and, most important, different hip movements. One of the main differences between backhand and sidearm throwing is that with the sidearm, the humerus (upper arm bone) rotates medially, toward the medial, or centerline of the body.

With the backhand motion, the humerus rotates laterally, away from the medial line. Observation of joint movements suggest that next to wrist flexion, medial rotation of the humerous is the fastest joint action of the upper limb. Pure supination occurs when throwing in a sidearm motion. Before the actual throwing movement, the forearm is rotated so that the palm of the hand faces upward when the hand is horizontal. This results in a medial rotation of the humerous during the throwing action. This is a more powerful movement than pronation, which occurs in the backhand throw as the forearm rotates with the palm of the hand downward.

Perhaps the most important reason why throwing with a sidearm motion is more powerful than a backhand motion had to do with the differences each type of throw has with regard to hip rotation. When throwing in a backhand position (using the right hand) the weight is on the right foot and the fulcrum for the hip action is right instead of left causing your hip to rotate outwardly. In other words you really can't get your hip into a throw. When throwing with a sidearm motion (using the right hand) the weight is on the left foot and the fulcrum for the hip to rotate inwardly, so with this type of throw you can get your hip into it!

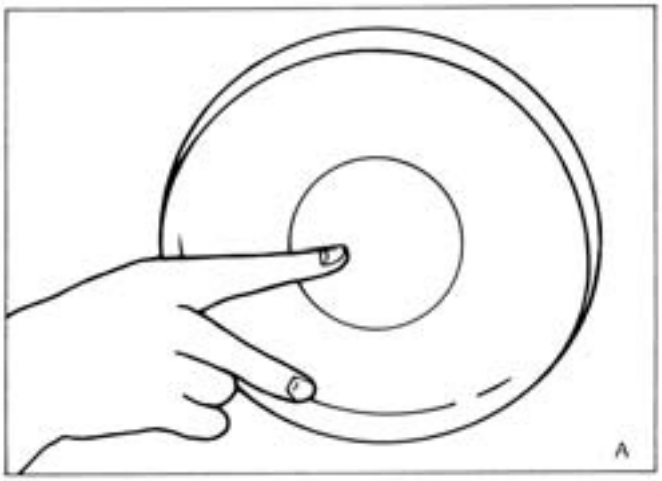
There are two basic grips for a two-finger sidearm throw. Grip number 1 is commonly known as the beginners grip and is usually used for short and medium range flights (as well as upside down and behind the back.) Many players will use the grip for finesse shots, during a Golf game or fast accurate throws in Ultimate and Freestyle. Note the thumb is on top of the shoulder, the middle finger is against the inner rim and the index finger is placed toward the center of the disc. This is designed to help you balance the disc property before launching. The second photograph is the power grip, and it is used for long distance and pure power. Note the middle finger is against the inner rim and the index finger is long the side of the middle finger. The index finger does not touch the inner rim and both fingers should be thought of as one working unit. You can either keep your two fingers in the straight position or bend them slightly before throwing.

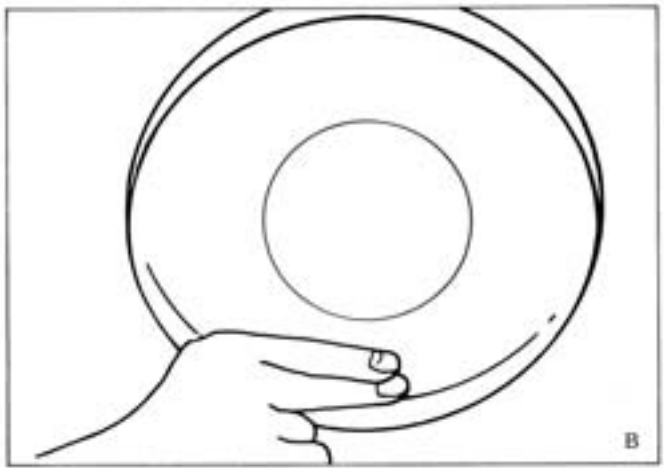
Apply pressure by pinching the disc with all three fingers, putting emphasis on the tip of your middle finger. The basic ingredients for a successful sidearm throw are knowing how to apply this pressure with a clean hard snap of the wrist plus adapting the proper technique of mechanics which utilizes only the necessary muscles for completion of the delivery. This problem must be worked out on an individual basis, for all people different and so are the techniques or ways that they choose. There are not shortcuts or magic ways to batter long distance throwing. Consistency makes champions and only with practice can you learn how to be consistent.

HOW TO INCREASE YOUR DISTANCE

It is necessary to have at least one dozen discs (two dozen works best) and an open area about the size of football field find any open area suitable to your needs and draw imaginary lines. If you are right handed, position yourself at the goal line on the left hand side of the playing field. The prevailing wind (if there is any wind) should be blowing down field, however it is not necessary to have wind in order to increase your distance. The best way to develop power and refine your technique is to practice when there is no wind. The best trajectory for a right-hander is one that travels from left to right and lands near the centerline of the playing filed. This trajectory is called a normal curve and it is designed to help you achiever the longest possible distance for a two-finger sidearm throw.

Hold the disc with your right hand and start about eight feet behind the foul line or goal line. Start with your feet together and step forward with your left foot using a short stride. Now step forward with your right foot and increase your stride. Step forward with your left foot using a full stride and plant your foot in the direction where you want the disc to travel. Release your disc with a clean hard snap of wrist, and follow through with your hip. Your right leg should swing around to your left side. You may want to increase the number of steps before throwing. Learn how to execute this technique (or your own variation) with a smooth deliberate motion, put emphasis on the snap of the wrist and hip rotation with a follow through.





For your first set of throws do not attempt to go all out, but only loosen up your arm by throwing at 75% of your current capacity. Your second and third sets should be thrown a little harder making all your throws land within the smallest possible group downfield. If you can make 99% of your throws (per seat) land within 40 feet of the disc that lies in the center of your group, then you're doing very well. Try throwing one set as hard as possible and you will probably have a few long throws, but your group will become larger and you're not really learning anything in the process. Don't despair! Keep working on those tight groups. Learn how to use consistency as a positive force to help you achieve those long distance flights, which you know you're capable of doing with or without the wind factor.

For your first workout, I would recommend making only 50 throws. You should continue to work out every other day and gradually increase the number of throws until you can put out at least 100 throws without too much soreness to your body. 100 throws is sufficient and is considered a good workout.

Keep a record of your workouts. Note the wind conditions, time of day, total number of throws, your five longest throws and average throw, the length of time for the workout and your attitude. Have a good mental picture of your groupings or draw them on paper. After two months of continuous workouts all this information will become invaluable, and you should have increased your distance by 100 feet or more. After each workout clean your discs with warm soapy water and store them vertically (loosely) when not in use. Good Luck!

DISTANCE GROUND RULES

All throws must be delivered from behind the 3-meter foul line. Any part of the body on the line or on the ground over the line before or during the release constitutes a foul. After releasing the disc the player any cross the line without fouling.

Each player must make five attempts within two and one half minutes of being called. The line judge will cal, "time warning 30 seconds" at 2:00 of the throwing period. The thrower should have a disc for each attempt when they are called to throw.

Any throw touched by a spectator, dog, judge, etc. while in flight over the field must be dealt with as follows: The thrower must make the immediate decision of either having the throw marked at the point of interference or taking an immediate rethrow.

CONTEST PROCEDURE

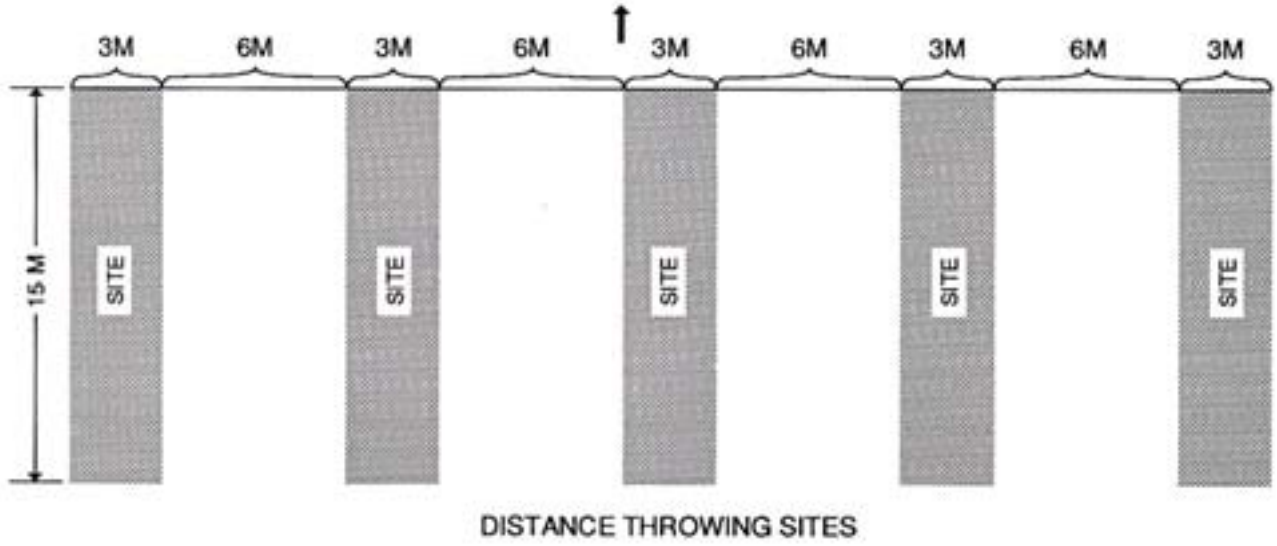
First Round – all competitors receive five attempts (cut to 30). Second Round – 30 competitors receive five attempts (place 30th to 6th and cut to 5 finalists based on single best mark in second round. Finalists – receive 5 attempts (place first to fifth on single best mark of finals). Ties for first place should be broken by giving the tied competitors an additional set of attempts. The better mark in that set determines the winner. In indoor distance, the winner may be based on single best effort in any round due to constancy of conditions.

STAFFING

Line Judge – calls competitors, time warnings and foot faults; holds tape on throwing line, records and announces results. Marking Crew (2 persons) mark throws and hold tape on marks to be measured.

DISTANCE FIELD LAYOUT

Field should be set to throw with the prevailing wind. Unblocked air flow from behind foul line is most desirable. Field must be essentially level for record consideration.



DISTANCE THROWING SITES

Several throwing sites may utilize one field (5 sites are shown above)/. The landing area should be as wide as possible – at least half the length of the anticipated throws. Unless unavoidable, no lateral out-of-bounds should be used.

MEASUREMENT

Official measure to the nearest centimeter from the mid-point of the throwing site to the center of the disc at its point of impact.

DISTANCE ACCURACY

The basic idea is to throw as far and as accurately as possible. Players gets five throws each. Net distance is determined by measuring the distance of the throw along the centerline minus the distance off the centerline. Each competitor receives five attempts. The best effort is recorded.