



FLAWLESS POKER GUIDE SERIES

NLHE Tournament Study Guide

MTT / online no-limit hold'em, a practical reference

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Contents

1. Hand rankings and basics	3
2. Position	3
3. Preflop opening ranges by position (approx., ~100bb, first in)	4
4. Push/fold cheat sheet (about 3-15bb)	4
5. Pot odds and outs	5
6. Bet sizing	6
7. Continuation betting (c-betting)	7
8. Stages of a tournament and stack-size strategy	7
9. ICM basics	8
10. Bankroll management and tilt control	9
11. Post-session hand review checklist	9

Flawless Poker · NLHE Tournament Study Guide · October 2026 edition. Study material for use away from the table; charts and ranges are approximate guidelines, not solver output.



Study material, not a live aid. This guide is for study and practice **away from the table**. It is not meant for real-time use during play, and many sites prohibit consulting outside aids while you play. Review it before or after sessions.

All charts and numbers here are approximate, general guidelines. They are not exact solver outputs. Correct play depends on your opponents, ante format, table dynamics, payout structure, and stack sizes. Treat them as a baseline to learn from and adjust, not as strict rules.

1. Hand rankings and basics

From strongest to weakest:

Rank	Hand	Example
1	Straight flush (royal flush is the top one)	9♥8♥7♥6♥5♥
2	Four of a kind	K K K K 4
3	Full house	Q Q Q 8 8
4	Flush	A♠J♠8♠5♠3♠
5	Straight	T-9-8-7-6 (A can be high or low: A-2-3-4-5 is the "wheel")
6	Three of a kind	7 7 7 K 2
7	Two pair	J J 4 4 A
8	One pair	T T A 8 3
9	High card	A K 9 6 2

Basics

- Each player gets 2 hole cards; 5 community cards come in stages: flop (3), turn (1), river (1). Best 5-card hand from 7 cards wins.
- Betting rounds: preflop, flop, turn, river. Blinds (small and big) are forced bets; **antes** (often a big-blind ante online) are added to the pot every hand in later levels.
- No-limit: any bet up to your entire stack ("all-in") is allowed. A raise must be at least the size of the previous bet or raise.
- In tournaments you play with tournament chips that have no cash value. Prize money is paid by finishing position, so your goal is to maximize prize equity, not chips at any cost.
- Blinds rise on a schedule, so your stack measured in **big blinds (bb)** is what matters, not the raw chip count.

2. Position

Positions (clockwise, 9-handed): **UTG, UTG+1, UTG+2 (or MP), LJ, HJ, CO, BTN, SB, BB**. 6-max: **UTG (LJ), HJ, CO, BTN, SB, BB**.

- Postflop, the button acts last.** Acting last means more information and more control of pot size.
- The earlier you act preflop, the more players remain behind you who may have a strong hand, so **the earlier the position, the tighter the range**.
- The **cutoff and button** are the most profitable seats; the **blinds** are the least (you invest money and act first postflop).
- Blind vs blind and steals: the button, cutoff (and small blind, when folded to) are the primary stealing positions.



3. Preflop opening ranges by position (approx., ~100bb, first in)

Typical open size is about **2 to 2.5bb** (a bit larger from early position, and often smaller from the button/small blind). "s" = suited, "o" = offsuit, "+" = that hand and stronger (e.g., ATs+ = ATs, AJs, AQs, AKs). The percentages are the approximate share of all starting hands.

6-max

Position	Approx. %	Sample range
UTG (LJ)	~15-17%	44+, A9s+, A5s-A2s, KTs+, QTs+, JT _s , T9 _s , 98 _s , ATo+, KJo+
HJ	~18-21%	22+, A9s+, A5s-A2s, K9s+, Q9s+, J9s+, T9 _s , 98 _s , 87 _s , 76 _s , ATo+, KJo+
CO	~24-27%	22+, A2s+, K7s+, Q9s+, J9s+, T8s+, 97s+, 86s+, 76 _s , 65 _s , ATo+, KTo+, QTo+, JT _o
BTN	~40-48%	Any pair, any suited ace, most suited kings/queens/connectors, most offsuit broadways and A8o+ or so, some suited one-gappers
SB (vs. BB only)	~35-50%, often mixing raise/limp or raising a smaller size	Wide, similar to the button but weighted toward raising (since you will be out of position postflop)

Full-ring (9-handed)

Position	Approx. %	Sample range
UTG / UTG+1	~9-11%	55+, A9s+, KT _s +, QJ _s , AJo+, KQ _o (the weakest pairs and suited-ace edges are often folded or mixed from UTG)
UTG+2 / LJ	~12-14%	55+, AT _s +, A5s-A4s, KT _s +, QT _s +, JT _s , T9 _s , 98 _s , AJo+, KQ _o
HJ	~16-18%	33+, A9s+, A5s-A2s, K9s+, Q9s+, J9s+, T9 _s , 98 _s , 87 _s , 76 _s , ATo+, KJo+
CO	~21-25%	22+, A2s+, K8s+, Q9s+, J9s+, T9 _s , 98 _s , 87 _s , 76 _s , A9o+, KTo+, QJo
BTN	~38-45%	Very wide (see 6-max button), slightly tighter against aggressive blinds
SB / BB	Mixed	SB: raise or fold (some limp strategies exist). BB: defend wide vs small raises because of the discount

Key adjustments

- **Facing a raise:** 3-bet for value with strong hands (QQ+, AK, sometimes JJ/TT/AQs depending on position) and bluff with suited blockers such as A5s-A2s and some suited connectors. Call with hands that play well in position.
- **Big blind defense:** getting a discount (the pot offers you good odds against a small raise) means defending wide, especially with suited and connected hands, and mostly folding weak offsuit hands against early-position raises.
- Play tighter in early position, when tables are aggressive behind you, or when stacks are short. Play wider when players behind you fold too much, when antes are present, and with position.
- Hands with **ace blockers and suited or connected potential** are usually better bluffs than random offsuit hands.

4. Push/fold cheat sheet (about 3-15bb)

At short stacks, standard play is "**shove or fold**" (open-shoving first in when folded to you). Values below are approximate first-in **all-in** ranges as a share of hands, at a 9-handed table,



ignoring ICM and assuming ordinary antes. They are simplified and vary with antes, table size, and how often the blinds call.

Position	~15bb	~12bb	~10bb	~8bb	~5bb	~3bb
UTG	~9-12%	~11-14%	~13-18%	~17-22%	~28-38%	~45%+
MP / HJ	~12-15%	~15-18%	~18-22%	~25-30%	~40-50%	~60%+
CO	~18-22%	~22-27%	~27-33%	~35-40%	~50-60%	~70%+
BTN	~30-38%	~38-48%	~45-55%	~55-65%	~70-85%	~90-100%
SB (vs. BB)	~35-45%	~45-55%	~55-70%	~65-80%	~80-100%	~100%

Sample shape at about 10bb (approximate):

- UTG (~15%): 33+, A8s+, KTs+, QJs, ATo+, KQo and a few edge hands. Ranges this early are tight because eight players still act behind you.
- CO (~29%): any pair, A2s+, K6s+, Q8s+, J8s+, T8s+, 97s+, 86s+, 76s, 65s, A7o+, K9o+, QTo+, JTo.
- BTN (~47%): any pair, any suited ace, K2s+, Q4s+, J6s+, T6s+, 96s+, 85s+, 75s+, 64s+, 54s, A2o+, K6o+, Q8o+, J8o+, T8o+, 98o.
- SB (~60%): shove a large majority of hands; fold only the weakest offsuit junk (e.g., 72o, 83o, 92o-type).

Calling shoves (big blind, approximate): the required equity is set by pot odds (see section 5), so you call very wide versus a wide short-stack button or small-blind shove (perhaps 30-45% of hands when getting a good price at 10bb effective) and much tighter against a UTG shove. When players remain behind you or when ICM pressure exists, call tighter.

Principles

1. Effective stack = the smaller of the stacks involved in the pot.
2. The shorter the stack, the wider the shove range. The later the position, the wider the range.
3. **Open-shove instead of min-raising** at about 10bb or less; at 12-25bb consider **small raises or a "reshove" plan** (e.g., 3-bet all-in over an opener) instead.
4. **Reshoving** (all-in over a raise) works best with 10-25bb against a late-position opener who folds often; be much tighter against early-position openers.
5. In the blinds versus a shove, compare your equity against the caller's range with the pot odds; don't make calls based on "pot committed" reasoning alone.
6. On the bubble or near pay jumps, ICM tightens calling ranges (section 9), particularly for medium stacks.

5. Pot odds and outs

Pot odds: equity needed to call = **call / (pot + bet + call)**, where pot means the size before their bet.

Opponent bets	Equity you need to call
1/4 pot	~17%
1/3 pot	20%
1/2 pot	25%
2/3 pot	~29%
3/4 pot	~30%



Opponent bets	Equity you need to call
Pot	33%
1.5x pot	37.5%
2x pot	40%

Rule of 2 and 4: multiply your outs by **4 on the flop (two cards to come)** and by **2 on the turn (one card to come)** to estimate your equity in percent. The rule of 4 becomes slightly too high with lots of outs (roughly above 12), so subtract a few points in that case. It is an estimate: check whether your outs are "clean" (not giving a better hand to your opponent).

Draw	Outs	Flop to river (x4)	Turn to river (x2)
Flush draw	9	~36% (35% exact)	~18% (19.6% exact)
Open-ended straight draw	8	~32% (31.5% exact)	~16% (17.4% exact)
Gutshot	4	~16% (16.5% exact)	~8% (8.7% exact)
Two overcards	6	~24% (24% exact)	~12% (13% exact)
Flush draw + gutshot	12	~48% (~45% exact)	~24%
Flush draw + open-ended	15	~60% (~54% exact)	~30%
Underpair hitting a set or better (vs. an overpair)	2	~8% (8.4% exact)	~4% (4.3% exact)
One overcard	3	~12% (13.5% exact)	~6% (6.5% exact)

Notes

- Implied odds (money you could win on later streets) can justify calls with less than the direct pot odds, particularly with deep stacks and hidden draws. Reverse implied odds (when you are dominated) do the opposite.
- On the river there are no more cards: only pot odds and your read matter.
- Minimum defense frequency: against a bet of size b relative to the pot, you need to continue about $1 / (1 + b)$ of the time (e.g., against a half-pot bet, about 67%). Bluffs must succeed at least $b / (1 + b)$ of the time (half-pot bluff: 33%).

6. Bet sizing

Sizes are as a percentage of the pot; they are common starting points, not laws.

Situation	Typical size
Preflop open	About 2-2.5bb (a bit larger from early position or with several limpers; smaller from the button/small blind is common)
Preflop 3-bet	~3x the open in position, ~3.5-4x out of position
Preflop 4-bet	~2.2-2.5x the 3-bet (all-in with 20-25bb or less)
Flop c-bet on dry, high-card boards	25-33% pot, betting often
Flop c-bet on wet, coordinated boards	50-75% pot, betting less often and with stronger hands and good draws
Turn (second barrel)	50-75% pot, more polarized
River value	50-80% pot, larger if the opponent's range has strong hands that will call
Overbet (>100%)	With polarized ranges and nut advantage on the right runouts

Guidelines



- **Smaller bets with wide ranges** when you have a range advantage on a static board; **bigger bets with polarized ranges** (very strong hands and bluffs) or on dynamic boards.
- Size your value bets so that worse hands can still call. Size bluffs so that the price is reasonable given the fold frequency required (section 5).
- Tournament stack depth: with less than about 25bb, sizing simplifies (small raises, shoves) since stack-to-pot ratio (SPR) is low.
- Pot-size control: keep the pot small with medium-strength hands, and build it with strong hands and good draws.
- **SPR (stack-to-pot ratio)** = effective stack / pot on the flop. Low SPR (<4): top pair and overpairs are often willing to stack off. High SPR (>10): need stronger hands, and speculative hands gain implied odds.

7. Continuation betting (c-betting)

A c-bet is a flop bet by the preflop aggressor.

Bet more often when:

- You have a **range advantage** (e.g., A-K-Q-high boards after raising from early or middle position; paired high boards).
- The board is **dry and static**, with few draws (A♠7♦2♣, K♦K♣4♠).
- You are **in position**, or heads up against a single opponent.
- You have a hand with some equity (backdoors, overcards, gutshots) that makes a good bluff.

Bet less often (or check more) when:

- The board is **low, connected, or coordinated** and hits the caller's range (7♠6♠5♦, 9♥8♥6♠), especially out of position.
- There are **multiple opponents** (multiway): bluff much less and bet mostly for value or with strong draws.
- You hold **medium-strength showdown value** (e.g., second pair) that does better as a check.
- Opponents are **calling stations** (bluff less, value bet thinner).

Follow-ups

- After a called flop c-bet, continue on turns that improve your range or give you additional equity (an ace or king for a preflop raiser, flush or straight cards you can represent). Give up with weak hands on turn cards that favor the caller.
- Versus a check-raise, continue with strong made hands and good draws; fold hands with little equity and weak showdown value.
- Versus aggressive players who float, mix in some checks with strong hands and some turn barrels.

8. Stages of a tournament and stack-size strategy

M-ratio

M = stack / (small blind + big blind + total antes per round). It tells you how many orbits of forced bets you can survive. Example: stack 30,000, blinds 500/1,000, ante 100 for 9 players → cost per orbit is 2,400, so M = 12.5.



M	Zone	Approach
> 20	Green	Full range of play, position-based, postflop skill matters
10-20	Yellow	Tighten postflop commitments; open/3-bet/steal actively; reduce fancy play
6-10	Orange	Lean toward raise/shove or reshove, limited postflop play
1-6	Red	Push/fold; find a shoving spot before it is too late
< 1	Dead	Shove any two cards in most cases

(These zones are a widely used classic framework; the exact boundaries are approximate. With big-blind antes, count the ante once per round.)

Stack depth in big blinds

Depth	Approach
100bb+	Deep-stack poker: position, implied odds, well-planned multi-street play
40-100bb	Standard; more 3-bet or fold, fewer speculative calls; use smaller sizes
25-40bb	Reduced postflop maneuvering; flop c-bets and shoves as stack-to-pot ratios shrink; reshoves become an option
15-25bb	Mostly raise/shove or fold; reshove-or-fold vs. opens; small opens with a plan to fold or shove
10-15bb	Push/fold zone (section 4) with occasional small raises and reshoves
<10bb	Push/fold: any delay costs you fold equity

Stages

- **Early (deep stacks, small blinds):** play solid, position-aware poker. Avoid needlessly risky all-ins without an edge, value bet well, and pay attention to opponents' tendencies. Survival matters, but you also want to accumulate chips with good spots.
- **Middle (antes on, stacks shrinking):** blinds and antes give real value to steals, so open more from late position, defend the blinds selectively, target tight players, and avoid getting short through passivity. Keep track of average stack and your M.
- **Bubble (approaching the money):** ICM pressure is high. Big stacks can apply pressure with wider raises against medium stacks who fear busting. Medium stacks should avoid marginal confrontations with other stacks that cover them. Short stacks should take the best shoving spots, as waiting costs them.
- **Final table:** every pay jump matters. Note stack sizes, pay jumps and who covers whom. Chip leaders can pressure; short stacks look for shoving and reshoving spots and let others bust first when they are not too short. Adjust calling ranges according to ICM (section 9). Heads-up play is wide and aggressive.

9. ICM basics

ICM (Independent Chip Model) converts your chip stack into an estimate of your **prize equity** using the payout structure.

- **Chips are not linear in value:** chips you lose are worth more than chips you win. Doubling your stack does not double your equity (in winner-take-all it does).
- **Risk premium:** because of this, you need **more equity than raw pot odds** to call an all-in when a lot is at stake, especially near pay jumps.



- **Pressure is unequal:** the chip leader (covers others) risks little and can pressure medium stacks. Medium stacks are under the most pressure. Short stacks are more likely to shove because they have to.
- **Bubble factor:** how much more it costs to lose a chip than it gains you to win one; high values (e.g., 1.5 or more) mean call tighter.
- **Practical rules:**
 - Tighten your calling range vs. shoves when there are shorter stacks likely to bust.
 - Widen your steal range when the players around you are tight due to ICM.
 - Avoid confrontations with other big stacks that cover you unless you hold a real edge.
 - ICM matters less in the early stages and in winner-take-all formats; it matters more in satellites and near pay jumps.
 - Use an ICM calculator during post-session study to check the spots you were unsure about.

10. Bankroll management and tilt control

Bankroll (general guidelines, they vary with variance and skill):

- MTTs have very high variance: even strong players can go a long time without a big cash. Commonly suggested bankrolls are **100-300 buy-ins** for regular players (more for large fields or if poker is your income; fewer for occasional recreational play at low stakes).
- Only play with money you can afford to lose. Separate your bankroll from personal finances.
- Move up only after a comfortable cushion and a sample of results/reviews that suggest you can beat the level; move down without ego if your bankroll drops considerably or you are not playing well.
- Track results (buy-ins, cashes, ROI) in a spreadsheet. Don't judge skill by short-term results.
- Account for rebuys, re-entries, and late registration in your buy-in count.

Tilt control:

- Recognize the triggers: bad beats, a big loss, fatigue, distractions, or long, boring folds.
- Have a **stop rule** (e.g., stop after a set number of hours, after a big emotional hit, or when you notice you are not making decisions on purpose).
- Take breaks, hydrate, and eat. Avoid playing tired, drunk, or distracted.
- Use a short reset routine: deep breaths, stand up, walk away from the screen, and review only after you are calm.
- Focus on decisions, not results. A good decision can lose (variance), and a bad decision can win.
- Limit the number of tables so you can make deliberate decisions.

II. Post-session hand review checklist

Do this away from the table. Pick 3-10 hands: the biggest pots, the hands you were unsure about, and any that annoyed you.

1. **Situation:** stage, stack depths (in bb), positions, M-ratio, payout pressure.
2. **Preflop:** was my open/call/3-bet/fold correct for my position and stack? What were opponents' ranges?
3. **Flop:** board texture and who has the range advantage? Was my bet/check and sizing sensible?
4. **Turn/river:** did I have a plan for each street? Were my bluffs credible and my value bets thin enough (or not too thin)?



5. **Math:** what were the pot odds, outs, and equity needed? Did I use them?
6. **ICM:** did payouts matter and did I factor them in?
7. **Opponent:** what did I know about them? Did I adjust to tendencies rather than only playing my cards?
8. **Mental state:** was I tired, tilted, or bored? Did emotion influence the decision?
9. **Result-independent grade:** decision good, marginal, or a mistake? Ignore the outcome.
0. **Takeaway:** write one concrete lesson or leak to work on (e.g., "too many light calls out of position") and one drill (e.g., a range review, quiz, or solver/ICM check).
1. **Optional tools:** use an equity calculator, ICM calculator, or solver/training software and discuss hands with a study group or coach.

Reminder: these charts are approximate general guidelines for study away from the table. They are not real-time assistance and not a substitute for judgment, opponent adjustments, or ICM calculations. Gamble responsibly and only with money you can afford to lose.



A brighter game ahead

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ABOUT FLAWLESS POKER

Flawless Poker publishes study guides for online No-Limit Hold'em players: cash games, sit-and-gos and multi-table tournaments. Every guide pairs practical ranges and plans with numbers computed from equity, ICM and simulation models, so you can understand why a play works, not just what to do.

Play responsibly. Real-money poker is for adults only: 18+ (21+ where required by local law). Check that online poker is legal where you live. Play within your means, only with money you can afford to lose, and never chase losses. Set time and deposit limits before you play.

If gambling stops being fun, help is available. In the US, call or text 1-800-GAMBLER (1-800-426-2537). Elsewhere, contact your local problem-gambling helpline.

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