

The Ace of Spades Are You Gambling With Your Deck?

"Gambling is a principle inherent in human nature." – Edmund Burke

We're all aware that "What happens in Vegas stays in Vegas." At least until the daily police line-ups are posted on the WVEW (World Wide-Eyed Web).

But how do we know that what happens on our *decks* will stay on our decks?

Whether we have a passing fancy for an evening of five-card stud or the need for regular visits to the newly minted local casino, gambling with the safety of our deck is akin to playing the odds – the house *always* wins.



We're not in the business of promulgating scare tactics because chances are that your deck *is* safe, but we've all witnessed news reports of critical injuries, and even deaths, which occur every summer after a deck collapses without warning.

Although you're welcome to Google "deck collapse" or "deck accident" to display the regrettable evidence, trust us – we've documented numerous deck accidents waiting to happen. Our national field inspection team examines decks each and every 365 and over the course of our three million residential inspections, we've identified *thousands* of cases in which a deck represents a serious safety concern. During one recent property inspection, our inspector's first step onto a second-story deck caused the structure to oscillate left and right, as if it has been constructed upon a house of cards.

In this issue, we'll provide you with helpful information and maintenance advice to ensure that when you step on to your deck, you're not walking onto a gangplank.

Poker Face – Is Your Deck Bluffing?

A deck is pretty much like everything else in life – it's sneaky. It won't sound an alarm before it's about to misbehave.

Thankfully, decks aren't particularly complicated structures. Like your home, a deck is constructed upon a foundation. For a typical 10' x 10' deck, the foundation effectively is the deck's framing, comprised of a ledger board, joists, beams and posts. The ledger board is a beam attached to the house upon which joists are connected and extended perpendicularly to other beams parallel to the ledger board, and which rest upon posts.

Even if the visible decking material appears to be in perfect condition, you can't tell if your deck is bluffing until you carefully review the framing for potential deterioration, which could cause instability. The only effective method of checking the deck's framing is to review the ledger board, joists, beams and posts.

Like your home's foundation, your deck framing should be level and secure. Check the ledger board to ensure that it remains tight against the house, lag or carriage bolts properly connect the ledger board to

the home, and that no deterioration is present. Decks joists should be evenly spaced and deck posts should be level and centered and secure in concrete footings.

The International Code Council (ICC, www.iccsafe.org), dedicated to developing model codes and standards used in the design, build and compliance process to construct safe, sustainable, affordable and resilient structures, suggests examining the following when inspecting decks, balconies, or porches:

- Loose or missing nails, screws, or anchors where the structure is attached to the building
- Missing, damaged or loose support beams and planking
- Split or rotting wood

In addition, the North American Deck and Railing Association (NADRA, www.nadra.org) encourages homeowners to examine handrails and guardrails.

We hope it's obvious but to completely blunt, if *any* structural components aren't level or are displaced, deteriorated or appear unstable, do *not* use your deck until it can be inspected and repaired by an industry expert.

Cause of Collapse: Playing An Old (and Rotten) Hand

A deck is pretty much like everything else in life – it degrades over time. Barring natural disasters, decks generally don't become dangerous overnight. That deck you installed just a few years back? It isn't "new" anymore.

NADRA notes that "older decks require special scrutiny. Many decks were built before code requirements were in place to protect consumers. Some of these decks may have deck-to-house attachments using only nails. Others have become weakened through the years, and the owners don't realize how close to collapse they may be."

Since 1910, the Forest Products Laboratory (FPL, www.fpl.fs.fed.us) a national research laboratory of the US Forest Service (part of the US Department of Agriculture) has provided scientific research on wood, wood products and their commercial uses in partnership with academia, industry, tribal, state, local and other government agencies.

The FPL studied five years of newspaper articles on deck collapses when researching material for a deck-building manual. The FPL's research indicated that "*nearly every collapsed deck had been attached with nails (emphasis added)*, rather than bolts, and investigators had pinpointed nails as the cause of the collapse."

Other common problems with older decks include inadequate number of posts used to support the deck, lack of proper footings upon which the deck posts rest, spacing between joists, and inadequately secured handrails/guardrails.

If your deck is 30+ years old, odds-makers will bet that there are no lag or carriage bolts securing the deck structure to the home. Stop playing Russian roulette – if your deck is older and hasn't been inspected recently, we recommend an evaluation by a professional as soon as possible.

How Many Poker Players Can I Invite to My Party?

Before inviting the 97 neighborhood kids over for a long night of Texas Hold'Em and cigars, how do you know how many you can safely scrunch onto your deck? Assuming the deck's foundation and structure are adequate, does your deck have a weight-breaking threshold?

Yes, and the math is easy, assuming you can calculate the area of an object (cue the maniacal laughing). Seriously, you can perform some quick math to determine the approximate weight that your deck can safely support – common building practice stipulates that each square foot of decking surface should support a minimum of 40 lbs.

Here are some examples:

- If your deck is 1' x 1', it will support an obese Chihuahua.
- If your deck is 10' x 10', it will handily support about 4,000 lbs., or about 400 obese Chihuahuas.
- If your deck is 100' x 100', it will support about 400,000 lbs. or about 39,900 obese Chihuahuas plus one circus elephant replete with two small clowns.

Easy, right? Don't forget to account for the weight the deck already supports with your tables, chairs, grill, coolers and humidors.

Keeping Maintenance Cards Up Your Sleeve

We've encountered lots of deck issues but the list below represents some of the more common inspection defects:

- Improperly secured to the home (only nails, no bolts, very scary)
- Deteriorated posts (cracked, leaning, falling off of footers)
- Improperly secured posts (using only the deck's weight to keep posts in place, no bolts or nails securing the post to the frame)
- Missing joist hangers or missing nails for joist hangers
- Deteriorated decking boards (cupping, cracked, rotted, decayed)
- Over-spanned joists (joists extended too far without proper support/beams)
- Deck structure separating from house

Stacking the Deck – How to Prolong the Life of Your Deck

Assuming your deck is structurally sound, there are numerous methods to prolong its life, as well as ensuring that it is aesthetically pleasing (i.e., lookin' pretty).

Powerball...Doh! We Mean Power Wash

Clean deck = good deck. Whether wood or composite, power wash and clean your deck annually; cleaning can not only make your deck look (almost) new, it helps to prevent growth of algae and mold.



Stain = Name of the Game

Staining your wood deck helps to minimize weathering of the decking boards. When wood wears and weathers it dries out, which can cause the wood to crack...creating splinters that hurt your dainty feet.

Nails = Pops

Exposure to the elements could cause nails and screws to protrude from the surface...creating safety hazards that hurt your dainty feet. Replacing nails and screws as they “pop” will help to secure boards and minimize injuries.

Clear the Deck!

During winter months in northern climates when you’re not using your deck as frequently, move planters, chairs, tables, and anything else from your deck to avoid discoloration of the decking.

Shape the Landscape

Trim nearby bushes and trees, which need to be at least 12” from the deck to prevent mold growth, moss, and rotting

The Turn of a Friendly Card

Decks are perfect for sunning and parties and fun. But only if they’re structurally sound and well-maintained. Keep your summertime and livin’ easy! Check your deck frequently for structural issues, keep eyes wide open for common issues, and stay up to date with general maintenance.

If you or your clients have any questions about decks, decking systems or any inspection type, US Inspect is pleased and available to guide and assist you.

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Please contact marketing@usinspect.com if you have any questions or require assistance.