

Bowling

BOWLING HISTORY

EQUIPMENT

Basically, bowling is a simple sport. Just roll a ball down a lane and knock down the pins. Simplicity is one reason bowling has been popular with millions of people for thousands of years!

Bowling balls and pins were found in the tomb of an Egyptian king who died in 5,200 B.C. The ancient Polynesians bowled on lanes that were 60 feet long, the same as today.

Bowling was part of a religious ceremony in fourth century Germany. Those who could knock down the pins were said to be of good character. Those who missed had to do penance. Even Martin Luther was a bowler. British kings Edward II and Richard II banned

bowling because they said people were wasting too much time playing the sport. But Sir Francis Drake played a game of bowls before he went to war against the Spanish Armada.

Bowling has been popular in America since Colonial days. The British imported lawn bowling but German settlers introduced ninepins, the ancient game that evolved into today's modern tenpin sport.

Because of confusion over playing standards, the top bowlers of the 19th century decided that the sport needed a standard set of rules. They started the American Bowling Congress in 1895. The Women's International Bowling Congress was started in 1916.

Bowling equipment specifications have remained basically the same for the last century:

THE BALL must be round, have a circumference of 27 inches and weigh no more than 16 pounds.

THE PIN is 15 inches high, 4 3/4" wide at the belly and weighs between 3 lbs. 6 oz. and 3 lbs. 10 oz.

THE LANE is 60 feet long and 42 inches wide. (Lanes must be level to within 40/10000's of an inch!)

The pins are set in the form of a triangle. The lead pin closest to the bowler is known as the headpin or No. 1 pin. The other pins are numbered from 2 through 10.

Bowling is popular because it is a terrific recreation for people from every walk of life. There are some 8,000 bowling centers with 140,000 lanes in the U.S. Bowling is also played in nearly 100 countries overseas. You can enjoy bowling if you are short or tall, thin or fat, young or old, rich or poor.

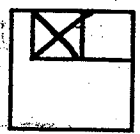
HOW TO SCORE

1	2	3	4	5	6	7	8	9	10
1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2 3
7/	X	7/2	6/	9/	X	X	8/	X	X/1
20	39	48	67	87	115	135	155	183	202

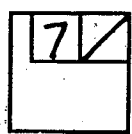
How to Score

Many centers have automatic scorers which display your scores on a video screen. All you have to do is punch in a few commands (fellow bowlers or the center staff can assist) and the rest is automatic.

If your center does not have automatic scoring, you will be given a scoresheet and a pencil to keep your own score. You'll find that keeping your own score can be enjoyable.



STRIKE



SPARE

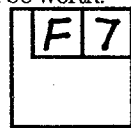
A game is made up of ten frames. At the beginning of each frame, the bowler tries to knock down all ten pins. If successful, the result is a strike and the frame is over. If any pins are still standing after the first shot, a second ball is rolled. If the remaining pins are knocked down it is a spare. If a pin or more is standing after the second shot the result is an "open" frame. The bowler is credited with just the amount of pins that fell.

When a spare is made the bowler gets credit for 10 plus the number of pins knocked down on the next throw. No score is marked in that frame until the next shot is made.

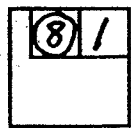
For instance, a player who follows

a spare by rolling a 6 count on the next ball will get credit for those 6 pins added to the 10 for the spare. It is now known that spare was worth 16.

A strike is worth 10 plus the number of pins knocked over on the next two tosses. Say a strike is followed by a frame in which the bowler knocks down 5 on the first ball and 3 more on the second throw. The strike would then be worth 10 + 5 + 3 for a total of 18. The score of each frame is added to the score of the previous frame until reaching a final total after 10 frames. In the final frame, if a spare is recorded, another ball must be rolled to determine how much that spare will be worth. For the same reason, when a strike is made in the 10th frame, two more shots are needed to find out how much the strike will be worth.



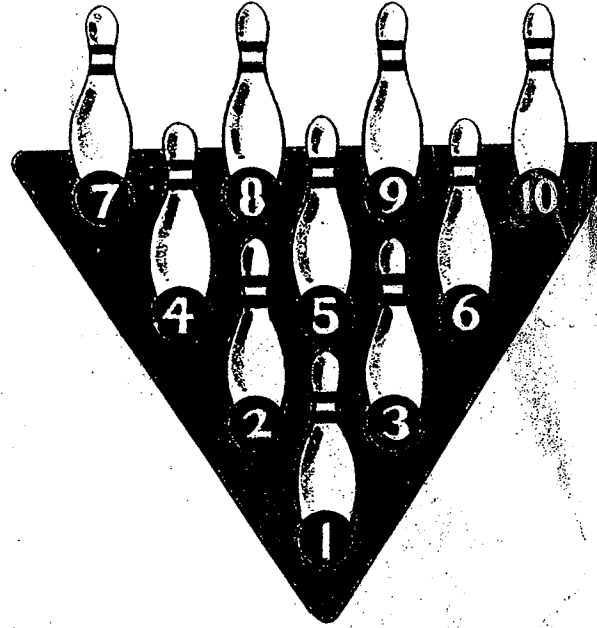
FOUL



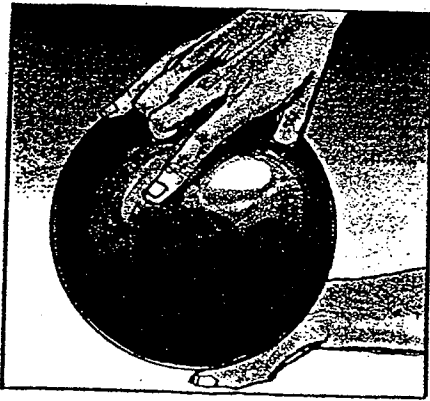
SPLIT

The scoring system is not just a simple count of pins knocked down. Spares and strikes provide a bonus opportunity to get extra credit.

The scoring system greatly rewards consecutive strikes. In fact, real high-scoring games—over 200—are possible only by bunching together strikes.



THE GRIP



The Conventional Grip

A standard three-holed ball is gripped by inserting the middle two fingers and the thumb. The fingers should fit to the second knuckle and the thumb all the way. The outside fingers extend comfortably across the top of the ball and the palm should be in loose contact with the ball's surface.

This is a "conventional" grip. If properly fitted it enables a bowler to swing a relatively heavy ball without having to squeeze it. Yet there will be no fear of having the thumb or fingers get stuck in the holes. Getting a custom fitted grip is crucial to learning how to bowl better.

PUTTING IT ALL TOGETHER

The first three steps are taken while the ball moves to its highest point in the backswing. From there you are in position for the downswing, slide and release. The key is getting the ball started with a proper outward movement. In bowling terms this is the push-away. As the first step is taken the ball moves from its starting position to a point about 12 to 18 inches in front of the body. From there it is ready to proceed into its swing arc as the second and third steps are made.

The start of the approach is the trigger point of the timing sequence. The push-away must be simple and easy to repeat. Even accomplished bowlers often seek to fine tune their timing. When doing so they concentrate on the first movement of the ball in relation to the steps. Get the first step and the push-away working together. From there the timing process will click into place for the remainder of the approach.

THE SWING, STEPS & TIMING

The Swing

If you take a rather heavy object such as a bowling ball and simulate an underhand throwing motion, you'll notice the movement takes a momentum of its own.

That is the pendulum principle. It is the essence of what makes a good, consistent swing. If bowlers did not have this "free" energy source, we could hardly get the ball down the lane at all.

In terms of weight, use a ball that can be swung back and forth freely and comfortably. The ball is too heavy if it makes the wrist flex back or causes the bowling shoulder to drop during the swing. It is too light if you feel you can "manhandle" the ball.

The Steps

New bowlers are encouraged to use a four step approach. Later, a fifth step may be added.

Take each step straight ahead. Simple, walking-type steps in a normal heel-toe manner are the goal. Only the last step, which includes a slide, is different. On that step, the bowling shoe hits the approach with the ball of the foot causing it to glide forward. Then the weight transfers back toward the heel as a means of braking to a stop.

The first step should be the shortest. The last step, because it includes the slide, should be the longest.

Think of a metronome beating 1-2-3-4 to keep a steady tempo. For righthanders the step sequence is right, left, right, left. Lefthanders follow a left, right, left, right pattern.

TARGETING & STRATEGIES

Alignment Guides

If you are going to toss a ball at something, normally you look at the target. Pitchers watch their catcher's glove. Basketball players shoot at a basket. Quarterbacks, unless they're trying to be deceptive, look at their receiver. But experienced bowlers almost never look at the pins!

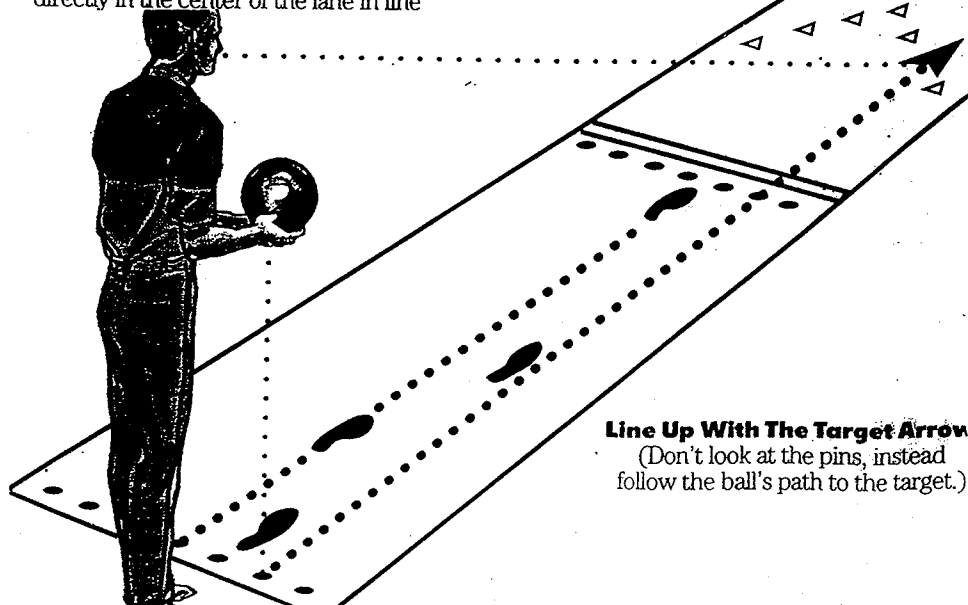
Granted, the idea is to get the ball rolling toward specific pins. But it is better to sight at a nearby spot on the lane and roll the ball instead of "pitching" it at the pins some 60 feet away. It is also easier to see and make a connection to a marker that is much closer.

The arrows, or rangefinders, are located 15 feet from the foul line. They serve as targeting guides. There are seven arrows. The middle one is located directly in the center of the lane in line

with the headpin. The other arrows are also aligned with specific pins.

In order to help position your stance, the rows of dots on the approach match up directly to the arrows. A straight path can be drawn from the middle dot on the approach through the middle arrow on the lane to the headpin. The other dots and arrows match up in a similar way.

Targeting is a matter of choosing a starting position and a focal point. Your stance location and aiming point is determined by the path you want the ball to take. Adjustments are made by changing either the starting position, focal point, or both. Using the dots and arrows as guides makes the alignment more precise. After each shot evaluate if that particular alignment is worthwhile or how it should be changed.



Line Up With The Target Arrow
(Don't look at the pins, instead follow the ball's path to the target.)