

Blackjack

Blackjack, also known as twenty-one or Pontoon, is one of the most popular casino card games in the world. Much of blackjack's popularity is due to the mix of chance with elements of skill, and the publicity that surrounds card counting (keeping track of which cards have been played since the last shuffle). Blackjack's precursor was vingt-et-un ("twenty-one"), which originated in French casinos around 1700, and did not offer the 3:2 bonus for a two-card 21.

When blackjack was first introduced in the United States it was not very popular, so gambling houses tried offering various bonus payouts to get the players to the tables. One such bonus was a 10-to-1 payout if the player's hand consisted of the ace of spades and a black Jack (either the Jack of clubs or the Jack of spades). This hand was called a "blackjack" and the name stuck to the game even though the bonus payout was soon abolished. As the game is currently played, a "blackjack" may not necessarily contain a jack at all.

{mospagebreak title=Rules} Rules

Blackjack hands are scored by their point total. The hand with the highest total wins as long as it doesn't exceed 21; a hand with a higher total than 21 is said to bust. Cards 2 through 10 are worth their face value, and face cards (jack, queen, king) are also worth 10. An ace's value is 11 unless this would cause the player to bust, in which case it is worth 1. A hand in which an ace's value is counted as 11 is called a soft hand, because it cannot be busted if the player draws another card.

The goal of each player is to beat the dealer by having the higher, unbusted hand. Note that if the player busts he loses, even if the dealer also busts (therefore Blackjack favours the dealer). If both the player and the dealer have the same point value, it is called a "push", and neither player nor dealer wins the hand. Each player has an independent game with the dealer, so it is possible for the dealer to lose to one player, but still beat the other players in the same round.

The minimum bet is printed on a sign on the table and varies from casino to casino, and even table to table. The most common minimum in the U.S. is \$5 although these games can be difficult to find on the Strip in Las Vegas. After initial bets are placed, the dealer deals the cards, either from one or two hand-held decks of cards, known as a "pitch" game, or more commonly from a shoe containing four or more decks. The dealer gives two cards to each player, including himself. One of the dealer's two cards is face-up so all the players can see it, and the other is face down. (The face-down card is known as the "hole card". In European blackjack, the hole card is not actually dealt until the players all play their hands.) The cards are dealt face up from a shoe, or face down if it is a pitch game. A two-card hand of 21 (an ace plus a ten-value card) is called a "blackjack" or a "natural", and is an automatic winner. A player with a natural is usually paid 3:2 on his bet. In 2003 some casinos started paying only 6:5 on blackjacks; although this reduced payout has generally been restricted to single-deck games where card counting would otherwise be a viable strategy, the move was decried by longtime blackjack players.

The play goes as follows:

- If the dealer has blackjack and the player doesn't, the player automatically loses.
- If the player has blackjack and the dealer doesn't, the player automatically wins.
- If both the player and dealer have blackjack then it's a push.
- If neither side has blackjack, then each player plays out his hand, one at a time.
- When all the players have finished the dealer plays his hand.

The player's options for playing his or her hand are:

- Hit: Take another card.
- Stand: Take no more cards.
- Double down: Double the wager, take exactly one more card, and then stand.
- Split: Double the wager and have each card be the first card in a new hand. This option is available only when both cards have the same value. Sometimes two face cards will be considered acceptable for splitting, as each is 10 points.
- Surrender: Forfeit half the bet and give up the hand. Surrender was common during the early- and mid-20th century, but is no longer offered at most casinos.

The player's turn is over after deciding to stand, doubling down to take a single card, or busting. If the player busts, he or she loses the bet even if the dealer goes on to bust.

After all the players have finished making their decisions, the dealer then reveals his or her hidden hole card and plays the hand. House rules say that the dealer must hit until he or she has at least 17, regardless of what the players have. In most casinos a dealer must also hit a soft 17 (such as an ace and a 6). The felt of the table will indicate whether or not the house hits or stands on a soft 17.

If the dealer busts then all remaining players win. Bets are normally paid out at the odds of 1:1.

Some common rules variations include:

- one card split aces: a single new card is added to each Ace and the turn ends. They are thus regarded as 11-point cards. No other denomination is subject to this process.
- early surrender: player has the option to surrender before dealer checks for Blackjack.
- late surrender: player has the option to surrender after dealer checks for Blackjack.
- double-down restrictions: double-down allowed only on certain combinations.
- dealer hits a soft seventeen (ace-six, which can play as seven or seventeen)
- European No-Hole-Card Rule: the dealer receives only one card, dealt face-up, and does not receive a second card (and thus does not check for blackjack) until players have acted. This means players lose not only their original bet, but also any additional money invested from splitting and doubling down. A game that has no-hole-card doesn't necessarily mean you will lose additional bets as well as original bets. In Australia for example, a player beaten by a dealer blackjack may keep all split and double bets and lose only the original bet, thus the game plays the same as it would if there were a hole card.

There are more than a few blackjack variations which can be found in the casinos, each has its own set of rules, strategies and odds. It is advised to take a look at the rules of the specific variation before playing.

In the United Kingdom, for example, the rules of a legal game in a licensed casino are established by The Gaming Clubs (Bankers' Games) Regulations 1994 (Statutory Instrument 1994/2899), as later amended by S.I. 2000/597 and S.I. 2002/1130. The amendment effective 1 April 2000 allows the game to be played by a single player playing only one hand; previously, a game had to involve (in addition to the banker) more than one person, or one person playing more than one hand. The amendment effective 13 May 2002 allowed, for the first time, the banker to draw on a "soft" 17. The rules specify that the cards must be dealt from a shoe containing either four or six packs of cards. The odds payable for a blackjack must be 3 to 2. A player can take insurance (see below) at odds of 2 to 1, if the player has a blackjack. A player can double down, but only on an initial score of 9, 10 or 11. A split is allowed (unless the two cards score 8, 10 or 20) but only one further card is allowed in the case of split aces. The casino is allowed to offer "Under 13" or "Over 13" side wagers, based on the value of the first two cards; for that purpose, an ace has the value 1. The "Under 13" wager must be at odds of 1 to 1 except in the case of two aces, which must pay out at 7 to 1. The "Over 13" wager must be at odds of 1 to 1.

{mospagebreak title=Insurance}

Insurance

If the dealer's upcard is an Ace, the player is offered the option of taking Insurance before the dealer checks his 'hole card'.

The player who wishes to take Insurance can bet an amount up to half his original bet. The Insurance bet is placed separately on a special portion of the table, which usually carries the words "Insurance Pays 2:1". The player who is taking Insurance is betting that the dealer's 'hole card' is a 10-value card, i.e. a 10, a Jack, a Queen or a King. Because the dealer's upcard is an Ace, this means that the player who takes Insurance is essentially betting that the dealer was dealt a natural, i.e. a two-card 21 (a blackjack), and this bet by the player pays off 2:1 if it wins.

Example: The player bets \$10, the cards are dealt, the player's hand is 19, and the dealer shows an Ace. The player takes Insurance by betting an additional amount of \$5. The dealer checks her hole card and sees that it's a 10-valued card. The player loses his \$10 bet on his blackjack hand, but he wins the insurance bet, so the player gets 2:1 on his \$5 Insurance wager and receives \$10 (on top of the \$5 which is returned to him). Note that the player came out even on that round (i.e. did not lose any money).

Conversely, a player may win his original bet and lose his Insurance bet. Let's say we have the same situation as above except this time the dealer's hole card is not a ten, but rather a seven. In this case the player instantly loses his \$5 Insurance wager. (All Insurance wagers are settled as soon as the dealer turns over her 'hole card', before all else.) But the player wins his \$10 bet. Note that the player made a net profit on that round.

Of course, a player may lose both his original bet and his Insurance bet.

Insurance is a bad bet for the player who has no direct knowledge nor estimation (e.g. through card counting) of the dealer's 'hole card' because Insurance has a negative expected value for the player. Insurance always pays 2:1, while the actual odds of a dealer having a blackjack are usually very close to 9:4 (2.25:1) depending on the amount of decks being used. Even for the player who has been dealt a natural (a two-card 21) it is unwise to take Insurance. In such a case, the dealer usually asks the player "Even money?" This means that instead of 3:2, the player with the natural accepts to be paid off at 1:1. Thus it is exactly the same thing as buying Insurance, losing the Insurance bet and getting

paid 3:2 on the natural. (If the player with the natural refuses the offer of "even money", and the dealer turns over his hole card to make a natural (a blackjack), it is a tie and the player's bet is returned to him.). Even the most basic card counting can make insurance a profitable bet. For example in a seven player game, if no player is holding any ten card, it is actually correct to make the insurance bet, since the chance of the dealer drawing a ten card are increased significantly to pass the 2:1 odds paid.

In casinos where a hole card is dealt, a dealer who is showing a card with a value of Ace or 10 may slide the corner of his or her facedown card over a small mirror or electronic sensor on the tabletop in order to check whether he has a natural. This practice minimises the risk of inadvertently revealing the hole card, which would give the sharp-eyed player a considerable advantage. In countries, such as Australia, no face down card is dealt to the dealer until it is his turn to play his hand. This makes the game more complicated since the dealer must keep track of busted split bets since if the dealer ends up drawing a BlackJack the players lose only their original bets and do not lose double or busted split bets.

{mospagebreak title=Basic Strategy}

Basic Strategy

As in all casino games, the house generally has a statistical advantage over the players that will play itself out in the long run. But because blackjack, unlike other games, has an element of player choice, players can actually reduce the casino advantage to a small percentage by playing what is known as basic strategy. This strategy determines when to hit and when to stand, and also determines when doubling down or splitting is the correct action. Basic strategy is based on the player's point total and the dealer's visible card. There are slight variations in basic strategy depending on the exact house rules and the number of decks used. Under the most favorable conditions (single deck, downtown Las Vegas rules), the house advantage over a basic strategy player can be as low as 0.16%. Indeed, casinos offering special rules like surrender and double-after-split may actually be offering a positive expectation to basic strategy players; they are counting on players making mistakes to make money.

It is important to remember, however, that the small house edge only applies over long period of play. This is because most of the time a player has cards, he will always be in a position where he is most likely to lose. Doubling and splitting when in a profitable position are absolutely essential to maximising returns. Without doubling or splitting at the correct times, the house edge increases dramatically.

The following rules are beneficial to the player:

- Doubles are permitted on any two-card hand except a blackjack. This allows the player to choose to double when he is most likely to win, and not double when he is not likely to win.
- Doubles are permitted after splitting. This allows a player to potentially get many bets out in a situation that he is likely to win, such as against a dealer card of 6, the worst card the dealer can have.
- Early surrender; the ability to forfeit half your wager against a face or ace before the dealer checks for blackjack. This is beneficial because some hands a player has are so unlikely to win that its better to just surrender half the bet.
- Normal (aka "late") surrender.
- Resplitting Aces. Obviously this avoids a player getting a miserable total of 12.
- Drawing more than one card against a split Ace. This allows a player to draw a weak soft total if the dealers is showing a high card.
- Five or more cards with the total still no more than 21 as an automatic win (a "Charlie"). This is not a commonly seen rule.

The following rules are detrimental to the player and a game that uses these rules should be avoided at all costs:

- Less than 3:2 payout on blackjacks (6:5 and even 1:1 payouts have become common, especially in single-deck games, in Las Vegas since about 2003). This is the worst rule for the player, the house edge is increased over eight fold, a player loses money over eight times more quickly at this game.
- Player losing ties. This is just as bad as having a low blackjack pay out, since a tie will occur almost 8% of the time. A player will lose money up to and over twenty times faster at this game. Note that even in cases where the casino shows both dealer cards face up, allowing the players to see the dealer's full hand, the rule is more detrimental to the player.

The following rules increase the house edge, but only slightly:

- Dealer hits on soft seventeen (ace, six). Makes the house more likely to land a higher total.
- Splitting a maximum of once (to two hands). This can nullify the effect of splitting altogether since a player could end up with the exact hand they started with. The effect is very very little, but when this rule is applied eights should be split less often against tens or aces).
- Double down restricted to certain totals, such as 9-11 or 10,11. The player cannot hit on soft totals that he may have an advantage at.
- Aces may not be resplit.
- No-Peek (European) blackjack—player loses splits and doubles to a dealer blackjack, as opposed to only losing original bets. When playing this game a player splits and doubles against a dealer ten and ace less often.

{mospagebreak title=Advanced Strategy}Advanced Strategy

Because basic strategy is based on a player's point total, and the dealer's visible card, basic strategy plays can often be incorrect. This is because a player may achieve different point totals with different cards, and a different number of cards. A more complete strategy would require a much more complex table, which is why the table above is named 'basic.'

Advanced strategies take into account a player's hand composition (number of cards and their individual values). For example, the basic strategy is to hit a total of 16 against a dealer 10 card. However if a player's total of 16 contains a 4 or a 5 card (such as a three card hand of 9 5 2), the correct strategy is actually to stand. Another example is a player's total of 12 against a dealer 4. Basic strategy says to stand, but if the player's total of 12 contains a 10 card (such as 10 2) then the correct action is actually to hit.

Advanced strategy can also include information from other players' hands. For example, if you have 10 3 and the dealer is showing a 2, the correct strategy is to stand, even with the ten you do have. But if other players are showing many tens, the correct strategy may actually be to hit. These slight variations in play help reduce the house edge.{mospagebreaktitle=Using other players for extra profit}Using other players for extra profit

Many players do not realise when they have profitable hands, or are not willing to double or split because of the cost of an extra bet. Other players will overestimate the value of a hand because they do not understand the mathematics behind the basic strategy. Because of this, a cunning player may be able to play another player's double or splits by paying the bet himself, or even getting another player to pay to play one of the players own split cards.

Consider a pair of sevens against a dealer 3. This hand favors the house whether the sevens are split or not, but the proper strategy is to split because 14 loses twice as often as a 7. Now if a smart player is able to offer one of the sevens to someone else, he is actually getting rid of a bad hand, and only having to play one hand of 7 against a 3, instead of two.

This can also be applied backwards. A person may be tempted not to split a pair of 2s against a dealer 5 or 6 card. In this situation a cunning player would offer to pay the bet and play one of the split hands, because 2 versus a 6 actually favors the player. Sometimes a player won't have enough money to split a pair of eights against a 7 or 6, and this is also a good situation to offer to bank the bet, since an 8 is favored to win against a 7 or 6. A cunning player will often 'team up' with other players so they feel obligated to split pairs, even tens.

A smart player can also get in on other players' doubles. Most casinos offer the player the ability to 'double for less.' That is, they are allowed to double down without matching their full original bet. If a player does this on a winning hand (any basic strategy double down hand is always a winning hand), a smart player can 'get in' on the double by offering to pay the rest of the double amount. A common situation is 11 versus a dealer 10. Most people prefer to only double for a small amount, a long term player should always offer to front the rest of the double bet, because in the long run a profit will be made.

If a player prefers to hit instead of double (because he is worried about receiving a low card) in some rare situations it is actually correct to offer not only to pay the double, but to also pay the player back their bet should the hand lose. This is most common with 11 versus a 6. When a player doubles on 11 versus a dealer 6 they win over twice as often as they lose, so it is okay to lose the double bet and pay out the player his original bet. This strategy works extremely well because from the other player's point of view, they cannot lose. And from the cunning player's point of view he is prepared to lose two bets because he has the knowledge that he will win a single bet over twice as often, in the long run.{mospagebreak title=Shuffle tracking}Shuffle tracking

There are well-established techniques other than card counting that can swing the advantage of casino 21 towards the player. All such techniques are based on the value of the cards to the player and the casino, as originally conceived by Edward O. Thorp. One such technique, mainly applicable in multi-deck games (aka shoes), involves tracking groups of cards (aka slugs, clumps, packs) during the play of the shoe, following them through the shuffle and then playing and betting accordingly when those cards come into play from the new shoe. This technique, which is admittedly much more difficult than straight card counting and requires excellent eyesight and powers of visual estimation, has the additional benefit of fooling the casino people who are monitoring the player's actions and the count, since the shuffle tracker could be, at times, betting and/or playing opposite to how a straightforward card counter would.

Arnold Snyder's articles in Blackjack Forum magazine were the first to bring shuffle tracking to the general public. His book, The Shuffle Tracker's Cookbook, was the first to mathematically analyze the player edge available from shuffle tracking based on the actual size of the tracked slug.

Other legal methods of gaining a player advantage at blackjack include a wide variety of techniques for gaining information about the dealer hole-card or the next card to be dealt.

