

This is the fourth draft of the chapter on Appendix: Rules in Hold'em Brain by King Yao. Please email feedback, suggestions, comments, opinions, questions to KingYao@HoldemBrain.com or you could use the Feedback Form to email me at the bottom of the page.

Hold'em Brain: Appendix: Rules

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The Rules and Mechanics of Limit Hold'em

It is expected that the reader of this book has some experience playing Limit Hold'em and is not a complete novice. For completeness, the rules of the game along with some poker terminology is included. Limit Texas Hold'em is a form of poker with community cards.

The rankings of the hands are in order:

Rank	Example
Royal Flush	A♠-K♠-Q♠-J♠-T♠
Straight Flush	K♣-Q♣-J♣-T♣-9♣
Four-of-a-kind	J♣-J♦-J♥-J♠-2♣
Full House	J♣-J♦-J♥-3♣-3♠
Flush	K♦-J♦-T♦-3♦-2♦
Straight	9♥-8♣-7♠-6♥-5♠
Three-of-a-kind	T♣-T♦-T♥-x-x
Two pair	T♣-T♦-9♣-9♦-x
One Pair	8♥-8♠-x-x-x
High Card	A♣-K♣-Q♦-J♣-9♦

How a hand is made

Every player gets two cards face down. These are the two cards that are distinct to their hand only.

At the end of the hand, five cards will be shown face up in the middle of the table. These five cards compose the board and are community cards. Each player mentally takes his two cards and combines it with the five cards on the board, and makes the best five card poker hand he can make.

They could use both cards from their hand and three from the board. Or they could use one card from their hand and four from the board. In extreme cases, they could use none from their hand and all five on the board. The purpose is to make the best poker hand from the combination of the starting hand and the board, without regard to how many cards are used from the starting hand.

Here are some examples of a few hands. The bold cards in the Final Poker Hand column are the cards from the Starting Hand column that are used to compose the poker hand.

Starting Hand	Board	Final Poker Hand
J ♠-T ♠	A ♣-Q ♠-J ♣-4 ♣-3 ♠	J ♠-J ♣-A ♣-Q ♠-T ♠
J ♠-T ♠	A ♣-Q ♠-9 ♣-8 ♣-8 ♣	Q ♠-J ♠-T ♠-9 ♣-8 ♣
J ♠-T ♠	A ♣-A ♥-A ♠-K ♣-J ♦	A ♣-A ♥-A ♠-J ♦-J ♠
J ♠-T ♠	8 ♣-7 ♠-6 ♦-5 ♠-4 ♣	8 ♣-7 ♠-6 ♦-5 ♠-4 ♣

The Cards

There are four rounds of card distribution and betting in Hold'em: the pre-Flop, the Flop, the Turn and the River. After the cards are dealt on each round, there is a round of betting.

Pre-Flop: Each player is dealt two cards face down. These cards pertain to only the hands of the individual. There is a round of betting after these two cards are dealt.

The Flop: Three cards are dealt face up in middle of the table, this is called the Flop. These cards are community cards that everyone uses in their hand and are collectively called the board. After the Flop, there is another round of betting. The term “the Flop” can refer to the three cards or the betting round.

The Turn: A fourth card is dealt face up in the middle of the table. This fourth card is called the Turn and is part of the board. After the Turn card is dealt, there is another round of betting. The term “the Turn” can refer to the card itself or the betting round.

The River: A fifth and final card is dealt face up in the middle of the table. This fifth card is called the River and is part of the board as well. After the River card is dealt, there is one final round of betting. The term “the River” can refer to the last card itself or the betting round.

The Showdown: After the betting round on the River, each player still in the hand at this point exposes their cards. Each player's full poker hand consists of the best five card poker hand possible from the combination of his two cards and the five cards on the board. The highest five card poker hand wins the pot. If there is a tie, then the pot is split among the players that tied for the best hand.

The Betting

Before any cards are dealt, three things happen. One player will get the dealer button, called the Button, he is the de facto dealer in the hand. Casinos will provide an employee to deal the cards.

In a home game, the dealer usually rotates from player to player, and an actual button would not be necessary.

The action always starts to the left of the Button and it goes around clockwise. The player to the immediate left of the Button is called the small blind. He is required to put up half of a small bet, and he is already partially in the hand. If the game is \$10-\$20 Hold'em, then the small blind puts

up \$5, if the game is \$20-\$40 Hold'em, then the Small Blind puts up \$10. The player to the left of the small blind is called the big blind. The big blind must post the amount of a small bet. If the game is \$10-\$20, the big blind must put up \$10. The two blinds act similarly to the combination of an ante and the bring-in in Seven Card Stud except it is only two players who puts up the "ante" rather than all the players putting up an equal amount.

The blinds are called such because they are in the hand blindly. The action is clockwise, and the dealer deals one card to each of the players starting with the small blind. He then deals another card to each of the players in the same fashion. After both cards are dealt, the pre-Flop stage starts.

Since the blinds are considered already active in the hand, the action starts with the player to the left of the big blind, called the under the gun player. He can choose to fold, call or raise. If he calls, he must put in the amount of the small bet, if he raises, he must put in two small bets. Calling in the pre-Flop round is sometimes referred to as limping. After the under the gun player has acted, it is the player to the left of him who acts next. He has the same options except if the under the gun player has raised, then he can fold, call the raise or re-raise. The action proceeds as such until it gets back to the small blind. At this point, the small blind is already in for half of a small bet. He has the same options as the other players, except that he needs to put in less money to call or raise since he already has half of a small bet in the pot. After the small blind acts, the big blind acts. If no one has raised, the big blind has the option to raise or check and see the Flop. This is the only time that a player can be considered to raise himself. Once the action has gone around to the player to the right of the last player to raise (or if unraised, if the big blind checks), then the dealer can deal the Flop.

In the round of the Flop, the action starts with whoever is to the immediate left of the dealer. If the small blind stayed in the hand, then he is first to act. If the small blind had folded in the pre-Flop round and the big blind is still in, then he acts first on the Flop. The first player to act has the choice of betting one small bet or checking. In most casinos, players are allowed to check-raise, meaning they can check first, but if someone else bets, they still have the option of raising. In home games, sometimes the check-raise option is not allowed. If the first player bets, then the second player has the option to call, raise or fold. Since this is a limit game, a raise would just be one additional small bet in the pre-Flop and Flop round. The action continues until the player to the right of the last player to bet or raise has acted. If everyone checks and no one bets, then the action proceeds to the next round.

On the Turn, the bet size now doubles to one big bet. In a \$10-\$20 game, a big bet is \$20. The bet size on the River is one big bet as well. The betting procedure on the Turn and River is the same as on the Flop. After the betting round on the River is over, the players expose their hands to see who has the best hand. Often the losing players will not even expose their hands. Once they see that their hand is beaten when they see the best player's hand exposed, they will typically just muck their hands face down.

The Positions

The players on the table are identified by their position relative to the button. The small blind and big blind are to the immediate left of the button (and are labeled 1 and 2 in the table below). The

player to the left of the big blind is called the under the gun player. Normally there are 9 or 10 available seats at the Hold'em table. If the game is filled up, then the first three players to act are considered in early position, this includes the under the gun player as well. The next two players are considered in middle position and the last three players are considered in late position. The player to the immediate right of the small blind is in last position, but is also called the dealer or the button. The player to the immediate right of the button is called the cutoff, and he is in late position as well. These names are just a conventional way to identify the players. Below is a table with the positioning of the players with different number of players from 7 to 10. Games with 6 or fewer players are generally considered shorthanded games, and those are covered in the shorthanded section of this book. The numbers in the table refer to the position of the players. 1 means the player is first to act, 2 means second to act, etc.

Number of Players	7 players	8 players	9 players	10 players
Blinds	1, 2	1, 2	1, 2	1, 2
Early Position (including under the gun)	3, 4	3, 4	3, 4, 5	3, 4, 5
Middle Position	5	5, 6	6, 7	6, 7
Late Position (including the cutoff and the button)	6, 7	7, 8	8, 9	8, 9, 10

After the end of a hand, the button will rotate to the left. The player who was the small blind is the button in the next hand. In Hold'em, the player on the button gets to see the other players act before he has to act, so he has a positional advantage. The blinds are disadvantageous positions because they must put money into the pot without even seeing their cards. So the button rotates, changing the advantage and disadvantage of different positions from one player to another.

The Nut Hand

The best possible hand in poker is referred to as the nut hand. In games such as Draw Poker, the nut hand is always the best poker hand, the Royal Flush. In Hold'em, after all the cards are out, the nut hand can be as low as three-of-a-kind (for example, with a board of A-K-9-8-3, the best hand is AA for three Aces). Knowing what the nut hand is and what your hand is in relation to that is key in Hold'em. There are situations where you have a three-of-a-kind and you are willing to bet and keep raising because you know no other player can beat your hand. This can happen when all five board cards are dealt and you have the best three-of-a-kind, and there is no possibility for a higher hand. This means there are no pairs on the board (if there is a pair, then full houses or a four-of-a-kind may be possible), no flush possibilities (for a flush to be possible, there must be three cards of the same suit on the board), and no straight possibilities (for a straight to be possible, there must be three cards that are within 5 cards of each other). But if the board is different, such as showing a pair or three to a flush, then the same three-of-a-kind will not give you as much comfort since potentially stronger hands are possible. To know the strength of any particular hand is to know its relative strength to the board.

Those that are experienced at Hold'em probably do not consciously think about these issues anymore. It is so ingrained with their thought process that there is no need to specifically note what the nut hand is. Think of it as the difference between a beginner driver and an experienced one. The experienced driver does not think about what he needs to do to make a left turn, he simply does it. Meanwhile the beginner driver needs to think about turning on the turn signal, see if there is a traffic light or a stop sign, maybe think about watching other vehicles and watch for people using the crosswalk. If you are a beginner, make sure you can figure out what the nut hands are in each of these situations before you proceed. If you are an experienced Hold'em player, just move on to the next section.

Below are several Texas Hold'em boards and their nut hands.

Hand #	Board	Nut Hand
1	A♠J♥T♠J♠A♥	K♠-Q♠, Royal Flush
2	J♦9♦8♣7♣6♦	A♦ and any other ♦, nut flush
3	Q♣J♣4♥3♦8♥	T-9, straight
4	A♥J♥6♥4♥4♠	4-4, four-of-a-kind
5	A♦A♥K♥K♦4♣	A♠-A♣, four-of-a-kind. AK, full house
6	Q♠J♠7♥6♥2♣	Q-Q, three-of-a-kind
7	K♣J♣T♥Q♠9♦	any A, straight
8	8♥7♥6♥A♦A♠	T♥9♥, 9♥5♥, straight flush
9	A♠K♦Q♦J♥T♥	any hand, straight
10	J♥8♣T♥3♦7♦	Q-9, straight

A few notes:

2. Having the A♦ with any other diamond will give you the nut flush, it does not matter if the other diamond is K♦ or 2♦.
3. Since there are no flushes possible with this board, the suits of the T and 9 are irrelevant.
5. AA is the best hand, but AK can not be beaten, it can only be tied by the other AK. If you held both an A and a K, no other player could have four-of-a-kind.
7. Any A makes the highest straight possible, the other card is irrelevant.
8. T♥9♥ gives you the best straight flush, but if you have 9♥5♥, no one can else can have a straight flush.
9. Every player in the hand has the nut straight by playing the board.

The Nut Draw

Knowing the nut hand is very important, and so is knowing what the nut draws are. A nut draw is

a hand that if the right card comes, it becomes the nut hand. Since a nut draw needs at least another card to come and needs some information on the board, it is usually referred to on the Flop or on the Turn. An example would be having A♠J♠ with two spades on the board on the Flop. With this hand, the player would have the nut flush draw since no one can make a higher flush without the A♠, although a straight flush may still be possible. Meanwhile a hand such as K♠-J♠ that has a flush draw could be referred to as the second nut draw, but if the A♠ hits the board, it would turn into the nut flush.

One of the reasons that JT is a popular starting hand is because if it makes a straight, it will always be the nut straight. That is the lowest two card combination we can make that statement about.

The possible straights that JT could make are: AKQ(JT), KQ(JT)9, Q(JT)98, (JT)987. If it takes two cards to make a straight and the holder of JT has a straight, he can be comfortable he has the nut straight and possibly the nut hand if there are no pairs on the board and less than 3 cards of any one suit. Although other hands like AK will also be the nut straight whenever it takes two cards to make the straight, it does not have the full complement of different ways to make the straight that JT has. In particular, AK can only make a straight when three specific cards are on the board, QJT.

JT has more ways to make a straight. But strange things can also happen to JT to make it not the nut straight. This can happen when a player no longer needs both a Jack and a Ten in their hand to make a straight, and there are 4 cards to a straight on the board, such as Q-J-9-8-3-2, in which case anyone holding just a KT would have a better straight (K-Q-J-T-9) than the JT's straight (Q-J-T-9-8).

It should be obvious that drawing to the nut hand is better than drawing to the second nut hand or the third nut hand.

