

Third Edition

Tennis

STEPS TO SUCCESS

#1
SPORTS
INSTRUCTION
SERIES



Jim Brown

Third Edition

Tennis

STEPS TO SUCCESS

Jim Brown



Human Kinetics

Library of Congress Cataloging-in-Publication Data

Brown, Jim, 1940-

Tennis : steps to success / Jim Brown.-- 3rd ed.

p. cm. -- (Steps to success sports series)

ISBN 0-7360-5363-8 (soft cover)

1. Tennis. I. Title. II. Series.

GV995.B6924 2004

796.342'2--dc22

2004007825

ISBN-10: 0-7360-5363-8

ISBN-13: 978-0-7360-5363-1

Copyright © 2004, 1995 by Human Kinetics, Inc.

Copyright © 1989 by Leisure Press

All rights reserved. Except for use in a review, the reproduction or utilization of this work in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including xerography, photocopying, and recording, and in any information storage and retrieval system, is forbidden without the written permission of the publisher.

Developmental Editor: Cynthia McEntire

Assistant Editor: Carla Zych

Copyeditor: Amie Bell

Proofreader: Julie Marx Goodreau

Graphic Designer: Nancy Rasmus

Graphic Artist: Tara Welsch

Cover Designer: Keith Blomberg

Photographer (cover): Dan Wendt

Art Manager: Kareema McLendon

Illustrator: Roberto Sabas

Printer: United Graphics

Human Kinetics books are available at special discounts for bulk purchase. Special editions or book excerpts can also be created to specification. For details, contact the Special Sales Manager at Human Kinetics.

Printed in the United States of America

10 9 8 7 6 5 4

Human Kinetics

Web site: www.HumanKinetics.com

United States: Human Kinetics

P.O. Box 5076

Champaign, IL 61825-5076

800-747-4457

e-mail: humank@hkusa.com

Canada: Human Kinetics

475 Devonshire Road, Unit 100

Windsor, ON N8Y 2L5

800-465-7301 (in Canada only)

e-mail: orders@hkcanada.com

Europe: Human Kinetics

107 Bradford Road

Stanningley

Leeds LS28 6AT, United Kingdom

+44 (0)113 255 5665

e-mail: hk@hkeurope.com

Australia: Human Kinetics

57A Price Avenue

Lower Mitcham, South Australia 5062

08 8372 0999

e-mail: liaw@hkaustralia.com

New Zealand: Human Kinetics

Division of Sports Distributors NZ Ltd.

P.O. Box 300 226 Albany

North Shore City, Auckland

0064 9 448 1207

e-mail: info@humankinetics.co.nz

Tennis: Steps to Success is dedicated to the memory of Bryan Kirby,
a good tennis player, a good friend, and a good person.

JMB

Climbing the Steps to Tennis Success

For beginning and intermediate players, as well as teachers and coaches, this newest edition of *Tennis: Steps to Success* can help build a foundation or add to what the player has already accomplished in the sport.

The *Steps to Success* are arranged in order—one stroke at a time. Beginners can start with the forehand and backhand and learn to serve and volley before tackling specialty shots such as the half volley, lob, smash, and drop shot. The explanations and accompanying illustrations not only provide clear instructions for executing each stroke, but they also provide options. Players won't be locked, for instance, into a specific grip, stance, or swing. Experiment to find a style that fits your playing level, your body, and your attitude. The 10 percent of players who are left-handed get equal instructional treatment.

Intermediate players already know how to hit the ball. *Steps to Success* offers more thorough explanations of the strokes than do basic instruction books. Refine and polish skills with game-specific drills as you move toward playing at an advanced level. Get more insight into when and why to hit certain shots. Put the collection of strokes into a game plan that includes overall match strategy and point-by-point tactics.

For teachers, *Steps to Success* provides a turnkey instructional package. Teachers who already have an established teaching system can select from the information, drills, activities, and methods of grading that fit their programs. The background section includes a brief history of tennis, updated equipment information, an explanation of rules, warm-up and cool-down guidelines, information on tennis-related injuries and treatment, and Web-based tennis resources.

Then there are strokes, strategy, self-paced drills, and methods of evaluating each student, plus a 170-term tennis glossary. The previous editions of the book have been used in more than 100 colleges and universities, as well as in countless high schools. The approximately 80,000 people who have bought previous editions include teaching professionals, program directors, and parents working with their own children.

Tennis coaches, even those who were successful players, don't automatically acquire a complete understanding of strokes and strategy. Coaches add pieces of information to their personal databases step by step and year by year. *Steps to Success* can accelerate that learning process. This edition has "big-picture" strategy in each of the first eight steps and more than 200 tactical suggestions in steps 9 through 11.

For this edition, each step has been rewritten to include the best of past editions while adding new information; detailed explanations of stroke production; and instruction for beginning and intermediate players as well as some tips for advanced players. The instruction for each stroke also includes suggestions about overall strategy, and the last three chapters are devoted to specific tactics for almost every competitive situation. Better drills replace some of those from previous editions, and new drills have been added.

What could be new about tennis instruction? Plenty. As you will see in the section on equipment, racket technology continues to evolve. Lighter, bigger, stiffer, and stronger rackets allow players, regardless of skill level, to generate more racket speed and hit the ball harder. Young players are getting bigger and stronger. As a result, players can use a greater variety of acceptable

stances, grips, and swings. Teaching methods have changed to keep up with the game, and those methods are reflected in every step.

The system of monitoring progress has been refined. There is a new way to score success for every drill and to determine an overall rating for each of the 11 steps. You'll know when you are ready to move on or what you need to work on before you do.

Steps to Success provides a systematic approach to playing and teaching tennis. Follow the same sequence as you work your way through each step:

1. *Stroke instruction.* In steps 1 through 8, read the explanations for executing the respective strokes and look at the accompanying illustrations to get a mental picture of how to hit the ball. These illustrated explanations include instruction for moving to the ball; holding the racket; and using the proper stance, preparation, swing, and follow-through.
2. *Self-paced drills.* Perform the drills within each step in the order in which they appear. Each drill can be modified to make it more difficult (see To Increase Difficulty) or less challenging (see To Decrease Difficulty), depending on skill level.
3. *Success checks.* While executing each drill, focus on a few components of the stroke. Read the Success Checks for a reminder of what to focus on.
4. *Score your success.* You will earn anywhere from 1 to 15 points on each drill. Repeat the drill as many times as you like, but don't worry about getting a perfect score. If you wait for perfection, you'll miss the fun.
5. *Missteps.* Players at all levels make some common errors on each stroke. Pointing out these missteps and offering ways to correct them may speed the learning

process. If players are familiar with these common missteps ahead of time, they may be able to avoid them altogether.

6. *Success summary.* Near the end of each step is a Success Summary, a brief reminder of the most important teaching and learning points for that particular stroke. Each step concludes by asking you to rate your success. By circling the score you attained on each drill and adding up your points, you'll know if you need more practice or if you're ready to advance to the next step.
7. *Tactics.* Steps 9 through 11 answer some of the following tactical issues. How do singles tactics differ from those used in doubles? How do you prepare for the match? How do you play well against certain types of opponents? How do you adjust to various playing conditions? These three steps also contain drills and activities that simulate game and match situations.

Make *Steps to Success* work for you. Learn the game from scratch as a beginner, sharpen your skills as an intermediate player, teach the game using a systematic approach, or coach with a more comprehensive understanding of the game. Even advanced players will find drills that challenge their skills and strategy tips that might give them an edge over opponents.

The reward for completing the steps to success is whatever you want it to be. For some, playing tennis is just plain fun. For others, tennis provides a lifetime of healthy physical activity. And for those who like the competition, a world of players is out there waiting to challenge you. Good luck on this step-by-step journey to developing tennis skills, building confidence, and experiencing progress. Be sure to enjoy yourself along the way. Whoever and wherever you are, *Tennis: Steps to Success* is ready to take you several steps closer to becoming the best player you can be.

The Sport of Tennis

Englishman Walter Wingfield had an idea he thought would make him rich. He combined the sports of badminton and court tennis to create lawn tennis, a game he first called *sphairistrike*, to be played on a court the shape of an hourglass. In 1874, Mr. Wingfield received a patent for his invention, devised a tennis kit, and put the kit on the market.

People took to lawn tennis quickly, although they did not subscribe to its Greek name or the shape of the court; and just as quickly, people realized they didn't need Wingfield's kit to play the game. He let the patent expire three years later, the same year a tennis tournament was held at the All England Club, the first Wimbledon. Although Wingfield never became rich, he is given credit for inventing a sport in which others have made millions and become sport superstars.

For a long time, tennis was a game played mostly by wealthy men who belonged to exclusive clubs. When the United States Lawn Tennis Association (now the United States Tennis Association, or USTA) extended its so-called protec-

tive wing to women in 1889, tennis became a respectable sport for both sexes. Female stars such as Suzanne Lenglen, Elizabeth Ryan, Helen Wills Moody, Alice Marble, and Helen Jacobs attracted fans—but men such as Bill Tilden, Jean Rene Lacoste, and Don Budge dominated play and headlines for the first half of the 20th century. Today, about half of the players in the United States are women, and many tennis fans think the women's game is more entertaining than the all-power all-the-time game played by the best male players in the world.

Club tennis is still strong, but people of all socioeconomic classes now play the sport. In the United States, most players participate free of charge on public courts. Most of the 22 million Americans who play tennis at least once a year range in age from 8 to 80 years old. Most are amateurs who play for fun with friends, in tournaments, on teams, and in leagues throughout the country.

Once only amateurs played tennis. When professional tennis finally arrived, the few players who could make a living, such as Richard

The Most Dominant Player Ever?

Who was the most dominant player in the history of tennis? Sampras? Williams? Laver? Navratilova? Borg? King?

Consider the case for Margaret Smith (Court). The Australian, born in 1942, won a total of 62 grand slam championships—more than anyone in history—in singles, doubles, and mixed doubles. She was only 18 when she won her first grand slam, the Australian Open. She took the grand slam in mixed doubles in 1963 and again in singles in 1970, for which she collected a total of \$14,800. During that year, she won 21 of 27 tournaments. On three different occasions, she won singles, doubles, and mixed doubles titles at a grand slam event. She represented Australia six times in the Federation Cup and never lost a match.

Court retired in 1966, got married, and started a family. She returned to tennis in 1970 and won her last title in 1975. In 1991 she was ordained a Christian minister and founded a church in Perth, Australia.

Gonzales, Pancho Segura, and Jack Kramer, participated in small barnstorming matches and tournaments wherever a promoter could book an arena. Open tennis, in which professionals were allowed to compete with amateurs, started in the 1960s with the help of visionaries and promoters such as Kramer, Lamar Hunt, and George MacCall. Open tennis, however, was not a universally popular concept. An Australian newspaper demanded that MacCall, who was in Australia to sign the country's best players to professional contracts, leave the country. But open tennis was here to stay, and the game would never be the same again. The money paid to players, even to so-called amateurs, went from under-the-table deals to widely publicized contracts. Now world-class players often skip college to turn professional during their teens. In fact, the number of college graduates who have won major singles championships in the past 50 years can be counted on one hand.

Television changed tennis in ways both good and bad. In 1972, more than 50 million viewers in the United States watched Australian stars Ken Rosewall and Rod Laver play a classic. Rosewall won in five sets. A year later, Billie Jean King beat aging hustler Bobby Riggs in the "Battle of the Sexes" at the Astrodome in Houston, Texas. The spectacle attracted a crowd of 30,000 people plus a national television audience. American stars Jimmy Connors and John McEnroe played brilliantly in front of millions who watched on television, but it can be argued that their boorish behavior set an example that negatively influenced an entire generation of young players.

The number of players, products, and programs increased almost simultaneously with the growing number of tennis events shown on television. Names such as Ashe, Newcombe, Roche, Smith, King, Navratilova, Becker, Evert, Borg, Graff, Sampras, and more recently Agassi and the Williams sisters boosted ratings. The major tournaments—Wimbledon, the Australian Open, the French Open, and the U.S. Open—attract viewers who are not mainstream tennis fans.

Technology has also changed the sport of tennis. Once, courts were made only of grass, clay, or concrete. Now they are made of colorful synthetic products with made-to-order surfaces. Tennis rackets have gone from wood to graphite,

boron, fiberglass, and Kevlar. The size of racket heads started at 60 to 70 square inches, moved up to jumbo-size models, and settled down to midsized and oversized frames of 100 to 115 square inches. The width of tennis rackets changed from narrow to wide and back again. Lighter, stiffer, and bigger rackets have made it easier for beginners to learn to play, for intermediate players to improve their strokes, and for pros to hit shots at bulletlike speeds. Serves have been recorded in the 150-mile-per-hour range.

Finally, the access to tennis instruction and the science of tennis training have changed. During the first two-thirds of the 20th century, interest was not high enough to support many teaching professionals. Today, however, tennis pros, teachers, coaches, camps, courses, and clinics are commonplace. Organizations and businesses train and certify people to become teaching professionals. The availability of information regarding preparation, performance, nutrition, hydration, psychology, safety, injury prevention and treatment, and sport science has, for the most part, elevated the quality of play. Unfortunately, little control is exerted on the quality of information, especially on the Internet, making tennis consumers vulnerable to fads, fiction, and frauds.

EQUIPMENT

All tennis players, regardless of skill level, require the same tools to play the game. Although their quality and cost may differ, rackets, strings, balls, footwear, and tennis apparel are necessities of tennis life. Here are some suggestions for buying, using, and taking care of these products.

Rackets and Strings

When you shop for a tennis racket, take time to read the material on or attached to the racket. The labels, stickers, cards, and hangtags provide important information about racket-head size, length, string tension, flexibility, and other properties.

Wilson, Prince, and Head sell 75 percent of all tennis rackets. Approximately three-fourths of all tennis rackets are prestrung, are made of aluminum or low-end graphite, and cost

between \$20 and \$90. For beginning players, rackets in the \$50 to \$90 range are just fine to get started.

The remaining 25 percent of rackets cost between \$90 and \$400 and are made of substances such as high-modulus carbon fiber, Kevlar, graphite, and even very small amounts of titanium, probably more for the marketing appeal than for racket performance. Intermediate players will want to upgrade to a racket in this category, usually in the \$100 to \$200 range.

When the first edition of *Tennis: Steps to Success* came out in 1989, rackets weighed between 11 and 14 ounces. By the time the second edition was published in 1995, racket weight had dropped to 9 ounces. Today rackets weigh as little as 8 ounces and as much as about 12.5 ounces. Beginners are better off with rackets that are on the lightweight side and relatively stiff (to provide power). Lighter rackets should have the weight distributed more toward the racket head. If not, players may find it very difficult to generate power. Nothing is wrong with heavier rackets, but they require the effort and skill of an intermediate or advanced player to be effective.

Generally, stiffer rackets provide more power, whereas flexible rackets are thought to offer greater control. Regardless of the flexibility of a racket or the lack thereof, controlling the ball is more a function of the player's skill than the type of racket. No measure of racket flexibility is universal. Each company has its own method of describing flexibility. Read the cards or hang-tags that are attached to new rackets, or talk to a salesperson who knows something about racket construction. Knowing what the different parts of a racket are called will help. Figure 1 illustrates everything from the butt to the tip.

As you progress along the steps to tennis success, you will develop a swing style. Players who have short swings seem to do better with stiffer rackets. Players with long swings prefer very flexible rackets. Other players have an intermediate-length swing, and they should look for a racket with intermediate flexibility.

Although racket weight has gone down, racket head size has increased, as mentioned earlier. Most rackets used to be 90 to 110 square inches. Now, the range is more like 95 to 115,

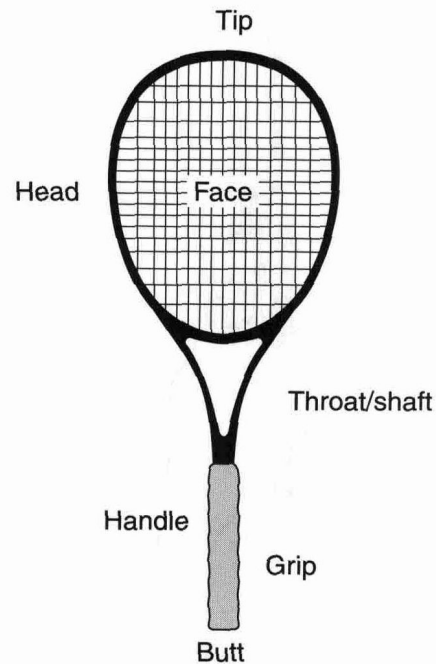


Figure 1 Parts of a tennis racket.

and most recreational players prefer those near the top end of that range. In a recent grand slam event, 13 of the top 20 men and women played with rackets with a racket head size slightly less than 100 square inches.

Grip sizes really haven't changed much during the past few decades. Each model comes in five or six sizes, ranging from 4 1/8 to 4 5/8 inches. The most common sizes are 4 3/8 and 4 1/2 inches. Look at the information on the racket near the top of the handle for the grip size. Here are several ways, none of them very scientific, to determine the correct grip size for your hand:

- Shake hands with the racket or hold it with an eastern forehand grip. As your fingers curl around the grip, the end of the thumb should touch the first joint of the middle finger (figure 2).
- Measure the distance from the tip of your ring finger to the long crease in the middle of your palm (the second line down from the base of your fingers). Position a ruler between your ring and middle fingers. The distance measured should be very close to the correct racket-circumference grip for your hands (figure 3).

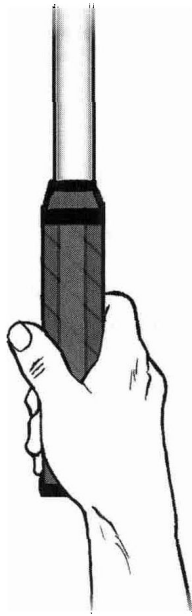


Figure 2 The end of the thumb meets the first joint on the middle finger.

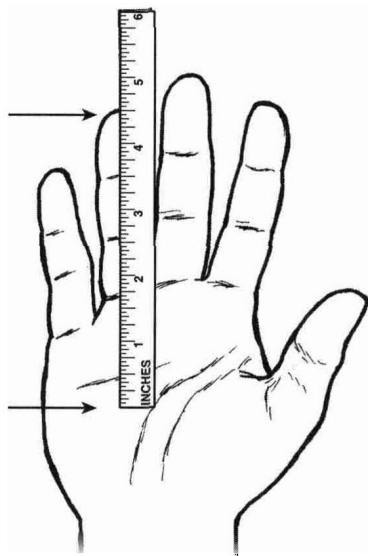


Figure 3 Measure from the tip of your ring finger to the second line in your palm.

- Hold the racket in your dominant hand. It should feel comfortable and easy to maneuver. The shape of the grip should fit the contour of your hand.
- Hold the racket in an eastern forehand grip. You should be able to fit the index finger of your nonhitting hand in the space between your ring finger and palm (figure 4). If there isn't enough room for



Figure 4 Fit the index finger of your nonhitting hand in the space between your palm and ring finger.

your index finger, the grip is too small. Conversely, if there is space between your finger and palm, the grip is too big.

- Play with a demo or loaner racket. If it twists in your hand on contact, the grip might be too small. If your hand and arm tire quickly, it might be too big.

Manufacturers have experimented with various racket lengths (up to 29 inches), but the average length has settled in at 27 1/4 inches. “Shorty” rackets are available for children and are a great idea for younger players learning the game.

Most rackets that cost less than \$90 are already strung. Performance rackets—those that cost more and are used by intermediate and advanced players—are sold unstrung. The majority of players use nylon or other synthetic strings. The few who use gut (cow or sheep intestine) are either very good players or ones who are very serious about their games. Expect to pay from \$20 to \$60 for a string job. Again, look for a suggested string tension label somewhere around the racket throat. String tension ranges from 50 to 65 pounds. Generally, the lower the tension, the more power that can be generated. Tighter strings allow for more control, assuming you are a good enough player to control the ball regardless of racket flexibility and string tension. Try to settle on a string tension that gives you the best combination of power and control.

Unlike intermediate and advanced players, beginners don't usually break strings; they just

play with rackets until the strings lose enough tension to affect power or control. How often should a racket be restrung? As many times a year as you play during a week. For example, if you play tennis twice a week, get your racket strung twice a year.

Once you have selected the right racket and strings, take care of them. Rackets endure a lot of abuse during the course of a lesson, practice session, or match. You can make them last longer and stay stronger by following these suggestions:

- Avoid storing rackets in hot, cold, or damp places.
- Keep racket covers on the rackets when they are not being used.
- Avoid spinning the racket on the court to determine serve and side.
- Don't use the racket to pick up balls if the frame scrapes the court.
- Wipe the strings clean after playing on a damp court or in high humidity.
- Use a replacement grip or overwrap when the original grip tears or becomes slick.
- Avoid tossing your racket, bouncing it off the court, or hitting things with it other than the ball.
- Check your racket for warping and cracks before getting it restrung.
- If a string breaks, remove all the strings to relieve tension on the frame.

Balls

The price of tennis balls hasn't changed much over the past 40 years. You can pay \$3 to \$4 for a single can of three premium quality balls at a tennis shop, or you can go to a mass merchandiser or sporting goods store and buy the same can of balls for \$2.

Do not consider playing with cheap, low-quality tennis balls, even if you are a beginner. Buy the best ones available the first time out. Brand names can be deceiving, but Wilson, Penn, and Dunlop are three companies that make quality tennis balls. Whatever the brand, look for information on the plastic container indicating the balls have been approved by the United States Tennis Association or the International Tennis Federation.

Most balls are packaged in clear, plastic containers under pressure. If the pressure has not been maintained and the balls are soft when the can is opened, return the can to the dealer for a refund or a new can. If a ball breaks during the first two or three sets, take the can of balls back.

Three balls may last two or three outings for beginners and some intermediates, but after that they will begin to lose their pressure and bounce, or the felt will begin to wear off. When that happens, use them for practice only. Extend the life of balls by keeping them in the original container and by storing them in a cool place.

Ask for heavy-duty balls if you are going to play on hard surfaces. Regular (championship) balls are used on softer surfaces because they

When Strings Break Too Often

Broken strings are part of a tennis player's life, but what should you do when the rate at which racket strings break gets out of control? *Racquet Tech* magazine, a publication for professional stringers, noted that too many players quickly switch to a type of string made from Kevlar, which is durable but has a very stiff feel. Instead of making such a drastic change, David Bone, a stringing specialist, recommends taking several smaller steps, in the following order:

1. Use a thicker gauge of the same string.
2. Use string savers in the worn area.
3. Try a more durable construction of the same material in the strings that have been breaking.
4. Try a totally different material, but experiment with other synthetic strings before going to Kevlar.
5. Use a racket that has a denser string pattern.

don't wear as quickly. Tennis balls sold for play in high altitudes should be designated as high-altitude balls. Avoid taking heavy-duty or championship balls with you on a vacation to a high-altitude city. Instead, buy tennis balls when you get there.

Shoes and Socks

Discount stores sell affordable shoes that will get you through a tennis course or a series of lessons. But if you plan to play tennis three or more times a week, you should wear sport-specific tennis shoes.

Look for soft, flexible soles if you are going to be playing and practicing on soft, claylike courts. Even serious players can get months out of a pair of shoes on soft surfaces. Use tennis shoes with soles that are flexible and have added tread if you are going to play on hard courts, but don't be surprised if your shoes wear out within a few weeks.

Perhaps the most important feature of true tennis shoes is lateral control—that is, inside and outside stability. Tennis players spend as much time moving from side to side as they do going forward or backward. Choose shoes that will provide side-to-side motion control, preventing your ankle from rolling inward or outward and possibly helping you avoid ankle sprains. Other factors to consider are weight (buy the lightest shoes possible if other features meet your needs), comfort (walk, run, and change directions during the in-store test period), and cost (appearance and brand are not necessarily consistent with quality construction).

Tennis shoes get most of the publicity, but serious players know that the socks inside those shoes can affect performance and prevent injuries. Socks designed specifically for tennis players are thick or double-layered, with extra padding for the toe and heel. Some socks are so thick and cushioned you might have to buy shoes a half-size larger than usual. To repel sweat and expose it to the air for quick evaporation, the materials to look for in tennis socks are Coolmax, acrylic, polypropylene, and wool. Caution: Do not wear cotton socks for tennis. Not only are they poor in wicking moisture away from the foot, they also lose their shape, bunch up, and become abrasive quickly.

Apparel

The good news is that you can find moderately priced, high-quality tennis outfits at sporting goods, department, and discount stores, and at some pro and specialty shops. The bad news is that you can spend a lot of money on trendy shirts, shorts, skirts, warm-ups, and other active-wear clothing.

Students in high school and college activity classes usually wear shorts and shirts approved by the school. Dress codes may be in place, but no emphasis is put on fashion. If you take private or group lessons or compete in tennis events, there are guidelines to follow. A few facilities still require white attire, but most allow colors. Stay away from tank tops and swimsuits. Use common sense, observe what others are wearing, and ask somebody in charge what kind of dress is appropriate.

Most serious players practice in the most comfortable clothes they can find; T-shirts and baggy shorts are okay. They play matches in the best-looking outfits they can afford. More important than style, however, are clothes that are loose fitting for comfort of movement and light colored to keep you cool. In hot-weather months, consider wearing a hat. It will keep the perspiration from running down your face and give a little protection against harmful sunlight.

PLAYING A GAME, SET, MATCH

Singles is a *match* between two players; doubles is a match between four players, two on each team; and mixed doubles is a match pairing a man and woman on one team against a man and woman on the other team.

After a brief warm-up, the players decide who will serve first and on which end of the court. One of the players spins a racket in his or her hands or the players flip a coin. The ball is put into play by a serve, and the point is played out. *Points* are won when the opponent hits the ball into the net, outside the boundary lines, or does not hit the ball before it bounces twice.

After the serve, players may hit the ball before or after it has bounced on the court. One player serves an entire *game*, which may last from 4

points to an indefinite number of points. The server alternately serves from the right and left sides of the baseline to the receiver, who also moves back and forth from right to left to return the serve. A *set* is won when one player has won at least six games and is ahead by at least two games. The final score in a set might be 6-0, 6-1, 6-2, 6-3, 6-4, 7-5, 8-6, and so forth.

A player wins a match by winning two out of three, or three out of five, sets. When time is limited, pro sets might constitute a match. A pro set is won by the player who wins at least eight games and who is ahead by at least two games. Players change ends of the court when

the total number of games played at any time during a set is an odd number.

In most matches, players are responsible for keeping their own score and for calling their opponents' shots in or out of bounds. No sound from a player means the shot is in and play continues. Shots that hit the lines are in play. Shouting "Out!" means the ball landed outside the boundary line and the point is over. In some tournament competition, an umpire may stand or sit near the net, call out the score, and settle disputes on close shots. At higher levels of the game, linespeople are positioned to make line calls. Figure 5 shows the lines and areas of the court.

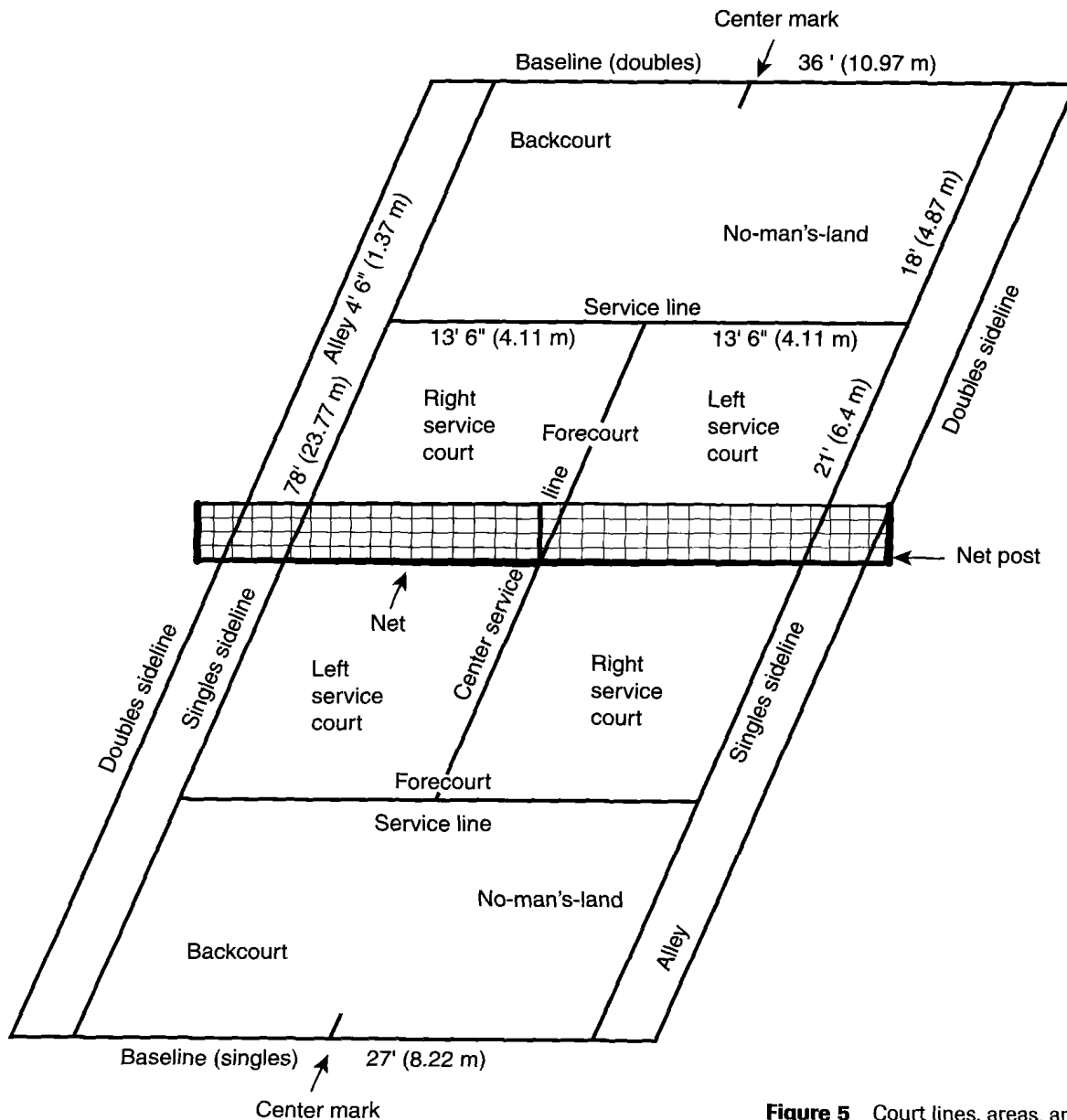


Figure 5 Court lines, areas, and dimensions.

A *match* may also refer to competition between two teams representing schools, clubs, or other groups. Within such a match there are games, sets, and points.

A tennis *tournament* involves teams or individuals competing against other teams or individuals in a series of matches. A high school or college team, for example, may enter a single-elimination tournament in which a team is eliminated from competition after one loss. The U.S. Open and Wimbledon are examples of single-elimination tournaments for the best players in the world. In a double-elimination tournament, which is rarely used in tennis, an individual or team that loses two matches is out. A round-robin tournament involves an individual or team competing against all of the other players or teams entered in that tournament. The team with the best overall win–loss record wins the tournament.

Singles Rules

Players take all practice shots before the match begins. Warm-ups are usually limited to five minutes. The player who wins the racket spin or coin toss may choose to serve or receive or decide on which side of the court to play the first game. The winner also has the option to make the other player choose first. The other player gets to choose whatever the winner hasn't chosen—that is, serving, receiving, or side of court. Read step 9, *Competing As a Singles Player*, for tactical considerations regarding these options.

To begin a game, the server stands behind the baseline to the right of the center mark and inside the singles sideline, facing the net. When the opponent is ready, the server has two chances to put the ball into play by tossing it into the air and hitting it into the service court across the net and diagonally opposite the baseline serving position. The server cannot step on or beyond the baseline before striking the ball.

The receiver is ready if he or she attempts to return the serve. The receiver can stand anywhere but must let the serve bounce before returning it. After each point, the server alternates between the left and right sides of the center mark to serve. If a served ball hits the

top of the net and goes into the proper court, it is called a *let* and the serve is repeated.

You can win points if your opponent

- fails in both attempts to serve the ball into the proper court;
- hits the ball outside the proper boundary lines;
- hits the ball into the net;
- lets the ball bounce twice before returning it;
- reaches over the net to hit a ball before it has bounced;
- throws the racket and hits the ball;
- touches the net with his or her body or racket while the ball is in play;
- carries or catches the ball on the racket strings deliberately;
- does anything to hinder the opponent in making a shot;
- touches the ball with anything other than the racket during play; or
- touches or catches the ball during play, even if standing outside the court.

Players change sides of the court every time the total number of games played is odd. They are allowed 90 seconds to rest when changing sides (except after the first game of a set) and two minutes of rest between sets.

Doubles Rules

The server may stand anywhere behind the baseline between the center mark and the doubles sideline. The four players take turns serving an entire game. The order of serving stays the same throughout the set. In a game of AC versus BD, for example, A serves, then B, then C, and last D. Receivers decide who will receive serves on the right and left sides, respectively, and maintain that order throughout the set. Other rules described earlier for singles apply to doubles, except that after the serve, the alleys between the singles and doubles sidelines are in play.

Scoring

The server's score is always given first. Points are love (0), 15 (the first point won by either player),

30 (the second point), 40 (the third point), and game (the fourth point). If the players are tied at 3 or more points during a game, the score is called *deuce*. After *deuce*, when the server moves ahead by 1 point, the score is *ad in* or *advantage server*. If the receiver scores a point, it's *ad out*. A player must win 2 consecutive points after *deuce* to win that game. If not, the score goes back to *deuce*.

No-ad scoring was introduced to simplify the method of keeping score and to reduce the length of matches. In no-ad scoring, the first player to win 4 points wins the game. Points are 1, 2, 3, and game. When the score is tied at 3-3, the next point determines the game. At 3-3, the receiver chooses to receive the serve from either the right or left side.

It is much easier for casual fans and even for players to learn and remember a simple 1-2-3 system than the 15-30-40-*deuce*-*ad* method. Since no-ad scoring eliminates the requirement of having to win games by at least 2 points, the overall length of tennis matches can be reduced considerably. High school and college matches are usually played on unlighted courts after school and before dark. No-ad scoring allows matches to be completed during daylight. Also, tournaments with large numbers of players, a restricted amount of time, and limited court space frequently use this method of score-keeping.

The disadvantage of no-ad scoring is that the system penalizes the well-conditioned athlete. The player with good endurance can use longer games and sets to wear down an opponent. This doesn't happen as much in no-ad scoring. Because no game will last more than seven points, it may be possible for a player who gets a good start to gain an edge that cannot be overcome in a short match.

Tiebreakers were incorporated into the scoring system mainly as a result of television. With traditional scoring, the length of matches is unpredictable. Sets have lasted for 30 and 40 games, making it more difficult to sell advertising time and to manage programming schedules. Tiebreak games were introduced so a 6-6 set could end quickly.

Tiebreakers are scored as follows: In a 12-point tiebreaker, the player or team who wins

7 points, and is ahead by at least 2 points, wins the game and the set. The score is called out as 1, 2, 3, 4, and so on, throughout the game. A final tiebreak score might be 7-0, 7-1, 7-2, 7-3, 7-4, 7-5, 8-6, 9-7, and so forth.

The player whose turn it is to serve serves the first point from the right court. The opponent is the server for the second and third points. After the third point, each player serves alternately for 2 consecutive points until the winner of the game and set has been decided. The second server serves the second and third points from the left and right courts, respectively, and this alternating-serve system continues until the tiebreak game is completed. Figure 6 shows the rotation of servers and their positions.

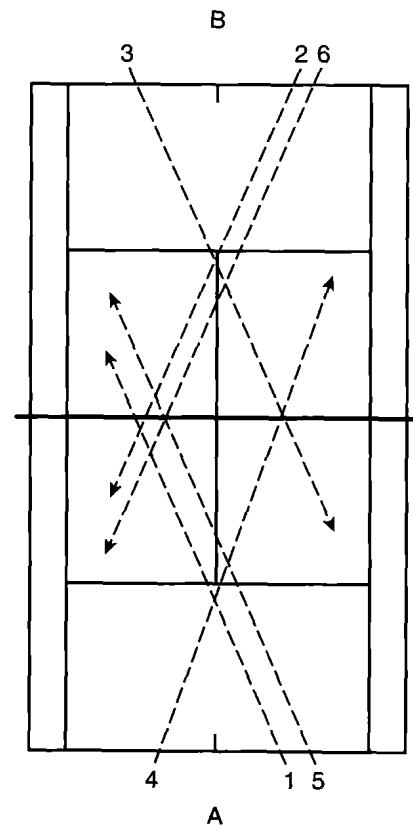


Figure 6 Tiebreak serving rotation.

Players change ends of the court after every 6 points and at the end of the tiebreaker, but no rest period occurs during the tiebreaker itself. The player or team who served first in the tiebreak game receives the serve in the first game of the next set.

Unwritten Rules

Because most tennis matches are played on the honor system without officials, some unwritten rules exist for players and spectators:

- If you ask someone to play a match, tennis balls are your responsibility.
- Take all practice serves before the first game begins, not when it is your turn to serve the first time.
- In unofficiated matches, keep your own score. The server should announce the score prior to each point.
- Each player is responsible for calling balls out on his or her side of the court. If you are in doubt, the shot is good. Never say, "Take two," to start the serving sequence over because you are not sure of whether a shot was in or out.
- Don't ask spectators to tell you if a ball is in or out. It's not their business, and they are not in a position to make a call.
- Play "in" shots. Immediately and loudly call all others "out." Never call shots "in."
- If a dispute arises about a line call, try to settle the argument with your opponent. If that doesn't work, ask for an umpire.
- If a loose ball on or behind the court interferes with concentration or becomes a safety hazard, call a "let" immediately and replay the point.
- If an unusual delay takes place between the first and second serves, allow your opponent to "take two."
- Don't shout at or distract your opponent in any way during a match. Not only is such distraction inappropriate, it's also against the rules. Furthermore, it is a sign of immaturity to groan, complain, curse, or verbally abuse yourself or others during a match.
- If one of your tennis balls rolls onto an adjacent court, wait for play on that court to stop before asking for your ball to be returned. Saying, "Thanks, court two," is one polite way to ask for help.

- When returning a stray ball to its court, wait until the point has been completed. Returning the ball immediately interferes with play.
- Shake hands with your opponent at the net after a match.
- If you are a spectator, hold your applause or cheers until a point has been completed. Tennis players react to sound and may stop a point if your noise is interpreted as a line call (such as "out" or "fault").
- Avoid walking behind a court during a point. Tennis players spend as much time between the baseline and the fence as they do inside the lines. Stay out of their way and their vision.
- Applaud or cheer well-played points and winning shots rather than errors made by a friend's opponent.

WARM-UP AND COOL-DOWN

The most common but least effective way to warm up is to hit balls. Although hitting balls is one way to get started, players using this method have a tendency not to exercise all of their muscles until actual play or difficult drills begin. Not warming up properly is an invitation to injury. A good warm-up period should prepare your body for strenuous activity without being tiring. Look at the warm-up as having two phases: a warm-up period and a time to stretch. Once you have warmed up and stretched properly you can practice hitting specific shots. After practice or play, take time to cool down. The cool-down allows your body to gradually return to a normal pace after strenuous activity. There is some evidence that stretching after a workout or match increases subsequent range of motion.

Start your general warm-up by moving around to increase blood flow. Try light calisthenics or jogging along the lines of the court. Jog around the court twice, for example, or combine jogging toward the net, backpedaling away from the net, and shuffling steps (one foot never crosses in front of the other) to move laterally across the court while facing the net.

After warming up, your muscles ought to be ready for some stretches. Hold each stretch for 10 seconds without bouncing and repeat each stretch two or three times. Include stretches for your upper body (towel stretch), trunk (standing or seated twist), and legs (lunge).

Now you're ready to hit. Start in the forecourt area and exchange soft, short groundstrokes with your practice partner. Next, move to the baseline and hit controlled forehands and backhands. Alternate roles with your partner to practice down-the-line groundstrokes, crosscourt groundstrokes, and volleys while your partner returns with groundstrokes.

Following the match or practice session, cool down by walking the perimeter of the doubles court for five minutes or until your pulse rate

drops below 120 beats per minute. Then repeat your stretching exercises while your muscles are still warm.

TENNIS INJURIES

Tennis players get hurt. Although tennis elbow gets most of the publicity, several less serious, but more common, injuries occur among tennis players. Blisters, sprains, strains, cramps, and shin splints, as well as tennis elbow, are examples of problems almost all players encounter sooner or later (see table 1). In most cases, tennis injuries are not emergencies, and the player who has some information can take care of them personally.

Table 1 Injuries, Causes, and Treatments

Injury	Causes	Treatments
Blisters (irritated, fluid-filled portions of the skin)	<ul style="list-style-type: none"> • Racket-hand irritation • Foot, sock, shoe irritation 	<ul style="list-style-type: none"> • If blister is not torn, keep surface area intact • Do not deliberately open blister • If blister is torn, clean and apply mild ointment • Apply liquid bandage product or bandage and tape
Sprains (stretched or torn ligaments)	<ul style="list-style-type: none"> • Forcing a joint beyond its normal range of motion 	<ul style="list-style-type: none"> • Ice every 20 minutes for 24 to 48 hours • Compression • Elevation • Rest
Strains (stretched or torn muscles or tendons)	<ul style="list-style-type: none"> • Overexertion • Improper warm-up • Sudden movement • Fatigue 	<ul style="list-style-type: none"> • Ice every 20 minutes during first day after injury • Heat before playing • Ice after playing
Cramps (violent, involuntary muscle spasms)	<ul style="list-style-type: none"> • Fatigue • Overexertion • Chemical imbalance • Dehydration 	<ul style="list-style-type: none"> • Stretch affected muscle • Ice • Pressure • Massage • Fluids
Shin splints (front leg pain)	<ul style="list-style-type: none"> • Hard surfaces • Poor conditioning • Inadequate arch support • Poor running technique • Congenital problems 	<ul style="list-style-type: none"> • Rest • Ice • Compression • Elevation • Appropriate footwear
Tennis elbow (inflammation of tendon of forearm muscle)	<ul style="list-style-type: none"> • Forearm stress • Weak muscles • Improper hitting technique • Wrong racket • Bone fragments 	<ul style="list-style-type: none"> • Ice and massage • Moist heat after 72 hours • Aspirin or ibuprofen • Rest • Correct racket • Arm band or brace